

**PAGES
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and Home Magazine

"Persevere and Succeed."

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EDITORIAL

Inefficient Constable and Fee System.

If illustration of inefficiency were needed to demonstrate the inadequacy of the present system of apprehending criminals in the Province of Ontario, it is strikingly presented in a contribution to "The Farmer's Advocate," from J. J. Foran, of Wentworth County, who relates his experience in trying vainly to "raise" the officers of justice to go after a horse thief. The nearest county constable would not move, because he was paid on the fee basis, and did not consider the chances of remuneration good enough to warrant him in leaving his work. The owner of the stolen colt then applied, without result, first to the sheriff of the county, then to the county constable, and finally to the Attorney-General of the Province, who received him kindly, but was too busy to take the matter up. The man who had lost his colt then spent two hundred and thirty dollars in advertising and searching, and offered a reward of three hundred and sixty dollars, without avail.

We have no hesitation in stating that the foregoing facts, if correctly stated, as we have reason to believe they have been, are a disgrace to the Province in which they occurred, and a grave reflection on our administration of justice. As Mr. Foran concludes, the Government which subsidizes agricultural societies, and spends money in educating farmers how to produce good horses, allows a thief to come in and take his pick without effective effort to arrest the culprit and recover the property. Had this incident occurred in the territory covered by the Northwest Mounted Police, the officers of the law would have camped on the trail of the thief till he was hunted down and arrested. Wrongdoers do not escape in that country. The arm of the law is strong and sure. In the rural districts of Eastern Canada it is weak and uncertain. In this connection we recall an instance of where a giant bully in a town in the central part of Western Ontario, after breaking from a lockup in a neighboring village, put the only constable capable of handling him out of business, by slashing his hand with a huge knife, and then defied the remaining officers. He knew he was safe until the man whom he wounded had recovered. By that time the ruffian had made his way to the Canadian West, and located on a Saskatchewan homestead. The Northwest mounted police were made aware of the particulars. They called at the homestead to carry out their mission, and had no difficulty in doing so. The bully of the Ontario town, and the terror of Ontario's inefficient constabulary, had learned that it was useless to try to intimidate the mounted police.

Rural Mounted Police Force Needed.

Each Province in Eastern Canada should provide itself with an organized force of rural mounted police, to be distributed throughout the Province, and directed from a central office, through sub-officers stationed at suitable points, each local officer having several contiguous counties, and a certain number of men under his immediate supervision. These men should be, for the most part, kept on the move patrolling the countryside, discharging, incidentally, such duties as enforcing observance of the automobile laws, compelling the cutting of noxious weeds, viewing fences, and filling other offices for which special municipal officers are now appointed. A force such as the above, allowing two or three men to a county, would cost something, but the expense

would be cheerfully borne. Maintenance of law and order is the first duty of government, and it must not be neglected, no matter what the cost.

Sound Suggestions by Dominion Grange.

Sober, serious and sound thinking characterized the sessions of the thirty-fourth annual meeting of the Dominion Grange of Canada, held in Toronto last month. In the consideration of ponderous questions, in the discussions of legislation bearing on features in which the agricultural class admittedly are treated severely, and in the passing of resolutions, the welfare of the Dominion, with fair treatment for all and special privileges to none, was the aim of the convention. When personal injuries of the past drove delegates to suggest resolutions that were unreasonable, a prompt action resulted, either in the resolution going to the waste-paper basket or being laid on the table until next convention. Furthermore, when resolutions submitted by chairmen of the standing committees contained drastic sections, delegates whose tendencies ran to moderation in all things were not slow to call attention to the defect, and, invariably, the ensuing discussion resulted either in the dropping of the questionable clause, or in the making of suitable amends.

The outcome of deliberations at the sessions of the convention, and the selections of officers and committees for 1909, show most forcibly that the Dominion Grange is developing that strength which will eventually have much to do with the legislation of the Dominion. Young men with education and breadth of mind have allied themselves with older men of wider experience, in order that Canada's rural population may receive greater consideration at the hands of those in power.

Protection vs. Free Trade.

Two correspondents this week discuss the editorial position of "The Farmer's Advocate" with relation to the tariff question. One asks why we do not go the length of advocating absolute free trade as being in the highest interests of the farming community of Canada; the other maintains that a high protective tariff system is the boot-strap by which a nation may lift itself into a state of prosperity and affluence.

The position of "The Farmer's Advocate" on this question is a moderate one. We recognize that tariff policies, while they may influence, do not so sweepingly affect the prosperity of a country as a good many people believe. The larger a country, and the more diversified its climatic, soil and other conditions, the less severely is it hampered by adverse or unwise tariff policy. The smaller the country, and the more restricted its range of natural productions, the more seriously is it inconvenienced by artificial obstructions of trade. To carry this principle to its ultimate conclusion, we must imagine an individual deprived of the privilege of trading with anyone but himself.

There is no doubt the principle of free trade is fundamentally and logically sound, though there are certain considerations that professional free-traders have overlooked, which lend weight to the argument of those who advocate a moderate measure of protection as a judicious expedient for a young nation to employ, temporarily, in order to build up diversified occupations and to enable manufacturing and mercantile industries particularly to develop to a point where they can compete successfully with the strong established industries of other countries. The ever-present danger is of paying more for the whistle than it is worth, of hampering the basic industries to a

degree out of proportion to the advantage obtained through the development of the bonused industry. Another danger is that the favored industry, grown lusty and strong by long feeding on the nursing bottle, may tenaciously refuse to relinquish the pap, even after it is no longer required.

We feel tempted to discuss a number of points raised in the letters referred to, but have concluded to leave them with these few thoughts by way of a leader for other correspondents to tackle.

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Argument for Free Trade.

Editor "The Farmer's Advocate":

In remitting herewith my renewal subscription, I should like to say that I feel impelled to do so by the apparently growing desire on your part to give fuller consideration to the matter of the relation of protection to the farming interests.

In one of the last issues of 1907 you gave a very comprehensive review of what you had done in the interests of the farming industry, on reading which, one is reminded of the Scriptural incident, "All these things, yet one thing lackest thou." Give fuller consideration to the question, "Does protection benefit the farmer, or does it injure him financially, and, as a sequence, socially also?"

In your issue of July 9th, 1908, you state, "Trusts and monopolies have their sharpest teeth drawn in countries enjoying low tariffs." Then, why not abolish tariffs, and thus draw all the teeth? What is the use of drawing only the sharpest teeth, if those left are any use at all? In the same article you further state, "Canada

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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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.

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is primarily an agricultural country, exports constituting the basis of our wealth." Is the latter part of this statement strictly correct? Is it not rather the value (in goods) which you receive in exchange that constitutes your wealth?

Nations do not buy goods for cash; they can only exchange their goods for those of other nations, money (cash) being only a medium of exchange in all cases. Hence, if the merchants who handle your export and import business do so effectively—that is to say, make good bargains both in the selling of exports and in the buying of imports—what avails it to the country if the Government, by putting a duty on the imports, turns it into a bad bargain, and thus depreciates the value of the farmer's labor, industry and thrift?

A protective duty on imports artificially increases their price, thus depreciating the buying or exchanging value of the products of the farm given in exchange for them. Every time a Canadian buys an imported article he is loyal to his country in that the duty he pays thereon goes into the revenue of the country; whereas, every time he buys a Canadian-made article (which is protected), he pays the duty, or an equivalent amount, into the pockets of the monopolist (wholly monopolist, or partly so, according to the effectiveness or otherwise of the trust, combination, or association, or it may be "honorable understanding" existing).

In the solution of the foregoing appears to me the answer to the article in your issue of August 20th, 1908, "To Improve Conditions of Country Life."

Give a farmer wealth, or, rather, allow him to reap the full reward of his industry and thrift, and in nine cases out of ten the first thing he will do will be to improve his farm, improve his homestead and educate his children; and the latter is the shortest and surest way to improved social life on the farm, which will only be checked by taxing him, or, in other words, taking away from him in part his right to live.

God says to this hive of humanity, "Six days shalt thou labor," but are there not too many drones in the hive, and upon whom are they living, and doing it well, too?

Winnipeg, Australia. JAMES BREWSTER.

Argument for Higher Protection.

Editor "The Farmer's Advocate":

In looking over some of the files of your valuable journal, I found an editorial of recent date, headed, "Schools and Tariffs." Your comments on schools are timely, and to the point.

But your views on the protective tariff of the United States are at variance with those of the best minds both in Canada and the United States. The writer fully concurs in your opinion that it would require a great many "Henry Georges," and, allow me to add, a great many editors of "The Farmer's Advocate," to convince any intelligent farmer or business man, either in the United States or Canada, that a high protective tariff is a delusion.

Your space would not permit, or I would go into details and make it clear that it was the most rigid and extremely high protective tariff, continued for centuries, that gave Great Britain her immense wealth and great population. The shrewd, wide-awake United States Government have simply applied a similar trade-policy, although in a modified degree, and have succeeded in building up, in an almost incredibly short time, one of the greatest and wealthiest countries in the world.

Are you aware, Mr. Editor, of the fact that many of the most intelligent and far-seeing statesmen, and others, both in Canada and the United States—men well qualified to form a judgment on the question—are united in the opinion that, when the United States abrogated the Reciprocity Treaty, in 1866, and adopted a high-tariff policy,

he hoped that Canadian statesmen will rise equal to the occasion, and adopt a much higher protective tariff, on the lines intended by the "National Policy," as at first promulgated, viz.: "Reciprocity in trade or reciprocity in tariffs," which, however, has never been enforced. For example, where is the reciprocity in the United States duty of 12½ cents on wool, and Canada 3 cents; or, United States 30 cents on barley, and Canada admitting the United States corn free, etc., all through the list? In a word, the United States tariff averages about 50 per cent., and Canadian about 23 per cent. Hence, it is little wonder Canada has made slow progress, and that the farmers of Canada have in a great measure lost confidence in the National Policy, for the simple reason that their interests have been neglected, and the great backbone and main-spring of all our industries have not been given adequate protection. "Canada wants men. Men who their duties know. Who know their rights, and knowing dare maintain. Prevent the long-aimed blow and crush the tyrant while they rend the chain."

Now, Mr. Editor, regard for your space admonishes me to close, although the fringe of the subject has merely been touched, hoping, with your kind permission, to resume the subject in the near future. PRO BONO PUBLICO.

Simcoe Co., Ont.

HORSES.

Percheron Certificates Recognized in Canada.

A correspondent at Mayville, Alta., asks which American studbook a Percheron horse must be recorded in, in order to be admitted duty free into Canada, or for registration in the Canadian Studbook. He also wants to know what books are not recognized by the Canadian customs officials and the Canadian Percheron Association.

This is a matter of importance to purchasers, breeders and importers of Percherons. The rules in connection with the importation and registration are very simple, but the consequences, if the rules are avoided, are quite expensive.

In the United States there are several separate associations keeping records of Percheron horses. Some of these are recognized by the United States Government as recording pure-bred horses, while others admit for registration horses which the U. S. Government does not consider pure-bred. The books recognized by the United States Government as containing the records of pure-bred horses are those published by the Percheron Society of America, the Percheron Registry Co., the American Breeders' and Importers' Registry, and the National French Draft-horse Association. So that unless a horse is registered in any one of these books, or is eligible for registration in one of them, he cannot be considered as pure-bred by the United States authorities.

So much for American recognition of Percherons. Now, we will consider the subject from the Canadian standpoint. Breeders of Percherons, a year or two ago, decided that they would conduct a registry of pure-bred horses in the Dominion, and, of course, had to decide upon a basis of admittance to the Canadian book. After due consideration it was decided that Percheron horses with registration certificates from the Percheron Society of America, Geo. W. Stubblefield, Union Stock-yards, Chicago, Secretary, or from the Studbook Percheron de France, should be accepted for registration in the Canadian book. When a man wishes to bring a Percheron horse into Canada, duty free, he must have him accepted for registry in the Canadian book, which he will have no difficulty in doing if the animal is already duly recorded in either of the above two books. But he may bring in a horse recorded in any foreign studbook, by paying duty, and then try to sell him for a registered pure-bred. This we have reason to believe is being done in some places. The buyer on this side, not being aware of the conditions of entry through the customs, or of the conditions of registry in Canada, but seeing a highly-ornamented certificate, assumes that he is buying a horse very much pure-bred, until he comes to register him or some of his offspring in the Canadian Studbook. Then he may find that the horse is altogether ineligible, or if he is eligible, the cost of recording his ancestors will amount to more than a certificate is worth.

Of the names of all the records in the United States not recognized by the United States Government, we are not aware; but we have seen certificates from at least two associations that are not recognized. However, one can easily remember that the only one recognized in Canada is the Percheron Society of America; Geo. W. Stubblefield, Secretary, Chicago, Ill., and the others which are recognized in the States have headquarters at Columbus, Ohio; Plainfield, Ohio, and Fairfield, Ohio. C. C. Glen is Secretary of the first, which is called the Percheron Registry Co.; A. J. Long is Secretary of the second, the American Breeders' and Importers' Registry; and



Best Christmas Gift.

After a few weeks, the average Christmas present is very seldom much appreciated. If you make it a year's subscription to "The Farmer's Advocate and Home Magazine," you will be giving your friend something which will last right through the coming year, with the last copy, perhaps, a better gift than the first.

For the rural home, "The Farmer's Advocate" is the most acceptable and practical Yuletide gift one could find.

had the Government of Canada done likewise, and given them tit for tat, Canada to-day would in all probability have at least twelve millions of a population, and her wealth double what it is to-day?

Unfortunately for Canada, her trade policy has been to a great extent influenced, if not dominated, by a propaganda of English free-traders, some of them ex-professors of English schools, and others occupying the most exalted governing positions, who seem to lose sight of the fact that, while free-trade was or is good policy for England, that it is the bane and curse of a new and undeveloped country like Canada, and can only result in retarding the growth and prosperity of this country. In this connection, Mr. Editor, allow me to remind you of the length one of those English free-traders went to thwart and strangle the "National Policy," when it was first proposed by its great founder. The threat that it would endanger British connection, called forth the reply of that great patriot, Sir J. A. Macdonald, "So much the worse for British connection." Now, sir, our greatest boast and proudest thought is that we are British subjects, and the writer's most earnest wish is that generations yet unborn will echo and re-echo the noble sentiment, "A British subject I was born, a British subject I will die."

This most desirable state of affairs can only be continued by a cessation of outside interference with the fiscal policy of Canada. It is to

C. E. Stubbs is Secretary of the National French Draft Horse Association.

In connection with the French draft breed, it must be remembered that although horses recorded in the book of National French Draft Association are not recognized as eligible for registration in the Canadian Percheron Studbook, French draft horses imported from France and recorded in the Studbook des Chevaux de Trait Francais, are entitled to free custom entry on a Canadian import certificate. The reason of this is that France is the country of origin of the breed, and the Studbook des Chevaux de Trait Francais is on the list of recognized records.

In order to procure Canadian certificates of registration, it is necessary to forward the foreign certificates, application for registration and fees to Accountant, Canadian National Records, Ottawa.

A Horse Thief Uncaught.

Editor "The Farmer's Advocate":

I notice an article in your issue of November 12th, re rural police force. I would like to give you my experience with the Ontario police system as it is.

On July 28th, 1906, I had a two-year-old colt stolen. This colt was broken and in a field with six others, all two years old. She was the only one in the field that had ever been driven. Thief took her six miles, and there stole a cart and harness from another man. For this colt I had refused an offer of three hundred dollars. I started to search for her, and this is the assistance I got from the police or county constables: I first went to the nearest county constable. He at once told me he could do nothing for me, as he was not hired by the year, and could not leave his wagon shop, where he made his living, as his customers were waiting for work to be done.

I next went to the sheriff of the county. He kindly directed me to the chief county constable, and he frankly told me to go where they do not have races on the ice. He also was not hired by the year, and he could not leave the job he made his bread and butter out of.

I next went to the Attorney-General, and was very kindly received, but he said he could not help me any, as he had more work than he could do with the number of men he had on his force. Now, what was I to do? No help from any source. I spent two hundred and thirty dollars in advertising and searching for her, and offered a reward of three hundred and sixty dollars. I cannot see why it is that the Government will give financial assistance to agricultural societies to encourage farmers to raise good stock, and also send speakers to Institute meetings to instruct us how to produce good horses, and when a thief comes into a neighborhood and takes the best you have, he can rest assured the authorities will not interfere with him. Hoping you will continue to agitate this question until there is something done in the way of establishing a proper police force to protect farmers from thieves.

Wentworth Co., Ont. J. J. FORAN.

LIVE STOCK.

Care of the Breeding Sow.

It makes all the difference in the profits whether the sow produces good, strong pigs, and then feeds them well, or produces a litter of weaklings, and then has nothing for them to eat; whether her system is kept in normal condition, or hot and feverish. In the one case she will be good-natured and let the pigs suck, and will furnish plenty of milk; in the other, fretful and peevish, and the chances are will eat her pigs as soon as born, or will have no milk for them.

These conditions depend very largely, if not entirely, upon the way the sow is treated and fed during pregnancy. It is an almost unheard-of occurrence for a brood sow, running out on good pasture, ever to eat a pig. Sows are not cannibals by nature, and are only made so by the ignorance or mismanagement of the owner.

The best food for a brood sow is coarse wheat middlings or reground bran, or bran and middlings may be mixed half and half, which should be made into a stiff mess with skim milk if possible; if not, with the house slops or water. A mangel or sugar beet thrown into her trough, to be scooped and eaten slowly, will be relished and be helpful in keeping her bowels active.

Sows should have access to a box filled with a mixture of six parts charcoal, two parts wood ashes, with two pounds of salt and half a pound of copperas to each bushel.

The brood sow should be fed just enough to be kept thrifty and strong, but not to make her fat, and the amount will depend upon the size of the animal. She should have all the water she wants at all times. It is also very desirable that the sows be handled so as to be very tame and quiet. If sows are so treated, good litters of fine pigs will be assured.

Foot-and-mouth Disease.

By Prof. F. C. Harrison, Macdonald College.

The present outbreak of this disease in the United States, and the blocking of all shipments of live stock from certain States of the Union into Canada, has attracted the attention of the agricultural community, and has resulted in several inquiries as to the nature of this disease.

Foot-and-mouth disease, also called Aphthous Fever, is a virulent and contagious disease of cattle, sheep and swine, young animals being particularly susceptible.

Symptoms.—The general symptoms are usually slight fever and lack of appetite, and in milch

in Berlin, Germany, in 1895. A considerable number of milk consumers in that city suffered from fever, with the characteristic eruption on the tongue and mucous membranes of the mouth, which, on bursting, left very painful ulcerations. The acute disease lasted for five days, and left a sense of great weakness for a time. The celebrated pathologist, Virchow, who made an investigation, unhesitatingly pronounced it to be foot-and-mouth disease.

Cases of infection through butter, buttermilk and cheese made from infected milk, are also on record.

Few affections have been the object of so much bacteriological research, but so far the organism which causes the disease has

not been found. In 1896 the German Government appointed a commission to investigate the causes of the disease. In 1897 they reported that they were unable to find any causal organism, but from their experiments they were of the opinion that the disease was caused by an invisible microbe, or, in other words, the organism was so minute that even the most powerful microscopes could not reveal its presence. Since this discovery, a number of investigators have reported on certain other diseases produced by invisible microbes.

Prevention.—The usual measures taken to prevent the spread of the disease is to arrest all movements of stock in the affected districts, to exclude all visitors, and quarantine



Maisie.

Unregistered Shorthorn cow. Second prize by inspection, and first in class in one-day milking trial, London Dairy Show, 1908. Milk yield, 63.12 lbs.; butter, 2 lbs. 6 ozs. Sold recently for \$520.

cattle there may be some diminution of the milk flow. These troubles are quickly followed by eruptions of the mucous membrane of the mouth, the skin between the toes, and of the skin of the udder and teats. The eruptions or pustules in the mouth may be on the lips, palate or tongue, and they soon burst, exposing a red, inflamed area, and profuse and continued salivation follows, often glairy—like white of egg—and sometimes bloody. The animal finds much difficulty and pain in eating, rumination is impeded, and the breath becomes fetid.

The pustules on the feet and udder are usually smaller than those of the mouth, and, on breaking, ulcers usually form, and, in the case of the feet, extend under the horn. From exposure to mud and filth, further infection occurs, and the hoof may be entirely shed. Sheep in such a condition will often walk on their knees. In acute cases the disease extends to the respiratory and digestive tracts, and death occurs in five to six days. The majority of cases, however, are mild, and respond to proper treatment, and the animals recover in about two weeks.

Infection in Man.—The disease attacks man, and there are many cases of such infection taking place. Such cases usually occur from drinking the milk of infected animals, and the symptoms are somewhat similar in man to those of animals. A very good example may be instanced during the prevalence of foot-and-mouth disease

in Europe, such measures are rigorously enforced by the sanitary police. The writer remembers, on one occasion, whilst taking a walk in the vicinity of Berne, Switzerland, being stopped by a policeman, who informed him that should he pass a certain point, he would have to remain in the district for ten days, as foot-and-mouth disease was present in that locality.

Disinfection must be carried out thoroughly. Many Governments endeavor to stamp out the disease by the slaughter of all infected animals, paying the owners some compensation. This is the method the United States Government are carrying out. All infected herds are slaughtered, and the owners are indemnified to the extent of two-thirds of the appraised value of the cattle, in some cases the State paying the rest. The cost of disinfection is also paid by the Federal Government. Naturally, the cost of dealing with such an epidemic is enormous, and the Secretary of Agriculture is asking for an emergency appropriation of \$500,000 for this work.

The last epidemic in the States occurred in 1902, when 4,461 animals were killed, and the owners compensated to the amount of \$128,908.57. This outbreak lasted eleven months.



Quebec Barns, Thatched and Whitewashed.

The Maritime Winter Fair.

The Maritime Winter Fair, held at Amherst, Nov. 30th to December 3rd, was an unqualified success, the entries in every class being more numerous than ever before, and the attendance by all odds larger, thus showing that the fair is fully appreciated by both exhibitors and spectators. The quality of the exhibits was, as a whole, equal or superior to that of former years. While there may have been beef cattle shown in some former years that would be considered superior to any shown this year, still, the average beef animal of this show was probably better than the average of any previous fair, thus showing that in its most important function, as an educational institution, the Maritime Winter Fair has been a success. The addresses by the different experts in the evening meetings were of a high order of helpfulness, and, as Attorney-General Pipes expressed it in his address on Monday evening, we are realizing that the most useful education today is that which teaches people "how to do things," and this the Winter Fair has been doing.

Perhaps the most noticeable improvement in the show is in the dairy test, where we have over fifty cows, and not a poor cow in the lot, as against about twenty-five last year.

In the dairy stable, McIntyre Bros., of Sussex, N. B., showed a beautiful herd of Ayrshires, eleven in all, comprising seven pure-breds and four grades, and, although most of their best cows had freshened to suit the fall shows, they succeeded in taking first and third on aged Ayrshire cows, first, second and third in three-year-olds, second in the two-year-old class, and also third on grade cows, and second and third on two-year-old grades. Fred S. Black, of Amherst, showed two good Ayrshire cows, one Ayrshire heifer, and one grade cow, winning second with the Ayrshire cow, Traveller's Jennie, and third on Ayrshire heifer.

Logan Bros., of Amherst Point, N. S., exhibited seven Holsteins and one grade, winning first with Homestead Net, milk yield 131.7 lbs., fat 4.04 lbs., making a score of 132.3 points; and second with Jewel Sylvia, 114 lbs. milk, 3.8 lbs. fat, score 132.1; and third with Pulerty Auletta, 132.5 lbs. milk, 3.8 lbs. fat, and score, 128.9 points.

Samuel Dickie, of Onslow, N. S., entered a Holstein cow and a Holstein heifer of good size and quality, winning second place with the heifer.

Roper Bros., of Charlottetown, P. E. I., had six Guernseys and one grade, and won everything in sight with the Guernseys, and second on three-year-old grade.

J. E. Baker & Sons, of Barronsfield, N. S., with two Jersey cows, won first and second places. H. S. Pipes, of Amherst, competed, with about half a dozen high-class Jerseys, winning third in aged class with Lena of Brampton, first and second in three-year-old class, and first and second in two-year-old class.

Prominent exhibitors in the grade classes were: Mr. Black, of Amherst, who won first place in aged-cow class, and grand champion any breed or grade. Logan Bros. were second, and J. R. Semple third. In three-year-old grades, T. W. Keilor, Amherst Point, came first, Roper Bros. second, and McIntyre Bros. third. In two-year-old grades, Semple was first, McIntyre Bros. second. Other exhibitors were: W. N. Boomer, West Amherst; B. W. Ralston, Amherst; Charles Etter, Aulac, N. B.; G. B. Miles, Brookdale, N. S.

It is encouraging to note that the score made this year was higher than at any previous Fair, and that the best three cows were separated only by decimals of points, their scores being 132.9, 132.3, and 132.1. There were a number of new exhibitors, and it seems to us that it would be a good move to offer at least six prizes in the grade classes, instead of three, as it is beginning to be recognized by everyone that dairying should be brought more to the front in the Maritime Provinces.

The beef cattle were a sight to fill the eye of any admirer of good, low-down, fine-boned, thick-fleshed cattle. W. W. Black, of Amherst, showed 18 Herefords and 12 grades, and won everything in sight with the Herefords, and a big share of firsts and seconds in the grade classes, including the following specials: The cup donated by Hon. Wm. Pugsley for best grade any age; special for best steer any age; the silver cup donated by Sir Frederick Borden for best pure-bred animal any age, with the Hereford heifer, Hester; the Leaman special for best beef animal, any breed or grade; and the Blatchford specials for best animal under one year, and for best animal over one year.

C. A. Archibald, of Truro, was out with a good row of Shorthorns of the right stamp, winning first on aged cows with Lady Roan, first and fourth on senior yearlings, first, second and fifth on junior yearlings, and first and second on heifers under one year, and Shorthorn championship with Merry Maid V.

Other exhibitors of Shorthorns were R. A. Smith, of Chatham, N. B.; Hazen Etter, West-

moreland Point; Demont Freeman, Amherst; F. T. Holmes, Amherst; Walter Boomer, Westmoreland, and Geo. M. Holmes, Amherst.

Other prominent exhibitors of beef cattle were, Wm. Fowler, of Amherst Point, who showed five Shorthorn grades of excellent quality, and won first on cow, first on heifer over 18 months, first on heifer over 12 months, second on heifer under 12 months; also winning for the second time the Giles Cup, the most-coveted trophy of the show, for the best beef animal under two years old. Ernest Embrie, of East Amherst exhibited six good grade Shorthorns, and won five prizes. Harold Etter, of Westmoreland Point, showed seven Shorthorns and one grade, and won four firsts, one third and one fourth prize.

The entries in sheep were as numerous as last year, and the quality fully up to any previous show, the exhibits of Logan Bros., T. J. Stewart and T. W. Keilor, all of Amherst Point, and Jas. E. Baker, being worthy of special notice in the Shropshire and Oxford classes; and of Albert Boswell and Samuel Lane, of P. E. I., in the Leicester, Lincoln and Cotswold classes. In the grade classes, Logan Bros., Jas. E. Baker, Fred S. Black, Oliver Saunders, of Tilley, P. E. I., Jas. Stewart, and a few other lesser exhibitors, divided up the honors, and made an interesting and arduous task for Judge Gardhouse, who gave excellent satisfaction, and had a good reason for every move he made. The specials donated by the Hewson Woollen Mills Co. for best flock of short-wooled sheep were won by Logan Bros. and Fred S. Black.

In the swine classes the entries were considerably more numerous than ever before, and taxed the capacity of this section to its utmost. It is felt by exhibitors in this class that better accommodation should be made for a show-ring for judging swine, even if an ell has to be built on to the south side of the main building. Some of the new exhibitors in these classes were, Fred S. Black, W. W. Embrie and J. Edgar Shipley, of Amherst; W. H. Pope Cooke, of P. E. Island; J. H. Angus, Northport, N. S.; Charles Etter, Aulac, N. B.; Graden B. Miles, Brookdale, N. S.; Amos Patterson, Sackville, N. B., and Ambrose Sellers, of East Royalty, P. E. I. Among the most prominent exhibitors of swine were, J. R. Semple, of Brule, N. S., with Berkshires; Roper Bros., Yorkshires and Tamworths, who won all but one of the first prizes in Yorkshires, and the cup donated by J. E. Wood for best three sows any breed; Peter Brodie, Little York, P. E. I., showed nine Berkshires and five grades, and won a large share of the prizes, especially in the Berkshire classes; Wm. J. Gibson, P. E. I., exhibited six Berkshires of great length, and very large for the ages in which they were entered; Ambrose Sellers, of P. E. I., won first on grade sow over one year, and fourth on Yorkshire sow under six months. The judge, C. M. McIrae, had several quite full classes, and, owing to the cramped space for judging, could not explain to exhibitors and spectators his reasons for placing awards as fully as we would have liked.

The exhibit of poultry was the largest in the history of the Fair, and in quality rivals any of the Western fairs. The utility classes were pronounced by F. C. Elford, the judge, as fine a lot as he had ever handled. The open class of Barred Rocks had over 80 birds, next in strength being the White Wyandottes, with about 50 birds, followed by Orpingtons and the other utility breeds. The Mediterranean varieties, especially the Brown Leghorns, were certainly a beautiful lot of birds.

Craig Bros., of Amherst, were the most prominent exhibitors of Barred Rocks, winning first on cock, first, second and third on hen; first, second, third and sixth on cockerel; and second and third on pullet, capturing by their good work here the silver cup donated by Attorney-General Pipes for best cock, hen, cockerel and pullet, any breed. A. C. Read, of Tidnish, N. S., a new exhibitor, was the leading exhibitor of White Wyandottes. The Highland Poultry Yards, Amherst, captured everything in White Plymouth Rocks. In Orpingtons, Wm. Robertson, Amherst; F. J. S. Locke, Amherst; John D. Robinson, Springhill, N. S., and the Hartland Poultry Yards, of Hartland, N. B., put up a large display of excellent quality, Wm. Robertson winning the cup donated by E. N. Rhodes, M. P., for best two pairs of utility birds. In Brown Leghorns, Walter McMonagle, and in White Leghorns, Seth Jones, both of Sussex, N. B., were prominent exhibitors.

The seed section was well filled with samples of grain, seed potatoes, etc. Donald Innes, of Tobique River, N. B., put up his usually good display of grains, perhaps even better than ever before, and carried off for the second time the silver cup for the best collection of seeds. The entries in this class have become so numerous as to overcrowd the space usually given to seeds, and some were shown in the fruit room. We have had an excellent season for ripening grain

in the Maritime Provinces, and the result is shown in some of the best samples of grain and seed potatoes we have ever seen.

The display of apples was also ahead of any previous year, the fruit being of better size and color than before, as well as more numerous.

The honey department was not as large a show as might have been wished, but, as the exhibitors had on sale small jars of extracted and sections of comb honey, this was a very attractive corner. B.

THE FARM.

Force of a Bad Example.

I am going to say a few words on the much-debated question of keeping boys on the farm. It is a very important question, too, because it affects the welfare of the whole country. If there were no farmers, all other trades and professions would go out of business, because agriculture is the real heart of the country. Now, to my mind, the trouble is not all with the schools, but a large portion of it lies with the parents. We will look at it in this light. A young man 18 years of age is working on his father's farm; he works hard all the year round, and his holidays are few and far between, but he does not see a cent for it, only his clothes and board. He has a faint idea that perhaps some day his father will buy a farm for him when he wants to start in farming, but he is not sure but that he might be turned out on the roadside, instead. He has not much to work for, and when he meets a young fellow of his acquaintance who has gone to the city, and sees him so smartly dressed, and hears him jingle the change in his pocket, he feels rather cheap. Although he may be better off, it does not look that way to him. Now, this is not as it should be. The father should come to some agreement with the son as soon as he is old enough to earn good wages in any employment, and then he will know what he is working for, and take an interest in things. He should also be given a small allowance of cash to spend or save, whichever he likes. He should also be consulted in farm matters, and his opinion not laughed at. And he ought to have some stock of his own on the farm, especially a driving-horse. If a father treats his son in this way, he will find that he will not talk about going to the city. Another thing I often wonder about is this: Many farmers all the time grumbling about what a hard job farming is, and saying they wish they had never stuck to it. Then, when the boys all go off to the city, the father thinks they are an ungrateful lot. But is it any wonder they go, considering the way they are brought up? A FARMER.

Prince Edward Island.

Preservative for Roof.

Editor "The Farmer's Advocate":

I chanced to read in "The Farmer's Advocate" of Nov. 26th, page 1819, H. R. M.'s query re a cheap roof paint. I have had no experience with creosote, but with coal tar (from gas works) I have, and can recommend it as far superior to the heavy metallic roof paint for two reasons. The heavy paints, unless the shingles are dipped, or painted a little more than the depth of two courses as each course is laid, is of more injury than benefit, as the heavy paint settles at the lower edge of the shingle, forming a dam, which catches and holds the water which has run down between the shingles in the course above, and causes it to soak along under the shingle, where it does not dry, but causes rot. I have seen the shingles taken off a very steep roof which had been painted as above, the covered part being perfectly sound, and that part laid to the weather as thick and sound as when laid only a few years previous, but at the line of each course they had rotted off, just as if they were cut.

I notice in your reference you say coal tar cannot be counted a success, as it will melt and run down, etc. This would be the case only where it was not properly applied. To derive the real benefit of the coal tar, it must be applied hot, when it will be readily absorbed by the shingle, having more the appearance of a dark stain than a heavy paint, leaving no ridge under the edge of the shingle to hold the water, as mentioned above. The hot tar cooks the sap of the cheap shingle, and this is where the real preservative quality comes in. If the roof is already shingled, I would advise waiting till the warm weather comes. With two roof-ladders, two men can tar a roof very quickly, one handling the pail of hot tar, beginning at the saddle-board, with a small dipper pouring on the tar, while the other rubs it along each course with an ordinary tar mop. Of course, when they get near the eaves and gables a little care must be taken to prevent dripping down on the finish, as it will stain just like any other paint. Re coloring, although it may be resorted to, I see no reason why

a red or green shade could not be given by mixing ochre or other cheap coloring. Nearly twenty-five years ago, a gentleman with whom I was boarding, shingled a small house with the cheapest cedar shingle he could get, costing 90 cents. This roof he treated with the hot coal tar as I have described. The roof has not been shingled since, and to-day is in good condition—not too bad for shingles at 90c. per M.

The dipping is simple, and can be done more quickly than one would think, a boy doing about as well as a man. Take a cheap tub—say, a good-sized lard tub; across the top, about one-third way from the side, nail a board with straight edge; nail onto the board a piece of heavy felt, extending slightly beyond the edge of the board. As the shingle is drawn out of the paint, it is at the same time wiped against the felt, taking off the surplus paint, which runs back into the tub. An old sweat-pad or top of felt boot will furnish the felt.
Charlotte Co., N. B. R. W. WHITLOCK.

Experiments with Fertilizers.

Editor "The Farmer's Advocate":

Please allow me space in your valuable paper to give the results of some experiments which I conducted to test the value of fertilizers; potash, perhaps, more particularly.

Two years ago I tried an experiment on potatoes. Three plots were used: (1) Unfertilized (check plot); (2) complete fertilizer; (3) fertilizer without potash. The "complete fertilizer" consisted of basic slag, nitrate of soda and sulphate of potash.

The season was very unfavorable for growth, and as the crop was not above the average on either of the fertilized plots, I began to think that no fertilizers were any good, and were entirely wasted except in a good year.

This year I raised oats on the plot to which the complete fertilizer was applied last year, and seeded out with grass and clover. When the oats came up it was only a short time before I could easily distinguish where the fertilizer had been applied to the potatoes the previous year, as it was sown in the drills. The oats gradually gained in the drills until they were fully six inches above the rest, and maintained this lead until harvested. After harvesting the oats, to my surprise I still could distinguish the drills by the rows of clover, thus proving without a doubt that the fertilizer that was not used by the previous crop remained in the soil. This is a point that farmers should observe, i.e., that the complete fertilizer has a beneficial effect for two years at least.

This year I tried another experiment on potatoes with the same fertilizers, and consider it a great success. Plot 2 (complete fertilizer) gave me a yield of 336 bushels per acre, notwithstanding the fact that this was a dry season. This was an increase of 120 bushels per acre over the unfertilized plot, and 48 bushels over the plot without potash.

I trust that these experiments will prove interesting to a large number of farmers, and think that better results generally would be got by using the quantities advocated by fertilizer authorities.
HARRY A. ACHESON.
Charlotte Co., N. B.

County Road Systems.

County road systems have, to the present time, been established in 15 counties of Ontario, comprising over 40 per cent. in area of the Province to which the Highway Improvement Act is applicable. The counties which are constructing these improved systems of leading roads are: Prince Edward, Halton, Perth, Frontenac, Lennox and Addington, Middlesex, Peel, Lincoln, Oxford, Wellington, Hastings, Lanark, Wentworth, Simcoe and Waterloo. The counties operating under this Act have assumed an average of about 12 per cent. of the road mileage in each county, the total now amounting to 2,800 miles of road. Were county systems established throughout the Province on the same ratio, there would be 6,000 miles to be permanently constructed.

One of the most recent additions to the list of county road systems is that of Waterloo, while the County of Frontenac has just completed its system by finally assuming a system of 101 miles. In the case of Frontenac, it is estimated that the cost of construction will amount to \$160,000, of which the Provincial Government will pay one-third. Elgin County Council has before it a proposal to establish a county system to comprise 250 miles, on a basis of \$1,500 per mile.

County highway systems are meeting with splendid success throughout the Province. In addition to making a substantial improvement of the leading roads, they are affording an example of how good roads should be built, and, through the influence upon township councils, a considerable benefit is thus being reaped. While there is considerable variation throughout the Province to meet local circumstances, the roads are being constructed in a durable manner, and due atten-

tion to drainage, grading, a covering of broken stone and gravel, and the use of modern road-making machinery, such as grading machines, rock-crushers and steam rollers, is being given. The aim has been to secure permanent, and thus experienced, supervision; to encourage uniform and systematic work; to properly operate modern and economical implements; to provide careful, constant and methodical supervision and maintenance, and to educate the public as to the meaning of good roads.

All of the roads in the Province cannot be improved in a substantial manner at one stroke. A commencement has to be made at some point. To set apart certain roads under county-council management, gives an opportunity for such commencement. Township councils, through the influence brought to bear upon them by ratepayers, are unable to devote special expenditure to com-

The meaning of county roads should not be misunderstood. They are not expected to comprise the old systems of through roads, which may have been established years ago. By the construction of railways and the growth of local towns and villages, the lines of travel have changed. While a county system should, if possible, be a connected one, yet this is not necessary. It is expected that the roads improved will be those leading to the local market centers and stations, such as are now most heavily travelled. It is desirable that every farmer be within convenient distance from a good road leading to his local market.

In some counties stone roads are being built; in others, gravel is being used. In some instances gravel is being put through a stone-crusher, and is graded and screened. In some instances thorough tile drainage is being carried out, and in others the straightening and turnpiking of the roads are the more striking features. Local conditions define the class of work to be carried out. It is expected that local material will be used as far as possible, and that the work performed will be of a class suited to the amount of travel on the roads. Some roads close to towns will have three or four times the amount of traffic over them that other outlying sections will have, and the strength of the road should be of a proportionate character. County systems of highways, where they have been established for two and three years, and the results are becoming apparent, are giving splendid satisfaction. The cost is found to be much less than extreme opponents are so fond of urging. In the great majority of cases roads are being built at an outlay not exceeding \$1,500 per mile. Some roads cost less, and there are occasional instances where, for special reasons, they cost considerably more. The cost, in general, is dependent upon the distance road material has to be transported. The best work gives the best satisfaction, irrespective of cost, so long as money is not misapplied, and the ratepayers are receiving value for the expenditure. The people of Ontario are reasonable, intelligent and progressive. They want good roads, and, wherever the meaning and benefit of them has been brought home by local examples, they are willing to contribute generously for good work, and are anxious that it be extended as rapidly as possible.
A. W. CAMPBELL,
Deputy Minister of Public Works.



A Snug Homestead.

Residence and grounds of Alex. Jackson, Simcoe County, Ont.

plete and finished work. A scattering of the township expenditure in small improvements is demanded of them, and has become the established custom. It is only by removing certain roads from this influence that finished and durable work can be expected.

One of the aims of the county-road system has been to secure more permanent, and, in consequence, more experienced management than is provided by townships. The work of road construction is one extending over a period of years, and the supervision should be of a similar character, if systematic results are to be expected.

It is sometimes asked if county councils can perform the work as cheaply as township councils could do it. County councils are made up of chosen men representing each of the local councils. While exceptional instances may no doubt be pointed to (for mistakes are common to the human race), it is an incontrovertible fact that the county councils are doing the work much more cheaply than township councils can perform the same class of work. In bridge construction, county councils secure more competition among bridge companies and concrete contractors. In methods of doing ordinary road-work, more efficient methods can be insisted upon. As a single instance, may be pointed out the size of loads required by county councils, which are from 1 1/2 to 2 cubic yards of gravel and stone. They can fix the number of loads to constitute a day's work, and see that no favors are given.

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A. W. CAMPBELL,
Deputy Minister of Public Works.

Toronto.

Our Methods Gave Results.

I wish to thank you very much for the way you answered my question regarding feeding milk cows without roots or silage. It was very satisfactory. I find quite an improvement in the milk flow since adopting your method.
York Co., Ont. ABRAM PIKE.



Fifty-nine Romney Shearling Rams.

On the lawn in front of farmhouse of Mr. A. I. Hickman, Court Lodge, Egerton, Kent, England.

Denatured Alcohol in Germany.

Editor "The Farmer's Advocate":

"The Farmer's Advocate" of the 21st May last contained a very interesting article by Mr. Frank M. Lewis, on "Alcohol for Farm Use." This is an important subject, for, without a doubt, alcohol is a clean and efficient fuel, and well adapted for the production of light, heat and power on the farm. But, as pointed out by Mr. Lewis, the cost of alcohol in Canada prohibits its use for these purposes.

The reason for the high price of alcohol is that our Government, like the governments of many other countries, levies a high excise duty on this article. Recently some of the European countries and the United States of America have removed this duty, excepting when it is to go on the market as a beverage. To distinguish the duty-free alcohol, it is rendered undrinkable, or unfit for use as a beverage, by adding such materials as wood alcohol, turpentine, benzene, pyridene, etc., the material and the quantities employed depending upon the purposes for which the alcohol is to be used. It is then known as "denatured" alcohol.

In Germany the retail price of this denatured alcohol (95 per cent. by volume) is about 28 to 30 cents per gallon, the 90-per-cent. article being 27 cents. In the United States, where the law allowing the use of denatured alcohol came into force only last year, the price is 55 cents for a single and 50 cents per gallon in ten-gallon lots. In this country, denatured alcohol (free of excise duty) has been for many years supplied, under certain restrictions, by the Department of Inland Revenue, at Ottawa, for scientific and industrial purposes, 90 to 95 per cent. alcohol, in ten-gallon lots, being purchasable in this way at \$1.08 per imperial gallon (see "The Farmer's Advocate" of July 19th, 1906, pages 1142-1143). So far as Canada is concerned, therefore, the agitation merely looks to the cheapening of the product, by permitting its manufacture and denaturation by private enterprise, under Government supervision.

The petroleum oils are the chief competitors of the fuel alcohol. For power purposes, gasoline and alcohol are approximately equal, while for lighting purposes, it has been quite fully demonstrated that with two lamps of equal candle power and equal capacity, a gallon of alcohol possesses about twice the illuminating value of kerosene; and, in addition, the white light furnished by the alcohol lamp is preferable to the yellow light of the kerosene lamp. Furthermore, the alcohol is a safer and cleaner material to handle than either gasoline or kerosene, and does not produce offensive odors.

In Germany, where gasoline and alcohol cost the same per gallon, very large quantities of the latter are used for fuel purposes, but, so far as I am aware, it is not extensively used for power purposes on the farms of that country. In the country to the south of us, alcohol, even at fifty cents per gallon, will have difficulty in competing with the cheaper petroleum oils. It is, however, the hope of those interested in its use that the price may be further reduced.

In connection with the manufacture of the alcohol, there is a very common belief that if our excise duty were removed every farmer would be able to make alcohol for lighting and power purposes from the low-grade and waste material on his own farm. There are several reasons why this is not possible. In the first place, contrary to an apparently general idea, the cost of a still capable of producing a product with a high per cent. of alcohol, even though its daily capacity is not over twenty-five to thirty gallons, is considerable. This, together with the other machinery necessary, renders it too expensive a project for the individual farmer.

Further, it is stated by those who have had experience in the matter, that it is very doubtful whether a distillery with a capacity of less than 100 gallons per day can be worked profitably.

Mr. Lewis states that there are over 71,000 small stills, costing about thirty-five dollars each, in use in Germany for manufacturing alcohol. Upon inquiry I found that there were about 67,000 small pot stills of the type mentioned, which are used in distilling fermented fruit juices, practically making brandy, and about 14,000 large continuous stills, producing high-proof alcohol. With the small pot stills it is not possible to make a product with more than about 50 per cent. of alcohol, unless it is by redistilling several times, which would be expensive. For fuel purposes, alcohol must be about 180 proof, or of about 90 per cent. purity, after adding the denaturing materials. To produce this grade of alcohol, it is necessary to use a continuous still. So far as I was able to learn, practically all the alcohol made in Germany for fuel purposes is made in these large continuous stills. Upon inquiry I also found that it is expected that the fuel alcohol of the United States will be made in this way.

Another point upon which there appears to be some misunderstanding is with reference to the denaturation. It is commonly believed that after adding the starchy materials, it is only necessary

to add the required amount of ordinary yeast and hold the mass at the desired temperature to secure the proper fermentation. The truth is, that unless a specially-prepared practically-pure culture is used, a great variety of products will be formed, and a poor yield of alcohol result. For this and other reasons, it is almost imperative that the operation of an alcohol plant must be in charge of an experienced person, and that the process be continued day after day, until all available material is used up.

There is no doubt of the fact that much waste material around canneries, low-grade grains on the farm, etc., can be used in the manufacture of alcohol for fuel purposes; and, further, judging from the experience of others, at present it looks as if, should our Government give us tax-free alcohol for fuel purposes, it would have to be made cooperatively, as our cheese and butter is to-day.

There is also no doubt regarding the fact that alcohol is a good material for light, heat and power purposes, but we must not forget that gasoline is about its equal, gallon for gallon, except that alcohol is much safer to handle and is very much cleaner; also, that we will have to have the alcohol at a lower price than the denatured article is being sold in the United States before it can be used economically. R. HARCOURT.

THE DAIRY.

More Co-operation in Cheese-making.

The principle of co-operation among groups of cheese factories in such matters as the purchase of supplies, is one deserving of attention during the present winter. Judging by some experience in this direction in the past, it would seem desirable not to project such movements on too large or cumbersome a scale. The Prince Edward County Cheesemakers' Association may be cited as a good example. It was organized in 1906, and has a good number of dozen members, who have found it a factor in promoting the progress of cheese dairying in that district. In the purchase of rennet, coloring, boxes, bandages, etc., by tender, in bulk, for all the factories, a leading maker advises us that he has effected a saving on his requirements ranging from \$50 to \$75 per season. By making suggestions in regard to the work of instruction and inspection, and otherwise, the members have been able to promote their interests. W. S. Blakely is president for the current year, and G. A. Sheriff, of Bloomfield, secretary. Following is a copy of the constitution under which the organization is working; it will be of interest in other counties where the formation of such organizations may be under consideration by factorymen and makers:

Article I.—The undersigned have associated, and do hereby associate themselves together for the purpose of forming a corporation under the statutes of the Province of Ontario, and the acts amendatory thereof and supplementary thereto, the business purpose and object of which corporation shall be the education of its members for better work in the art of cheesemaking, the care and management of factories, the sale of their products, and the weeding out of incompetency in the business of cheesemaking, together with any honorable schemes of interest and value that may come before this association.

Article II.—This corporation shall be known as the "Prince Edward County Cheesemakers' Association," and the membership fee, until further notice, shall be one dollar (\$1.00) a year.

Article III.—The Association shall be a corporation without capital stock. Any person who is a practical cheesemaker, and such other persons as are directly interested in the manufacture and sale of unadulterated cheese may become members of this Association by paying the membership fee, but his admittance shall be subject to the approval of at least the vote of two-thirds the number of qualified members.

Article IV.—The general officers of said Association shall consist of a President, Vice-President, Secretary, Treasurer, and an Honorary President, if the latter is available. There shall be a Board of Directors consisting of five members of the Association. The term of officers of the Association shall be one year, or until their successors are elected at the next annual meeting following their election, and until such successors qualify. The election of officers shall be by ballot, except in case of a single nominee, when election by acclamation may be substituted. A majority of all the votes cast shall decide an election. The annual meeting shall be held on the second Wednesday in March each year, and a regular meeting every three months during the year.

Article V.—Sec. 1. The principal duties of the President shall be to preside at all meetings of the Board of Directors and of the members of the Association during his term of office. He shall appoint special committees, and sign all orders drawn on the Treasurer.

Sec. 2. The Vice-President shall assume the duties of the President in the latter's absence.

Sec. 3.—The principal duties of the Secretary of this Association shall be to keep a complete and accurate record of the proceedings of the Board of Directors and of the Association, and to attend all meetings, and keep a correct account of the finances received, pay all moneys into the hands of the Treasurer, and receive his receipt therefor, and to countersign all orders for money drawn upon the Treasurer. He shall keep a record book and suitable blanks for his office. He shall make a full and complete report at each annual meeting of the correct state of the finances and standing of the Association. He shall also procure certificates of membership, and every person joining the Association shall receive one signed by the President, and countersigned by the Secretary.

Sec. 4. The principal duties of the Treasurer shall be to faithfully care for all moneys entrusted to his keeping, paying out the same only on receipt of an order signed by the President and countersigned by the Secretary. He shall make at the annual meeting a detailed statement of the finances of the Association. He must keep a regular book account, and his books shall be open for inspection at any time by any member of the association.

Sec. 5. The said officers shall perform such additional or different duties as shall from time to time be imposed or required by the members of the corporation in annual meeting, or by the Board of Directors, or as may be prescribed from time to time by the by-laws, and any of the duties and powers of the officers may be performed or exercised by such officer or officers, or such person or committee, as the corporation or Board of Directors may authorize.

Article VI.—Any business transacted or resolutions passed by a majority of the members of this Association at any annual, regular or special meeting shall be lawful and binding upon all the members of this Association.

Article VII.—These articles may be altered or amended at any regular session of an annual meeting of the members, provided the proposed alterations or amendments shall have been read before the Association, and provided, also, that such alterations or amendments shall receive a two-thirds vote of the members present.

Inferior Cows Sold.

Editor "The Farmer's Advocate":

I feel certain, from experience, that the cooperative testing of cows is a good thing. I have a dairy, and sell milk in the city from house to house, and I endeavor to give the people milk such as I would like to use myself, and, therefore, I adopt every means of obtaining good, clean, rich milk. I made a great effort to have an association formed in this neighborhood. At last I was successful in having an association formed in April, 1907, with some eighteen members. All are well pleased with the results, and are anxious to continue.

I have received good from it, as it was the means of pointing out to me the cows that were not giving milk rich in butter-fat, as well as small yield, during the year. Some cows give a great flow of milk for a few weeks, but, by these cow-testing associations one can find out definitely how much his cow gives during the year, both as to quantity of milk and to pounds of butter-fat. Thus, it has become, and is becoming, very popular in our district. The people are desirous of continuing it. It has created quite an interest in the minds of the farmers concerning the matter. Many are culling their herds, and are disposing of their inferior cows. From the results of our association, other associations have been formed, and thus the good work goes on. Oxford Co., Ont. J. M. POWELL.

A Good Average for Shorthorn Grades.

Editor "The Farmer's Advocate":

In reply to your inquiry, would say that I belong to the Milton Cow-testing Association, formed April 13th, 1907, composed of 26 members, although testing on the part of some of them has been very spasmodic.

I must say that the Association has been very beneficial to me, as it has shown clearly in black and white each cow's value. My herd, which is composed of eight cows, ranged from 9,170 lbs. milk and 343 lbs. fat, to 5,200 lbs. milk and 172 lbs. fat. The average cow was about 7,000 lbs. milk and 275 lbs. fat. These cows are all Shorthorn grades, of fair breeding, with one exception. Record, from April 12th, 1907, to April 12th, 1908, although some cows were dry longer than others.

The movement is not yet popular, but I would like to have it continued, and will do all in my power to help it along. To a certain extent, it has awakened interest in the cow question. Although I have not sold any of the cows as yet, I shall turn off two of the tail-enders as soon as they are fit for sale. Hutton Co., Ont. FRANCIS HADLEY.

Cost of Producing Milk in Winter.

At a meeting of dairymen, held at Belleville, under the auspices of the Eastern Ontario Dairymen's Association, on December 2nd, the factory inspectors of the Belleville and Prince Edward districts gave their annual reports. Mr. Howey made 5,491 lactometer tests, 70 fermentation tests, and visited about a hundred farms to find sources of flavors in milk. He said that to him immediate cooling of the milk appeared to be the greatest factor of success in the business.

Mr. Whattam, whose inspectorate consists of Prince Edward County and the township of Hastings, made a report of substantial progress, also. He wished to warn factorymen in general of the danger of too strong alkali in the acidimeter test. The average milk test of the 21,565 cows in his section was 3.75 per cent. fat. The whey, on the average, contained .22 per cent. fat, but varied from .15 per cent. to .36 per cent. This emphasized the need of high quality of milk and a careful maker to prevent the excessive loss. He mentioned improvement in outside conditions, especially of the whey vat, as worthy of attention in his section. He regretted very much the attitude of the cheese-buyer, in refusing to differentiate between cool-cured and hot-cured cheese, though they admitted a difference in value of one-quarter cent a pound in cool-cured over ordinary cheese. If the increase had been given, there would have been, perhaps, ten more cool-curing rooms in Prince Edward County this year.

Nominations for district director resulted in the unanimous election of A. S. White, the president of the Belleville Cheese Board.

Hy. Glendinning gave an inspiring address on "The Cheap Production of Milk." He claimed by an experiment on his own farm that he could get winter milk at a cost of 23 cents a hundred pounds, which was lower than anyone he had heard of doing it during the summer season. The ration was fed in January to a fresh Jersey cow (neither the best nor worst in the herd). Both feed and milk were weighed. The ration per day was, 15 pounds corn silage (\$2.00 a ton), 1.5c.; 60 pounds mangels (6c. a bushel), 6.0c.; 20 pounds alfalfa (\$2.60 a ton), 2.0c., and a little oat straw mixed in the silage, making 9½c., or a total of 66 cents a week. The milk yield was 258 pounds, testing 4½ per cent. fat. That results in 11.62 pounds of butter-fat, worth 29c., after deducting cost of hauling to the creamery. The cash return was, therefore, \$3.37, leaving a profit over cost of feed of \$2.70½. The cost per 100 pounds of milk was 22.9 cents. And if the fat were reckoned as butter (15 per cent. overrun), butter was produced at 5 cents a pound.

The remarkable point was that no grain was fed, except the corn on the cob in the silage. Mr. Glendinning could have reduced the cost still further by feeding 40 pounds silage and 15 pounds roots, but scarcity of the former and plenty of the latter, due to unavoidable circumstances, caused the use of so little silage and more roots. Not only did the cow produce butter for 5 cents' worth of feed, but she actually gained in flesh during the test. The ration proves to be pretty well balanced (1:5.1).

"Alfalfa is as easy to grow as any clover," said Mr. Glendinning. "After my first five years' experience I would have said that it was not satisfactory, but seven more years have convinced me that there is nothing just as good."

G. G. Publow, the Chief Dairy Instructor for Eastern Ontario, spoke particularly of the desirability of quality as well as quantity of milk. He stated the results of experiments conducted at Kingston, which showed that, while 325 pounds milk testing 3.8 per cent. fat made 35.5 pounds cheese, milk testing 3.4 per cent. made 29.5 pounds, and milk testing 3.0 per cent. fat made only 27 pounds cheese. The patron who sent in the first milk, which was worth almost a third more than the last lot, usually only received the same amount of money. Yet, if he watered it, he would be fined. That explained why men who sent milk testing 3.4 per cent. fat had been fined; they had added water. That pointed to the necessity of paying by test.

Mr. Publow emphasized especially the fact that many good patrons allowed fellow patrons to send in poor milk—poor in fat, and overripe, etc.,—which was really causing the good patron, as well as the poor one, direct loss of money. The maker does not suffer nearly as much as does the good patron; yet, while the maker endeavors to remedy the defect, the man who is taking care of his milk is allowing other men to rob him of his legitimate earnings, because they do not do their share.

Mr. Publow concluded by an appeal for more sanitary conditions in the production of the milk. There was, on the whole, a creditable state of affairs in the factory.

Senator Derbyshire concluded the meeting by a brief address, in which he urged better cows, more feed, better feed, more milk, better milk, more cheese, better cheese, more money, more prosperity, better citizens, and better men.

District Dairy Meetings, Western Ontario.

Meetings have been held at Watford, Hamilton, Listowel, Woodstock, Simcoe, Norwich, St. Mary's and Belmont. Several of these meetings were well attended by patrons and makers; others were not, although the makers turned out very well at points. The object of these meetings was to get together the makers and as many patrons as might care to attend and discuss methods of improvement, the work of dairy instruction, interchange ideas regarding dairy work, and become better acquainted. Many points of interest were discussed. A director of the Dairymen's Association of Western Ontario, residing nearest the place of meeting, acted as Chairman. A summary of dairy instruction work for the season was given at each meeting. General improvement was noted in the care given the milk, the tidiness of the factories, the number of rusty cans discarded and replaced by new ones, and the improvement in the cleanliness of the whey tanks, but there still remains much room for improvement along these lines.

The prices for the year have been good, and a general feeling of hopefulness prevailed. The opinion seemed to be that the small round holes noticeable during the hot weather in several lots of cheese were due to curds not being properly firmed in the whey before dipping, thus leaving excessive moisture, not getting the curds well enough flaked before milling, and in some cases milling a little early, and in a number of cases salting the curds before they were sufficiently matured. The one-quarter inch curd knife was ap-

and tidy condition of the factory, and the cleanliness of the whey tank had a great influence on the patrons in inducing them to take proper care of the milk. Building of more cool-curing rooms was discussed. The general opinion among factory-owners was that they should have the co-operation of the patrons in paying at least one-half of the cost, since the patrons would get most of the benefit in less shrinkage in weight and other results. No expression of opinion could be secured with regard to the benefit or otherwise of makers' certificates. The effect of feeding turnips, and the early shipment of fall cheese, without being sufficiently cured, was discussed. A patron suggested at one meeting that the turnip-flavored milk should be made up by itself, and the patrons paid accordingly, but none of the makers seemed to want to take the responsibility of selecting the milk. The general opinion was that mangels or sugar beets should be fed, instead of turnips, since it was not fair that those who did not feed turnips should have to suffer in price for those who did. A buyer thought that many late fall cheese were allowed to cure at too low a temperature for best results. Complaint, also, was made regarding the poor quality of cheese boxes in one section. Attention was called to a number of important details in connection with the pasteurization of whey to make the system successful, and several ingenious methods for heating economically were explained by makers as being used by them, and were considered of much value.

Winter Dairying.

Editor "The Farmer's Advocate":

Although dairying has always been a prominent industry in the Dominion, farmers are day by day awakening to the fact that they have not obtained the results they should. To be a successful dairyman, a man must read and study the methods of feeding, keeping and caring for cows. He must select a breed which is best adapted for his purpose, and then adhere to it, and gradually, by breeding and selecting, try to improve his herd, which will, if properly cared for, yield profitable returns. It is best to have cows fresh in the months of November and December. The cows will then go dry in the fall, when pasture is nearly always scarce, and they can then be put on rape, which will put the cows in good condition before they go to the stable in the fall. As soon as the weather becomes cold and stormy, the cows should be stabled, and well fed and cared for until they calve. If this is done, the cows generally give birth to large and healthy calves. Cows that become fresh at this time of year will milk best during the winter, when products have the highest price, and when there is the most time to care for them; and when they go to pasture early in the spring, the flow of milk will be greatly stimulated, and they milk well all summer.

It is very essential that cows should be fed and milked regularly. A large percentage of the food should be of a succulent nature. Clover hay, corn silage and mangels are about the cheapest, and can be fed in large quantities, as much as a cow will eat up clean. But it is necessary, also, to feed a quantity of chop or bran, and a little ground oil cake tends to increase the flow of milk. Salt should be provided daily, and, if the cows have not water before them at all times, they should be watered at least twice a day. It is not advisable to turn cows out during the winter, as they will take very little exercise, and will only become cold and chilled, which will more or less decrease the flow of milk.

The stable, which should have been white-washed during the summer, should be cleaned at least once a day. The walls and ceiling should be kept free from dust and cobwebs, and the floor dry and well bedded. The stable should be high, light, and well ventilated, but sufficiently warm to keep the cows comfortable. It should be as free from bad odors as possible. A good plan is to use some reliable disinfectant occasionally. It is desirable to have single stalls and troughs, and to have a fairly good-sized gutter behind the cows. The size, and especially the length, of the stalls, should vary according to the size of the cows. The cows should be curried daily, and a rag slightly moistened with coal oil is very good for wiping off the dust and litter which may adhere to the cows, before each milking. This not only improves the appearance of the cows, but it also assists in preventing lice, from which cows must be kept free, but care must be taken not to get the flavor of the oil into the milk.

The milking should always be done by the same persons, and never should the hands of the milker be dirty or wet. The utensils should be scrupulously clean, and the milk should never remain in the stable for any length of time, being strained through cheese-cloth, and cooled or separated as quickly as possible.

If strict records are not kept, the milk of each cow should be weighed at least once a week, and tested at least twice a year, once during the winter, and once when the cows are on pasture.



Trimming Father's Beard.

proved, especially for use for fast-working curds. The pasteurization of whey was spoken of very favorably by patrons and makers wherever it had been tried. Many of the makers were positive in their assertions that proper pasteurization of the whey will get rid of bitter and yeasty flavor, and that the treatment has many other advantages. A number of patrons expressed themselves as quite willing to pay their share of the cost. The general opinion seemed to be that the cost would depend on the conditions under which the work had to be done, such as the size of the boiler, distance the tanks were from the boiler, and what system was adopted for heating. The cost would not be more than \$1.00 and not less than 50 cents per ton of cheese. It could be done for the latter price, provided use could be made of the exhaust steam from the engine, in the way spoken of when the question was first taken up last year. Fifty-eight factories pasteurized the whey this year.

The system of cooling milk in cans, in tanks, the cans surrounded by cold water and ice, if possible; the cooling done quickly, with occasional stirring of the milk, rather than continued aeration, was approved. It was claimed by some that the patrons should be compelled by law to cool night's milk in hot weather to 60 degrees, and keep it surrounded with sufficient cold water or ice that it could be delivered at the factory very little above that temperature, basing this claim on the fact that, when the milk is at a low temperature during cold weather, very little trouble results, and, therefore, temperature should be a basis on which milk should be received at the factory.

It was also properly considered that the neat

This will give the owner at least an idea of what each cow is doing, and which cows can be disposed of to advantage.
P. J. D.
Bruce Co., Ont.

Stimulated Liberal Feeding.

Editor "The Farmer's Advocate":

Our cow-testing association was started in 1906, with a membership of about twenty. It has given very good satisfaction, although some have dropped out, but next year, I think, some others purpose joining. Individually, it has helped us a lot. We find that it has stimulated us to feed our cows better, thus increasing our milk flow, and bettering the general condition of our cows. It has also shown us our best-testing cows, as well as our best milking ones. By means of it, we are now enabled to weed out our poorer cows, and in the course of a few years we hope to increase the average test of our herd. The movement is fairly popular, and, for my part, I wish it continued. Those who are faithfully carrying out cow-testing are more interested than ever before in their cows, I think, and it is also inducing them to dispose of their inferior cows.
Peterboro Co.
C. E. MOORE.

Moisture in Butter.

A study of the moisture content of butter in its varying phases, one of the most important problems with which the dairyman has to deal, has been made at the Iowa Experiment Station. Investigations have been carried on for some time, and the results published in bulletin form. The bulletin is divided into three parts. Part one deals with the relation of the moisture content to the score, and gives the results of extended experiments. In the second part, the keeping quality of butter containing varying percentages of moisture is discussed. A large part of this work was done in co-operation with a prominent New York Commission firm. The third division takes up "A Method of Control," giving practical directions whereby any ordinarily intelligent creameryman may control the percentage of moisture in his butter to within one per cent.

Educate Non-members.

Editor "The Farmer's Advocate":

The cow-testing association is a new thing in this district, as it was organized only last spring. There are about nine patrons, and about eighty cows. As far as I am concerned personally, I am satisfied that it is one of the best things that was ever thought of for dairy purposes. It gives you the inside track of everything pertaining to a dairyman. A person often thinks he is all right till he comes to a close test. Then he ascertains where the trouble lies. That is where I find the association to come in all right. One weak point is that those who should belong to the association do not join. However, we cannot help those things. We can only do as we have done in the past, and try to educate them into it as we go along. I think the testing association a forward move in dairying.
Perth Co., Ont.
JOHN ARLOGAST.

POULTRY.

Returns from a P. E. Island Flock.

Editor "The Farmer's Advocate":

On New Year's Day, 1908, we began to keep an account of the eggs laid by our flock of 80 hens, quite a large proportion of which were three years old, and some older. Up to this time (just eleven months), we have got \$100 worth. The average price was just about 16 cents a dozen. Besides, we raised 90 chickens, 50 of which are pullets, which are now beginning to lay. These pullets we value at 30 cents each, or \$15, and the 40 cockerels would also be worth 30 cents each, or \$12, making the total return from the 80 hens for the eleven months \$127. Now, I know these returns are small, compared with returns reported sometimes in "The Farmer's Advocate," but still we consider it better returns for food consumed and work performed than we get from cattle or hogs. Next year, by eliminating all the older hens, we hope to make a much better showing. Our hens were Plymouth Rocks, and also a mixture of Rocks and Dorkings.
WALTER SIMPSON.
Queen's Co., P. E. I.

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A "Hot Powder" for Turkeys.

Editor "The Farmer's Advocate":

I have been thinking for some time of writing to you regarding sick turkeys, and would say that now and then, when one of them becomes droopy, with symptoms of diarrhea, I have found the following mixture a most excellent remedy, if taken in time: One hard-boiled egg, crushed up, shell and all; one-half teaspoonful red pepper; one large tablespoonful powdered charcoal; two large onions chopped up. This dose is for a full-grown turkey; if for smaller ones, I reduce the dose, according to size. I mix it all with a little milk, and see that the bird swallows it; they are very easy to dose. I think all fowls should be kept clean and comfortable, closely watched, and dosed on the first appearance of droopiness.
C. L.

Muskoka, Ont.

GARDEN & ORCHARD

Result of Three Years' Co-operation.

Comfortable profits from apple orchards in an ordinary farming district, after three years' skilled management under a co-operative association, with a competent man in charge, is the outcome of recent efforts in regard to the apple industry in Norfolk County, Ontario. Only a few years ago this county was considered simply a mixed-farming district. True, some excellent fruit was produced, but not a single farmer considered it was a paying proposition to spend time and money pruning and spraying apple trees. The custom was to admire the bloom in spring-time and hope for a big crop. The percentage of fruit marketed depended largely on the local demand, and on the time at the disposal of the owner for picking and hauling to market. As a rule, lack of cultivation and pruning resulted in comparatively small fruit, and neglect to spray gave insect pests their free will in damaging a great proportion of the crop.

Three years time has seen a marvellous change in the orchards surrounding the Town of Simcoe. As in other countries and in other districts, the revolutionizing power has been well-directed co-operation. In 1906 the Norfolk Fruit-growers' Association was formed. Attempts had been made to organize previous to that date, but without success. However, local growers had been dissatisfied with sales to apple buyers more than once when a favorable season gave them a bounteous harvest on the orchard trees. Some of those most interested were persistent. The Department of Agriculture was asked for assistance, and sent speakers to urge the benefits of co-operative associations. The result was the formation of an association at Simcoe. In 1906 there were 17 members. The following year there were 52 members anxious to partake of the advantages found to exist. Last spring an even hundred were added, making the membership in 1908 total 152. The satisfaction throughout the organization can be gauged from the fact that members who prior to joining considered \$400 a big annual return from their apple trees, now range from \$1,000 to \$2,000 a year. Increased yields and improved quality are the factors that enter into the equation of increased returns.

The wisdom of the members of the newly-formed association in selecting a competent manager has had much to do with the rapid development of the organization, but great credit also is due the individual members. No manager could have brought about such changes in orchard culture, or established such proud reputation for high quality in three years, had every member not worked for the general good. Especially are they to be congratulated on the absence of jealousy. They have learned to overlook trivial differences. Each man feels he has a special interest at stake. Most important of all, the members are agreed that without a manager who knows his business the association cannot make the desired progress. In accordance with this opinion they make the recompense for services rendered such that he is not likely to be attracted by other interests. In other words, they wisely conclude that a good man must be given what he is worth, or he will go elsewhere.

KNOWS THE FRUIT BUSINESS.

The energetic manager, Jas. E. Johnson, who had charge of the excellent exhibit at the recent Horticultural Exhibition in Toronto, when the eyes of all apple lovers were directed toward Norfolk County by an elaborate display of highly-colored fruit, comprising some sixty choice varieties and the word "NORFOLK" in huge Alexanders, is an old Simcoe boy. He was born about three miles from the town, and after receiving a business-college training, drifted west and accidentally secured a situation in the office of a fruit firm. In a short time he was in the fruit business himself. Since 1896 he has been a regular buyer of apples in Norfolk County for his firm in Illinois. Being in search of a

storage fruit, quality was the chief aim. He also bought extensively in different parts of the United States. In this way Mr. Johnson became thoroughly acquainted with the apple business. The fact that his early days had been spent in Norfolk County made local men greatly interested in him. The result was that when an association was formed they considered Jas. E. Johnson the proper man to be secured as manager. That their trust was not misplaced is borne out by the three years' record. The membership has trebled each season, and last season lacked the co-operation of only one man who had been a member during former seasons. The outlook is for a great increase again next year. Several have made inquiries, and promise to ally themselves with the force that already has done so much to help the farmers of Norfolk County, while none have hinted that they intend dropping out. In fact, it is certain that none who have taken precautions to live up to the regulations of the association, particularly as regards spraying, will deprive themselves of the privileges they have enjoyed.

What has been done among the farmers of Norfolk County since 1905 can be accomplished in many parts of Ontario in the same period. All through the Province are districts capable of producing high-class apples in fair quantities. All that is needed is hearty co-operation on the part of growers and the services of a capable manager, who is able to advise on all phases of apple-growing, and whose advice will be followed. Prior to the formation of the Norfolk Fruit-growers' Association, no person thought of calling it an apple district. With the organization went modern practices in pruning and spraying the trees, and in cultivating the orchards. So satisfactory has been the returns that many are increasing the acres devoted to apples.

SOIL A LIGHT LOAM.

The soil for the most part is a comparatively sandy loam, with gravel bottom in some parts. In a few localities heavier soil is found. A few members have only a dozen or twenty trees. Others have a couple of acres, and the largest orchards are not over fifteen acres in extent. In some instances members have rented orchards. Practically every member owns a farm ranging from one hundred to two hundred acres. For years the few acres devoted to orchard were thought of as a secondary consideration. At present those who have orchards of six or eight acres claim that more cash accrues from apples than from the balance of the farm.

STILL ROOM FOR IMPROVEMENT.

"Yes, there has been a big change during the past three seasons," remarked Mr. Johnson, the manager, to "The Farmer's Advocate" representative recently, "but even yet the returns are not half what they would be if proper care were taken in orchard practices and in preparing the fruit for market. Not one member yet gives the care that is required for maximum returns. All have other farm work to look after, and they cannot devote sufficient time to their orchards. We handled 14,500 barrels this year, 10,000 barrels last year, and 4,000 in 1906. With a good season the present members would supply 30,000 or 40,000 barrels. If they looked after their orchards as growers in British Columbia or the Hood River District do, that quantity could be increased to an annual yield of 100,000 barrels of No. 1 fruit, every barrel of which would find a ready sale. It is more difficult to dispose of 1,000 barrels of poor fruit than 100,000 barrels of No. 1. We cannot have too much of the good stuff. Five years ago buyers thought they should go farther north for the best apples, but we have proved that with skilled orcharding Norfolk County can satisfy most people.

"The future of the apple industry, as far as big prices are concerned, lies in boxed fruit. I have set out a forty-acre orchard, about equal numbers of Snows, McIntosh Red, Spy, and Baldwin. These four varieties are well suited to this district, and are among the best for putting up in boxes."

ESTABLISHING A REPUTATION.

With a keen eye to business, and a desire to ascertain whether or not there are defects in fruit or in pack that can be overcome, the association places a card in each package, asking the consumer to write to the manager, giving a candid opinion as to how the fruit reaches him. Although only a small percentage of this year's shipments have reached the consumers yet, scores of testimonials, every one of which are favorable and many flattering, have been received.

From Durham, England, comes the following: "From top to bottom of barrel the apples turned out most satisfactory, every one being sound and in perfect condition—splendid sample and fine flavor."

From Manitoba a Darlingford man writes: "Your Greenings were very satisfactory. I hope we can have as good every year."

A customer who has had a wide experience in the fruit business, and at one time packed apples in Oxford County, writing from Cartwright, Man., gives his candid opinion thus: "They are the finest and most satisfactory apples I have bought

in Manitoba. If we always had such fruit there would be no kick about it.

The importance of sending the best to Manitoba is voiced by a Vancouverian, also, as follows: "This is the very best sort of Kings I ever purchased for size, appearance and flavor. If Eastern growers would mass up their minds to send only first-class fruits such as this to Manitoba, instead of windfalls and culls, which cannot be disposed of elsewhere, they would find their business increasing marvellously. In the West, where we have to pay such high prices on account of great transportation charges, we should have the very best."

MONEY SPENT ON SPRAYING.

During the past season spraying materials reaching a total value of over \$1,400 were supplied to the members. This included 18,450 pounds of blue vitriol; 800 pounds of Paris green; 800 pounds of white arsenic, and 2,400 pounds of sal soda. In addition, some members made purchases from other sources. About 80 spraying outfits are to be found in the area covered by the association. Three years ago a spraying machine was considered a novelty in orchard practice.

Each member is required to spray thoroughly three times. Two lines of hose are used, and the trees drenched from the ground up. One man handles a hose from the ground, and another from a derrick on the outfit. Sufficient lime is used in the spraying mixture to avoid damage to the trees.

MANAGER'S REMUNERATION.

Uniformly high quality in the fruit shipped is the desire of all connected with the association. The details in guaranteeing this uniformity are left to the manager, who charges twenty cents on every barrel disposed of. Out of this levy has to come wages for five men, whose sole duties are to visit each of twenty-eight gangs that were at work packing last fall, and see that the grade is uniform, and to pay travelling expenses, telegraph, telephone, postage, etc. Some members thought at first this toll was too high, but little or no complaint has been raised. The extra cost entailed in ensuring uniformity is recouped by higher prices obtained. Interviews with apple-growers of the district show that the figures net fifty cents or more per barrel above those secured by neighboring growers who do not belong to the association.

Enthusiasm among the members, and an efficient manager, who holds the confidence of the members, have been responsible for the success that has crowned the efforts made to develop the apple-growing industry in Norfolk County. Members are received from January until April. Fruit-growers' meetings are held during the winter months, and in the summer, spraying demonstrations. That these are appreciated is shown by the fact that 90% or 95% of the members always attend to hear the addresses and take part in discussion.

Other associations have done similar work to that credited to Norfolk Fruit-growers' Association. All that is needed is a genuine co-operation, with enthusiastic efforts well directed. Common apple orchards in all parts of the Province easily can be made to bring handsome returns in dollars and cents, to say nothing of pleasure and satisfaction. The matter is deserving of serious consideration on every hand.

Quebec Fruit-growers' Convention

The sixteenth annual meeting of the Pomological and Fruit-growing Society of the Province of Quebec was held at Macdonald College, Ste. Anne de Bellevue, Quebec, on December 2nd and 3rd.

"Who could have thought," said President Robt. Brodie, in his opening address, "when this society was organized at the little meeting-house in Abbotsford, sixteen years ago, that we would be meeting to-day in this magnificent agricultural college, built and endowed by the princely generosity of Sir Wm. Macdonald, and that our old friend Dr. Robertson should be its principal?"

Previous to 1877, the Montreal Agricultural & Horticultural Society existed, having each year its county exhibition, but, unfortunately, it published no report of its proceedings.

"In 1877, the Provincial Act, relating to horticultural societies, was amended in such a way as to give the society an annual Government grant, and also a new name, which henceforth became the Montreal Horticultural Society & Fruit-growers' Association of the Province of Quebec."

Mr. Brodie told of how in 1883 they had gathered seedlings and put them in a warehouse to test them, but the flood spoiled in a few minutes the work of months, and added:

"We hope our present attempt to secure, amongst the seedling apples, something corresponding to what the Baldwin apple is in Ontario and Western New York, will meet with better success."

SOCIETY'S GREATEST FRIENDS.

The society was greatly indebted to the late

Henry S. Evans for a large measure of its prosperity; he was for thirteen years its secretary. The society had also on its board of directors the late Charles Gibb, of Abbotsford, who proved to be its leading spirit; he was such an enthusiast in horticulture, that he, accompanied by Prof. J. L. Budd, of Ames College, Iowa, left in June, 1852, for Russia, in search of hardy varieties of fruit. He returned from Russia in February, 1883, bringing with him a lot of valuable information and hardy varieties of fruit that have been a great benefit to the colder parts of our country. On his way home from India, he took dangerously ill, and died at Cairo, Egypt. By his death, the society, with which he was so long connected, and the whole Dominion at large, suffered a severe loss.

"I must mention how greatly the society has been helped in the past by Dr. Saunders and his staff at the Experimental Farm, Ottawa, and more especially by the late Dr. James Fletcher and W. T. Macoun.

A resonant note of "Back to the Land" was sounded in the words, "My advice to you young men is to stay on the farm, and try to excel in whatever branch you take up. Here in the Province of Quebec we have the most beautiful country in the world. Why go to the cold West, with the monotony of the plain?"

ANTIQUITY OF OUR CULTIVATED FRUITS.

The above subject was treated in a paper by Prof. F. C. Harrison, of Macdonald College, who pointed out that the hanging gardens of Babylon were considered by the ancients as one of the seven wonders of the world. A less remote period, the age of the Egyptian pyramids, gave drawings and pictures of plants, as, for instance, the excellent drawing of figs in the pyramids of Ghizel, and in some cases fruit seeds and other portions of plants had been found in tombs.

China has possessed a flourishing horticulture for some thousands of years. The peach, formerly thought to be of Persian, had recently been attributed to Chinese origin. Mention of the tree occurred in the Chinese Ritual, in the tenth century before Christ.

All our familiar fruits, said Prof. Harrison, have been cultivated for unknown ages. One commonly hears that the apple is derived from the crab, the pear from the native species, and the plum from the wild sloe. This is untrue. Each took its origin from a wild variety, no doubt, but all were brought to England by the Romans, and from England they were doubtless brought to this country by the early settlers. Pliny described some twenty different apples, names of which may even now be identified with sorts which may be yet found in Old Country gardens. Six kinds of peach were grown, twenty of plum, nine of cherry, eight of chestnut. All these came from the East; from Persia, Pontus and Syria, respectively, but when they arrived they came as edible and cultivated varieties.

CULTIVATION OF ORCHARDS.

Harold Jones, of Maitland, Ont., made a strong plea for cultivation, his subject being "The Cultivation of Orchards in Quebec and Eastern Ontario." Quebec, he said, must work out her own problems in fruit-growing, and not rely solely on the experiences of other parts of the continent, owing to the climatic conditions peculiar to any part of the continent.

There was no doubt, orchards under cultivation gave, as a rule, the best results, and fruit from cultivated orchards brought in most money. The question was, however, How far were growers to go in the cultivation of orchards? If too much nitrogenous food were given, and the tree kept growing until near the winter, winter injury and killing resulted.

Mr. Jones concluded with a plea for more orchards. At present, many country homes were to be found entirely without apples.

M. G. Reynaud, of La Trappe, Que., gave a paper on "Young Trees versus Old Trees," a carefully-prepared synopsis of which will appear later.

A practical discussion was opened by Mr. N. E. Jack, Chateauguay Basin, on "Things New in Fruit-growing." It had reference more particularly to top-grafting, selection of scions, packing and shipping the fruit, and the co-operative method of packing. He advocated the adoption of the last-named, remarking that what had been a success in Ontario should be a success in Quebec.

Space forbids extended mention in this issue of the many other excellent features of the programme. A word, however, as to resolutions and proceedings. The universally-regretted death of Dr. Fletcher was remembered with an appropriate expression of condolence. A resolution was passed thanking Dr. Jas. W. Robertson and his staff for their hearty co-operation in making the meeting a success. The desire of the Association for another conference of fruit-growers at Ottawa this winter, was expressed in the form of a resolution to be forwarded to Hon. Sydney Fisher, Minister of Agriculture.

The report of Secretary-Treasurer Peter Reid,

of Chateauguay Basin, showed a credit balance of from \$175 to \$500, less the expenses of the present meeting. During the year, ten members had been added to the roll.

Officers for the ensuing year were elected as follows: Hon. Patrons, Hon. S. Fisher and Hon. Jules Allard; Hon. President, Robert Brodie, Westmount; President, G. Reynaud, La Trappe; Hon. Vice-President, R. W. Shepherd; Vice-President, Prof. Blair; Secretary-Treasurer, Peter Reid, Chateauguay Basin. Directors—G. B. Edwards, E. Buzzell, G. P. Hitchcock, A. D. Verrault, Aug. Dupuis, C. P. Newman, Dr. Grignon, and H. W. Thompson.

The fruit exhibit held in connection with the convention was representative and excellent. For the first time in the history of the society prizes were offered for collections and varieties of fruit. Following is the list of prizewinners:

Class 1.—Best collection of fruit—First, A. A. Johnston, Cowansville, Que.; second, R. W. Shepherd, Montreal; third, Antoine Lalonde, Ile Perrot.

Class 2.—Best 12 commercial varieties, five specimens named—First, A. A. Johnston, Cowansville.

Class 3.—Best 6 export varieties, 5 specimens named—First, A. A. Johnston; second, R. W. Shepherd.

Class 4.—Five specimens of named varieties: Alexander—First, A. A. Johnston; second, W. L. Davidson, Davidson Hill.

Fameuse—First, R. Jack & Sons, Chateauguay Basin; second, Chas. Fisk, Abbotsford; third, Peter Reid, Chateauguay.

McIntosh—First, Peter Reid; second, R. Jack & Sons; third, A. A. Johnston.

Wealthy—First, A. A. Johnston, Wolfe River; second, Antoine Lalonde.

Golden Russet—First, A. A. Johnston; second, Peter Reid; third, W. T. Davidson.

Baxter—First, A. A. Johnston.

Pawaukee—First, A. A. Johnston.

Canada Baldwin—First, A. A. Johnston.

Canada Red—First, A. A. Johnston; second, G. P. Hitchcock.

Northern Spy—First, A. A. Johnston.

Any other varieties—First, C. P. Newman; second, F. A. Bishop; third, R. Jack & Sons.

Class 5.—Best barrel, Robert Brodie. Best box—First, Chas. Fisk; second, Robert Brodie; third, Antoine Lalonde.

Class 6.—Best winter seedling—First, Peter Reid; second, A. A. Johnston; third, C. P. Newman.

Lime-Sulphur Wash Injures Nursery Stock.

Dipping nursery stock in lime-sulphur wash or other insecticides, has recently been much advocated as substitute for fumigation with hydrocyanic acid gas. The Experiment Station at Geneva, N. Y., after carefully investigating the matter, state that this treatment, if used at all, must be handled with care to secure scale destruction without injuring the trees. With the sulphur wash, exposure of the trees for too long a time, or at too high temperature, resulted in injury; while, with any of the materials used, exposure of the roots to the mixture resulted in a serious injury to the stock. For nurserymen, the Station still recommends fumigation as most effective and least liable to injury, and advises orchardists to use the lime-sulphur as a spray after the trees are set, rather than as a dip when they are received. Bulletin No. 302 contains particulars regarding the work.

To Our Club-raisers.

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

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

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

Premiums not included in club offers.

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

THE FARM BULLETIN.

The Dominion Fruit Inspectors report that they find fewer infractions of the law this year than in 1907.

Reports from Nova Scotia to the Census and Statistics Branch, at Ottawa, indicate that the export of apples from that Province will be the largest on record, probably amounting to nearly 600,000 barrels.

A new cold-storage warehouse, which receives a subsidy from the Federal Department of Agriculture, has been completed and put into operation at Woodstock, N. B. The payment of the cold-storage subsidies is controlled by the Dairy and Cold-storage Commissioner, Ottawa.

The Crop-reporting Board of the Bureau of Statistics of the United States Department of Agriculture estimates, from the reports of the correspondents and agents of the Bureau, that the total production of cotton in the United States for the season 1908-9 will amount to 6,182,970,000 pounds (not including linters), equivalent to 12,920,000 bales of 500 pounds, gross weight.

National Dairy Show.

The third annual National Dairy Show, under the management of the National Dairy Show Association was held in the Coliseum, Chicago, Ill., from Dec. 2nd to 10th, inclusive. Although overshadowed by the International Live-stock Show during part of one week, and by the Horse Show during the remainder of the time, the exhibition attained a fair measure of success. It was further handicapped by the fact that the rigorous quarantine regulations in force against the stock of some of the chief dairy States reduced seriously the number of animals turning out to compete in the various classes for which prizes were offered.

In the matter of exhibits, the Jerseys had the lead, so far as numbers went, followed in order by Guernseys, Holsteins, Brown Swiss, Dutch-Belted, and some Dexter-Kerry cattle, just imported from Kerry County, Ireland. The world's record Holstein cow, Colantha 4th's Johanna, was the stellar attraction of the live-stock end of the show. The Dexter-Kerries received a good deal of attention, chiefly because of their diminutive size and shaggy appearance. They are in cattle what the Shetlands are in horses, and, though said to be wonderful producers of butter-fat, and an unusually hardy race of cattle, will never figure largely in the dairy industry of this continent. No Canadian stock was exhibited, one or more intending exhibitors having been deterred at the last moment by the outbreak of disease and the inconvenience resulting from the attendant quarantine of New York, Pennsylvania and Michigan.

The show was strong in exhibits of machinery, factory and stable equipment of various kinds, dairy apparatus of all descriptions. One might be puzzled a little to know exactly what purpose the live-stock served at the exhibition at all. They were judged, of course, in the old-fashioned way which dairy experts now so generally condemn, and seemed most conspicuous when they were lined out in the ring, by breeds, to form a background and setting to a performance by half a dozen dairymaids. Twice each day a performance of this kind was put on; the cows marched out, followed by the dairymaids in the national dairymaid costume of the country from which the breed came—Holland, Ireland, Scotland, or the Channel Islands. The ring attractions were quite strongly featured, and, while entertaining, none of them could be said to have any serious educational value.

The Federal Government's Dairy Branch was well represented, and made an instructive display. One feature of this part of the show was a pure-milk contest, put on in the interests of improving the quality of milk produced for city consumption. Several hundred bottled samples were secured from city milk producers in various parts of the Central and Eastern States. These were examined and scored by experts, analyzed for bacterial content, and tested for acidity. Flavor counted 40, composition 25, bacteria 20, acidity 5, and package 10, points. The first-prize entry scored 97 per cent., being passed perfect in all particulars but flavor. It contained 5.3 per cent. fat, 9.31 per cent. solids not fat, only 1,000 bacilli per cubic centimeter, and gave an acid test of .198. This sample of milk, held at ordinary temperatures, averaging about 55 F., remained sweet from Nov. 24th, the date it was produced, until the end of the show. It was held in an ordinary milk bottle closed with a rubber stopper.

Quite an interesting part of the programme provided by the management were the lectures delivered daily by dairy experts on various subjects relating to the milk, butter and cheese business, and the dairy industry generally. While the speakers included such well-known dairy authorities as ex-Governor Hoard, of Wisconsin; Hon. E. K. Slater, Dairy and Food Commissioner, St. Paul; E. H. Webster, Chief Dairy Division, U. S. Department of Agriculture, Washington; Prof. J. Bower, Iowa State College, Ames; Prof. H. G. Russell, Madison, Wis.; Rabbi Dr. J. Leonard Levy, Pittsburg, and others of national reputation, and while every subject discussed bore directly upon some phase of the dairy industry of the United States, in which one might expect practical dairymen to be interested, the meetings (all but one or two) were rather slimly attended. The lecture feature is one particular in which the National Show is not sufficiently strong. The talent was there—abundance of it; the discussions were lively, but the men who especially required such lectures were not present to receive them. The National Show, in nearly every feature, is above, away above, the average dairyman of the United States. Experts, and men more or less informed, gathered to hear each other discuss problems with which most of them were fairly familiar; but the foundation class in the industry, those whom the lecturers—most of them—purported to be endeavoring to reach, the farmers and cow-owners, were conspicuously absent. It was strangely unlike what one sees at our Canadian Winter Fairs, say Brandon, or Guelph, or Amherst, where the lecture feature stands out prominent, and where those who really may be benefited by such discussions are present in force. Appearances do not indicate that the National Dairy Show is rendering to the farming community interested in the dairying branch of agriculture in the United States a service equal in value to that rendered by the International Live-stock Show to those who are engaged in the beef-production branch of the industry. The show management can hardly be held responsible for this state of affairs. The institution has simply not yet grown to be a part, properly speaking, of the dairy industry. The average cow-owner has not been interested in it sufficiently yet.

IS PASTEURIZATION NECESSARY FOR COMMERCIAL MILK.

At the annual meeting of the International Milk-dealers' Association, held on Dec. 7th, Dr. J. Leonard Levy, a Jewish Rabbi, of Pittsburg, undertook to answer this question, pertinent to those engaged in city-milk supply. The objections to pasteurization—some of them—were serious, but Dr. Levy held that, in the interests of public health, pasteurization was a necessary expedient of the present time. Three diseases, it was claimed, were induced by the use of pasteurized milk, constipation, rickets and scurvy, but against these there was a serious list of infinitely more dangerous maladies that may be spread by the use of raw milk that has been exposed to contagion. The question was purely one of expediency, which would do the most harm, raw or pasteurized milk? Treated milk was held in disfavor by numerous authorities, but, until some genius would devise means by which the consumers of milk would be supplied with the pure product of healthy cows, pasteurization was a necessity.

Loton Horton, of New York, who discussed the Rabbi's paper, stated that, last summer, in the interests of determining the relative value of raw and pasteurized milk in the feeding of infants, a philanthropic society in which he was interested conducted an experiment, feeding one-half the infants in its charge on the best raw milk obtainable, and nourishing the other half on pasteurized milk. The raw milk was as good as any that could be produced in the United States. Ten per cent. of the infants fed on it died. There were no deaths amongst those fed on the pasteurized product. He doubted if pure, unacidified milk could ever be produced and retained in its pure state. For city trade, he advised the pasteurization of all milk sold, heating the raw product up to 139 or 140 F., and holding it at that temperature for from 20 to 30 minutes. Higher temperatures than this cooked the casein and other solids, and rendered the milk less digestible, but this temperature did not change the nature of the constituents in any way, and was quite as efficient as higher heating in the destruction of the most dangerous of pathogenic organisms. Investigations should be made to determine the lowest temperature at which milk could be efficiently pasteurized.

THE RELATION OF BOVINE TUBERCULOSIS TO THE DEALER.

Prof. H. G. Russell, Madison, Wis., in opening the discussion on this topic, stated that from a purely economic point of view, no milkman could afford to have his herd infested with tuberculosis. Most dairy problems had to be solved along economic lines, or they would never be solved at all. When the cow-owners of the country discovered, as they ultimately would, that tuber-

culous animals were not profitable producers, there would be little difficulty in weeding out the infected ones from every herd. Tuberculosis in America does not exist in anything like the proportion it does in Europe, and the widest fluctuations here are found in its prevalence. The question frequently arises with practical dairymen, "How do the tubercle bacilli get into the milk?" Except when the udder is affected, which is comparatively rarely, there is no traceable course by which the tubercle organism passes from the seat of attack in the cow into the milk. He believed that a good portion of milk infection was due to the organisms getting into the milk pail from the feces. A cow affected in the lungs swallows an inestimable number of bacilli every day, and these, passing through the intestines, may reach the milk through unclean milking methods, dirty stables, and so on. Our ideas of how milk becomes infected and tuberculosis spreads, have changed strangely during the past few years. Most contagion comes through the intestines, and dirt is the common carrier of tuberculosis from the cow to the milk.

Prof. Russell stated that milk consumers today in the United States could not expect a sanitariously-produced, pure supply of milk, for they were not paying a price sufficient to warrant the producer taking the care necessary to produce such a commodity. Pure milk could not be produced for five cents a quart. Within the past quarter of a century butter and cheese have more than doubled in price, but raw milk is sold at practically the same prices still. He believed that a large part of the burden of getting rid of tuberculosis in dairy cows rests with the consuming public.

THE FORTY-DOLLAR COW—IS IT POSSIBLE TO DOUBLE THE AVERAGE YIELD?

On "Dairy Farmers' Day," December 8th, there were two of the most important subjects discussed. These, and W. H. Hoard's eulogy of Colantha 4th's Johanna, were the topplers of the programme. Hon. E. K. Slater, discussing the question, "What profit in keeping a \$40-cow?" said that in the United States there were eighteen million common, or forty-dollar, cows—cows that returned to their owners an average annual profit of ten dollars each. This type of cow is the product of conditions prevailing on the average farm. The average farmer, he believed, was making as much profit out of this kind of cow as he would by keeping better cows in the same conditions. The average cow of the country is a better cow than the average farmer is a dairyman; and if she is replaced by something better, she will have to be preceded by a better kind of dairyman. His idea was to make the best of conditions as they are found. Improvement in dairy cows must be evolutionary, not revolutionary, as some advised. He doubted if, at the present time, it would be advisable, were it possible, to double the product of the average dairy herd of the country. Without a better class of dairymen than now inhabit the continent, such a course would be disastrous. That, briefly, was the burden of his doubt. Before we get better cows, we must have a better class of dairymen to handle them.

IS IT POSSIBLE TO DOUBLE THE YIELD?

Helmer Rabild, associated in the work of organizing cow-testing associations, gave an interesting account of the manner in which these associations are managed in the United States. They differ somewhat in operation from those in this country. The idea is to have each local association to consist of from 20 to 30 members. This number is chosen because it equals the number of days in a month. To each association an expert tester is assigned. These are usually two-year-course men from the State agricultural colleges, given some special instruction in testing work before being sent out. They spend one day each month with each member of the association they are in charge of, weigh the milk of each cow, test it, and estimate her returns for the month. In addition, he estimates the feed each cow consumes, offers suggestions for the improvement of the feeding ration, and at the end of the year is able to give each member of the association an accurate statement, showing the cost of keeping each cow and the return which each has made. The cost to each member of the association is one dollar per cow per year.

Cow-testing work is only half done when the returns in butter-fat from each member of the herd for the year has been estimated. The pertinent question was the cost of production. The average dairyman does not keep track of the feed required to produce a certain result. Cow-testing associations are valuable only in so far as they indicate to each member the net returns he is making each year on each individual in his herd. Knowing that, he can proceed to improve his cows systematically and intelligently. The experience of the United States Dairy Branch has been that the average farmer can not or does not make these necessary calculations. A special man is required in each association to do it. He believed that this method was the only one by which satisfactory cow-testing could be carried on.

Ontario Agricultural and Experimental Union Meeting.

Once more has the Ontario Agricultural and Experimental Union demonstrated that it is one of the most important factors in the Province, as far as agriculture is concerned. At the thirtieth annual meeting, held at Guelph last week, the results from several thousand experimenters in all lines of farm cropping, and the discussion of pertinent questions, were the features. There was a large attendance. President Geo. A. Brodie, of Bethesda, was in the chair during the various sessions.

PRESIDENT'S ADDRESS.

The president, in extending a hearty welcome to the students, ex-students and staff of the O. A. C., as well as to Institute workers and all other visitors, said that the purpose was to discuss some of the problems affecting agriculturists. He congratulated the College staff on the record attendance of students and the efficient work that is being accomplished.

The year has not passed without its peculiar lessons," said Mr. Brodie, "commencing, as it did, with almost a financial crisis in business and trade circles. It was, however, only through the daily press that farmers learned there was a depression, thus proving that agriculture is not only our great basic industry, but the most stable industry in the country. True, the farmers of the West did feel the financial stringency to some extent, owing largely to their greed for land and doing too much business on the credit plan; but in Ontario, save in a few isolated sections, there was little change from conditions which had prevailed for ten years. Possibly there never had been such a series of successful years as the farmers of Ontario lately have enjoyed, due, no doubt, to several causes, such as better transportation facilities, in which we share in the world's great markets; industrial activities and general expansion along all lines, and the settlement of the great West, which, by helping to build up our cities, has developed the home market."

Climatic conditions were said to have combined with the efforts of Farmers' Institutes and the agricultural press in assisting the farmer, and a great work had been done by the Ontario Agricultural College, including that accomplished by the Experimental Union, in introducing new varieties, and thereby increasing the yield per acre. A still more important undertaking was the creation of new varieties, from which new records are expected. In the past year, eight thousand farmers throughout Ontario conducted co-operative experiments, and on four thousand, four hundred and twenty farms experiments were conducted in agriculture alone, each experiment being an object-lesson and guide to the farmers of the locality. The experiments also covered horticulture, forestry, poultry-raising, beekeeping and agricultural chemistry. In proving the benefits of co-operation and its great educational value to the country at large, and even extending its fruits to foreign lands, the Union carried on its great work.

NOXIOUS WEEDS A GREAT PROBLEM.

Noxious weeds were referred to as one of the greatest problems affecting agriculture. They decreased the annual yield possibly 20 per cent., which meant a yearly loss of many millions of dollars. Land is valuable according to its producing qualities, and noxious weeds not only reduced the yield, but also the value of farm property. Where perennial sow thistle is prevalent, it seemed that unless some co-operative measure was put into force, we never would get rid of this terrible pest. The Union might also champion the cause of intensive farming. Better farming was necessary. In the race for wealth there seemed to be a craze for large farms, many thinking this meant more money. This might be true for a year or two, but in the end it resulted in failure.

"Farming is degenerating," said Mr. Brodie. "Our forefathers were better farmers than we are. We seem to have caught the Western idea, and are trying to mine our land, instead of farming it. Our forefathers, when they settled here, worked hard, cleared the land, built roads, and improved their surroundings, because this was to be their home. The Western idea of settlement is to accumulate all the land possible, make a fortune, and get out. The same idea now prevails here—get rich and retire. These conditions are to a great extent responsible for poor farming. We in Ontario congratulate ourselves on being the leaders of the world in agriculture. Such is far from the truth. The Old Countries can teach us many lessons. They practice intensive farming, and if we wish to occupy the proud position of leaders in agriculture, we must simply take the lessons and fall into line with intensive farming."

IMPROVEMENT IN LABOR.

"The labor situation improves slowly. We should encourage immigration of the proper sort.

Interesting Tests and Instructive Talks.

plan our work carefully, and use modern implements. If we consult our own interests, we will oppose all bonus and bounty fed industries which, on account of their bonus or bounty, can outbid the farmer in the labor market, the bounty in some cases being sufficient to pay the entire wages of the industry. I am not one who believes that it is part of the Divine plan that the prosperity of one calling should be built on another's misfortune. We ask no favors, but demand equal rights."

The recent dry season should teach farmers to provide plenty of green fodder for fall use. The drought had taught another lesson. The four-hundred-million loss Michigan had sustained in forest fires should be a warning to Ontario, with its millions of acres of forest lands. The Government could not apply laws too rigid for the safety of our forests and those living in close proximity. The world's timber supply was said to be pretty well exhausted, and in a few years Canada alone would be the great exporting country, and her timber the source of vast wealth.

The selection of an Experimental Farm in Northern Ontario, which is bearing fruits in advertising Northern Ontario's rich agricultural lands, was approved. The part that electricity is destined to play on the farm in the near future, was mentioned. The harnessing of Niagara Falls and the transmission of power throughout Ontario indicated that we would have the application of power to agricultural operations within the next ten years. The tapping of radial electric-railway lines for power to run stationary farm machinery was said to be an accomplished fact in several of the States. Farmers should be looking into this new enterprise and present strong claims for cheap power.

The new fertilizer, lime-nitrogen, no doubt, would work wonders in the future agriculture of Canada. The day had arrived when special fertilizers have a place. Rural mail delivery, in conjunction with rural telephone systems, made agriculturists no longer an isolated people.

SPECIAL CO-OPERATION NEEDED.

The small number of farmers elected to represent Canada's most important calling, agriculture, at the recent general elections, was deplored. The day had arrived when men should co-operate in accordance with their views upon the issues presented to them, rather than in a spirit of allegiance to any political party. Independent, honest men, who think for themselves and act on their convictions, were wanted. Corruption and graft in elections then would cease. The young men of this institution and of this country should co-operate, and, if necessary, sacrifice party for principles, and raise politics to a higher plane.

"For years, all farmers have realized, and agree in saying that their greatest need is co-operation and union," concluded the president. "There have been several attempts to organize, and possibly the Dominion Grange has done about as much as any towards union. However, it appears to me, that farmers must organize on broader lines than has yet been effected. Let there be a grand union of the Grange, Experimental Union, Farmers' Institutes, Live-stock and Dairy Associations, Vegetable, Fruit, Poultry and Beekeeping Associations, and all other agricultural organizations, and in this great farmers' council discuss a scheme for a gigantic Farmers' Union, with co-operation as the basis. All other callings are joined in unions to protect themselves, while we, day in and day out, plod to feed those who use their brains to get our money. Is the farm home worth protecting? Are agricultural interests worth protecting? If so, rally around the co-operation flag. Let the College teach it. Let the Union proclaim it, the Farmers' Institutes, live-stock and dairy meetings, and everything agricultural, shout for co-operation and union, and we will have it. Then, and not until then, will farmers be fully represented in our Parliaments, and exercise their proper influence on all those great questions which affect our country's welfare."

INTENSIVE FARMING NECESSARY.

That more intensive farming was needed in all parts of the Province, was the opinion of J. O. Laird, of Blenheim, who led the discussion. Thoroughness in every operation brought its reward every season. Weed-fighting was an important factor. Some practical scheme for combating perennial sow thistle could be taken up to advantage by the Union.

REPORT ON CO-OPERATIVE FORESTRY.

In giving a report on co-operative work in forestry, E. J. Zavitz, B. S. A., of the College Forestry Department, said that last season the Department had sent out to farmers, for making

plantations, about 400,000 plants. This material was chiefly composed of white pine, Scotch pine, jack pine, and black locust—the trees adapted to waste-land planting. In addition, there were supplied to public schools collections of small forest trees, to be used in the school-gardens, or places otherwise provided on the school-grounds. This material was placed in nursery lines in a plot on the school-grounds. The object was to interest and educate the children in the care of these trees, and later to permit them to take them home or plant them about the school-grounds.

At a meeting of this Union, held in 1903, there was a resolution adopted urging upon the Government the necessity of collecting accurate information from the municipal authorities as to the amount of lands unfit for agriculture in the settled townships of Ontario, and of undertaking the practical reforestation of areas sufficiently large to afford forest conditions. At the last session of the Legislature, a vote for waste-land reclamation was made, thus marking the beginning of a policy to fulfil the requests. During the last two years a study had been made of conditions in the older townships. In Ontario there are two classes of lands which it is advisable to manage for forest crops: First, the small, isolated patches of non-agricultural soils to be found throughout otherwise good farm lands. The reclamation of these worthless soils must depend upon local initiative, although Government assistance of an educational nature was advisable. Second, are those large, contiguous areas of non-agricultural soils which can only be reclaimed through state management. In agricultural Ontario, of some few hundred square miles of these lands, the areas in some counties were: South Norfolk, 10,000 acres; Lambton, 40,000 acres; Simcoe, 60,000 acres; Durham, 6,000 acres; Northumberland, 8,000 acres. All are pure sand formations, and have had much the same history. Through the vote given by the Legislature, reclamation work has been commenced in Norfolk County. The first land was purchased in South Walsingham, where a block of about 3,000 acres exists. The land purchased lies at the border of the area, and is an abandoned farm. It left the Crown in 1804, and came back to it in 1908, a period of over a hundred years. All had been cleared, with the exception of about fifteen acres, which area is covered with scrub oak and scattered scrubby white pine. If protected from fire, this would soon fill with white pine. A large proportion of the lands do not present so much a problem of reforestation or replanting as of protection from ground fires through proper management. The scattered old scrub or defective pine which the lumbermen left endeavored to reproduce, but, periodically, ground fires swept through and killed the young pines. The land purchased had enough soil suitable for nursery work to permit of the Government nurseries being moved to that district, where they can be managed at less cost, and supply material for the co-operative work, as well as for local needs.

WHY FARMS ARE ABANDONED.

The farm was one of many which gradually are being abandoned. There are two supposed sources of revenue on these farms, growing rye and buckwheat. Reasons for abandonment were shown by figures which indicated scarcely any net return from these lands.

The policy of putting such lands under forest management, it was claimed, would assist in insuring a wood supply for the future, protect the headwaters of streams, and insure breeding-grounds for wild game. They would also be splendid object-lessons to visitors from surrounding communities. Besides this economic aspect, there was one of a moral character which appealed even more strongly as local conditions were studied. The story of the abandoned farm, with its struggles, if written, would not be a mere fanciful sketch. One writer had said, "It is a story of grim tragedy, written in varying forms as to detail in blood, and sweat, and tears, in Clarke, in Thorah, in Innisfil, and in a hundred townships of what we now call Older Ontario."

GOVERNMENT AID NECESSARY.

According to H. R. McMillan, B. S. A., of the Dominion Forestry Department, the scarcity of timber was sufficient to call particular attention to the desirability of reforestation. Too many people falsely believed good timber could be had in the northern parts of Ontario, but there was not one-tenth the amount commonly thought. The quality of timber produced in Southern Ontario was the best grown east of the Rocky Mountains. There was no hardwood in Canada, save in Ontario, Southern Quebec, and a little in New Brunswick and Nova Scotia. Already, hardwood was being brought in from Michigan.

Since the average citizen would not undertake a project from which no returns could be reaped during his natural life, it was the duty of the Government to develop forestry.

The importance of working carefully through

the public schools, and educating the young in forestry, was urged by Prof. S. B. McCreedy. Throughout the Province, the work already done was popular.

AN IMMENSE CORPS OF EXPERIMENTERS.

The reports of the College Professors, detailing the results of co-operative work with grain, root and fodder crops, fruits, vegetables, legume inoculation and fertilizers, brought out much information to those interested in these respective phases of the work, and the copious notes obtained by the representative of our editorial staff, who was present at the sessions, will be published at an early date, in the form of articles for the respective departments in which they belong.

The growth of the Experimental Union and the work done, were discussed by the Secretary, Prof. C. A. Zavitz, who said that since the start there had been 49,485 experimenters. Many of the 4,420 of the present year were experienced men, who undertook the work, and could be depended on for accurate reports. The doubling of Ontario's crop output in 15 years was due, in part, to the work of the Union. While the co-operative work covered the entire Province, the basis of the tests was the experimental work at the Ontario Agricultural College.

EXPERIMENTS IN THE SCHOOLS.

Prof. H. L. Hutt reported that seed for co-operative tests with vegetables had been sent out to 2,023 experimenters in town and country gardens in every section of the Province, and because of the educational value of the work, a special effort had been made to introduce it into the schools. Every school in the country which had adopted school gardens conducted a number of the tests, and in many cases, where there were no school gardens, the children did the work in their home gardens. Nearly six hundred pupils took part in this work.

SEED INOCULATION.

Co-operative experiments in inoculating the seed of leguminous crops have increased rapidly. In 1905, 246 samples were supplied; in 1906, 375; in 1907, 372, and in 1908, 2,113. Less than half those receiving samples had reported. Of these, 50 to 72 per cent. reported benefit from inoculation. The 2,113 samples sent out in 1908 covered the nine Provinces of Canada and five foreign countries. Of the total, 1,434 were cultures for alfalfa. Reports from all sources in 1908 showed benefit from 62.5 per cent. of those who met the prescribed conditions. The expressed opinion was that it would be well to continue the work.

EXPERIMENTS WITH FRUITS.

For the co-operative testing of fruits, said Prof. Hutt, plants had been furnished to 876 experimenters. These, with the 6,655 lots which had been sent out in previous years, make, all together, 7,531 lots of plants distributed. Some had failures, but the reports showed that there are still over 5,000 experimenters growing fruits that had been distributed through this way. One of the valuable features of the work has been that it has helped to introduce fruit-growing in sections where fruit has been but little grown.

In concluding the fifteenth annual report on the co-operative testing of fruits, Prof. Hutt announced that the demand for specialization in all branches of the work would result in this being his last report in the capacity of Superintendent of Fruit and Vegetable Experiments. A rearrangement of the labors in the Horticulture Department would give Mr. J. W. Crow charge of the work in fruit-growing, with Mr. McMeans to assist in vegetable-gardening.

CONTROL OF FEED-STUFFS.

Legislative control of commercial feeding stuffs was dealt with by Prof. W. P. Gamble, who said that food rich in protein should be used in addition to the usual class of home-grown products, to make it possible to use them to best advantage. Many of the common feeds of the farm are rich in carbohydrates, whereas many of the milling by-products are rich in protein, and are desirable for making an economical feeding ration. But some of these by-products are not uniform in composition, and legislation is necessary to make it possible for the purchaser to know what he is buying. The Experimental Union had taken steps in previous years to bring the matter to the attention of the Government.

A resolution, moved by Professor Gamble, and seconded by R. M. Winslow, of Picton, read: "That a committee, comprising Professors G. E. Day, C. A. Zavitz and R. Harcourt, be appointed to interview the Government with a view to having a law to regulate the sale of concentrated feeding stuffs." The resolution was carried unanimously after careful consideration. In the discussion, it was pointed out that Ontario farmers had bought sawdust and oat hulls at high prices.

AGRICULTURE IN EUROPE.

An interesting talk on European agriculture, by President G. C. Creelman, dealt with condi-

tions in Italy, Switzerland and France. Some of the points were covered in his article in the Christmas Number of "The Farmer's Advocate." Varied elevations in Switzerland resulted in a great variety of crops on small areas. The Swiss farmer always was happy if he could apply his savings to improve his little plot of land.

The good work done throughout Ontario in competitions in fields of standing grain was outlined by J. Lockie Wilson, Superintendent of Fairs for the Province. Details of the work throughout the summer season, and the final display in the Winter Fair Building, were given to show what a force in bettering Ontario's crops the competition was bound to be.

FARMERS' INSTITUTE CLUBS.

The value of Farmers' Institute Clubs in Ontario agriculture was dealt with by Geo. A. Putnam, Superintendent of Farmers' Institutes. Nothing could be of more importance than periodical meetings to discuss methods, and profit by mistakes of others. The Clubs also made it possible to utilize to best advantage the speakers sent out by the Department of Agriculture. The members, also, could co-operate in the selling of products and purchasing of necessities.

The members of the Union were honored with the presence of M. A. Carleton, Cerealist at the Department of Agriculture, Washington, D. C. The possibilities of crop improvement by the selection of plants were dealt with, showing what had been done by the Department by introducing crops and varieties, and by selecting plants that proved to withstand conditions better than others. Lantern slides were used to advantage in discussing countries from which specimens had been secured, and in showing the crops produced.

Prof. Harcourt reported results of some satisfactory co-operative experiments with potassic and phosphatic fertilizers, and also lime, used on swamp soils, of which more anon. Prof. Zavitz related the results of a series of experiments testing complete and special fertilizers for different crops on ordinary soil. Of this, too, we shall have more to say later. Tests of varieties and of mixtures of grains also afforded some very instructive data.

VALUE AND SCOPE OF CO-OPERATION.

In dealing with the value and scope of co-operative associations in Ontario, W. L. Smith, of Toronto, referred to the exhibits which the Norfolk Co-operative Fruit-growers' Association made at the recent Horticultural Show in Toronto, and the history behind that exhibit, and said that the value of co-operation, as applied to at least one line of agricultural activity, had been demonstrated. Co-operation had, in the case of Norfolk, been the means of placing one of the very poorest apple-growing counties of the Province in the first rank of apple-production; it had been the means of introducing the best methods of cultivation and care where before there was practically no method at all. The formation of a co-operative organization has carried with it co-operative spraying, co-operative packing, and co-operative selling.

"What co-operation has done in the case of Norfolk fruit-growers," said Mr. Smith, "it has also done, but in a larger way, for the Niagara producers of tender fruits. A few years ago there was lack of sufficient outlet for the volume of production. Now, with double the production of ten years ago, there is abounding prosperity. This is the result of the introduction of a system of co-operation, which, by making possible shipments in car lots, has reduced freight charges; by co-operative use of telephone and telegraph, has made it feasible so to distribute shipments that there is neither a glut nor a famine in any section, and has enabled Niagara growers to command such distant markets as those at Halifax, on the one side, and Winnipeg and beyond on the other.

"With regard to what I conceive to be the possible scope of co-operative associations in Ontario, I do not see any reason why these associations should be confined to fruit-growing and fruit-selling. There is no sufficient reason, in my opinion, why the same principle should not be applied along a score of lines. Let us take a few lines by way of illustration: In south-western Ontario, corn is largely grown for sale; in mid and Eastern Ontario corn is largely bought for feed. Why should there not be co-operative selling organizations in Kent and Essex, through which sales could be made in car lots to co-operative buying organizations in the counties of Ontario and Wellington. Why, indeed, should those who engage in co-operative apple-growing, and who are also largely engaged in the winter feeding of cattle, not buy their feed in this way? Again, there is no reason why such transactions should be limited to corn. In the Western Provinces there are large quantities of coarse and inferior grain to be disposed of every year. At present, the only profit in handling this feed goes to the middleman and carrier. Why should not the grain-growers of the West, who have their own organizations now, sell direct to co-operative associations of feeders in this Province, and thus leave to be divided between producer and con-

sumer a profit that at present goes to the middleman?

"In Kent, bean-growing may almost be considered the chief industry of the county. What is there to prevent the formation of a co-operative association of Kent bean-growers, with their own storehouses, from which car-lot sales could be made, according to the demand of the consuming market.

"Onion-growing is another industry which naturally lends itself to specialization, and one that is confined to a few localities. Larger profits in this line could be realized by the building of co-operative drying-houses, with provision made for co-operative sales in car lots.

"Poultry-growing is fairly profitable now, but the profit might be largely increased if a number of neighboring farmers would keep the same breeds in comparatively large numbers, and provide for uniform grading of eggs and the uniform dressing of chicks. Such an organization which could promise certain delivery of large quantities of poultry and eggs of absolutely assured quality, might easily realize from 10 to 20 per cent. better prices than are obtained under the present haphazard system.

WOULD CONSUMERS CO-OPERATE?

"One thought which has often crossed my mind, I would like to lay before this meeting. Is it not possible to secure the organization of co-operative associations of consumers in cities, to which sales could be made direct by co-operative producers' associations in the surrounding country? There is, if we take the case of two European countries together, a precedent for organization along this line. Denmark is almost exclusively an agricultural country, with a large surplus of foodstuffs for sale annually. Great Britain is almost as exclusively a manufacturing and trading country, and under the necessity of importing a large volume of breadstuffs for home consumption. In Denmark, the production and handling of the surplus of foodstuffs is largely carried on through co-operative associations. In the United Kingdom, a large proportion of the consuming public apply co-operative methods to buying and distributing. In Denmark, according to Fay's "Co-operation at Home and Abroad," one-fourth of the export trade in eggs is handled from the point of production to the point of shipment through co-operative associations; 66 per cent. of the bacon output is handled through co-operative factories, and 80 per cent. of the dairy products exported and produced, are exported through co-operative federations. In the United Kingdom, according to the same authority, 20 per cent. of the population, one-fifth of the whole, buy their supplies through great co-operative stores. The sales of these stores in 1906 reached the enormous total of \$300,000,000, with profits of close on \$10,000,000. The sales of these stores are made at regular market prices, and profits are distributed as a bonus to the purchasers, according to the volume of the individual purchase made. Thus, at the end of three months of a year, these co-operators receive a lump sum which is really so much found money to them, and that, in the absence of co-operation, would have gone to the needless middleman.

"The idea in my mind is that an effort should be made to organize co-operative associations of consumers in Toronto and other cities which would buy direct from co-operative fruit-growers, dairymen, poultrymen, vegetable-growers, etc., throughout the country. At present there are many lines in which the Toronto householder pays \$1.00 for an article which returns to the producer 50 cents. I believe two-thirds of this loss could be divided between producer and consumer by the adoption of the method suggested.

"The last point I wish to present for your consideration is this: The Department of Agriculture has done much, by its educational campaign to increase production; should it not now direct its efforts largely towards improving the returns at the market end by advice, direction and suggestions calculated to help on this great co-operative movement, which means so much for Ontario agriculture?

In the discussion following, Elmer Lick, of Oshawa, pointed out that the cheese industry of Canada had attained its present proud standing because of co-operation. In the early days, co-operation among the neighbors in clearing land and building homes, as well as in bearing all burdens, was common. True, co-operation in any line meant greater quantity and higher quality.

A FARMERS' JOINT-STOCK COMPANY.

Co-operation in selling beans and other farm products of Essex County, was dealt with by J. O. Laird, of Blenheim. A joint-stock company, incorporated in 1903, with \$35,000 stock, have an excellent plant. From August, 1907, to August, 1908, the company handled about 60,000 bushels of beans, 135,000 bushels of barley, 149,700 bushels of oats, and 70,000 bushels of wheat, or in the neighborhood of 400,000 bushels altogether. The saving to the producer averaged five or six cents a bushel on all grains. That meant \$24-

000 to the district. Besides a local company, handling as much as the stock company, paid higher prices, due largely to their presence, and brought the saving to the farmers almost to \$50,000 a year. Salt, cement, lumber, lime, and such necessities, also were purchased in large quantities, and turned over to the farmers at low cost.

That there was not too much co-operation in production, and a sad lack in co-operative selling, was the sentiment of Prof. H. H. Dean. Reference was made to the English railway companies that published lists of farmers along their lines who had produce for sale. This produce was brought direct to the consumer, not because they could charge exorbitant rates. A charge of 4d. for carrying an ordinary parcel looked small compared with rates charged in Canada.

Touching on this point, Mr. Smith thought the Government should be compelled to carry larger parcels through post at reasonable rates. The Railway Commission had power to dictate rates for express.

ERADICATING SOW THISTLE.

The eradication of perennial sow thistle and other troublesome weeds was dealt with by J.

Eaton HOWITT, B. S. A. Effectiveness and cheapness were proofs of the advisability of any method. The farmer must be able to distinguish weeds before he could fight them intelligently. After outlining several methods that had been found to be successful, the importance of co-operation, in order to keep the weeds under control, was urged. A patch of sow thistle was a source of contamination to a district, and should not be tolerated any more than a vicious dog.

W. S. Fraser, of Bradford, said that weeds were not as difficult to fight as most people considered. All that was required was persistent and intelligent cultivation. Sheep were of great help, and were particularly fond of sow thistle.

A College student, J. A. McTaggart, from New Zealand, stated that badly-infested areas had been treated by electricity with success. Blocks twelve feet square could be treated at a time, and all vegetation to a depth of three feet was destroyed.

The Treasurer's report, given by Prof. Hutt, showed the Union to be in a healthy condition financially. Receipts for the year had been \$2,943.50, and the expenditure \$2,724.82.

EX-STUDENTS ENTERTAINED.

On Monday evening, the ex-students spent an enjoyable time at the home of President and Mrs. Creelman, meeting members of the staff and their wives, and renewing old acquaintances. On Tuesday evening, the usual spread of delicacies and an interesting toast-list were the features at the annual banquet. J. S. Willison, of The Toronto News, was the guest of honor. Chester Jarvis, B. S. A., represented the ex-students, while P. E. Angle spoke for the student body.

ELECTION OF OFFICERS.

The nominating committee, comprising Prof. Harcourt, H. S. Peart, J. C. McDonald, A. D. Campbell, and J. Albert Hand, suggested officers as follows for 1909: President, J. O. Laird, of Blenheim; Vice-President, G. S. Henry, of Lansing. Board of Control: President G. C. Creelman; F. R. Mallory, of Frankford; G. Homer (Carpenter), of Fruitland; R. S. Hamer, of Perth; W. J. W. Lennox, of Newtown-Robinson, and F. C. Nunnick, of Scotland. The new executive selected Prof. C. A. Zavitz as Secretary; J. Buchanan as Assistant Secretary, and Prof. H. L. Hutt as Treasurer.

The Ontario Provincial Winter Fair.

The 25th annual Ontario Provincial Winter Fair, held at Guelph last week, fully sustained its reputation as the most important and successful event of its kind in the Dominion. The exhibits in all departments were well up to the standard of former years, and in some superior in the average excellence of quality. In the cattle division, the absence of large, rough or coarse animals was a noticeable feature, and, though the number of entries was somewhat less than that of last year, this apparent deficiency was more than compensated by the larger number and higher order of merit of the entries in the younger classes, which were generally well filled with animals of choice character and quality, such as the markets of the present call for. This is a decidedly desirable feature of the show, and one which should be encouraged by the offering of more and better prizes for young stock in an enlarged or extended classification, including senior and junior sections, to meet the discrepancy of age in months which in some classes makes it difficult for judges to satisfy themselves or exhibitors. The classes for cows three years and over are certainly out of place in a show of the pretensions of the "Smithfield of Canada," and the funds devoted to such could be vastly better expended in adding to the classification of younger sections, and by more attractive prize offerings.

The sheep show, though somewhat weakened by the absence of the contingent sent to the Chicago International, which could not, as formerly, be returned to Guelph in time, owing to clashing of dates and other causes, was yet an excellent display in nearly all its sections, and well maintained the claims of the Province to supremacy as a breeding-ground for this interesting class of stock. And "quality," written in capital letters, was the outstanding feature of that division.

The dairy-cow-testing department, though not more largely filled as to numbers than usual, was a center of interest to a large section of the visitors, and the animals entered were, as a rule, of an excellent class, the only regret being that more competition is not brought out in this important division of the show, though it must be admitted that the accommodation, which is too limited, and is faulty in regard to room and ventilation, would allow of little expansion in the present building. Increased space and more attractive prize offerings are essential to the more complete success of this important department of the show. And classes for competition by inspection, as well as for test, would add to the interest of the dairy division.

The poultry show exceeded its former record as the greatest in the Dominion, and was declared by those most competent to judge the grandest of its class on the Continent of America, the display of utility birds being especially fine in the many classes, and abounding health was evidenced in their bright eyes and glossy plumage. The space allotted to this division, though generous, is yet by far too limited, and expansion is urgently demanded, if this increasingly important and profitable department of farm husbandry is to be suitably provided for in the Winter Fair.

The seed division, which is growing in interest and in entries from year to year, has, owing to lack of room, had no suitable space assigned to it as yet in the arrangement of the show, and calls loudly for elbow-room.

The attendance of visitors, judging from the crowded condition of the building on the principal days of the show, was as large as, if not larger than on any former occasion. According to Secretary Westervelt, the receipts totalled about \$2,000, in addition to some 1,000 tickets to local Institute members for three admissions each day.

The limited seating capacity of the lecture-room and judging arena, proved provokingly insufficient for the accommodation of the many hundreds of visitors who could neither see nor hear the features on the programme to any advantage. More room is the dominant demand of the patrons of the Winter Fair, and if Guelph is to hold it, early action in the direction of expansion of floor-space is imperative.

CATTLE.

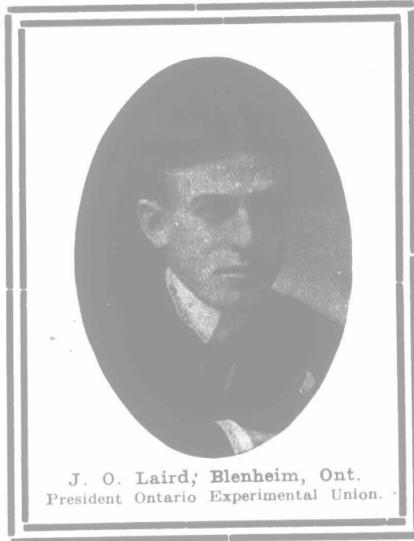
SHORTHORNS.—The class for pure-bred Shorthorns was quite as strong as usual in respect to number of entries, and the individual merit of the animals, as a whole, was well up to the usual standard, the younger animals being of more than usual excellence. The judges in this, as also in all the other cattle classes, were, as last year, Robert Miller, Stouffville, and James Smith, Rockland, Ont., capable and experienced stockmen, whose decisions were arrived at with much care and discrimination, and were in almost, if

not only first in a very strong class, but the championship as best steer of the breed, any age. He is a model beef animal, showing high-class breed character and splendid symmetry, level and straight in his lines, smooth, and evenly fleshed, and is probably the most promising proposition for a next year's grand champion that was brought out at this show. Mr. Gunn's win was most popular. The young men wanted to see a young feeder on top, while College men were delighted to have a College man receive the premier award. Harry Smith had out a very strong competitor in the white Silver Nugget, by Gold Drop, a very smooth, thick-fleshed and breedy-looking calf. In the class for cow or heifer three years or over, there was nothing outstanding, the first award going to Geo. B. Armstrong. In yearling heifers, Oke, of Alvinston, had the winner, a big, level, well-fleshed roan, Mildred 16th, by Scottish Beau, and Harry Smith had a good second in Rosalind's Gem. Heifers under two years were a very strong class of half a dozen, most of which were of superior type and quality, the first award going to Leask for Gloster's May, a charming roan of the blocky type, pressed closely for pride of place by Watt & Son's Lady Baroness, by Heatherman, of similar type to the winner. The awards in full in this class were as follows: Steer, 2 years and under 3—1, Barr; 2, Brown & Sons. Steer, one year and under two—1, Brown & Sons; 2, Douglas; 3, Talbot; 4, Barr. Steer under one year—1, D. Gunn & Son; 2, Smith; 3, Watt & Son; 4, Stewart; 5, Currie. Cow or heifer, three years or over—1, Armstrong; 2, Watt & Son; 3, Davidson; 4, Brown & Sons. Heifer, two years and under three—1, Oke; 2, Smith. Heifer under two years—1, Leask; 2, and 3, Watt & Son; 4, Parkinson; 5, Stewart. Champion steer, Gunn & Son.

ABERDEEN-ANGUS AND HEREFORDS (pure-bred) were bracketed in the same class, but the entries were principally of the first-named breed, which was well represented by typical animals, of smooth conformation and flesh, in fine condition, and well brought out, well upholding the reputation of the breed as beefers. Two or three entries of Herefords, by the F. W. Stone Stock Co., Guelph, were all that were forward, while the exhibitors of the Angus breed were James Bowman, Guelph, who won the first prizes in all the sections of the class; Walter Hall, Washington; J. M. Burt & Sons, and R. W. McKinnon, Coningsby, and Samuel Young, Guelph. Awards follow: Steer or heifer, one year and under two—1 and 2, Bowman; 3, Burt & Sons. Steer or heifer under one year—1, Bowman; 2, McKinnon; 3, Stone Stock Co. Cow or heifer, three years or over—1, Bowman; 2 and 5, Young; 3, Hall; 4, Stone Stock Co.

GALLOWAYS are listed with Devons, but none of the latter were entered. Col. D. McCrae, Guelph, had forward a number of entries of Galloways, typical of this hardy breed, showing grand coats of hair, and breed character, securing all prizes entered for.

GRADES AND CROSSES.—As usual, this is one of the most interesting classes in the show, the entries being more numerous and competition keener than in any other. As on former occasions at this show, Shorthorn grades were very largely in the majority, and the champion award has almost invariably gone to a Shorthorn or a grade Shorthorn, but this being a black cattle's year at the leading fat-stock shows up to date of this report, the Angus or grade Angus having won the grand-championship award at the Chicago International, and Birmingham, first of the leading shows of the same sort in Britain, it is a singular coincidence that a clear winner in strong com-



J. O. Laird; Blenheim, Ont.
President Ontario Experimental Union.

not every case accepted as correct, while their work and explanations were educative as to type and quality throughout the classes. The exhibitors in the Shorthorn class were W. A. Douglas, Tuscarora; John Barr, Blyth; John Brown & Sons, Galt; Robert Talbot, Everton; James F. Davidson, Guelph; John Currie, Eramosa; J. Watt & Son, Salem; Peter Stewart, Everton; H. Smith, Exeter; Donald Gunn & Son, Beaverton; Chas. Leask, Greenbank; G. H. Oke, Alvinston; G. W. Parkinson, Eramosa; Geo. B. Armstrong, Teeswater. In the section for steers two years old and under three, the first place was given to Barr's smoothly-fleshed and well-developed white entry, Royal, the second award going to another excellent steer shown by Brown & Sons, and third to the same exhibitors. In steers one year and under two, Brown & Sons won first with another good, thick-fleshed white beast, Douglas second with still another handsome and well-fleshed steer. The cream of the class was found in the section for steers under one year, ages being reckoned from Sept. 1st. This was the rich roan, Dunrobin Villager, by Nonpareil Eclipse, bred and shown by D. Gunn & Son, which won

petition for the same honor at the Canadian Smithfield was found in a grade Angus yearling steer. In the section for steers two years old and under three, in a capital class, James Leask, of Greenbank, with a good thick white steer took the lead. In steers one year and under two, the pride of the show, Black Hector, the son of a pure-bred Angus bull and a grade Shorthorn cow, bred and exhibited by John Lowe, of Elora, took the lead, and kept it, winning the championship in the class, and later the grand championship as best steer of any breed or cross in the show. He is an ideal butchers' beast, level in his lines, thickly covered with firm flesh all along his top and ribs, low-set, yet free from paunchiness or coarseness, and handling to suit the most critical connoisseur. Black Hector fills the bill for a model beef animal, and is a credit to his breeder and feeder. One of the judges here, who had handled the grand champion at Chicago, declared the Canadian champion decidedly a better beast. If he had been at Chicago with Leask's Roan Jim, and both had been given their deserts, it is believed by competent judges the grand championship and reserve for same honor would have come Canada's way. The first prize for the best single export steer at Guelph, it is worthy of being recorded, was also a grade Angus two-year-old, which, though shown in competition with much riper animals, was considered by the judges more suited to the class than highly-fitted Christmas cattle. One of the closest contests in the show was that for the best grade steer, sired by a pure-bred Shorthorn bull, in which, in a large class of varying ages, the tug for first place was finally between James Leask's yearling Red King, by Gloster's Choice, and Kyle Bros.' roan calf, Chancellor's Seal, by Imp. Bapton Chancellor, both first in their respective sections. The two regular judges failing to agree, a referee was called in, who, after careful examination, decided in favor of the yearling, though many of the stockmen present would have voted first place to the younger steer, while agreeing that both were grand animals, and the comparison very close. The award list for grades and crosses follows: Steer, two and under three years—1, James Leask, Greenbank; 2, John Brown & Sons, Galt; 3, Alex. Edmonson, Brantford; 4, John Keith, Salem; 5, Arthur Barr, Blyth. Steer, one and under two years. 1, John Lowe, Elora; 2, James Leask; 3, Kyle Bros., Ayr; 4, John H. Kirby, Marden. Steer under one year—1, Kyle Bros.; 2, Jas. McIntosh, Gourrock; 3, James Leask; 4, H. E. Alton, Jr.; 5, John P. Henderson, Guelph. Cow or heifer, three years or over—1, John Brown & Sons; 2, James Leask; 3, John Barr, Blyth; 4, Jeremiah Wright, Marden. Heifer, two years and under three—1, G. & W. Parkinson, Eramosa; 2, John Keith, Salem; 3, J. M. Taylor, Guelph; 4, H. W. Ironside, Puslinch; 5, E. Brien & Sons, Ridgetown. Heifer under two years—1, Peter Stewart, Everton; 2, Robert Talbot, Everton; 3, James Leask; 4, J. M. Taylor, Guelph. Three export steers—1, John Brown & Sons. Single export steer—John Brown & Sons.

AMATEUR CLASSES.—For the special prizes offered for amateur exhibitors not having won a first prize at leading exhibitions, awards were as follows: Grade steer, sired by pure-bred Shorthorn bull—1, Jas. McIntosh, Gourrock; 2, H. E. Alton, Jr., Everton; 3, Geo. Holmwood, Guelph; 4, John Keith, Salem; 5, John H. Kirby, Marden. Grade heifer under two years—1, John Keith; 2, J. M. Taylor; 3, H. W. Ironside. Heifer under two years—1, Robert Talbot; 2, J. M. Taylor.

SHEEP.

COTSWOLDS.—Although some of the breeders usually showing in this class had exhibited at Chicago the previous week, and could not return their stock for the Guelph event, yet the class was very well filled with typical young stock, in fine condition, and carrying heavy fleeces. The exhibitors were E. Brien & Son, Ridgetown; Hugh McNelly, Guelph; John Sockett, Rockwood. The first-named had out a very strong exhibit, and captured the first award in all sections, including the championship for best wether any age. The award list follows: Ewe under one year—1, 3 and 5, Brien & Son; 2, McNelly; 4, Sockett. Three ewes under one year—1, Brien; 2, Sockett; 3, McNelly. Wether, one year and under two—1, 2 and 3, Brien; 4, Sockett. Wether under one year—1, 2, 3 and 4, Brien; 5, Sockett. Three wethers under one year—1 and 3, Brien; 2, Sockett. Champion wether—Brien.

LINCOLNS.—In this class, exhibitors were J. T. Gibson, Denfield; J. T. Gosnell & Sons, Highgate; L. Parkinson and E. Parkinson, Eramosa. The class was quite creditably filled with useful entries, despite the fact that Mr. Gibson's Chicago contingent, which won all the first prizes and championships in their class at the International, could not be returned for the Guelph show. Otherwise, this breed would probably have made a record showing this year, as they did at the fall fairs. The award list follows: Ewe under one year—1, 3 and 4, J. T. Gosnell & Sons; 2 and 5, Gibson. Three ewes under one year—1, Gosnell; 2, Gibson; 3, L. Parkinson; 4, E. Parkinson. Wether, one year and under two—1, 2,

3 and 4, L. Parkinson. Wether under one year—1, Gosnell; 2 and 5, L. Parkinson; 3 and 4, Gibson. Champion wether—L. Parkinson.

LEICESTERS.—This breed was out in strong force, making one of the best displays in the sheep division, quality and breed character being of a high order, the champion wether, a yearling, being a model mutton sheep in symmetry of shape and quality of fleshing, a sheep that would have made happy the immortal Bakewell, founder of the breed, as would also the winning ewe lamb, while the winning pen of three ewe lambs were excellent specimens. Exhibitors were: John Kelly, Shakespeare; Hastings Bros., Crosshill; James Roy, Bornholm; John Barr, Blyth; A. & W. Whitelaw, Guelph; Oliver Turnbull, Walton. The awards were as follows: Ewe under one year—1, Hastings Bros.; 2 and 3, Kelly; 4 and 5, Roy. Three ewes under one year—1 and 3, Kelly; 2, Roy. Wether, one year—1 and 5, Hastings Bros.; 2 and 3, A. & W. Whitelaw; 4, John Barr. Wether under one year—1, Kelly; 2 and 5, Roy; 3, A. & W. Whitelaw; 4, Turnbull. Three wethers under one year—1, Roy; 2, A. & W. Whitelaw; 3, Turnbull; 4, Hastings Bros. Champion wether—Hastings Bros.

OXFORDS.—This breed made a very strong showing in all sections, the entries being eminently typical and well fleshed, the champion wether, a yearling, shown by J. W. Lee & Sons, Simcoe, being an uncommonly good one, big, and bountiful of flesh. The winning ewe lambs, shown by Alex. Stewart, Living Springs, were also a remarkably fine, uniformly-matched lot, full of breed character and quality. The exhibitors were: J. W. Lee & Sons, Simcoe; Alex. Stewart, Living Springs; W. E. Wright, Glanworth; A. Stevenson, Atwood; J. A. Cerswell, Bond Head. Awards were as follows: Ewe under one year—1, 2 and 5, Stewart; 3 and 4, Lee & Sons. Three ewes under one year—1, Stewart; 2, Lee & Sons; 3, Cerswell; 4, Stevenson. Wether, one year—1 and 3, Lee & Sons; 2, Cerswell; 4, Stevenson. Wether under one year—1 and 2, Lee & Sons; 3, Wright; 4 and 5, Cerswell. Three wethers under one year—1, Lee & Sons; 2, Cerswell; 3, Wright; 4, Stevenson. Champion wether—Lee & Sons.

SHROPSHIRE.—This breed, as usual, made an excellent showing, the entries being notably uniform in type and quality of fleshing, and brought out in very attractive condition, J. & D. Campbell, of Woodville, showing the largest number of entries, and capturing the majority of first prizes. The exhibitors were: J. & D. Campbell, Woodville; W. E. Wright, Glanworth; Abram Rudell, Hespeler; H. & J. Kellum, and J. W. Lee, Simcoe. The award list follows: Ewe under one year—1, 2, 3 and 4, J. & D. Campbell; 5, Kellum. Three ewes under one year—1, Campbell; 2, Rudell. Wether, one year old—1, Rudell; 2 and 4, Wright; 3, Lee & Sons; 5, Campbell. Wether under one year—1, 2 and 3, Campbell; 4 and 5, Wright. Three wethers under one year—1, 2 and 3, Campbell. Champion wether—Campbell.

SOUTHDOWNS.—This class was fairly well filled with good specimens of the breed, nicely fitted, and full of firm flesh of the best quality, the champion wether being especially choice. Exhibitors were: Robert McEwen, Byron; George Baker, Simcoe; Telfer Bros., Paris; J. W. Lee & Sons, Simcoe. The award list follows: Ewe under one year—1, Telfer Bros.; 2, 3 and 5, Baker; 4, McEwen. Three ewes under one year—1 and 2, Baker; 3, Telfer Bros. Wether, one year old—1 and 4, McEwen; 2 and 3, Baker. Wether under one year—1, Lee & Sons; 2 and 3, McEwen; 4 and 5, Telfer Bros. Three wethers under one year—1, McEwen; 2, Telfer Bros. Champion wether—McEwen.

HAMPSHIRE AND SUFFOLKS.—This class, though not numerously represented, owing to the Chicago contingent of Suffolks from James Bowman's flock, which won well at the International, being absent from this event, made an excellent showing in regard to quality and firmness of flesh, and breed character. The exhibitors of Hampshire were: John Kelly, Shakespeare, and Telfer Bros., Paris. The awards were as follows: Ewe under one year—1 and 3, Kelly; 2 and 4, Telfer Bros. Wether under one year—1, 2 and 3, Kelly. Three wethers under one year—1, Kelly. Champion wether—Kelly.

DORSETS.—This class was also cut down to a small entry, owing to two Canadian flocks being well represented at Chicago, and their exhibits not being present at Guelph. Exhibitors were: R. H. Harding, Thorndale, and W. E. Wright, Glanworth. The awards follow: Ewe under one year—1, 2 and 3, Harding. Wether, one year—1, Wright; 2 and 3, Harding. Wether under one year—1 and 4, Harding; 2 and 3, Wright. Three wethers under one year—1, Harding; 2, Wright. Champion wether, Harding.

GRADES OR CROSS-BREDS.—In this division, always a strong one at Guelph, the entries were of a high order of merit in most sections, and the competition exceedingly keen. Separate classes are provided for long-wool and for short-wool grades or crosses. In the class for entries sired

by a ram of long-wool breed, the award list was as follows: Wether one year old and under two—1, E. Brien & Son, Ridgetown; 2, Telfer Bros., Paris; 3, 4 and 5, L. Parkinson, Eramosa. Wether under one year—1 and 4, Brien & Son; 2, A. & W. Whitelaw, Guelph; 3, Oliver Turnbull, Walton; 5, L. Parkinson. Three wethers under one year—1, Brien; 2, Whitelaw; 3, Parkinson. Champion wether—Brien.

Short-wool Grade or Cross.—Wether, one year and under two—1, 2 and 3, J. & D. J. Campbell, Woodville; 4, W. E. Wright, Glanworth. Wether under one year—1 and 2, Campbell; 3, Lee & Sons, Simcoe; 4 and 5, John Kelly, Shakespeare. Three wethers under one year—1, Kelly; 2 and 3, Campbell; 4, Wright. Champion wether—J. & D. J. Campbell.

The judges in the sheep classes were: For Shropshires and Dorsets: J. C. Duncan, Orchard Park, N. Y.; Southdowns, W. H. Beattie, Wilton Gove; Oxfords and Hampshires, J. E. Cousins, Harriston; Cotswolds and Lincolns, T. Hardy-Shore, Glanworth; Short-wool Grades, J. C. Duncan and W. H. Beattie; Long-wool Grades, T. H. Shore; Sheep carcasses, Prof. G. E. Day, and Geo. F. Morris, London.

SWINE.

The swine exhibit, on the whole, was a most creditable one, numbering about 250 head, all told, fully as many as in any former year, while the quality, particularly of the Berkshires and Tamworths, was quite above the average.

YORKSHIRES.—The main exhibitors in this class were: J. Featherston & Son, Streetsville; James Wilson & Sons, Fergus; D. Gunn & Son, Beaverton; J. Bethour, Burford; and R. F. Duck & Son, Port Credit. As might be expected from such an array of noted breeders, some exceptionally choice animals were brought out. Awards follow: Barrow, six months and under nine—1 and 4, Duck & Son; 2 and 5, Featherston & Son; 3, Bethour. Barrow, under six months—1, Duck & Son; 2 and 3, Featherston & Son; 4, Wilson & Sons. Sow, nine months and under fifteen—1 and 5, Bethour; 2 and 3, Wilson & Sons; 4, Featherston & Son; 6, Duck & Son. Sow, six months and under nine—1 and 5, Featherston & Son; 2 and 3, Bethour; 4, Duck & Son. Sow under six months—1 and 2, Bethour; 3, Gunn & Son; 4, Wilson; 5, Duck & Son. Three pigs of one litter, bred by exhibitor—1, Bethour; 2, Featherston; 3, Wilson.

BERKSHIRES.—Probably never before at this show were so choice a lot of Berkshires brought out, nor so nicely a fitted lot. Exhibitors were: W. W. Brownridge, Ashgrove; Joshua Lawrence, Oxford Centre; John S. Cowan, Donegal; E. Brien & Sons, Ridgetown; John Kelly, Shakespeare, and Herman Koelln & Son, Glen Allan. Every section was keenly contested, and the animals exceptionally uniform. Awards were: Barrow, six months and under nine—1, Kelly; 2, Koelln; 3 and 4, Brien; 5, Brownridge. Barrow under six months—1 and 4, Brownridge; 2, Cowan; 3, Koelln; 5, Brien. Sow, nine months and under fifteen—1, Brownridge; 2, Brien; 3 and 4, Cowan. Sow, six months and under nine—1, Lawrence; 2 and 5, Kelly; 3 and 4, Brownridge. Sow under six months—1 and 3, Brownridge; 2 and 4, Lawrence; 5, Cowan. Three pigs of one litter, bred by exhibitor—1 and 3, Brownridge; 2, Kelly; 4, Koelln.

TAMWORTHS.—Superior excellence of type and finish characterized the Tamworth exhibit, the general opinion being that never before, here, or elsewhere in Ontario, was so splendid an exhibit of this breed seen together. The exhibitors were: D. Douglas & Sons, Mitchell, and Chas. Currie, Morriston. Awards were: Barrow, six months and under nine—1 and 4, Currie; 2, 3 and 5, Douglas. Barrow under six months—1 and 5, Currie; 2, 3 and 4, Douglas. Sow, nine months and under fifteen—1, 3 and 4, Douglas; 2 and 5, Currie. Sow, six months and under nine—1, 4 and 5, Douglas; 2 and 3, Currie. Sow under six months—1, 4 and 5, Douglas; 2 and 3, Currie. Three pigs of one litter, bred by exhibitor—1 and 3, Douglas; 2, Currie.

CHESTER WHITES.—Only one exhibitor was out this year in this class, Mr. D. De Coursey, of Bornholm, Ont., whose exhibit was quite in keeping with the high-class character of his herd.

ANY OTHER BREED, GRADE OR CROSS.—Some most remarkable examples of the phenomenal skill exhibited by some breeders in growing pigs to an extraordinary size for their age were brought out in this class. As one man remarked, "Ye gods and little fishes, how some pigs do grow!" Seriously, it is high time some action were taken to verify ages in this class. Exhibitors were: E. Brien & Sons, Herman Koelln, R. F. Duck & Son, Hastings Bros., A. O'Neil & Son, Chas. Currie, J. Featherston & Son, D. Douglas & Sons, John S. Cowan, R. Houston, D. De Coursey, W. W. Brownridge, and D. Douglas & Sons. The award list follows: Barrow, six months and under nine—1, Currie; 2, Duck; 3, Douglas; 4, Brien; 5 and 6, O'Neil (the latter on pure-bred Hampshire Belts). Barrow under six months—1, Duck; 2, De Coursey; 3, Brownridge;

4, Douglas; 5, Cowan; 6, O'Neil. Sow, six months and under nine—1, Duck; 2, Featherston; 3 and 4, Douglas; 5, Currie; 6, Houston. Sow under six months—1, Brownridge; 2, Currie; 3, Douglas; 4, De Coursey; 5, Cowan.

EXPORT BACON HOGS.—The breeding of bacon hogs in Canada would seem to have passed from the ideal to the ridiculous. Appearing as they did at this show, one was apt to ask himself, "Is there not some mistake here? Were not some of these trained for an Ascot, a Derby, a Woodbine, or a steeplechase?" Away over age and size, starved to the limit in order to keep them within weight, it is a mighty poor breakfast of ham a man could get off a number of them. It strikes the writer very forcibly that it is about time the agricultural press spoke out, with no uncertain sound, relative to the ways and means taken by some exhibitors to capture the prize money. The remedy, to a very large extent, lies with the judges, whose duty is to promptly throw out animals not fit for competition, from any cause whatever. The prize list follows: Two pure-breds—1, 9 and 11, J. E. Brethour; 2 and 6, J. Featherston & Son; 3 and 10, D. Douglas & Sons; 4 and 8, R. F. Duck & Son; 5, James Wilson & Sons; 7, Chas. Currie. Three, seven and ten were Tamworths; all the others were Yorkshires. Two grades or crosses—1 and 5, R. F. Duck & Son; 2 and 7, J. E. Brethour; 3 and 6, J. Featherston & Son; 4, James Wilson & Sons.

The judges in the various classes were. For Yorkshires and Tamworths, Wm. Jones, Zenda, and A. C. Hallman, Breslau; for Berkshires, Peter McEwen, Kertch; for Chester Whites and Any Other Breed, grade or cross, George Hood, Guelph; for bacon hogs, Wm. Jones, A. C. Hallman, and R. H. Harding.

JUDGING COMPETITION.

Great interest was manifested in the judging competition for young men twenty-five years and under. In beef cattle, dairy cattle, sheep and swine, there were ten prizes. The contestants were chiefly O. A. C. students, but several outsiders tried conclusions with the College men. There were 48 entries for beef cattle, 49 for dairy cattle, 28 for sheep, and 31 for swine. Students won everything in beef and dairy cattle; three out of the ten were outsiders in the sheep judging, while one outsider got into the money in swine. D. H. Kelly, of Shakespeare, made a creditable showing in sheep, winning first place. The competitions were in charge of Professor G. E. Day; W. W. Ballantyne, of Stratford; Robert Miller, of Stouffville; and J. E. Brethour, of Burford. Sixty per cent. of the points was given for proper placing, and forty per cent. for reasons. The winners in beef cattle were: First, R. J. Allen; second, S. Kennedy; third, W. N. Campbell; fourth, A. D. Campbell; fifth, M. S. Middleton; sixth, A. McMillan; seventh, R. G. Thomson; eighth, A. M. Shaw; ninth, A. McTaggart; tenth, W. R. Reek—all of O. A. C., Guelph.

In dairy cattle, the successful were: First, R. B. Coglon; second, R. Schuyler; third, C. M. Learmonth; fourth, G. S. Dunkin; fifth, A. McTaggart; sixth, S. H. Culp; seventh, C. Rebsch; eighth, M. N. Baldwin; ninth, C. L. S. Palmer; tenth, R. H. Pilsworth—all of O. A. C., Guelph. Successful sheep judges were: First, D. K. Kelly, Shakespeare; second, S. Kennedy, O. A. C., Guelph; third, W. H. Irvine, O. A. C.; fourth, J. F. Harries, O. A. C.; fifth, J. E. Rettie, O. A. C.; sixth, C. Main, O. A. C.; seventh, R. G. Thomson, O. A. C.; eighth, C. F. McEwen, Byron; ninth, J. C. Young, O. A. C., Guelph; tenth, G. A. Burns, Paris.

In swine, the winners were: First, J. S. Howell, O. A. C.; second, W. H. Irvine, O. A. C.; third, M. McArthur, O. A. C.; fourth, G. A. Burns, Paris; fifth, W. G. Orvis, O. A. C.; sixth, F. Forsyth, O. A. C.; seventh, W. Toole, O. A. C.; eighth, H. A. Cowie, O. A. C.; ninth, R. R. Moore, O. A. C.; tenth, M. N. Baldwin, O. A. C.

THREE-DAY DAIRY TEST.

Creditable records were made by several cows in the three-days' milking competition. Once again were the Holsteins in evidence, both as to numbers and performance, although the Ayrshires were not far behind. Awards were made by giving 25 points for each pound of fat, 3 points for each pound of solids not fat, and 1 point for each ten days in milk after the first thirty days, with a limit of 10 points. The test was in charge of W. W. Ballantyne, of Stratford. The best cow in the lot proved to be Lady Aggie De Kol, a fine Holstein, owned by M. L. Haley, of Springford. She gave 203.38 pounds of milk, containing 7.593 pounds fat, and scored 243.825 points. She is a very handsome six-year-old cow, of model dairy form, smooth in her shoulders, with well-sprung and deep ribs, a strong back and level quarters, a fine-handling hide, a broad forehead and bright eyes, and with a large and shapely udder, running well forward and backward, and with good-sized, well-placed teats. Her sire was Victor De Kol Pietertie, and her dam Stratford's Anggie of Erie. Her daily average of 67.794 lbs. milk, testing 3.73x per cent. fat, is a highly

creditable performance in a public test, away from home, and under circumstances not the most favorable. A remarkable record was made by Jas. Rettie's Holstein heifer, under thirty-six months, Ianthe Jewel Posch. Her score totalled 205.398.

Following are the results in pounds of milk produced, pounds of fat, and total points given:

| Name of Cow and Owner. | Lbs. Milk. | Lbs. Fat. | Total Points. |
|--|------------|-----------|---------------|
| SHORTHORNS. | | | |
| Cow, 48 months and over. | | | |
| Jas. Brown, Norval, Kentucky Queen | 141.57 | 4.673 | 157.667 |
| Jas. Brown, Norval, White Rose | 122.71 | 4.132 | 139.840 |
| Cow, 36 mos., not over 48. | | | |
| Jas. Brown, Norval, Lady Guelph | 100.19 | 4.007 | 133.610 |
| Heifer, under 36 mos. | | | |
| Jas. Brown, Norval, Butterfly Rose | 98.44 | 4.063 | 134.467 |
| Jas. Brown, Norval, Kiblean Beauty 2nd | 84.34 | 3.284 | 108.020 |
| J. Kelly, Shakespeare, Gracey Guyness 3rd | 71.25 | 3.236 | 105.026 |
| AYRSHIRES. | | | |
| Cow, 48 months and over. | | | |
| N. Dymont, Clappison's Cor., Rosalie of Hickory Hill | 147.36 | 5.894 | 190.637 |
| H. & J. McKee, Norwich, Sarah's 2nd | 165.01 | 5.719 | 190.166 |
| H. & J. McKee, Norwich, Victoria | 151.49 | 5.602 | 185.349 |
| Cow, 36 mos., and under 48. | | | |
| H. & J. McKee, Norwich, Star's Nancy | 122.09 | 4.802 | 155.153 |
| Heifer, under 36 mos. | | | |
| H. & J. McKee, Norwich, Queen Jessie of Spring Hill | 108.33 | 4.474 | 144.618 |
| H. & J. McKee, Norwich, Star's Sarah | 105.62 | 4.230 | 139.829 |
| N. Dymont, Clappison's Cor., Beauty of Hickory Hill | 93.45 | 3.299 | 108.917 |
| HOLSTEINS. | | | |
| Cow, 48 months and over. | | | |
| M. L. Haley, Springford, Lady Aggie De Kol | 203.38 | 7.593 | 243.825 |
| G. W. Clemons, St. George, Evergreen March | 187.88 | 7.071 | 226.296 |
| Geo. Rice, Tillsonburg, Idaline Pauline De Kol | 197.26 | 6.577 | 223.266 |
| Cow, 36 mos., and under 48. | | | |
| Jas. Rettie, Norwich, Ianthe Jewel Posch | 211.18 | 6.199 | 211.891 |
| Jas. Rettie, Norwich, Pontiac Atlas Maid | 160.39 | 5.930 | 194.997 |
| Heifer, under 36 mos. | | | |
| Jas. Rettie, Norwich, Elorae | 157.00 | 6.383 | 205.398 |
| M. L. Haley, Springford, Queen Butter Baroness | 110.70 | 4.720 | 154.380 |
| Geo. Rice, Tillsonburg, Queen's Butter Girl | 114.33 | 4.369 | 143.105 |
| Geo. Rice, Tillsonburg, Arah Veeman | 126.31 | 4.253 | 141.273 |
| JERSEYS. | | | |
| Cow, 48 months and over. | | | |
| B. H. Bull & Sons, Brampton, Cantata of Normandy | 130.20 | 6.115 | 191.313 |
| GRADES. | | | |
| Cow, 36 mos., and under 48. | | | |
| M. L. Haley, Springford, Daisy D. | 133.69 | 5.210 | 171.151 |

The special prizes offered by the Canadian Holstein-Friesian Association for cow 48 months and over, for animals recorded in the herdbook of the Association, went to Messrs. Haley, Clemons and Rice for cow 36 months and under 48 months, to Jas. Rettie; and for heifer under 36 months, to Messrs. Rettie, Haley and Rice. The special cup for best grade cow sired by registered Holstein bull, went to Mr. Haley.

DRESSED CARCASSES.

Once again has increased interest in the block tests been manifested. All stockmen were anxious to know how the animals panned out when dressed. As usual, the results were somewhat disappointing, but the carcasses bearing top prizes were in most instances not far down the list of awards in the live classes. Prof. G. E. Day and G. F. Morris, of London, were the judges.

In the pure-bred class, F. W. Stone Stock Co. secured first with Peach Bar, a four-year-old Hereford, that stood fourth alive in the section for Hereford or Aberdeen-Angus cow or heifer, three years or over. Second prize went to D. McCrae. Third prize fell to Jas. Bowman's five-year-old E. P. Pride 3rd, winner of first place alive in the

same section as the Stone champion carcass. H. Smith secured fourth place on a two-year-old Shorthorn heifer that had second award, leaving fifth prize for G. H. Oke's two-year-old heifer of the same breed, that had bested her alive.

In the grades or crosses, J. Brown & Son secured first. Second went to J. P. Henderson. D. Wright got third on an animal not placed in his section alive, and fourth went to Chas. McDougall on one that met the same fate earlier. T. Baker & Son secured fifth, also, on a fine specimen that was obliged to go without a ribbon before he went to the butcher.

For pair of pure-breds in hogs, J. Featherston & Sons secured first and fourth, R. F. Duck & Son second, R. Houston third, sixth and seventh, and C. Currie fifth. In the grade section, also, first place went to J. Featherston & Sons.

The awards in sheep carcasses were: Cotswold wether, one year—1, 4 and 5, E. Brien & Sons; 2, H. McNelly; 3, J. Sockett. Cotswold wether, under one year—1, J. Sockett; 2, 3 and 4, E. Brien. Lincoln wether, one year—1, 2 and 3, L. Parkinson. Lincoln wether, under one year—1 and 2, L. Parkinson; 3, J. T. Gibson. Leicester wether, one year—1, Hastings Bros; 2, J. Barr; 3, A. & W. Whitelaw. Leicester wether, under one year—1, A. & W. Whitelaw; 2, O. Turnbull; 3, Hastings Bros. Oxford wether, one year—1, J. A. Cerswell; 2 and 3, A. Stevenson; 4, W. E. Wright; 5, J. W. Lee & Sons. Oxford wether, under one year—1, J. W. Lee; 2, J. A. Cerswell; 3, A. Stevenson; 4 and 5, W. E. Wright. Shropshire wether, one year—1 and 4, W. E. Wright; 2 and 5, J. W. Lee; 3, A. Rudell. Shropshire wether, under one year—1, W. E. Wright; 2, 4 and 5, A. Rudell; 3, J. & D. J. Campbell. Southdown wether, one year—1, Geo. Baker; 2 and 3, Robt. McEwen. Southdown wether, under one year—1, J. W. Lee; 2, Telfer Bros.; 3, R. McEwen. Dorset wether, one year—1, 2 and 3, R. H. Harding; 4, W. E. Wright. Dorset wether, under one year—1, W. E. Wright; 2 and 3, R. H. Harding. Hampshire or Suffolk wether, under one year—1, J. Kelly. Grade or cross-bred wether, one year, sired by long-wooled ram—1 and 4, E. Brien & Son; 2, Hastings Bros.; 3, J. Barr; 5, L. Parkinson. Grade or cross-bred wether, under one year, sired by long-wooled ram—1, O. Turnbull; 2, E. Brien; 3 and 5, L. Parkinson; 4, A. & W. Whitelaw. Grade or cross-bred wether, one year, sired by short-wooled ram—1, A. Stevenson; 2, J. & D. J. Campbell; 3, W. E. Wright. Grade or cross-bred wether, under one year, sired by short-wooled ram—1, J. A. Cerswell; 2, J. & D. J. Campbell; 3 and 4, A. Rudell; 5, W. E. Wright.

The customary rivalry among butchers from Guelph and the surrounding district prevailed, as the dressed carcasses were sold by Auctioneer Thos. Ingram. The beef sold at prices ranging from \$8.25 to \$11.00 per hundredweight. Sheep started at about 6 cents, and sold at 6½ to 8 cents a pound. Lambs started at 10 cents, and brought 10½ to 12 cents. A. & W. Whitelaw's grade lamb sold at 12 cents a pound. J. W. Lee got 11½ cents for an Oxford, while 11 cents was paid for R. H. Harding's Dorset, W. E. Wright's Shropshire, and A. & W. Whitelaw's Leicester, and J. Sockett's Cotswold. The entire lot of hogs were secured by J. & A. Hardy, at 8½ cents. The principal buyers of beef and lambs were A. Hales & Son, and C. R. Barber.

POULTRY EXHIBIT LARGE.

Despite the fact that last year's poultry display reached such enormous proportions, the list this year exceeded previous figures by a dozen or two. Thus the poultry exhibit at the Ontario Winter Fair maintains its place as one of the greatest on the continent in numbers. As to quality, Guelph never saw such uniform excellence of type. The expression of opinion of Professor W. R. Graham is: "Numbers are about the same, but quality is a great deal better than last year. White Wyandottes are very strong, showing such general quality in feathering that shape was a big factor in making the awards. There was the keenest competition in all the utility breeds, as well as in the Mediterranean classes. With many of the prizewinners it is difficult to find fault. The display of turkeys, geese and ducks is the greatest yet seen here."

Bantams of all kinds and colors, to the number of about eight hundred, and pigeons totalling over half as many, formed a feature of the show that attracted the crowd. Considering the fact, however, that the space provided for poultry is so limited, it is questionable whether or not it is wise to make so many divisions and encourage such tremendous numbers of these when the space could be devoted to benching the utility birds to advantage.

As in other years, the American breeds, Wyandottes and Rocks, were largely in evidence. The numbers of Silver-laced and Partridge Wyandottes, and of White and Buff Rocks, is on the increase, and would indicate that the popular White Wyandottes and Barred Plymouth Rocks may in time be outdone by other colors. In fact, the prize for utility pens went to White Rocks, owned by G. A. Robertson, of St. Catharines. The Wyan-

dottes were of meaty type, and many of them ideal in feather. The first-prize cockerel might safely be classed as the best bird of the breed ever seen in Guelph. First for cockerel and pullet went to J. S. Martin, of Port Dover, who had a large share of the prizes. Other winners included N. A. McLeod and J. A. Carroll, of London; Jos. Russell, of Toronto; Chas. Massie, of Port Hope; J. H. Traplin, of Hespeler; W. Davison, of Niagara-on-the-Lake; A. Devitt, of Berlin; Wm. Archer, of Paisley, and Wm. Wilson, of Guelph. In Silver-laced Wyandottes the awards went to Alfred Flawn, Peep-o'-Day Poultry-yards, and Jas. Arthurs, of London, and Hintonburg Poultry-yards, of Ottawa.

In Banded Plymouth Rocks, J. Pringle and Chas. Hockin, of London; T. K. Millard, of Dundas; Jas. Hodge, of Toronto; Leslie Kerns, of Freeman; Geo. F. Holden, of Port Dover; Chas. Hall, of Trafalgar; Chas. Snyder, of Burgessville; Geo. Burn, of Tillsonburg; Hintonburg Poultry-yards, of Ottawa; G. B. Corbett, of Campbellville, and E. Syer, of Milton, were most prominent among those receiving ribbons. In White Rocks, Geo. A. Robertson, of St. Catharines, had some of the finest birds ever seen in Canada. Other prominent winners included Thos. Rice, of Whitby; J. L. Brown, of Seaford; Wm. A. Hogarth, of Hensall; C. J. Whitney, of Galt; Guy Bell, of Brampton, and F. A. Andrews, of London. Rhode Island Reds were strong, with prizes awarded to Hughes & Taylor, of London; A. W. Graham, of St. Thomas; E. Wankle & Son, of Waterloo; Richard Tew, of Norway, and Jno. Lundy, of Niagara Falls.

Of the English breeds, the Orpingtons continue to increase in numbers. The quality, too, was excellent. Dorkings were strong, prizes for Silver-gray going to G. A. Burns, of Paris; for colored, to Jas. McCormick, of Rockton, and for white to Geo. Burn, of Tillsonburg.

TURKEYS, GEESSE AND DUCKS.

There were eighty-seven turkeys at the show. Considerable difficulty was experienced in placing the ribbons, though some thought sufficient importance was not attached to color. Prominent winners in the bronze were: W. J. Bell, of Angus; W. E. Wright, of Glanworth; T. Worrod, of Angus; W. H. Beattie, of Wilton Grove; Alfred Crane, of Eden Mills; Jas. Ford & Sons, of Drumquin; Cullis & McLean, of Powles' Corners, and A. McDougall & Son, of Milton. In white turkeys the winners were Geo. Baker, of Simcoe; W. H. Beattie, of Wilton Grove, and Baker Bros., of Guelph.

Geese totalled one hundred and one. The awards showed the best to be owned by C. A. R. Tilt, of Doon; D. Douglas & Son, of Mitchell; Thos. M. Shea, of Fergus; Scanlon Bros., of Ennotville; Geo. Burn, of Tillsonburg; J. M. McCormick, of Rockton; A. M. McDougall & Son, of Milton; Baker Bros., of Guelph; A. G. H. Luxton, of Milton West; Stephen Sellers, of Zephyr; G. B. Carbet, of Campbellville, and Isaac Knight, of Arkell.

There were 142 quacking ducks of all breeds, some seemingly as large as geese commonly seen throughout the Province. Awards went to G. & J. Bogue, of Strathroy; Baker Bros., of Guelph; D. Douglas & Son, of Mitchell; C. A. R. Tilt, of Doon; S. D. Furringer, of St. Catharines; H. F. Wismer, of St. Catharines; W. Casey, of Mitchell; I. T. Knight, of Arkell; H. Karn, of Guelph; H. B. Donovan, of Toronto, and Stephen Sellers, of Zephyr.

DRESSED POULTRY.

Once more and in one more place was lack of room in evidence. The dressed poultry simply lay in heaps. Considering the space at hand, it was well arranged. The condition of the birds demonstrated that at least a few in Ontario know how to feed and dress birds for the show. There were no bad ones. Birds that received no award this year were almost equal to the sweepstake birds of former years. In best pair, Dorkings got the honors. A pair of White Wyandottes stood second, and Plymouth Rocks third. Last year the highest award went to White Wyandottes, and previous to that to Banded Rocks.

Handsome prices were paid for this exhibit when put on sale. E. A. Hales, a local butcher, was the largest buyer. Prices ranged from \$2.00 to \$3.75 each for turkeys, 10c. to 12½c. per lb. for geese, \$1.40 to \$1.75 per pair for ducks, and \$1.10 to \$2.40 per pair for chickens.

ATTRACTIVE DISPLAY OF GRAINS.

Seventy-six two-bushel sacks of oats in new and clean bags, on which was inscribed, "Ontario Department of Agriculture, Agricultural Societies Branch, Grain from Winning Fields, Crop Competition, 1908," formed a most interesting part of an excellent display, comprising cereals, peas, corn on cob, potatoes and grass and clover seeds. These seventy-six bags contained oats from the choice fields in the standing field crops in Ontario west of Toronto, conducted last summer under the direction of J. Lockie Wilson, Superintendent of Fairs, and judged by experts sent out by the Dominion Seed Branch. Express charges to Guelph were paid by the Department.

The award of placing the awards fell to Professor

College, Ste. Anne de Bellevue. Each sack bore a tag, giving the name and address of the exhibitor, agricultural society to which he belonged, name of variety, prize taken in field crop, and nature of soil on which it was grown. In addition, full reports of the field competitions were distributed freely, so that those interested could compare the prize won as cleaned grain with that in the standing crop. The awards were: 1, Thos. McMurchy, of Loree, Collingwood Township Society, with New Sensation, weighing 45 lbs. to the bushel, and being 26% hull; 2, James McLean, of Richmond Hill, Richmond Hill Society, with Irish White, weighing 40 lbs. to the bushel, and being 26.9% hull; 3, Jno. McDiarmid, of Lucknow, Lucknow Agricultural Society, with White Danish, weighing 42 lbs. to the bushel, and being 28.9% hull; 4, J. A. Cockburn, of Aberfoyle, Puslinch Agricultural Society, with Lincoln, weighing 39.5 lbs. to the bushel, and being 28.9% hull; 5, Jas. Baird, of Lucknow, Lucknow Agricultural Society, with Sensation, weighing 41.5 lbs. to the bushel, and being 27.1% hull. J. A. Lind, of Beamsville, with Siberian, was highly commended, and Robt. McCowan, of Ellesmere, was commended on White Cluster. Freedom from weeds, low percentage of hull and high weight per measured bushel were strong points of the collection. Only two or three were discarded for bad weeds.

Awards were made in the general collection by John Buchanan, B.S.A., of the Ontario Agricultural College. Again New Sensation oats came into prominence, by winning first and second awards. Peas, corn and potatoes were of excellent quality. Exhibitors exercised care in preparing the samples for the show, and in corn and potatoes wisely selected uniform specimens. The list of winners will appear in next week's issue.

GRAIN SAMPLES SOLD.

In accordance with previous arrangements, the two-bushel sacks of oats in the Ontario competition were sold by auction, the returns to be forwarded to the owners. This gave farmers in the vicinity of Guelph an opportunity to obtain small quantities of high-class seed. Some, however, from a distance, realizing the importance of high-grade oats for seeding purposes, concluded it would be profitable to pay express or freight in order to secure this seed. The price averaged 76 cents a bushel, while on the local market only 40 cents was being paid. The sacks were disposed of at figures ranging from \$1.20 to \$2.00.

Several exhibitors made large sales at high prices. One prizewinner claimed to have sold most of his holdings at \$1.25 per bushel. Others sold at double the market price.

Speaking of this aspect of the show, J. A. Cockburn, who won fourth prize, said: "I consider it one of the best features of the show. It increases the desire for clean seed grain. Many make purchases from those who have won prizes. Since coming here I have sold about 40 bushels at a great advance on market prices. Last year I won in the field-crop competition in our district, and was unable to supply the demand."

PROGRAMME OF ADDRESSES.

If all who attended the various addresses given in the Lecture Hall at the Winter Fair Building follow out the advice, there should be less sickness and smaller losses in the flocks and herds throughout Ontario in the future. The idea of featuring common ailments in live stock, with discussions of cause, prevention and treatment, proved to be most interesting and popular. One point that was impressed by almost every speaker was that more attention to proper care of the stock was the main factor in having healthy animals. All urged prevention of disease as the main thing.

As trained veterinarians, Dr. J. Hugo Reed, of O. A. C., Guelph; Dr. J. Standish, of Walkerton, and Dr. H. G. Reed, of Georgetown, handled the common ailments, such as indigestion, colic, lymphangitis, heaves, azoturia and joint-ill, in horses; milk fever, contagious abortion and indigestion in cattle, and worms, indigestion and scab in sheep, in a manner so practical as to enlighten all who were interested. Scientific terms were avoided, or, if adopted, a common term was used in explanation. From the practical stockman's side, Wm. Smith, of Columbus; Robert Miller, of Stouffville; W. F. Stephen, of Huntingdon, Que.; and John Campbell, of Woodville, related experiences, and advised their fellow-farmers in such a style as to show that they knew what they were talking about. Questions were asked on every hand. The deplorable part is that only a small percentage of the visitors could get within hearing distance of the speakers. Hon. J. S. Duff, Minister of Agriculture, presided at several of the meetings.

The poultry session proved to be one of the best of the week's meetings. Miss M. Yates gave a stirring talk on fattening chickens, and urged stricter care in feeding and preparing for market. A practical demonstration in trussing fowl, which by the way, is said to be as it is done for King Edward's table, was followed with keen interest. L. H. Baldwin gave an address on when and how to hatch, claiming that the fact that few hens laid in winter was due to chickens

being hatched too late in the season. "Breeding and Rearing Chickens," was the subject of Prof. W. R. Graham's talk, and stereopticon views were used to show desirable and objectionable pens and yards.

The dairymen discussed pasteurizing of whey and cleanliness in every operation. F. Hens, Chief Dairy Instructor for Western Ontario, outlined the work done in the Western part of the Province, and showed the importance of clean whey tanks where whey was pasteurized. W. C. Shearer, of Bright, claimed that pasteurizing the whey increased its value \$3 to \$5 per cow. Cleanliness was urged by W. F. Stephen, of Huntingdon, Que., as the main factor from the standpoint of producer and manufacturer or retailer in cities and towns. A paper from Geo. Rice, of Tillsonburg, discussed the question of obtaining higher milk yields.

The decline in Canada's bacon production was referred to by Professor G. E. Day. This country had fallen from the proud first in quantity supplied in England to a poor second. He advised hog-raising as one of the most important adjuncts to general farming, particularly in dairy districts, and was strong in his statement that those who accused him of urging hog-raising because he had an interest in the packing industry, were charging him falsely. He advocated hog-raising solely in the public interest, because he felt that, with such cheap feed and favorable climate, Canada should produce hogs at as low a cost as any country in the world. He stated positively that he had no interest whatever in any packing concern, and that it meant nothing to him in dollars and cents whether Canadian farmers raised hogs or not.

Alfalfa-growing in Ontario was dealt with by Prof. C. A. Zavitz, who gave the yields on plots at the College, and discussed suitable soils, seeding, harvesting, and all points worthy of consideration. Henry Gendinning, of Manilla, who has had experience with this crop for many years, claimed that it was one of the most desirable of farm crops.

A discussion of Ontario's noxious weeds, with one hundred thrown on canvass by a lantern, was the contribution of G. H. Clark, Seed Commissioner, of Ottawa. The result should be a closer acquaintance with some of the weeds that should easily be identified by every farmer.

The wool industry was handled by T. D. Wardlaw, of Toronto. The folly of sending dirty wool, or wool which was full of burs, to market, was emphasized. A duty was advised. Col. D. McCrae, of Guelph, and J. Biggar, of Toronto, took part in the discussion, which developed into a quasi-debate on the tariff question. It was claimed that many woolen mills lay idle while the wool crop of several seasons lay untouched.

Space does not permit of a full report of the lectures. From time to time during the next few months, they will be covered in the various departments.

Poultry Club Officers.

Several poultry associations and clubs held annual meetings during the Provincial Winter Fair, at Guelph.

At the meeting of the Canadian Wyandotte Club Secretary J. F. Daly was presented with a gold chain and locket. The election of officers resulted as follows: Hon. President, Prof. W. R. Graham, O. A. C.; President, J. S. Martin; Vice-President, J. S. Daly; Sec.-Treas., W. J. Bullock. Executive—Mrs. Dawson, Mrs. C. Hall, L. H. Baldwin, A. Devitt, and Jos. Russell.

The White Plymouth Rock Club elected the following officers: G. A. Robertson, St. Catharines, President; J. L. Brown, Seaford, and J. Fortier, Quebec, Vice-Presidents; and C. J. Whitney, Galt, Secretary-Treasurer.

The Canadian Banded Plymouth Rock Club elected J. McCormick, of London, President; Prof. W. R. Graham, Guelph, Vice-President, and F. Westerby, Secretary.

The Canadian Game and Bantam Association selected Chas. Crowe, of Guelph, as chief executive officer; H. James, St. Thomas, Vice-President, and H. V. Treblecock and P. Finchan, Treasurer and Secretary.

The new officers for the Ornamental Bantam Association are: R. Oke, London, President; W. Teale, Guelph, and H. B. Donovan, Toronto, Vice-Presidents; J. C. Doidge, London, Secretary, and H. W. Partlo, Ingersoll, Treasurer.

Vegetable-growers Meet.

London, Ont., Vegetable-growers met and banqueted at a gathering of the local association last week, and appointed officers for 1909 as follows: President, W. C. Baker; First Vice-President, F. G. Fuller; Second Vice-President, W. Trott; Secretary, T. Wistow; Press Agent, F. Whitehall; Vegetable Committee, A. McInnis; Fruit Committee, J. Sharman; Seed Committee, F. G. Fuller; Exhibit Committee, Mr. Poad; Picnic and Excursion Committee, Frank Whitehall; Directors to the Provincial Association, F. G. Fuller and W. C. Baker.

Western Ontario Creamerymen Meet.

For some years the Western creamerymen have availed themselves of the opportunity of attending the Winter Fair at Guelph, and at the same time of holding a one-session convention at the Agricultural College. About fifty creamerymen, buttermakers, and others interested in creamery work, attended the convention on Wednesday afternoon, December 9th.

The chair was well filled by Mr. John Scott, of Exeter, 2nd Vice-President of the Dairymen's Association of Western Ontario. Mr. John Brodie, President of the same organization, graced the meeting with his presence, and told the creamerymen if they had any special wants which the Dairymen's Association could fill, all they had to do was to make their requests known.

In his report on Creamery Instruction Work, 1908, Mr. Frank Horns, Chief Instructor, called attention to the fact that a few years ago there was little butter made south of the G. T. R., but now more butter is made in that section of Western Ontario than is made north of G. T. R. The increase in butter made by the northern group in 1908 as compared with 1907 was 78 tons, while the southern group increased their output by 260 tons. The average number of patrons for each creamery is 184, and the average pounds of butter per patron but 460 lbs. When we consider that one or two good cows ought to produce this weight of butter, we get some idea of the small amount of butter per cow which is obtained by average creamery patrons. Twelve creameries still use the oil-test. The combined churn and worker has practically driven the box churn out of the Western creameries. The average percentage of fat in the cream delivered to the creameries in the northern group during the year was 19, and in the southern group 24. It is difficult to understand why farmers persist in sending "thin" cream to the creamery, as it robs the farm of feed and fertility, increases the expenses for hauling and making, and causes a poorer quality of butter to be made.

Sixty-one creameries have a good and abundant water supply. In 38 creameries the haulers would be considered first-class, in 36 fair, and in 16 very poor.

The average percentage of moisture in the butter during the past season was 14.3; highest average, 15.7; and lowest, 12.9.

The Chief Instructor pointed out that there are in Western Ontario 14,145 patrons of creameries, as against 16,209 patrons of cheeseries, showing that very nearly as many farmers are now patronizing creameries as cheeseries, whereas a few years ago it was nearly all cheese, except for the north-western peninsula of the Province.

The Professor of Dairying at the Ontario Agricultural College emphasized the need of a buttermaker taking a wider view of his work. A man who confined his energies within the four walls of his creamery would not likely succeed in these days. A creameryman should assist patrons to grow more feed, to produce more cream, to make more money, to grow more feed, to produce more cream, to make the creamery industry more profitable to all concerned.

CREAMERY IMPROVEMENTS

was the subject of an excellent address by Instructor Robertson. He mentioned, among other improvements, the need of better floors in creameries, improved drainage, and more modern cold storages. He thought that poor cream ought to be refused by the creameryman. As an aid in getting better cream he advised jacketed cans in preference to tanks for gathering cream. This part of his address provoked a lively discussion, which was taken part in by Messrs. McQuaker and McFeeters, of the Owen Sound Creamery Co., who thought the tank the only means practicable for gathering cream in the hilly country about Owen Sound. Messrs. Brill, of Teeswater; Miller, of Jarvis (where they use individual cans); Snider, of St. Jacobs; and a number of others, including the Chairman, took a hand in the discussion after Mr. Robertson got through. The weight of evidence seemed to be in favor of the tank system, but the Instructor maintained his ground. He was supported by Instructor Fred Dean, and one or two others.

The chief argument used against the tank was that the patron saw his cream dumped into a large tank, where its identity was lost. He knew that he would never see or hear anything about it again, which tended to make him careless and to supply as poor a quality of cream as would be accepted. The creameryman is helpless, as he does not know who are sending good cream and who are not. The advantage of the individual can system is that each patron's cream may be weighed, sampled and examined by the buttermaker, who, if he finds any not good, may go to the patron and try to remedy the difficulty. Instructor Fred Dean outlined a case where a creameryman was being robbed by the drivers ascending samples presented by the patrons, which differed very much from the average of the cream

delivered to the hauler. The buttermaker spent some time on the cream wagons after this was called to his attention, and he found it paid him to get out among the patrons. Both of the creamery instructors thought it would pay to hire cheaper labor to wash up in the creamery and have the buttermaker spend some time each month among those sending cream.

Other improvements suggested were: Better cream haulers, for the cream hauler sees the patrons at least once in two weeks, whereas many buttermakers never see them; literature for the cream haulers, many of whom would be glad to avail themselves of printed matter; more efficient makers; better equipment at the creamery, especially some form of a cream cooler; the use of scales for weighing cream at the farm, and scales for weighing samples tested; and more uniformity among creamerymen as to methods. He mentioned, in illustration, that if two patrons of different creameries were to meet to talk over creamery matters, it would be like two persons meeting who spoke two different languages—each would be unable to understand the other. One would be talking about creamery inches, the other about pounds; one about butter-fat, the other about butter, and so on. He thought creamery operators ought to get together and settle some of these questions, about which there is so much difference of opinion and practice at present.

COMPOSITE SAMPLING OF CREAM.

Mr. Geo. R. Taylor, of the Dairy School staff, outlined the results of some experiments, wherein he showed it might be possible for quite a wide variation between the test of a composite sample of cream and that of the average of dairy tests. He suggested daily testing, thus enabling the buttermaker to know what his overrun is daily. This would also give him a check on cream haulers. One creameryman, who must be a "feelosopher," objected to daily testing, because it would mean about 25 times the amount of kicking there was at present with tests made once a month. The manager of the Forest Creamery said they adopted the daily-test plan, but found it impossible to satisfy all patrons. The other suggestion was that some form of proportionate sampling, i. e., taking samples for composite testing in proportion to the weight of cream delivered, should be adopted.

REFRIGERATOR CARS AND WESTERN ONTARIO BUTTER.

Mr. Jos. Burgess, official referee in Montreal during the past season, said that the refrigerator-car service had been much improved during the year 1908, as compared with 1907. The temperature of the creamery butter at the various shipping points varied from 47.5° F. to 67.4° F. The latter he thought altogether too high. Of the butter examined by him in Montreal coming from Western Ontario, only 31% could be called first-class. He pointed out that Western Ontario butter was regularly quoted in Montreal at one cent a pound less than Eastern Townships butter, chiefly on account of an "old-cream" flavor. However, it was pointed out that most of the best butter made in Western Ontario is being held in cold storage for winter consumption.

WHY CREAMERYMEN SHOULD ATTEND THE DAIRY SCHOOL

was the subject of a paper by Instructor Fred Dean. He pointed out that the men who ought to attend the Dairy School were not present at the meeting, hence his paper would fail in reaching those whom it was designed to benefit. He said that creamery proprietors were willing to pay good wages to men who had taken the Dairy School course, if these were capable and practical buttermakers. There were plenty of good men in the creameries who needed the training which is given at the Dairy School.

A brisk discussion on the question of wrapping dairy butter in creamery wrappers was led by D. M. MacPherson and J. W. Steinhoff. All were agreed that this is a fraud that should be stamped out.

Canadian Cheviot, Suffolk and Black-face Records.

There has recently been brought under the Live-stock Pedigree Act a number of additional breeds of sheep, including the Cheviot, the Suffolk, and the black-face. This brings the number of breeds registered under the constitution of the Dominion Sheep-breeders' Association up to eleven. These additions illustrate the value of a national system of registration, which is conducted under the wing of the Dominion Department of Agriculture. Even with only a small number of breeders in Canada, each with a few heads of a breed, they are enabled at very little expense to open a Canadian record, which at once possesses a standing equal to any in the world.

Western Ontario buyers have been scouring some Eastern Ontario counties for dairy cattle, young and old. In some sections, feed being more plentiful than last year, prices are rather stiffer.

Canadian Hereford Breeders' Annual Meeting.

The nineteenth annual meeting of the Canadian Hereford Breeders' Association was held in the Wellington Hotel, Guelph, on December 9th, at 10.30 a. m. In the absence of the President, the Vice-President, W. H. Hammell, occupied the chair. The meeting was well attended by members from the various counties.

The Secretary-Treasurer presented his financial statement, showing a balance of \$710, which was adopted.

Registrar J. W. Nimmo read the following report: About the same number of pedigrees were recorded this year as in 1907, but there is a slight increase in the number of transfers and duplicate certificates issued, and we trust the year 1909 will see a far larger number of Herefords recorded than in any previous year.

The pedigrees of 788 bulls and cows have been recorded this year, and 282 transfers and duplicate certificates have been issued.

In October we sent out a circular to all the breeders of Herefords, requesting them to send in the pedigrees of their Hereford cattle, in order to have them appear in Vol. 5 of the Canadian Hereford Herdbook.

We now have 2,100 pedigrees on hand, sufficient to make a fair-sized volume of 250 pages, and would ask this meeting to authorize us to close this book for registrations December 31st, in order that we may issue the Herdbook as soon as possible after the first of the year. The following table shows the number of pedigrees, etc., received from each Province during the year:

| | Pedigrees. | Ancestors. | Trans. & Dup. |
|------------------------|------------|------------|---------------|
| Ontario | 289 | 11 | 106 |
| Manitoba | 130 | 38 | 79 |
| Saskatchewan | 36 | 21 | 13 |
| Alberta | 155 | 36 | 37 |
| British Columbia | 6 | | 20 |
| Quebec | 5 | | 13 |
| Nova Scotia | 4 | | 2 |
| United States | 17 | | 62 |

Officers were elected as follows: President, W. H. Hunter, The Maples, Ont.; Vice-President, H. D. Smith, Hamilton. Vice-Presidents for Provinces—Ontario, L. O. Clifford, Oshawa; Manitoba, Jas. A. Chapman, Beresford; Quebec, L. L. Bennett, Bennett; Alberta, C. Palmer, Lacombe; Nova Scotia, W. W. Black, Amherst; New Brunswick, H. B. Hall, Gagetown; British Columbia, L. L. McKay, Sinclair. Directors—Thos. B. Atkin, Teeswater, Ont.; Frank Harrison, Mt. Albert, Ont.; R. W. Stutt, Forest, Ont.; J. A. Govenlock, Forest, Ont.; Alf. Stone, Guelph, Ont.; J. J. Hunter, Durham, Ont.; Asa Warnica, Painswick, Ont.; A. F. O'Neil, Maple Grove, Ont.; R. J. Penhall, Nober, Ont.; Henry Reed, Mimosa, Ont.; Wm. Gillies, Robb, Ont.; W. H. Hammell, Beeton. Delegates to Exhibitions—Winnipeg, John Wallace, Cartwright, Man.; J. A. Chapman, Beresford. London—A. F. O'Neil, Southgate; R. W. Stutt, Forest. Ottawa—L. I. Bennett, Bennett, Que.; J. W. Nimmo, Ottawa. Winter Fair, Guelph—Alf. Stone, Guelph; R. J. Mackie, Oshawa, Ont. Maritime Winter Fair—W. W. Black, Amherst, N. S. Toronto—R. J. Mackie, Oshawa; Alf. Stone, Guelph. Calgary—J. T. Parker, Lethbridge, Alta. Sec.-Treasurer, R. J. Mackie, Oshawa, Ont.; Registrar, J. W. Nimmo, Ottawa, Ont. Registration Committee—Registrar, Accountant, and R. J. Mackie. Executive Committee—W. H. Hunter, H. D. Smith, W. H. Hammell. Representatives National Live-stock Association—R. J. Mackie, W. H. Hunter. Auditor, J. B. Beaton, Oshawa, Ont.

Grants to Exhibitions.—The following amounts were given to exhibitions named below, on condition that the classification of this money be satisfactory to the representatives, from this Association: Toronto, \$100; Winnipeg, \$25; Brandon, \$25; Calgary, \$25; Regina, \$25, London, \$25.

Each member was made a member of the Dominion Cattle-breeders' Association on payment of 50 cents per member by the Canadian Hereford Breeders' Association, this money to be donated towards Hereford prizes at the Provincial Winter Fair.

In case the grand championship at the Provincial Winter Fair is won by a pure-bred Hereford or grade, sired by a registered Hereford bull, the Canadian Hereford Breeders' Association supplement the prize to the extent of \$25.

The Constitution was amended and adopted.

His Ideal.

Enclosed find \$1.50 for my renewal. The Maritime letters by A. E. Burke, and especially his opinion of the stand taken by farmers, in your issue of November 12th, should be taken to heart by farmers. "The Farmer's Advocate" is about as near my ideal of an agricultural paper as I ever expect to get. E. F. CROWDER. St. Joseph Island, Ont.

Incorporated 1885.

THE TRADERS BANK OF CANADA.

Capital and Surplus:
\$6,350,000.

80 Branches in Canada.

REGULAR SAVINGS BRING INDEPENDENCE.

Even small deposits—made regularly—in the Savings Department of this Bank will, with the interest added every 3 months, soon grow into a substantial reserve fund—your safeguard in sickness or old age.

One Dollar opens a Savings Account.

Why not start one today.

One of the 80 branches of this Bank is convenient to you. Your account is invited.

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MARKETS.

Toronto.

LIVE STOCK.

At West Toronto, Ont., on Monday, December 14th, receipts numbered 105 carloads, consisting of 2,115 cattle; quality best in many months. Choice Christmas cattle, \$5.50 to \$6.50, and one or two reported at \$7; loads Christmas cattle, \$5.25 to \$5.60; ordinary good butchers', \$4.50 to \$5; medium, \$4 to \$4.25; common, \$3.50 to \$3.75; cows, \$3 to \$4; calves, \$3 to \$7 per cwt. Sheep, \$3.25 to \$3.40; lambs, \$5.25 to \$5.55 per cwt. Hogs, \$6 for selects, fed and watered, \$5.75 to drovers, f. o. b. cars at country points. Milkers and springers, \$35 to \$55 each.

REVIEW OF LAST WEEK'S MARKET.

The total live-stock receipts for last week at the City and West Toronto markets were 406 carloads, consisting of 6,318 cattle, 5,599 hogs, 7,210 sheep and lambs, 182 calves; with 122 horses.

There were more good cattle offered, but the bulk, still, were of the common to medium classes. Trade was generally good, the best cattle sold at higher quotations, but the lower grades were not any higher.

Exporters.—Few export steers were offered. Prices ranged from \$4.75 to \$5.25; bulls sold at \$3.30 to \$4.25, with one or two extra quality bulls at \$4.75 to \$5 per cwt.

Butchers'.—Prime picked lots of butchers' sold at \$4.75 to \$5; loads of good, \$4.40 to \$4.65; medium, \$4 to \$4.30; common, \$3 to \$3.75; cows, \$2.50 to \$4; canners, \$1.50 to \$2.25.

Feeders and Stockers.—Receipts were not as large, nor the demand so great, but prices were much the same. Feeders, \$3.25 to \$4; stockers, \$2 to \$3. Short-keep feeders, 1,100 to 1,200 lbs., \$4.25 to \$4.50.

Milkers and Springers.—Receipts liberal, but the quality of the bulk was not as good as usual. Trade fair, but prices were moderate in comparison with a month ago. Cows that sold at \$70 then, sell for \$60 now. Prices ranged from \$22.50 to \$60, with a very few at better price. The bulk of the best sold at \$40 to \$55 each.

Veal Calves.—Receipts light, market steady, at prices ranging from \$3 to \$6.50 per cwt.

Sheep and Lambs.—Receipts fairly large. Sheep sold at steady prices, but lambs were higher, owing to good demand for Buffalo market. Export ewes, \$3.25 to \$3.40; rams, \$2 to \$2.50; lambs, \$4.75 to \$5.50, the bulk going at \$5.25.

Hogs.—Receipts moderate. Selects sold at \$6 to \$6.15 per cwt., fed and watered, and \$5.75 to \$5.90, f. o. b. cars at country points.

Horses.—At the Union Horse Exchange, Manager J. Herbert Smith reported the horse trade as being very quiet. Mr. Smith stated that he had had some inquiries from the Northwest and several outside points from parties that would be needing horses in the near future, but did not expect very much trade before the New Year. Prices were unchanged from those given in our last report.

BREADSTUFFS.

Wheat.—No. 2 white, 93½¢; No. 2 red, 93½¢; No. 2 mixed, 93¢. Manitoba—No. 1 northern, \$1.08½; No. 2 northern, \$1.06; No. 3 northern, \$1.04, on track at lake ports. Rye—No. 2, 76¢. Peas—No. 2, 85½¢, outside points. Oats—No. 2 white, 40½¢; No. 2 mixed, 40¢ bid. Barley—No. 2, 58¢; No. 3X, 55¢; No. 3, 54¢. Corn—Old, 71¢ to 72¢; new No. 3 yellow, 69¢. Buckwheat—No. 2, 55½¢ bid. Flour—Ontario, 90 cent. patent, \$3.50 bid for export; Manitoba patent, special brands, \$6; second patents, \$5.40; strong bakers', \$5.30. Bran—Car lots, on track at Toronto, \$22 to \$23, in sacks. Shorts—Car lots, in sacks, at Toronto, \$24 to \$25.

COUNTRY PRODUCE.

Butter.—Receipts liberal; trade steady. Creamery pound rolls, 28¢ to 30¢; separator dairy, 25¢ to 26¢; store lots, 22¢ to 24¢.

Eggs.—New-laid, 40¢; cold storage, 25¢.

Cheese.—Receipts equal to demand, with prices steady. Large, 13½¢; twins, 14¢.

Honey.—Market unchanged. Extracted, 10½¢ to 11¢; combs, \$2.25 to \$2.75 per dozen sections.

Potatoes.—Market a little firmer, at 60¢ to 65¢ per bag, for car lots, on track at Toronto.

Poultry.—Receipts fair; quality a little better. Prices a little firmer, as follows: Turkeys, 13¢ to 14¢; geese, 10¢ to 11¢; ducks, 10¢ to 12¢; chickens, 11¢ to 12¢. Live poultry 2¢ per lb. less.

Beans.—Trade quiet; prices easy; primes, \$1.70 to \$1.75; hand-picked, \$1.80 to \$1.85.

Hay.—Paled, in car lots, on track at Toronto, \$10.50 to \$11.50.

Straw.—Baled, car lots, on track at Toronto, \$ to \$8.

HIDES AND WOOL.

E. T. Carter & Co., 85 Front street East, Toronto, have been paying for No. 1 inspected steers, 60 lbs. and up, 10¢; No. 2 inspected steers, 60 lbs. and up, 8¢; No. 1 inspected cows, 9½¢; No. 2 inspected cows, 8½¢; country hides, cured, 8¢ to 8½¢; calf skins, city, 12¢; calf skins, country, 10¢ to 12¢; horse hides, No. 1, \$2.75; horse hair, per lb., 29¢ to 30¢; tallow, 5½¢ to 6½¢; lamb skins, 60¢ to 65¢; raw furs, prices on application.

SEED MARKET.

The Wm. Rennie Seed Company report little doing, and do not expect there will be much doing in the seed line before the New Year. Following are the prices quoted as being paid to farmers, and not seedmen's selling prices after recleaning: Alsike, fancy, \$7 to \$7.25; No. 1 quality, \$6.50 to \$6.75; No. 2, \$6 to \$6.25; red clover, \$4.50 to \$5.25; timothy seed, \$1.30 to \$1.60 per bushel.

CATTLE MARKET NOTE.

Wm. Pridham, ex-M. P., and one of the best known of the live-stock dealers in Western Ontario, shipped from Mitchell 150 choice Christmas beef cattle, to Messrs. Dunn & Leveck, commission salesmen. These cattle were sold at the City yards on Thursday to the Harris Abattoir Co., at prices ranging from \$5 to \$5.50 per cwt.

British Cattle Market.

London cables for cattle 12½¢ to 13½¢ per lb., dressed weight; refrigerator beef, 10½¢ to 10½¢ per lb.

Montreal.

Live Stock.—Exports of cattle from St. John, N. B., and Portland, Me., for the first week of December amounted to 1,821 head. There was a good demand for ocean freight space from Canadian ports, 50s. having been paid to Liverpool and London, and 45s. for Manchester. A stronger tone developed in the local market, owing to brisker export demand. On this account, 5½¢ per lb. was paid for a large number of Ontario stall-fed stock, while holders of Northwest ranchers were asking 5¢. Butchers paid 3¢ per lb. for choice Canadian cattle, and 5½¢ for a few. Fine cattle, however, were bought at 4½¢ to 5¢, good 4½¢ to 4¼¢, medium 3½¢ to 4¢, common 2½¢ to 3¼¢, and inferior as low as 1½¢ per lb. Market for sheep and lambs showed a strong tone, and prices advanced fractionally. Choice lambs sold at 3¢ to 5½¢ per lb., good at 4½¢ to 4¼¢, choice sheep bringing 4¢ per lb., and culls 3½¢ to 3¼¢ per lb. Calves sold well, at 2½¢ to 5¢ per lb., demand being moderate. Live hogs were firm, choice stock being insufficient to supply the demand. Sales of selected lots took place last week at 6½¢ to 6¼¢ per lb., weighed off cars.

Horses.—Dealers reported a slight improvement in the demand for horses. Sir Montague Allan has purchased at the Waterloo sale the Thoroughbred brood mares, Reine de Saxe and Sans Coeur, the progeny of which will be eligible for the Quebec King's Plate. Heavy draft horses, 1,500 to 1,700 lbs., \$250 to \$300 each; light draft, 1,400 to 1,500 lbs., \$200 to \$250; good blocks, 1,300 to 1,400 lbs., \$175 to \$200; small or inferior animals, 1,000 to 1,100 lbs., \$100 to \$150; broken-down horses, \$50 to \$75, and choice saddle or carriage animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—Fresh-killed, abattoir-dressed stock, 8½¢ to 9½¢ per lb.; country dressed, 8¢ to 8½¢. Cured meats in good demand.

Poultry.—The poultry market has undergone a transformation since our last report, the cause of which is directly attributable to the snowfalls of the last week and the cold, winter weather. The only trouble experienced was in connection with transportation, some country shippers writing in to say that the railways would not accept shipments by freight, insisting that they must go by express. The road here apparently denies this charge. However, every kind of poultry was in fair demand, turkeys and chicken being particularly so. Choice turkeys 13¢ to 13½¢ per lb., and ordinary 9¢ to 12¢, the range for nice stock being from 12¢ to 12½¢ per lb. Choice chickens were selling in some cases as high as 13¢ per lb., though good ones were obtainable around 11¢ to 12¢, and ordinary at even less, while best fowl ranges from 7¢ to 9¢ per lb. Geese were not in very good demand, and prices were about the same as those of fowl, while ducks ranged from 10¢ to 11¢ per lb.

Potatoes.—Some good white potatoes sold at 75¢ per 90 lbs., on track, Green Mountains bringing 2½¢ to 5¢ more, while shippers have been stiffening to 85¢ for the latter, basis track, here. These have retained at a cent a pound in smaller lots, and about \$1 per bag in single bags.

Eggs.—Dealers were taking their spring eggs out of cold store and selling them at about recent prices, being about 22¢ to 23¢ per dozen for No. 1 candled, and 26¢ for selects. What are called fresh-laid sold at 33¢ to 35¢.

Butter.—Market steady. Demand was picking up, and during the coming few weeks should be quite active. Fancy October creamery was selling at 27½¢ to 28¢, in a jobbing way, and at 28½¢ in lots of a few boxes at a time.

Cheese.—Market dull. Tail-ends were still quoted at 11½¢ to 11¢ per lb. for Quebecs, and 12¢ to 12½¢ for Ontarios. Finest Octobers would bring 4¢ more.

Grain.—Oats are said to be strong for future shipment, but easy for spot, 46¢ to 46½¢ for No. 2 Manitoba oats, Montreal, and 45¢ to 45½¢ for No. 3 and for No. 1 feed. Ontarios not in demand, No. 2, 41¢ to 45¢, No. 3 a cent less, and No. 4 yet a cent less. Corn steady, at 72¢ to 73¢ for No. 3 yellow, buckwheat 58¢ to 59¢ per bushel.

Feed.—Brain is in demand, and prices held firm, at \$20.50 to \$21.50 per ton in bags; shorts not being asked for very much, at \$23 to \$24. Alfalfa meal is

very scarce, and it is doubtful whether any can be had in the city. Prices advanced and are now in the vicinity of \$30 to \$33 per ton, though these figures are not definite. The high price of corn is responsible. Lower prices are looked for. Cotton-seed meal is quoted at \$33 per ton, and oil cake \$32.

Hay.—Market stronger; prices advanced about 50¢ per ton, all round. No. 1 timothy, \$13 to \$13.50 per ton; No. 2 extra, \$11.50 to \$12; ordinary, \$10 to \$10.50; clover mixed, \$8.50 to \$9.50, and clover, \$7.50 to \$8.

Hides.—Market firm at the recent advance, lamb skins having gone 5¢ higher, at 50¢ to 55¢ each. Demand fair. Beef hides 8½¢, 9½¢ and 10½¢ per lb., for Nos. 3, 2 and 1 hides, respectively; calfskins 11¢ and 13¢ per lb.

Chicago.

Cattle.—Steers, \$4.60 to \$7.80; cows, \$3 to \$5.25; heifers, \$2.50 to \$4.60; bulls, \$2.75 to \$4.50; calves, \$2.50 to \$3.25; stockers and feeders, \$2.50 to \$4.25.

Hogs.—Choice heavy shippers, \$5.80 to \$5.92½; butchers', \$5.70 to \$5.87½; light mixed, \$5.25 to \$5.45; choice light, \$5.50 to \$5.60; packing, \$5.50 to \$5.80; pigs, \$4 to \$5.15, bulk of sales, \$5.50 to \$5.85.

Sheep and Lambs.—Sheep, \$4 to \$5; lambs, \$5.25 to \$5.70; yearlings, \$4.25 to \$6.50.

Buffalo.

Cattle.—Prime steers, \$6.25 to \$6.50.

Veals.—\$7 to \$10.50.

Hogs.—Heavy, \$5.90 to \$6; mixed, \$3.90 to \$5.95; Yorkers, \$5.30 to \$5.90; roughs, \$5.25 to \$5.50; dairies, \$5.40 to \$5.75.

Sheep and Lambs.—Lambs, \$5 to \$5.75; ewes, \$4 to \$4.25; Canada lambs, \$6.85 to \$7.15.

TRADE TOPICS.

VERMICIDE AND DISINFECTANT.

Few people are aware that Dr. Williams' Fly and Insect Destroyer, which had such a large sale during the summer months, is of value during the winter season. Their advertisement may be seen in the columns of this number. Being unaffected by frost or heat, this preparation is a good germicide and disinfectant to be sprayed about the stables during the winter months, as a preventive of disease. For destroying lice on young stock, hogs, and vermin in poultry houses, it has also been very highly recommended by many who have used it.

GREAT LABOR-SAVER FOR FARMERS.

It has been stated that of all the mechanical appliances developed for the generation of farm power, the gasoline engine is the most valuable, and when one considers the many uses to which this machine may be harnessed, the statement seems within the mark. With a small engine a farmer may obtain power for sawing firewood, operating the dairy, grinding corn, fodder, etc., pumping water, and many other purposes, including the operation of electric-light plants for lighting the farm and house. The fact which appeals to everyone is the simplicity of gasoline engines, which can be operated by the most inexperienced help. The Canadian Fairbanks Company, who handle the famous Fairbanks-Morse "Jack-of-all-Trades" Gasoline Engines, have been among the leaders in developing these power machines and other engines which are especially adapted for farm work and any service where reliable power is required. Many thousands of the Fairbanks-Morse gasoline engines are in daily use. They are popular wherever known, because of their characteristics and advantages, some of which are enumerated as follows: Easy to start, whether in warm or cold weather; reliable in operation; no intricate parts to get out of order; economical in the use of fuel, due to exclusive and patented features of design; strongly built and durable, as proved by engines which have been in hard use for over ten to fifteen years. The Canadian Fairbanks Company have complete catalogues on farm engines and other mechanical tools which they will be pleased to mail to any interested party on request to their nearest warehouse at Montreal, St. John, Toronto, Vancouver, Calgary or Winnipeg. Kindly mention "The Farmer's Advocate."



**Life, Literature
and Education.**

President Eliot, of Harvard University, who once fought no-license as an interference with individual liberty, is now an ardent advocate of it. "When I see," he says, "a great collective good accomplished at the expense of the loss of a trifling or unimportant individual liberty, I am reconciled to that amount of interference with liberty." . . . It is worth while pausing, upon many questions, to consider wherein a little personal sacrifice may accomplish a great good. "The greatest good to the greatest number," is a rule which, in all things public, has never been improved upon.

Complaints that the fumes from the plants of the Anaconda Copper Company, Anaconda, Mont., are ruining the vegetation of the vicinity, are being considered in Washington, and the Government believes it can interfere on the ground that the destruction of vegetation impairs the water supply, which is under its direct control for purposes of irrigation and reclamation. The occurrence affords yet another object-lesson to those who believe they can sell and burn all the woodland and swamp on their property without reaping any other harvest than gold. Lack of water supply, diminution of streams, sudden floods, gutting of banks, the washing out of soil nutriment—these are a few of the elements which combine to form a second harvest, the harvest of retribution with which nature revenges herself upon those who are her enemies. Invariably, men learn, when too late, that the balance of nature cannot be disturbed without impunity.

A short time ago there died in the General Hospital, Toronto, Marie la Blanche, injured while performing a "thriller" before the grand-stand at Toronto Exhibition. Must human life be sacrificed in order that Canadian audiences may be amused? Or cannot Canadian audiences, by refusal to patronize such "shows," and by demanding a different class of entertainment, compel the presentation of saner, more humane performances upon the Canadian stage? The blame for such accidents ostensibly rests with the people. The men who employ "thrillers," invariably in order to fill their own pockets, keep one hand on the pulse of the people, and are bound to supply the

thing that "takes." . . . Incidentally, why might not as much pleasure be taken in a Greek dance—beautiful, graceful, safe—as in the sight of a woman in tights shooting down a wire while suspended by her teeth? . . . The Greek dance is but one of a thousand suggestions.

The report of the Select Committee, appointed from its members by the House of Lords, to consider its own reform, has been issued within the past fortnight. The Committee recommend (1) that qualification should be the chief test, and that the mere possession of a peerage should not give the right to sit or vote in the House of Lords; (2) that all hereditary Peers should elect 200 of their number to sit and vote as Lords for a single Parliament, and that the Spiritual Lords of Parliament be reduced to ten, elected by the Bishops; (3) that Canada, Australia and New Zealand have representatives in the Upper House; (4) that about 130 possessing qualifications shall sit without election,

Spelling Reform.

In this country, the subject of spelling, inconsistent and abnormal as it is, receives high honor. A fact or two may be cited in support of this statement: A summary of a large number of school time-tables showed that spelling was given more time than any other subject on the curriculum, save one; at the High School entrance examination it is one of the few subjects upon which a paper is given, usually a difficult one, besides the deduction made for every misspelled word in all the other subjects.

Do we exaggerate the value of spelling? Other school studies, as reading, arithmetic, grammar, etc., are supposed to have value for mental training, as well as for utility. Spelling of some kind is necessary for the expression of thought in writing and print. Apart from this important but purely utilitarian value, it has no other worth mentioning. It cannot be said to cultivate the observing powers. English spelling, particularly, contradicts reason and logic almost as often as

answer in the negative is based on reading a large correspondence from poor spellers, as well as from good ones. I can say that I never once received a letter so badly spelled that I had to leave some of its words unrecognized, or that I lost time in reading it, but I have received a good many that may have been correctly spelled, but so badly written that, after painstaking study and loss of time, I had to leave words only guessed by their context. Writers of the latter kind of letters would be more tolerable to the people on whom they impose their written communications if part of the time they had spent on spelling had been devoted to penmanship. An astigmatic mathematician of my acquaintance, whose spelling is far from being in the fashion, declares that "It does not take brains to spell, but only a sharp eye and prolonged practice in copying." Distinct writing has something of the moral quality of plain speaking. A writer pays scant respect to his correspondent who sends him a graceless, hardly decipherable scrawl to puzzle 'out. When the millennium comes, if by that time the progress of invention has not consigned both spelling and writing to the limbo of the lost arts, legible writing will be equally honorable with reasonably-correct spelling.

Considering that spelling is so valueless, save for the one purpose mentioned above, it follows that every tendency to economize the time and drudgery involved in learning it should be considered, and, if practicable, encouraged. The inconsistency and consequent difficulty of English spelling is admitted on every hand. On the railway I once travelled with an observant Belgian—a manufacturer's agent, who had been but a few months on this side of the Atlantic. In his childhood he had learned to speak French and German. He claimed to have learned Spanish and Italian while travelling in the countries where these languages are spoken. Of English, as nearly as I can repeat his words, he said: "I learn to speak your language with no difficulty; but it is very difficult to me to read English; it is impossible to me to write it—the spelling is very difficult. You speak your words in one manner, you spell them in a different manner. Italian, I learn to speak and to read and to write all at once. Italian words, and Spanish, too, speak and spell in one manner." If foreigners find our spelling difficult and tedious, it must also be so for our children. Indeed, some observers, who have had opportunity to form an opinion, have declared that English-speaking



Glimpse of a South Yarmouth Farm Home, Elgin Co., Ont.

their position being confirmed by evidence of ability, as shown by past service to the State. This action of the House of Lords may be but a mere scramble to retain a footing that must otherwise be lost. If not, it but exemplifies again those tendencies which place Britain among the foremost of the nations. Voluntary reform, whether in the individual or in the state, is an index of the highest civilization.

it conforms to them; it is notoriously unphonetic. No one denies that the acquisition of perfect English spelling in its present fashion demands much time and much of a kind of labor that does not rise above drudgery.

Assuming that spelling for the ninety-nine per cent. of our people is useful only for the written expression of thought, is it necessary that it should be perfect? My an-

children waste a year or more of their school-time in learning spelling, as compared with the time required by those speaking the other important languages of Europe.

Mr. Carnegie is one of those large-visioned Anglo-Saxons who would like to see English become the universal language. He recognizes that our present spelling is the chief barrier in the way of the realization of his desire. This is the reason, possibly the sole one, why he has given so generously to promote the simplification of English spelling. Some of the great scholars named in my first letter, while doubtless in sympathy with Mr. Carnegie's object, profess to aim at ridding English spelling of the deformities imposed on it by the pedantry of the eighteenth century, and to select for adoption the simplest and most consistent of the various spellings of words which have been used by reputable writers.

In another letter I shall discuss the plans proposed by these scholars, and the progress that they have made.

J. DEARNESS.

People, Books and Doings.

Miss Marion Terry, sister of the famous Ellen Terry, has been playing in the theatres of Canada during the past fortnight.

The anniversary of the burial of General Wolfe, at the parish church, Greenville, was commemorated recently by the unveiling of a handsome memorial tablet.

A special company has been formed in France to equip a factory for the immediate building of 50 aeroplanes on the Wright system.

Mr. Edison is at present superintending the construction of twelve patterns of his new model for a workman's house, sanitary and complete in every detail, which he considers can be built in three hours. He is also completing his combination cinematograph-phonograph, and experimenting with cinematograph films in color.

The Quiet Hour.

Write Them a Letter To-night.

Don't go to the theatre, lecture or ball,
But stay in your room to-night;
Deny yourself to the friends that call,
And a good long letter write.
Write to the sad old folks at home,
Who sit when the day is done
With folded hands and downcast eyes,
And think of the absent one.

Don't selfishly scribble "Excuse my haste,
I've scarcely the time to write,"
Lest their brooding thoughts go brooding
back

To many a by-gone night,
When they lost their needful sleep and
rest

And every breath was a prayer
That God would leave their delicate babe
To their tender love and care.

Don't let them feel that you've no more
use

For their love and counsel wise,
For the heart grows strongly sensitive
When age has dimmed the eyes;
It might be well to let them believe
You never forget them quite,
That you deem it a pleasure, when far
away,

Long letters home to write.

Don't think that the young and giddy
friends

Who make your pastime gay,
Have half the anxious thought for you
That the old folks have to-day.

The duty of writing do not put off,
Let sleep or pleasure wait,
Lest the letter for which they looked for
longed.

Be a day, or an hour, too late.

For the sad old folks at home,
With locks just turning white,
Longing to hear of the absent one;
Write them a letter to-night!

Home Manners.

Better is a dry morsel, and quietness therewith, than an house full of good cheer with strife.—Prov. xvii., i (margin).

"She doeth little kindnesses
Which most leave undone or despise,
For naught that sets our hearts at ease,
And giveth happiness or peace,
Is low esteemed in her eyes."

A correspondent sent me the piece of poetry called "Write Them a Letter To-night," with the request that it might be inserted in the Quiet Hour, and it suggested a topic for this week's chat. We know quite well that there is no place like home, and yet it is very seldom indeed that home is the peaceful, comfortable haven it ought to be. And the reason is usually because most people reserve their best manners for strangers, giving only second-best to the home people. Somebody has said: "Anyone can be kind to outsiders, but only good people are kind to home folk." And yet it is at home, for the most part, that we get the best chance to perfect good manners by practice. And it is at home that so many people cultivate the habit of rudeness until it becomes second nature, and they are rude to their nearest and dearest without knowing it. Rude words and rough tones make the home atmosphere painful. A little good-natured teasing between brothers and sisters only adds spice and piquancy to their friendly comradeship; but when the teasing really hurts the feelings of the weaker party, the fun becomes as brutal as the pelting of frogs in the fable. A boy who would be horrified at the idea of hitting a girl or a little brother, will often hurt them far more by cutting words.

Home courtesy is worth far more than grand furniture or carpets. Why do so many strain every nerve to make the home beautiful? Surely it is with the aim of making it a pleasant and agreeable place. And yet a home where rude words or unmannerly acts are frequent is anything but pleasant, no matter how magnificent it may be in appearance. Over and over again Solomon repeats the statement that it is better to dwell in a wilderness, or in the corner of the housetop, than with a brawling woman and in a wide house. I think that anyone who had experienced such a condition of things would fully agree with him.

God places us in families, joins us together by the strong bond of family affection; but the very closeness of the intimacy has its danger. The weak spots in the strongest character are plainly visible to his own family, and it is always necessary to exert forbearance if the harmony of the home is to be preserved flawless. It is so easy to say the cutting word that may rankle for years: "A brother offended is harder to be won than a strong city."

But, on the other hand, the priceless blessing of harmonious home life is within the reach of the poorest. Everyday courtesy, to relations as well as to strangers, is one of the marks of a really great and noble nature. Our Lord's courtesy is easy and beautiful as the restful green of the quiet grass or the peaceful blue of the summer sky. He addressed the poor sinful Samaritan women at the well with gentle grace, was quietly courteous to the cowardly Roman governor, and even met the loathsome kiss of a false friend with unruffled politeness. And yet He was not always smooth and polished like a silky courtier. Sometimes His fierce indignation against hypocrisy found vent in scorching, terrible words. Some people are so bent on being polite that they become insincere and untruthful. Their expression of opinion is worth nothing, because they are ready to sacrifice everything if only they can be agreeable. If Christ's courtesy had been simply a veneer, if He had set His heart on pleasing everybody, He would never have been crucified. His words came from the depths of a heart of burning love, and sometimes it was necessary to express horror of sin in words awful enough to wake a soul that was torpid with spiritual poison.

But fierce indignation was an exceptional and sad necessity, while gentle courtesy was the natural expression of His heart and of His perfect self-control. He could be roused to righteous anger, but no personal insults succeeded in irritating Him. How different we are

Even when we can control our words, the inner vexation is revealed by tone or look or gesture.

Courtesy is a plant we should cultivate carefully, though it must never crowd sincerity out. Bishop P'aget says: "Courtesy . . . is far more than a decoration or luxury of leisurely excellence. But it is in contact with those who are growing perfect in it, those who never fail in it, that one may more nearly realize its greatness. In seeing how every part of life is lit and hallowed by it, how common incidents, daily duties, chance meetings, come to be avenues of brightness, and even means of grace; how points of light come quivering out upon the dull routine of business, or the conventionality of pleasure; how God is served through every hour of the day;—it is in seeing this that one may come to think it far more strange that for His beginning of miracles our Saviour chose an act of courtesy."

HOPE.

I wish to thank the writers of the following letters for their cheering messages.

HOPE.

Dear Friend Hope,—I am glad to say that the messages in the Quiet Hour have interested me so much that I think no money could buy their worth.

As the mariner in the midst of a storm longs for the break of day, by the eye of faith and the aid of revelation, we can feel the wind of that fresh morning breaking in upon us.

Christians, never despond in temptation, nor repine under losses, but bear all with a smile, for the eternal joys of Heaven far exceed the brief sufferings of earth. If sanctified, every trial is a treasure, each wound a scar of glory, each drop of grief will glitter a diamond in the Christian's crown of bliss.

So I will close with a few verses, thanking the writer of the Quiet Hour for its goodness.

MAY DENHOLM.

My Best Friend.

"Who smiled unseen when, weak and wee,
A babe I lay on mother's knee?
Who sheltered all my infancy?
Twas Jesus.

"Who keeps me now at work and play?
Who gives me what I need each day?
Who guards me from the evil way?
Tis Jesus.

"Whose Spirit speaks the gentle word
That moves my heart to think of God?
Who wins me to the Heavenly road?
Tis Jesus.

"Oh, stay and lead me all the way!
Teach me to love, teach me to pray;
Teach me to please Thee every day,
Lord Jesus."

Dear Hope,—Since I wrote to you last I have had another attack of my old complaint and have not been able to write much. I am thankful I am able to now. I read your piece on "Enthusiastic Living" and was well pleased with it, and where you spoke of the little boy asking his neighbor, "Please don't forget to light your fire to-night," to give him the sight of it on the other side of the street, I thought it very touching. I thought I, too, would like to be a little light to some poor lonely soul who may be living a lonely life in the country or in town, and a verse of God's Holy Word might be a light to them.

"Count thy many mercies o'er;
Count them one by one,
It will surprise you to see
What our God hath done."

The greatest mercy is in God giving His only begotten Son to die for us. The next mercy is the rising sun. What would we do without it? God maketh the sun to rise on the evil and on the good. Another great mercy is the lovely water. How long could we live without that? And we may go on counting our mercies from day to day.

"Oh, for the peace of a perfect trust,
My loving God in Thee,
Unwavering faith that never doubts
Thou chooseth best for me,
Best, though my plans be all upset,
Best, though the way be rough,
Best, though my earthly store be spent,

In Thee I have enough.
Best, though my health and strength be
gone,

Though weary days be mine,
And even though disappointments come,
They, too, are best for me.
To wean me from this changing world
And lead me nearer Thee,
Oh, for the peace of a perfect trust,
That looks away to Thee,
That sees Thy hand in everything,
In great events or small,
That hears Thy voice—a Father's
voice—

Directing for the best.
Oh, for the peace of a perfect trust,
A heart with Thee at rest."

Hoping you may be spared long to
write in "The Farmer's Advocate."
H. W.

The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

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CHAPTER II.

The Walls of Quebec.

Count de la Galissoniere, accompanied by his distinguished attendants, proceeded again on their round of inspection. They were everywhere saluted with heads uncovered, and welcomed by hearty greetings. The people of New France had lost none of the natural politeness and ease of their ancestors, and, as every gentleman of the Governor's suite was at once recognized, a conversation, friendly even to familiarity, ensued between them and the citizens and habitants, who worked as if they were building their very souls into the walls of the old city.

"Good morning, Sieur de St. Denis!" gaily exclaimed the Governor to a tall, courtly gentleman, who was superintending the labor of a body of his censitaires from Beauport. "Many hands make light work," says the proverb. That splendid battery you are just finishing deserves to be called Beauport. What say you, my Lord Bishop?" turning to the smiling ecclesiastic. "Is it not worthy of baptism?"

"Yes, and blessing, both;" I give it my episcopal benediction," replied the Bishop, "and truly I think most of the earth of it is taken from the consecrated ground of the Hotel Dieu—it will stand fire!"

"Many thanks, my Lord!"—the Sieur de St. Denis bowed very low—"where the Church bars the door, Satan will never enter, nor the English, either! Do you hear, men?" continued he, turning to his censitaires, "my Lord Bishop christens our battery Beauport, and says it will stand fire!"

"Vive le Roi!" was the response, an exclamation that came spontaneously to the lips of all Frenchmen on every emergency of danger or emotion of joy.

A sturdy habitant came forward, and doffing his red tuque or cap, addressed the Governor: "This is a good battery, my Lord Governor, but there ought to be one as good in our village. Permit us to build one and man it, and we promise your Excellency that no Englishman shall ever get into the back door of Quebec while we have lives to defend it." The old habitant had the eye of a soldier—he had been one. The Governor knew the value of the suggestion, and at once assented to it, adding, "No better defender of the city could be found anywhere than the brave habitants of Beauport."

The compliment was never forgotten; and years afterwards, when Wolfe besieged the city, the batteries of Beauport repelled the assault of his bravest troops, and well-nigh broke the heart of the young hero over the threatened defeat of his great undertaking, as his brave Highlanders and Grenadiers lay slain



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WITH THE
"New Century" Washing Machine

It's far easier than churning or running a sewing machine. No rubbing—no work. Just turn the handle for 5 minutes and the clothes are washed—snowy white. Has a strong wringer stand that allows the water to drain right into the tub. Price delivered at any railway station in Ontario or Quebec—\$9.50. Our booklet tells how to turn wash day into child's play. Write for free copy. 88
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21

by fastened upon the back of Beauport.

The countenances of the hardy workmen were suddenly covered with smiles of welcome recognition at the sight of the well-known Superior of the Recollets.

"Good-morning!" cried out a score of voices; "good-morning, Father de Bery!" The goodwives of Beauport send you a thousand compliments. They are dying to see the good Recollets down our way again. The Gray Brothers have forsaken our parish.

"Ah!" replied the Superior, in a tone of mock severity, while his eyes overran with mirthfulness, "you are a crowd of miserable sinners who will die without benefit of clergy—only you don't know it! Who was it boiled the Easter eggs hard as agates, which you gave to my poor brother Recollets for the use of our convent? Tell me that, pray! All the salts and senna in Quebec have not sufficed to restore the digestion of my poor monks since you played that trick upon them down in your misnamed village of Beauport!"

"Pardon, Reverend Father de Bery!" replied a smiling habitant, "it was not we, but the sacrilegious canaille of St. Anne who boiled the Easter eggs! If you don't believe us, send some of the good Gray Friars down to try our love. See if they do not find everything soft for them at Beauport, from our hearts to our feather beds, to say nothing of our eggs and bacon. Our goodwives are fairly melting with longing for a sight of the gray gowns of St. Francis once more in our village."

"Oh! I dare be bound the canaille of St. Anne are lost dogs like yourselves—catuli catalorum."

The habitants thought this sounded like a doxology, and some crossed themselves, amid the dubious laughter of others, who suspected Father de Bery of a clerical jest.

"Oh!" continued he, "if fat Father Ambrose, the cook of the convent, only had you, one at a time, to turn the spit for him, in place of the poor dogs of Quebec, which he has to catch as best he can, and set to work in his kitchen! but, vagabonds that you are, you are rarely set to work now on the King's corvee—all work, little play, and no pay!"

The men took his raillery in excellent part, and one, their spokesman, bowing low to the Superior, said: "Forgive us all the same, good Father. The hard eggs of Beauport will be soft as lard compared with the iron shells we are preparing for the English breakfast when they shall appear some fine morning before Quebec."

"Ah, well, in that case I must pardon the trick you played upon Brothers Mark and Alexis; and I give you my blessing, too, on condition you send some salt to our convent to cure our fish, and save your reputations, which are very stale just now among my good Recollets."

A general laugh followed this sally, and the Reverend Superior went off merrily, as he hastened to catch up with the Governor, who had moved on to another point in the line of fortifications.

Near the gate of St. John they found a couple of ladies, encouraging by their presence and kind words a numerous party of habitants—one an elderly lady of noble bearing and still beautiful, the rich and powerful feudal Lady of the Lordship, or Seignior, of Tilly; the other her orphan niece, in the bloom of youth, and of surpassing loveliness, the fair Amelie de Repentigny, who had loyally accompanied her aunt to the capital with all the men of the Seignior of Tilly, to assist in the completion of its defences.

To features which looked as if chiselled out of the purest Parian marble, just flushed with the glow of morn, and cut in those perfect lines of proportion which nature only bestows on a few chosen favorites at intervals to show the possibilities of feminine beauty, Amelie de Repent-

igny added a figure which, in its perfect symmetry, looked smaller than it really was, for she was a tall girl: it filled the eye and held fast the fancy with the charms of a thousand graces as she moved or stood, suggestive of the beauty of a tame fawn, that in all its movements preserves somewhat of the coyness and easy grace of its free life.

Her hair was very dark and thick, matching her deep liquid eyes, that lay for the most part so quietly and restfully beneath their long, shading lashes—eyes gentle, frank, and modest, looking tenderly on all things innocent, fearlessly on all things harmful; eyes that nevertheless noted every change of your countenance, and read unerringly your meaning more from your looks than from your words. Nothing seemed to hide itself from that pure, searching glance when she chose to look at you.

In their depth you might read the tokens of a rare and noble character—a capability of loving which, once enkindled by a worthy object, might make all things that are possible to devoted womanhood possible to this woman, who would not count her life anything either for the man she loved or the cause she espoused. Amelie de Repentigny will not yield her heart without her judgment; but when she does, it will be a royal gift—never to be recalled, never to be repented of, to the end of her life. Happy the man upon whom she shall bestow her affection! It will be his forever. Unhappy all others who may love her! She may pity, but she will listen to no voice but the one which rules her heart, to her life's end!

Both ladies were in mourning, yet dressed with elegant simplicity, befitting their rank and position in society. The Chevalier Le Gardeur de Tilly had fallen two years ago, fighting gallantly for his King and country, leaving a childless widow to manage his vast domain and succeed him as sole guardian of their orphan niece, Amelie de Repentigny, and her brother Le Gardeur, left in infancy to the care of their noble relatives, who in every respect treated them as their own, and who, indeed, were the legal inheritors of the Lordship of Tilly.

Only a year ago, Amelie had left the ancient Convent of the Ursulines, perfected in all the graces and accomplishments taught in the famous cloister founded by the Mere Marie de l'Incarnation for the education of the daughters of New France, generation after generation of whom were trained, according to her precepts, in graces of manner, as well as in the learning of the age—the latter might be forgotten; the former, never. As they became the wives and mothers of succeeding times, they have left upon their descendants an impress of politeness and urbanity that distinguishes the people of Canada to this day.

Of all the crowd of fair, eager aspirants contending for honors on the day of examination in the great school, crowns had only been awarded to Amelie and to Angeliqne des Meloises—two girls equal in beauty, grace, and accomplishments, but unlike in character and in destiny. The currents of their lives ran smoothly together at the beginning. How widely different was to be the ending of them!

The brother of Amelie, Le Gardeur de Repentigny, was her elder by a year—an officer in the King's service, handsome, brave, generous, devoted to his sister and aunt, but not free from some of the vices of the times prevalent among the young men of rank and fortune in the colony, who in dress, luxury, and immorality, strove to imitate the brilliant, dissolute Court of Louis XV.

Amelie passionately loved her brother, and endeavored—not without success, as is the way with women—to blind herself to his faults. She saw him seldom, however, and in her solitary musings in the far-off Manor House of Tilly, she invested him with all the perfections he did

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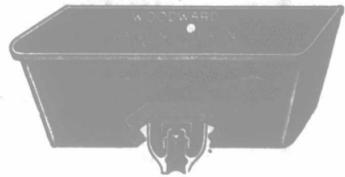
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Good going Dec. 24th and 25th, 1908. Returning until Dec. 28th, 1908. Also good going Dec. 31st, 1908, and Jan. 1st, 1909. Returning until Jan. 4th, 1909.

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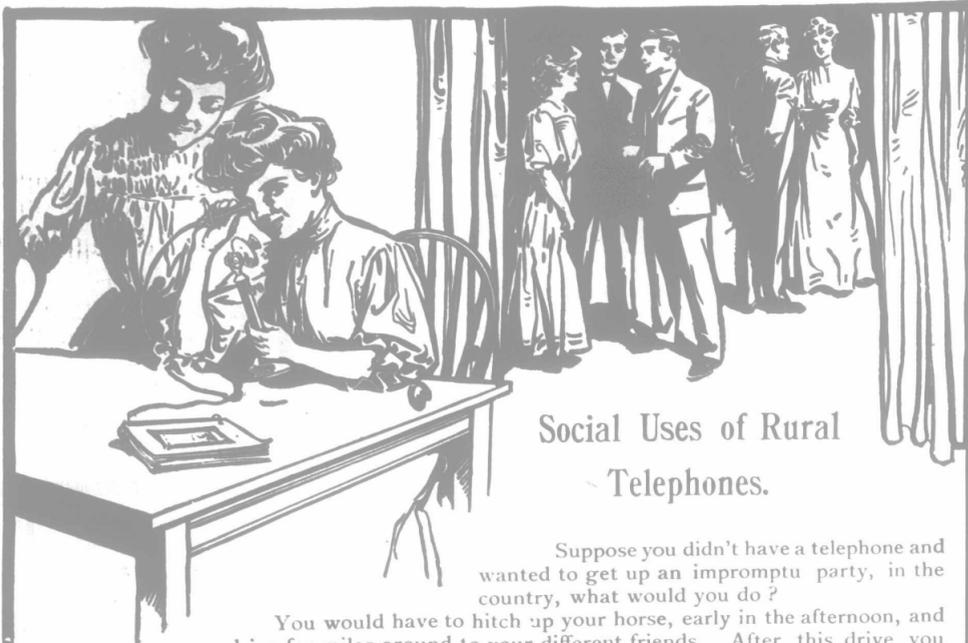
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You would have to hitch up your horse, early in the afternoon, and drive for miles around to your different friends. After this drive you would be so fatigued in the evening that you wouldn't want to see your friends.

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Use address nearest you.

No. 312

and did not possess; and turned a deaf, almost an angry, ear to tales whispered in his disparagement.

(To be continued.)

POWER LOT

A Story of "Down East."

BY SARAH McLEAN GREENE.

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CHAPTER XXIX.—Continued.

"Let me tell you. I am going to tell you all. It is best. Your brother is insane in his excesses. He attempted to kill Rob—at some quarry. He stole his money, though compelled afterwards to return that. He is hanging about now with someone to share his orgy, at the old 'Spook House,' with the intention of doing further harm. Put him into my hands. If aught in this world can help him, he will be helped. Let me have that in charge. Some part of your life I crave; dear girl, let that be my portion of your family life."

There was no scorn on the great man's lips. Mary stretched out her hands as one falling clutches at some support. The doctor did not take her hands, though his words were inexpressibly tender in tone.

"You must bear bravely still the trial of this brother's life," he said. "But you must be true to others as well. You must be true to Rob. If you still have any doubt as to your duty or your absolute freedom, why, I understand"—the doctor smiled—"that the fact that the marriage was a farce is so admitted and set down in black and white in a paper which James Turbine obtained and secured, and gave me to hand to Rob. I have it safe. But I shall see that Captain Turbine gives it to the joyful Rob, himself; for I fancy that he took heroic measures to obtain it."

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One 50-gallon barrel will make 12 bbls. of spray material for winter use, and 25 to 30 bbls. for summer use.

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"Jim!"

When they were in stress of thought, or had nothing else to say, they put the burden of speech off on to that easy-spoken, brief name—they just said "Jim."

"For no other woman"—the tender smile on the doctor's face grew whimsical—"could I have returned that fine young rascal so quickly to his inheritance. With you, I am not afraid. He did well for himself, indeed, when he won your heart. He will be here soon. You are very sweet to-night, and beautiful, troubled, glad, helpless, soft, and young. You would rive the heart of any man—who loved you. Do not tease Rob. Your eyes melt the soul of a man, and bewilder him—any man who loved you. And as for Rob, they say he worships you."

He did not turn to her again. "I am going to my good friend Mrs. Byjo," he said. "When I see you again you and Rob must have your plans made, or I shall have to carry you both away by force."

Mrs. Byjo, her evening work done, was waiting for her "boarder."

"Well," said the doctor cheerfully, in straightforward Power Lot, God Help Us, fashion, "Mary and Rob are going away with me, to be married. They will have the means to live in royal style, my good friend. Captain James Turbine will be marrying Cuby and roaming away with her."

Mrs. Byjo sprang forward and kissed the gentle though distinguished gentleman. Her spectacles were scattered with the impetuosity of the impact, and she searched for them without embarrassment, and with joyful tears in her eyes, the doctor aiding her.

"I thank you for that mark of your approval—and condescension, Mrs. Stafford," he said very gravely; and added gently, "I hold that kiss as sacred."

"If I was young and handsome and rich, which I never was," said Mrs. Byjo, settling her restored glasses on her pathetic little snub-nose, "you'd seem like a brother to me; for, being of the family I am, and not knowing yours, I don't know as I could consider any closer tie; but the poor old woman couldn't help giving ye a smack."

"I shall never forget that I have a royal sister," replied the doctor, "who has given me a token of esteem which I hold forever sacred."

CHAPTER XXX.

All in White.

Cuby could tie her clothes in a bundle. She could wear her Sunday hat till the sea winds tore and the fogs wilted it. That would be part of her honeymoon. Then she would go cheerfully back to the old felt headgear. Life was plain and easy for us to sail forth unhampered.

"You are bold," my bride-elect commended me, with a vain toss of the head; "you wait not, you go sweet as the wind. But Ma'y Stingaree and Rob, they go no so much even as a leetle way with us?" she asked, anxious to be assured on that point.

"No, another boat is engaged to take them to Waldeck, and then they will go by the railroad; they will go back to a life you and I know nothing about. But you and I will sail where we will, Cuby, and anchor where we will; and when we find the right place—the place that suits us—we'll settle down there and live by the fishing."

"You will be 'appy if you are on the water every day, Jeem?" she said wistfully.

That went to my heart.

"We will be happy on the water or on shore at home; never fear, girl," said I. And now that my work was about done, I was as eager as she to get out to sea. I had one more night to sleep as guard in the shed of the Stingaree house. When their lights went out up yonder on the hill, then I made my stealthy way thither, knowing that Cuby was safe by the River. Bate and his cronies would not trouble her until

they had secured the booty they were reckoning on.

There was a patient show that last evening, as patient as the bears. After an untheatered hiatus of months, the travelling shows were making a record of unprecedented frequency along the River. It was a ventriloquist this time—a ventriloquist and sleight-of-hand performer in one; and so satanic and diabolical were his occult powers believed to be, he was relegated to the basement of the schoolhouse, the only cover large enough to hold his ready audience. Belcher was there.

The patient little showman waited long after the hour advertised for the initial dish of the dark feast he was to give, in order to see whether some of the many faces leering in from the outside of the uncurtained windows would pay the necessary fee for an entrance.

"See here," Belcher's voice broke the silence, "you got a good-sized audience inside here—all the chairs 'll hold. Go ahead with your fork-lightning and salt-peter."

With a consenting sigh, our entertainer seated himself on a deal chair in the center of the platform, a caricature of the Irish race represented in the doll which he held on his right knee, while on the other knee he supported an equally exaggerated type of dark and unkempt Africa.

"Ladies and gentlemen," he said, "let me introduce to you Mr. Maguire and Mr. Johnsing, who will now carry on a mysterious conversation together without the aid of human instruments. As you observe and listen, you will wonder how these little mechanical devices—for I assure you these are nothing but ordinary dolls—can open and shut their mouths, and converse in intelligent sounds, plainly issuing from their own insides. If anyone in my audience doubts that these are simply ordinary dolls, I invite him to come to the platform and examine them now, for they have sometimes been interrupted in the midst of an interesting conversation by clamors on the part of the audience maintaining that they were not dolls at all, but human midgets that I was palming off upon them as miraculous talkers. Would anyone like to come up and examine the dolls?"

A crude and credulous being from the rear of the house wended his way to the platform and inspected carefully the objects on the performer's lap.

"Them's dolls," he reassured the audience, with a grin, and went lumbering back to his seat by the water pail.

"You hear," said the showman, "these are none other than ordinary dolls. Now—"

"The tap o' the day to yez, Sambo. Wot's ather puttin' the kink in yer hair, eh?" the mouth of the Irish doll, as presumable authority for this rude speech, opened and shut with the automatic regularity of a piston rod; and a shout of glee went up from some small untravelled boys, for whom the present occasion contained every element of vivid excitement.

"Min' yo' business, Paddy. My ha'r's all right. Say, do everybody in Cork have ears de size o' yourn?"

"The nigger-doll's mouth ain't workin'," protested one of the small boys, in a loud cry of bitter chagrin.

The magician blushed with an active emotion, as of an old pain revived, and, working vigorously at the crank concealed in Sambo's back, he bent his head to observe whether the lips of the recalcitrant one moved in becoming accord; but that thick orifice remained obstinately shut. With a deep sigh he laid the Irish orator on the floor, and placing Africa face downwards across his knees he gave his entire attention to readjusting the springs which so fatally contorted the vocal organs of his dark subject. Again and again he essayed to compel issuance of speech, but though bold verbal assault and caustic ribaldry possessed the African from head to toe, the mouth necessary to confirm these

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TESTS made by dairying experts show that the average cream separator leaves 0.054 per cent. of butter fat in the skim milk. That is the average loss you can expect from the average machine.

With butter at 25 cents a pound, that loses you 6.7 cents on every 500 pounds of milk you run through the average machine.

But the Capital Separator skims to a mere trace; and its average loss is only 0.01 per cent.—pretty nearly six times as clear as the average machine skims.

On every 500 pounds of milk that saving amounts to 5½ cents (\$0.0547 exactly). Figure it out for yourself and see.

Now the Capital machine, although its bowl is the lightest, and its gears the easiest-turning, easily handles 500 pounds of milk an hour. Run it two hours a day, and it will get you practically **Eleven Cents a Day More Butter-Money** than the Average Machine.

If that isn't \$40.15 cents a year, what is it? If you don't think that is possible, or if the Average Machine's man says it isn't, write to me and I will prove it to you.

The reason for this big difference is the Capital Wing-Cylinder,—the 7,000-revolutions-a-minute Skimming Device that whirls the fat out of the milk almost drop by drop. This device is the one that handles the cream and the milk only once,—doesn't mix the cream again and again with the skim and lose a little fat with each needless mixing, as the hollow-bowl machines have to do. And the Capital machine, with its 3½-pound bowl (the Lightest Bowl there is), and its perfected, simplified, easy-running, gearing, doesn't make you work like a horse to keep it running uniformly fast enough, as you have to do with the Average Machine and its old-fashioned gears.

Nor is there any back-breaking lifting, sloppy, mussy, high-up milk tank about the Capital machine. Its milk-tank stands on the floor,—the Only Really Low-Down Tank there is. Look at the picture of it and see how easy it is to fill.

I will sell you a Capital on terms so easy the machine will buy itself before you realise it.

Tell me how many cows you keep, and what their yield is, and I will tell you just how quick a Capital will pay for itself on your farm—and what it will actually earn you, in money.

I will prove every word I say if you will write and ask me what you want to know about the Right Way to get More Money out of Cows.

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emotions remained shut with the tenacity of a sprung trap.

"Want a screwdriver?" volunteered Belcher, obligingly making his way to the platform. "I always carry one in my pocket, and I worked in a machine-shop a spell, once. We'll make Sambo open his mouth, 'r know the reason why. Nobody ain't got no right ter deliver themselves o' sech a mess o' sass as that with their mouth shet."

While Belcher, with the sweat streaming from his brow—for the room was close and hot—was thus studiously repairing the first number of the performer's subtle programme, the flock who had been gaping in through the windows flowed noiselessly in and disposed themselves in good form among the worthier and legitimately registered guests.

But though his back was turned in anxious contemplation of Belcher's skill, the showman was entirely conscious of this act of piracy. He took his collecting-dish from among the other resources and paraphernalia of his inscrutable art, and proceeded to pass it among the newcomers.

"No, thank ye," politely observed the first pirate into whose face the dish was suggestively thrust. "I won't take anything. I had my supper jest before I left home."

"This," explained the magician, "is my dish for collecting entrance fees."

The courteous pirate put his hand

to his ear and leaned forward smilingly. "Thank ye, jest the same," he repeated. "I won't take anything. I had my supper."

The faint artist continued to wander, holding out his dish in the hope of finding truth and some more substantial spoils, until interrupted by Belcher, under whose manipulation Sambo's mouth was now opening to the utmost limit, and shutting regularly with the loud precision of a corn-sheller.

"Oh, let 'em alone, and come up here and play out some more o' yer bill," said the good-natured Belcher, resuming his unofficial seat among the audience. "All on us that paid could git our money back ef we wanted to, 'cause you advertised them dolls to talk without aid o' human instruments. A screw-driver's a human instrument, ain't it? An' it's me an' my screw-driver has geared up Sambo, thar, into yawpin' trim agin. But we don't want our money back. Ye're a-doin' well. Ye're a-doin' first-rate. The show ain't what it advertised ter be, but it's a darn sight better. 'Xceptin' when some special number—like Sambo, thar'—needs regulatin', it's the restfullest thing I ever went to. Let the boys alone, Beelzebub; git up onto the platform; turn on yer fireworks agin; make yer dynamite rattle now."

Inspired by this pyrotechnic utterance, the disheartened craftsman resealed himself and worked Sambo

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I was deaf for 25 years. I can now hear a whisper with my artificial EAR DRUMS in my ears. You cannot see them in my ears. I CANNOT FEEL THEM, for they are perfectly comfortable. Write and I will tell you a true story—How I Got Deaf—How I Made Myself Hear—and How I can make You Hear. ADDRESS

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William Cooper & Nephews, Toronto, Ont.:

Dear Sirs,—Re sample tin of Fluid Dip. Have used same to our entire satisfaction, mostly as a disinfectant, and have found it to be all that you claim for it, believing it to be fully up to the strength that you claim for it. We have no doubt that it should be valuable in ridding cattle and sheep of any vermin that may attack them.

We would be in a position to try more of it for this purpose were it at hand.

Yours cordially,

(Signed) JOHN DRYDEN & SON.

FOOT-AND-MOUTH DISEASE WILL NOT
ATTACK CLEAN CATTLE STALLED IN
CLEAN STABLES.

\$2 Buys 200 Gals.

WILLIAM COOPER & NEPHEWS,
MANNING CHAMBERS, TORONTO, ONTARIO.

and Paddy to such facetious measures, including several songs, that a round of applause followed. Misled by this generous encouragement, the dialogue stretched on and on into such overbearing proportions of time that the pirates rose wearily at last and stalked boldly forth into the outer elements, where they languidly resumed their old post of observation at the windows. They were joined by a number, who, though legitimately entitled to the luxury of the interior, were willing to forego their privilege for the sake of the clearer atmosphere outside; among these, Coby and I stood near a window which had been opened several inches by an unscrupulous pirate resolved to hear, as well as see.

(To be continued.)

Women's Institute Convention.

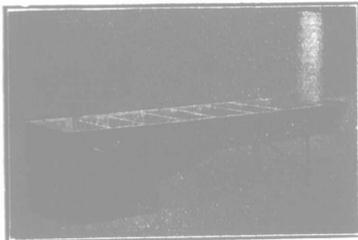
A report of the Women's Institute Convention will appear in next week's issue.

TRADE TOPIC.

HOSPITAL FOR SICK CHILDREN.

The announcement of the Hospital for Sick Children, College street, Toronto, has again been issued. This Hospital is Provincial. In it any sick child in Ontario, whose parents are unable to pay for treatment, is treated free of charge. Upon the other hand, every year there is in connection with the institution a large deficit which must be met, and can only be met by donations from the people of Ontario. If you have a sick child which requires skilful treatment, write to the Hospital for information. If you wish to help on a good work, send your donation, however small, to Mr. J. Ross Robertson, or to Mr. D. Davidson, "The Hospital for Sick Children," College St., Toronto.

Maple Evaporators



This evaporator is made to fill a big demand for one at a low price that will make first-class maple syrup. If you want an evaporator at a big price, don't apply to us, we don't make them; but if you want one at a low price, that will give you splendid satisfaction, we have it. We sell direct to you, and save you the middleman's profit. If not as represented when it reaches your station, send it back at our expense. Write for our illustrated pamphlet of evaporators, buckets, tanks, spouts, etc. Order early.

The Steel Trough & Machine Co.
Limited,
TWEED, ONTARIO.

RAILWAY OPERATING

Is thoroughly taught in our school under teachers of long experience and first-class ability. Catalogue free. Write:

Central Telegraph
School, TORONTO, ONT.

T. J. JOHNSTON, Prin. W. H. SHAW, Pres.

GOSSIP.

Remember the date of the dispersion auction sale of the herd of 30 Shorthorn cattle and a number of Poland-China hogs, the property of C. R. Gies, Heidelberg, Waterloo County, Ont., to take place on January 1st, when single fare railway rates are available. See Gossip notes regarding this sale on page 1928, in the Christmas Number of "The Farmer's Advocate."

SALE DATES CLAIMED.

Jan. 1st, 1909.—C. R. Gies, Heidelberg, Ont.; Shorthorns and Poland-China pigs.
Jan. 14th.—C. D. Wagar, Enterprise, Ont.; Shorthorns.
Feb. 3rd.—At West Toronto, W. G. Pettit & Sons, Freeman, and J. A. Watt, Salem, Ont.; Shorthorns.
Feb. 4th.—At West Toronto, W. C. Edwards & Co., Rockland, Ont.; Shorthorns.

COMING CLYDESDALE SALES.

Mr. William Meharey, of Russell, Ont., advertises in these columns that at Summerside, Prince Edward Island, on December 29th, he will offer at auction 15 imported Clydesdale mares, and at Charlottetown, P. E. I., on December 31st, he will hold an auction sale of 15 other imported Clydesdale mares. In another advertisement, Mr. Meharey offers three young imported Clydesdale stallions of an excellent class, sound, and bred on approved lines.

Mr. A. I. Hickman, Court Lodge, Egerton, Kent, England, exporter of pedigree stock, writes: Amongst my recent shipments of stock are two young and weighty Shire stallions, to E. G. Mitchell, of Waterford, Erie County, Pa., U. S. A. This is the third lot that Mr. Mitchell has had from me this year. I have also just shipped thirteen Shetland pony mares and one stallion to Mr. L. C. Price, of Penmoken, Lexington, Ky., U. S. A. This is the fifth consignment Mr. Price has had from me. The satisfaction which must have been given to ensure these repeat orders, speaks well for the good judgment and business principles of Mr. Hickman, whose advertisement appears regularly in "The Farmer's Advocate."

DEATH OF JOHN THORNTON.

Shorthorn breeders the world over who knew him, will agree that a grand good man has gone over the border line of this life in the person of Mr. John Thornton, of London, England, the well-known British live-stock auctioneer, whose death occurred on November 28th. For over 40 years Mr. Thornton's name was inseparably connected with Shorthorn interests and lore. Succeeding Mr. Strafford as the leading stock salesman of the land, he officiated at the great dispersion sale of the Torr herd at Aylesby, in 1875, when 85 head sold for an average of \$2,860, and at the draft sale from the herd of Lord Dunmore, in the same year, where 39 head averaged \$3,829, and the bull, Duke of Connaught (33604), sold for 4,500 guineas (\$26,904). Mr. Thornton was also present at a joint sale of Shorthorns from the herd of Hon. M. H. Cochrane, in Toronto, Canada, in June, 1875, when the cow, Airdrie Duchess 5th, was sold for \$18,000, and the bull, 5th Duke of Hillhurst, for \$8,300. Mr. Thornton, on this occasion, gave a demonstration of the English system of selling by means of the sand-glass, the animal being declared sold to the last bidder before the last of the sand had passed to the lower bulb. The experiment, however, was not a success with a Canadian company unaccustomed to that method of selling, and was discontinued after two or three animals had been sold.

Three years ago, at a banquet held in London, Mr. Thornton was presented with his portrait in oils. It was an international gathering, one of the best speeches being delivered by a Russian noble. The chairman was Sir Nigel Kingscote, and 1908 has seen both chairman and guest of that memorable evening cross the inevitable bourne. Farewell both! They belonged to a splendid type of English gentlemen, were loyal, true, honest, and brave. In many ways we shall not see their like again. Beautiful and pleasant in their lives, in death they have not been long divided.

AUCTION SALE!

Will sell by auction at

Summerside, P. E. I., on Dec. 29, '08
15 Imported Mares.

and at

Charlottetown, P. E. I., on Dec. 31, '08,
15 also.

These are a choice lot, and will be sold to the highest bidder. Sales commence at 1 o'clock.

Wm. Meharey, Russell, Ont.



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

BARRED ROCK cockerels. Prices low. Satisfaction guaranteed. Write for particulars. W. W. Dods, Alton, Ont.

BRONZE Turkeys—(Bell's strain). Toms \$3, hens \$2.50; B. Rock cockerels \$1; Barred Rock hens 50c. S. L. Anderson, Crossland, Ont.

FOR SALE—Large, well-marked Narragansett turkeys. Mrs. G. Baldwin, Colchester, Ont.

FOR SALE—Mammoth Bronze turkeys, bred from prizewinning heavy-weight toms and hens. Pairs not akin. R. G. Rose, Glanworth, Ont.

MAMMOTH Bronze turkeys. Extra good stock for quick sale. Prices moderate. George Braven, Dunnville, Ont.

MAMMOTH Bronze Turkeys—Fine heavy birds, good plumage; toms weighing 24 lbs., hens 15 and 16 lbs.; bred from good heavy prizewinning stock. Satisfaction guaranteed. J. H. Robson, Telfer, Ont.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock.

TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

ADOU 120 acres, in one of more lots, to suit purchasers. Everything first-class. Apply to D. Mackenzie, Hyde Park, Ont.

DO NOT SELL your land or move without getting particulars of small farms, Surrey Gardens Estate, on new electric railway, Vancouver Chilliwack. Write for them. Surrey Gardens Estate, Crown Buildg. Vancouver, B. C.

FOR SALE—The following on very easy terms: A fruit farm near Niagara; good house, barn, fences, soil and water. Also 200 acres, dairy, grain or fruit; extra buildings, good soil, fences, water, large orchard, valuable timber. One hundred and sixty acres near Hamilton; good buildings, soil, water, timber, and the very best sections in Alberta; good buildings; 180 b. acre; five miles of fencing; fine crops; fall wheat averaged over 40 bushels per acre. Apply 129 Main, W. Hamilton.

GREAT Dane Dogs Wanted—A young male and female; must be perfect specimens, solid blue color, well bred and registered. Dean Knickerbocker, manager, Plumtree Farm, Charlotte, N. Y.

SCOTCHMAN wishes situation pure-bred stock farm. State wages. Apply Scotchman, Farmer's Advocate, London, Ont.

TELEGRAPHY and Railroad Work quickly and thoroughly taught on railroad main-line wires. Railroad co-operation and thorough office training insures positions. Do not be deceived by flashy catalogues. Write F. E. Osborn, Molson's Bank Building, London, before closing with any school.

WANTED AT THE DELHI TANNERY Hides, Skins and Furs to tan for Robes, Coats and Gauntlets Mitts, etc. Tanned soft and pliable. Never get hard. B. F. BELL, DELHI, ONTARIO

WANTED TO PURCHASE
BALED HAY AND STRAW
IN CAR LOTS.

We purchase No. 1 timothy hay and straw, both oat and wheat. Must be from Grand Trunk points. Would be pleased to get into communication with hay-pressers and those handling hay and straw.

HENDRIE & COMPANY, LTD.
HAMILTON, ONTARIO.

3 VERY CHOICE YOUNG
IMPORTED
Clydesdale Stallions

For sale. Sound and grand stock-getters.

Wm. Meharey, Russell, Ont.

MORE CLYDESDALES COMING.

In the last week of November there were shipped from Glasgow for Ontario 43 Clydesdale stallions and mares, consigned to I. H. Hassard, Markham; T. P. Elliot, Pelton, and T. J. Berry, Hensall, further particulars of which may be looked for in future issues of "The Farmer's Advocate."

MANY DON'T KNOW HEART AFFECTED.

More People Than are Aware of It Have Heart Disease.

"If examinations were made of everyone, people would be surprised at the number of persons walking about suffering from heart disease."

This startling statement was made by a doctor at a recent inquest. "I should not like to say that heart disease is as common as this would imply," said the expert, "but I am sure that the number of persons going about with weak hearts must be very large."

"Hundreds of people go about their daily work on the verge of death, and yet do not know it. It is only when the shock comes that kills them that the unsuspected weakness of the heart is made apparent."

"But undoubtedly heart weakness, not disease, is more prevalent nowadays. I should think that the stress of living, the wear and rush of modern business life, have a lot to do with heart trouble."

There is no doubt but that this is correct, and we would strongly advise any one suffering in any way from heart trouble to try a course of **MILBURN'S HEART AND NERVE PILLS**

Price 50 cts. per box or 3 boxes for \$1.25, at all dealers or will be mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.



"Black Knight" Stove Polish

does away with all the dirty work of keeping stoves clean. No mixing—no hard rubbing. "Black Knight" is always ready to use—shines quick as a wink—and puts on a bright, black polish that delights every woman's heart. Equally good for Stoves, Pipes, Grates and Ironwork.

If you can't get "Black Knight" in your neighborhood, send name of dealer and 10c for full sized can.

The F. F. DALLEY CO. LIMITED, HAMILTON, Ont. 10A

Tobacco Habit.

Dr. McTaggart's tobacco remedy removes all desire for the weed in a few days. A vegetable medicine, and only requires touching the tongue with it occasionally. Price \$2.

Liquor Habit.

Marvelous results from taking this remedy for the liquor habit. Safe and inexpensive home treatment; no hypodermic injections, no publicity, no loss of time from business, and a cure certain. Address or consult Dr. McTaggart, 75 Yonge Street, Toronto, Canada.

RHEUMATISM.

The Best and Safest Cure for GOUT, RHEUMATISM, SCIATICA, LUMBAGO, & BLAIR'S GOUT & RHEUMATIC PILLS. All Druggists. at 40c and \$1 per box

QUESTIONS AND ANSWERS. Miscellaneous.

CANADIAN REGISTRATION OF OXFORD DOWNS.

Could you please let me know, through the columns of "The Farmer's Advocate," if there is an Oxford Down Registration Office in Canada?

SUBSCRIBER.

Ans.—A Canadian Record for Oxford Downs is kept by the National Live-stock Records. Address "The Accountant," National Live-stock Records, Ottawa, Ont.

FOXTAIL SEEDS FOR SHEEP.

Is there any feeding value in foxtail seeds? Would you consider them harmful to breeding ewes if fed to them? They will eat them.

R. S. V.

Ans.—We are not aware of any injury to the ewes that would be likely to result from eating seeds of foxtail in such quantities as the sheep themselves might voluntarily consume, but would question the wisdom of using foxtail seed in this way. Its feed value is probably not great, and the danger of a proportion of the seeds retaining their vitality and proving a nuisance on the land would seem to more than counterbalance any nutritive quality they might possess.

ROUP.

Quite a number of our hens are ill; they make a peculiar noise all the time; the sound is the same as a child makes when suffering from croup; you can hear them outside the henhouse and the door closed. I examined them; their combs are quite red; they look healthy, but there appears to be a thin shell on the under side of the tongue, and their mouths are full of slime. I took off the shell, and gave them a dose of castor oil, a little more than a teaspoonful (was that too much?), and the next day I gave them bread with melted butter and cayenne pepper and ginger in it, warm. I fed them wheat twice a day, and a warm mash at noon, and warm water twice a day. I fill up their tanks. Could you tell me what is the matter with the birds, and what to do for them? Am I feeding them in the correct way? They are pure-bred Barred Rocks.

W. A. W.

Ans.—Undoubtedly these chickens have roup—a serious, contagious, or infectious, disease. Thoroughgoing treatment is called for. Isolate the affected birds, disinfect all the roosts, nests and houses. Destroy, or at least thoroughly cleanse with disinfecting fluid, all drinking and feeding utensils, and for some time to come add a little Stockholm tar to the drinking water of the sound as well as of the affected birds. Bathe the heads of the affected fowl frequently with hot water and Condy's Fluid. Use a syringe to clean the nostrils and throat, injecting a solution of bluestone and warm water, sufficient bluestone to turn the water pale blue. Be sure not to allow the bird to swallow any quantity of this, as it is poison. On first observing the symptoms of roup, give the bird a dose of Epsom salts. Use lime on the dropping boards. Kill all badly affected fowl, and if not prepared to treat in the above painstaking manner, kill every ailing bird. In any case keep sick and well ones separate, and particularly take care to prevent drinking from same vessel or trough. Keep children away from the sick fowls. A little ginger and cayenne pepper in the food is good.

It is said that Cyrus Leland, while pushing his candidature for the Republican gubernatorial nomination, wrote a letter to a Kansas farmer asking him for his support at the primary.

"Answer this letter, daughter," said the farmer to his fifteen-year-old girl, of whose penmanship he was proud, when the letter reached him. "Tell Uncle Cy that I am too busy in the field to do anything for him. Tell him I'm working early and late to get in my crops."

The girl waited until her father had gone back to his fields, and then penned this short note, which she thought told the story. "Papa has all he can do to support himself without supporting anybody else." She mailed it.

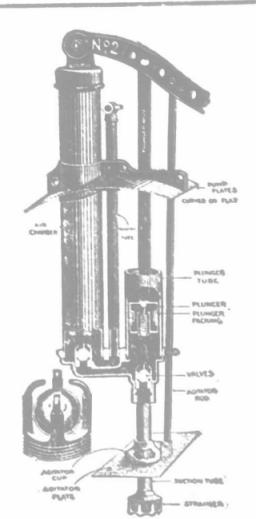
Fairbanks-Morse Gasoline Engines



The Jack of All Trades Gasoline Engines are the simplest, strongest, best light-power engines on the market. They will do more work on less gasoline than any other gasoline engine of same size. Send for illustrated catalogue.

The Canadian Fairbanks Co., Ltd. 444 St. James St., Montreal.

FROM A TRIAL YOU WILL LEARN THAT



SPRAMOTOR RESULTS are the best argument why you should use it.

A single demonstration will do more to convince you in favor of a **SPRAMOTOR** than a book full of arguments.

We will send you a **SPRAMOTOR**, and you will have time to prove it out. It's guaranteed for a year. In all sizes for vineyard, orchard, weed destruction, potatoes, painting and whitewashing.

Treatise on crop diseases free.

Say what you want it for.

SPRAMOTOR, LTD.

1062 King St. London, Ont.

This ad. will not appear in this paper again; if interested, write now.

Poultry Tonic

INCREASES EGG PRODUCTION. CURES DISEASE. 1 1/2 lbs., 25c. By Mail, 35c. MADE IN CANADA



THE HACKNEY STOCK

Louse Killer

KILLS LICE ON POULTRY AND STOCK. SATISFACTION GUARANTEED. 1-lb. Can, 25c. By Mail, 35c.

TONIC CO., Toronto, Ont.

Earn \$75 to \$150 per month as Brakeman or Fireman.

Just study an hour a day for 8 or 10 weeks and we guarantee to assist you to a position on any railway in Canada. Hundreds of men wanted in the next few months. If you want the above salary, ask for our booklet.

The Dominion Railway School, Dept. F., Winnipeg, Man.

GOSSIP.

The Crop-reporting Board of the Bureau of Statistics of the United States Department of Agriculture finds, from the reports of the correspondents and agents of the Bureau, as follows:

The newly-seeded area of winter wheat is estimated as being 5.6 per cent. less than the revised estimated area sown in the fall of 1907—equivalent to a decrease of 1,762,000 acres, and indicating a total of 29,884,000 acres. The condition of winter wheat on December 1 was 85.3, as compared with 91.1 on December 1, 1906, and a ten-year average of 92.2.

The newly-seeded area of rye is estimated as being 4.0 per cent. less than the area sown in the fall of 1907—equivalent to a decrease of 80,000 acres, and indicating a total of 1,935,000 acres. The condition of rye on December 1 was 87.6, as compared with 91.4 on December 1, 1907; 96.2 on December 1, 1906, and a ten-year average of 95.0.

The financial autocrat adopted melodramatic threats toward his weaker rival.

"I will pursue you to the 'four corners of the earth!'" he said.

"But the earth hasn't any corners."

"Fool, it has four 'corners,' Standard Oil, Coal, Steel and Ice!"

A young lady whose beauty is equal to her bluntness in conversation, was visiting a house where other guests were assembled, among them the eldest son of a rich manufacturer. The talk turned on matrimonial squabbles. Said the eligible party: "I hold that the correct thing for the husband is to begin as he intends to go on. Say that the question was one of smoking. Almost immediately I would show my intentions by lighting a cigar and settling the question forever."

"And I would knock the thing out of your mouth!" cried the imperious beauty.

"Do you know," rejoined the young man, "I don't think you would be there!"



One of the secrets of Happy Home Life is to have your washing all done and the clothes out on the line before breakfast. You'll be able to do this easily and be able to say goodbye to your husband when he goes to work with a pleasant smile and in clean attire if you use a

"1900 GRAVITY" WASHER

It's the handiest and quickest washing machine made; you can wash a tubful of the heaviest and dirtiest clothes in six minutes, doing it better than it could be done by a strong woman in an hour or more. Remember—if you use the "1900 Gravity," there'll be no hard, sloppy, dirty work, no danger of colds and rheumatism, no wearing and tearing your fine linens and lingerie, and best of all wash day will also be ironing day.

DON'T MISS THIS FREE TRIAL OFFER

We are the only people on the continent that make nothing but washing machines and that are willing to send a washer on **ONE MONTH'S TRIAL FREE** to any responsible party—without any advance payment or deposit whatsoever.

Write to-day for our handsome booklet with half tone illustrations showing the methods of washing in different countries of the world and our own machine in natural colors—sent free on request.

Address me personally *F. A. G. B. h. Manager*

THE 1900 WASHER CO., 355 Yonge Street, TORONTO, Canada

The above free offer is not good in Toronto and suburbs—special arrangements are made for this district.

We ship it free anywhere and pay all the freight ourselves. You wash with it for a month as if you owned it. Then, if it doesn't do all we claim for it, ship it back to us at our expense. Could any offer be fairer?

LOOK FOR THE LABEL ON THE TUB
None genuine without it.



QUESTIONS AND ANSWERS.
Miscellaneous.

BOILED TURNIPS AS HOG FEED—CORNCOBS AS MANURE.

I would like to know what feed value there is in Purple-top turnips, boiled and mixed with other feed for pigs; also what manure value there is in corncobs, drawn right from the elevator to put on the land?

W. C. M.

Ans.—1. Turnips, like potatoes, are improved for hogs by boiling. Boiled and mixed with meals they have a very fair value as hog feed.

From the standpoint of chemical composition, the manurial value of corncobs would correspond roughly to that of wheat straw. To quote figures, we have the comparison expressed as follows:

| | Fertilizer ingredients in 1,000 pounds. | | |
|---------------|---|---------|------------------|
| | Nitrogen. | Potash. | Phosphoric acid. |
| | Lbs. | Lbs. | Lbs. |
| Wheat straw.. | 5.9 | 5.1 | 1.2 |
| Corncobs.. | 5. | 6.0 | 0.6 |

If we were to rate these fertilizing ingredients, at commercial valuations, the nitrogen, potash and phosphoric acid in a ton of corncobs would be worth about \$2.65. However, while the chemical calculation is as above, we would not suppose that the actual return in crop from the use of corncobs would justify such a valuation. The somewhat tardy availability of the fertility in the cobs, and the mechanical difficulty of incorporating them readily with the soil, are points against them. Probably their value might fairly be set down as about equal to that of wheat straw and somewhat less than that of ordinary farmyard manure. While they carry a considerable proportion of nitrogen, they are somewhat deficient in potash, and particularly so in phosphoric acid.

SAWDUST AS MANURE—FALSE-FLAX-SEED MEAL.

1. What is the value of sawdust as manure, to be used as bedding?
2. How should it be treated in the manure to get the best results? Should it be left to rot well before being put on the land, or should it be put on fresh?
3. What is the feed value of wild-flax meal as compared with other flax, and in what quantities should it be fed?

SUBSCRIBER.

Ans.—1. The value of sawdust as a manure consists chiefly in its capacity to absorb and retain manure liquid when used in the stable or barnyard. So far as the wood fibre itself is concerned, its value to the soil is very problematical. On heavy clays it may be beneficial in opening up the particles of soil, but in light soils a large quantity of sawdust might be a disadvantage by keeping them too open.

2. So far as the sawdust is concerned, it might be rendered slightly more valuable for any but heavy soils by being allowed to rot before application, but when it has been used as an absorbent, this is not advisable, for the reason that the fermentation would cause waste of the fertilizing elements in the manure. For this reason it is better to apply all manure as promptly as convenient.

3. Our correspondent undoubtedly refers to the weed false flax (*Camelina sativa*), the seeds of which have been used as food on account of their mucilage and oil, both of which resemble those of linseed. The plant has even been cultivated for these products in Germany and France. We cannot, however, give a precise comparison of its composition with that of linseed. If our inquirer has a quantity of false-flax seed he would do well to have it ground, or at least soaked, and feed mixed with other meal, in small quantities.

Piano-mover (reading paper, excitedly)—Great cats! Bill, here's where you an' me will soon be holdin' down a park seat if the union can't suppress this labor-savin' device.
Assistant—What's the scare?
Piano-mover—Why, these here spiritualists are movin' an' hoistin' pianos without touchin' them at all!



HOW TO BUILD A GOOD FENCE

Everyone intending fence building should send for our folder on Erecting Fences. It's full of valuable information on fence building, tells how to erect woven wire fencing quickly and substantially, describes the manufacture of fence wire and has an article quoted from bulletin of U. S. Dept. of Agriculture on concrete post making, showing how these durable posts can be economically made at home. Don't fail to write for a copy. It's free.

THE BARNWELL HOOXIE WIRE FENCE CO., Ltd.
Dept. F Hamilton, Ontario. Winnipeg, Manitoba.



RUSH'S
U-Bar Steel Cattle Stanchion
(Patented)

Saves lumber and labor in fitting up cow stables. Saves time in tying cattle. Makes cattle more comfortable, and keeps them clean. Made in 5 sizes, of light, strong U-Bar Steel. Latch easily operated, but secure.

Write for booklet A.
A. M. RUSH,
Preston, Ontario.

LAND FOR SETTLEMENT!

Lands are offered for settlement in some cases FREE, in others at 50 CENTS per acre, in various districts in NORTHERN ONTARIO. Write for information as to terms, homestead regulations, special railway rates, etc.

HON. JAMES S. DUFF,
Minister of Agriculture,
Thos. Southworth,
Director of Colonization, Toronto.

WINTER TERM OPENS JAN. 4th.
CENTRAL
Business College
STRATFORD, ONT.

Our school has a continental reputation for thoroughness. Our graduates succeed. We have three departments: Commercial, Shorthand and Telegraphy. Beautiful catalogue free.
ELLIOTT & McLACHLAN, Principals.

Souvenir Post Cards

The loveliest picture post cards ever seen in Canada. English and Canadian views. Only 20 cents a dozen. In the store they sell them at 30 cents.

W. Kreutziger, Waterloo, Ont.
DEPT. X.

Live Stock at Alaska-Yukon-Pacific Exposition.

The Live-stock Show of the Alaska-Yukon-Pacific Exposition will open at Seattle September 27th and close October 9th. An appropriation of \$100,000 has been made for premiums in this department, and it has been arranged to bring the best live stock from the largest shows in the United States to Seattle during the closing period of the 1909 World's Fair. Two live-stock show circuits will close at Seattle. The main circuit will bring blooded stock from the shows at Hamline, Minnesota; Fargo, North Dakota; Helena, Montana; Spokane and Portland. The Southern circuit, which opens at Sacramento, California, and shows in Salem, and Portland, Oregon, will also close at Seattle on the same dates.

Classifications and rules governing the exhibiting of live stock, together with the premium lists, have been sent out to all parts of the United States and Canada in response to requests from owners and breeders of blooded live stock, and the large number of inquiries that have been received indicates a widespread interest in this branch of the 1909 fair. Approximately ten acres has been set aside for the stock-yards on the grounds of the Alaska-Yukon-Pacific Exposition. It is announced from Seattle that the Government of Canada will make a feature of live stock in its exhibit. The Exposition management states that it has received advices from the Canadian Exhibition Commissioner that Canada will erect a building covering a site 150 by 300 feet, to house its general exhibit, and that additional space will be required for its live-stock display.

At nearly all of the expositions held in the past, separate dates have been given for the live-stock and poultry shows, but at the Alaska-Yukon-Pacific Exposition the two will be combined under the live-stock show. In addition to the premiums offered by the Exposition in the poultry department, a number of Eastern breeders and firms engaged in the manufacture of poultry supplies have offered special prizes. These lists have been sent out to all parts of the United States and Canada, and already a number of requests for exhibit space have been received from breeders of fine poultry from all over the country.

Policeman—Come now, off the corner.
Isaac Idle—Don't be hard on a poor man! I have had a checkered career.
Policeman—Sure, it's your move now.

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 Vets. 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.

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

Shetland, Welsh and Iceland Ponies

I have on hand a number of single ponies and matched pairs; all ages; thoroughly broken to harness and reliable in every way.
E. DYMENT, Copetown P.O. and Sta.

Scientific knowledge is sometimes negligible. "My boy," said the kindly English rector to the hobbledehoy of a youth who was picking mushrooms in the rector's fields, "beware of picking a toad-stool instead of a mushroom; they are easy to confuse."
"That be all right, sur, that be," said the urchin, "us bain't a-goin' to eat 'em ourselves; they're goin' to market to be sold."

10c. The latest success.

Black Watch

The big black plug chewing tobacco.

Horse Owners! Use
GOMBAULT'S
Caustic
Balsam
 A Safe, Speedy, and Positive Cure
 The safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. **SUPPRESSES ALL CAUTERY OR FRIKING.** Impossible to scratch or scratch. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. The Lawrence-Williams Co., Toronto, Ont.



Dr. Page's English Spavin Cure

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle and to remove all unnatural enlargements. 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 Spavin or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, 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.



"SAVE THE HORSE" SPAVIN CURE

REG. TRADE MARK. SOUND. UNITED STATES POSTOFFICE. Fredericktown, O., Sept. 27, 1908. I have been using your splendid preparation and with the best of results. I have used 5 bottles all told on different horses and found it splendid. I have a four-year-old that I have taken wind puffs of and have driven her hundreds of miles on my trips; have been offered \$250 for her, as she is a well-bred one. I purchased "Save-the-Horse" of druggist, F. F. HOSACK, F. W. PLUMMER, General Tanning, 137 North Third Street, Philadelphia, Pa.—I can give the best recommendation, used it on thoroughbred and bone spavin with great success. Both horses are used every day at the hardest kind of work, which is a great thing among horsemen. As the saying goes, "Seeing is believing." HARRY M. BOBB. \$5.00 a bottle, with legal written guarantee or contract. Send trainers on every kind of case. Permanently cures Spavin, Thoroughbred, Ringbone (except low), Curb, Splint, Capped Hock, Windgall, Shoe Ball, Injured Tendons and all Lameness. No scar or loss of hair. Horse works as usual. Druggist or Express Paid. Tracy Chemical Co., Highamston, N.Y. and 148 Van Horn St., Toronto, Ontario.



ABSORBINE

Will reduce inflamed, strained, swollen tendons, Ligaments, Muscles or Bruises. Cure the Lameness and Stop pain from a Splint, Side Bone or Bone Spavin. No blister, no hair gone. Horse can be used. Horse Book 2 D free. \$2.00 a bottle at dealers or delivered. ABSORBINE, JR., for mankind. Relieves Strained Torn Ligaments, Enlarged Glands, veins or muscles—heals ulcers—alleviates pain. Book Free. W. F. YOUNG, P.O. 73, 73 Monument St., Springfield, Mass. LAMAN, SONS & CO., Montreal, Canadian Agents.

MY NEW IMPORTATION OF 30 Clydesdale Stallions
 Will arrive at Guelph about the middle of December. I cordially invite all intending purchasers to come and see them.
O. SORBY, GUELPH, ONT.

Mr. A. I. HICKMAN,
 Court Lodge, Egerton, Kent, Eng.
 Exporter of pedigreed stock of every description to all parts of the world. During the winter months the export of cattle of the beef and dairy breed will be a specialty. Write for prices, terms, and references.

For Sale! Percheron and French Draft Stallions, mares and colts. Duroc-Jersey Swine, both sexes. JACOB STEINMAN, NEW HAMBURG, ONT.
 Only a stone's throw from G. T. R. depot.
 Clydesdales, Shorthorns, At Kinellar Lodge we have for sale two 3-yr-old Clydesdale fillies, both reg.; a big, good pair. Several choice Short-horn heifers. Nine shearing Cotswold ewes and nine shearing rams. This year's lambs, both sexes. And young Berkshire sows. John I. Baisdon, Markham, Ont., P. O. and station.

British Stud Stock Prices, 1908.

According to the "Farmer and Stock-breeder" Annual, published at 6 Essex street, Strand, London, W. C., Eng., the following series of prices are generally accepted as being the highest prices realized for the respective breeds and sexes at public auction sales in Great Britain during the year 1908:
 Horse Sales.—Shire horses, stallions, 800 gs.; three-year-old stallions, £840; two-year-old stallions, £482; yearling stallions, £945; colt foals, £94 10s.; brood mares, £462; four-year-old mares, £525; three-year-old fillies, £651; two-year-old fillies, £315; yearling fillies, £162 15s.; filly foals, £136 10s.
 Hackneys.—Stallions, £315; two-year-old stallions, £724 10s.; yearling stallions, £483; colt foals, £54 12s.; brood mares, £420; three-year-old fillies, £473 10s.; two-year-old fillies, £267 15s.; yearling fillies, £241 10s.; filly foals, £115 10s.

CATTLE.

Shorthorns.—Bulls, £525; bull calves, £651; cows, £237 15s.; three-year-old heifers, £157 10s.; two-year-old heifers, £262 10s.; yearling heifers, £230; heifer calves, £272.
 Lincoln Red Shorthorns.—Bulls, £189; bull calves, £72; cows, £65 2s.; two-year-old heifers, £36 15s.; yearling heifers, £42.
 Aberdeen-Angus.—Bulls, £189; bull calves, £22 1s.; cows, £105; two-year-old heifers, £89 5s.; yearling heifers, £39 5s.; heifer calves, £35 14s.
 Herefords.—Bulls, £147; yearling bulls, £183 15s.; cows, £54 12s.; two-year-old heifers, £53 11s.; yearling heifers, £28 7s.
 Galloways.—Bulls, £52 10s.; yearling bulls, £63.
 Red Polls.—Bulls, £52 10s.; cows, £43 1s.; two-year-old heifers, £78 16s.
 Sussex.—Bulls, £63 1s.; yearling bulls, £23 2s.; bull calves, £23 2s.; cows, £56 14s.; two-year-old heifers, £42; yearling heifers, £29 8s.
 Devons.—Bulls, £65 2s.; two-year-old bulls, £44 2s.; yearling bulls, £63; bull calves, 19 gs.; cows, £110 5s.; two-year-old heifers, £44 2s.; yearling heifers, £120 15s.; heifer calves, £27 6s.
 South Devons.—Bulls, £43 1s.; yearling bulls, £73 10s.; bull calves, £36 15s.
 Highland.—Bulls, £46; two-year-old bulls, £60; yearling bulls, £40.
 Longhorns.—Bulls, £24 3s.; cows, £40 19s. 6d.; yearling heifers, £20 19s. 6d.
 Jerseys.—Bulls, £45 3s.; cows, £50 8s.
 Guernseys.—Bulls, £21; cows, £32 11s.
 Ayrshires.—Two-year-old bulls, £26 5s.; bull calves, £16 5s. 6d.; cows, £50; three-year-old heifers, £35 10s.; two-year-old heifers, £52; yearling heifers, £20; heifer calves, £20.
 Dexter and Kerry Cattle.—Bulls, £116 10s.; cows, £105; two-year-old heifers, £23 2s. 6d.; yearling heifers, £60 18s.
 Dutch Cattle.—Bulls, £36; cows, £35 14s.; heifers, £29.

SHEEP.

Leicesters.—Yearling rams, £22 10s.; Cotswolds.—Yearling rams, £27 6s. 6d.; ram lambs, £18 18s. Lincolns.—Yearling rams, £173 5s.; flock ewes, £4 6s.; yearling ewes, £21. Oxford Downs.—Yearling rams, £141 15s.; ram lambs, £65 2s.; yearling ewes, £3 17s. 6d. Shropshires.—Stud rams, £36; yearling rams, £178 10s.; ram lambs, £12 1s. 6d.; flock ewes, £5 15s. 6d.; yearling ewes, £11 6d.; ewe lambs, £8 8s. Southdowns.—Yearling rams, £84; ram lambs, £46; flock ewes, £17 6s. 6d.; yearling ewes, £19 19s.; ewe lambs, £4 1s. Hampshire Downs.—Stud rams, £21; yearling rams, £52 10s.; ram lambs let, £18 10s.; ram lambs sold, £131 5s.; flock ewes, £9 5s.; yearling ewes, £15 15s.; ewe lambs, £5 15s. 6d. Suffolks.—Stud rams, £42; ram lambs, £80 17s.; flock ewes, £6; yearling ewes, £6 15s.; ewe lambs, £3 4s. Wensleydales.—Yearling rams, £31 10s. Border Leicester.—Stud rams, £45; yearling rams, £210; ram lambs, £52; flock ewes, £24 3s.; yearling ewes, £29 18s. 6d.; ewe lambs, £8 18s. 6d. Dorset Horns.—Yearling rams, £19 19s.; ram lambs, £31 10s.; flock ewes, £4 10s.; yearling ewes, £3 13s.; ewe lambs, £2 16s. Kent or Romney Marsh.—Stud rams, £78 15s.; yearling rams, £136 10s.; flock ewes, £6 5s.; yearling ewes, £5 5s.; ewe lambs, £2 15s.

The top price for the yearling rams of the following breeds were as given below: Cheviot, £100; Devon Long-

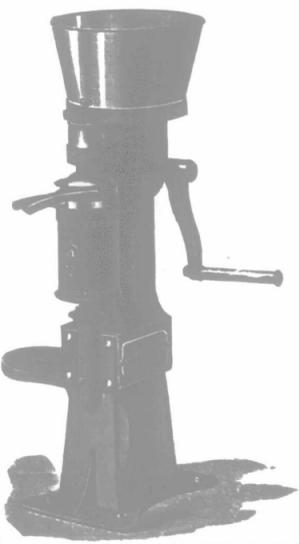
Do you know

That the **MAGNET Cream Separator gears, the one-piece skimmer and double-supported bowl** are made strong enough to last for **fifty years**. There is **no wobbling**, does not get out of **balance**, therefore turns easy. Skimming is perfect; it also takes all foreign matter out, thus giving pure and clean cream.

To see it at work is the best recommendation we can get for it. A free trial in your dairy by sending a card to:

The Petrie Mfg. Co., Ltd.

HAMILTON. WINNIPEG. ST. JOHN. REGINA. 6 CALGARY.



THE UNION STOCK-YARDS Horse Exchange
 WEST TORONTO, CANADA.
 Auction sales of Horses, Carriages and Harness every Monday and Wednesday.
 Private sales every day.
 Come and see this new Horse Exchange. It will interest you. Also the quarter-mile track for showing and exercising.
HERBERT SMITH, Manager.
 (Late Grand's Repository.)



Clydesdale Stallions and Mares!

A fresh lot has just arrived, including many prizewinners. Some extra big ones. Prices right. Inspection invited.
DALGETY BROS., LONDON, ONTARIO.
 Stables Fraser House. Address correspondence to Dalgety Bros., Glencoe, Ont.



Shires, Shorthorns and Lincolns

At present we are offering a very choice consignment of imported stallions, mares and fillies received from the great Shire stud of R. Moore & Sons, Beeston Fields, Nottingham, England. They are a grand lot, and will be sold at right prices. In Shorthorns we have a number of choice young bulls, three of them show animals; also an excellent lot of females—all ages.
JOHN GARDHOUSE & SONS, Highfield, Ontario.
 Toronto, 14 miles; Weston, 3 1/2 miles.



Imp. Clydesdales and Hackneys

To my many friends and patrons: I am starting for Scotland for a new importation about Nov. 1st, and shall select the best available. In future my stables and address will be Markham Village, 20 miles north of Toronto.
T. H. HASSARD, MARKHAM, ONT.



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



IMPORTED CLYDESDALES, SHORTHORNS AND SHROPSHIRE!
 I have on hand several Clydesdale stallions, as choice a lot as ever crossed the ocean. Missie, Stamford, Claret and Gem of Balaichin Shorthorns; up-to-date in type and quality, 50 imported Shropshires, 30 ewe and 30 ram lambs from imported stock. Look me up at Toronto Exhibition horse barns. **THOS. L. MERCER, MARKDALE, ONT., P. O. AND STA.**



IMPORTED CLYDESDALES
 My new importation for 1908 has now arrived—stallions and fillies—personally selected. Richest in breeding; highest in quality; with abundance of size and character. Sold on terms to suit. **GEO. G. STEWART, HOWICK, QUE.**



IMPORTED CLYDESDALES
 My new importation of Clydesdale stallions and fillies, land-acter, and right royally bred. I will sell them at very close prices, and on terms to suit. **C. W. BARBER, Gatinou Point, Quebec.** "Close to Ottawa."



Clydesdales
 Imported and Canadian-bred. Our mares all are bred to Acme (imp.), the 8th best breeding horse in Scotland in 1907. Four male foals and one filly, all from high-class (imp.) mares, for sale right.
R. M. HOLBY, Sta. & P.O. Manchester, Ont., G.T.R.; Myrtle, Ont., C.P.R.



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



Imported Clydesdales
 I have still on hand 1 stallion, black, rising 4 yrs., by Carthusian, a Toronto winner; 1 rising 2 yrs., by Baron's Pride, 1 rising 2 yrs., by Danure Castle; 4 fillies, a Toronto first and second prizewinner among them. Every one of these is an extra good animal, and the price and terms are right.
T. D. ELLIOTT, Bolton, 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 4-minute applications cure. Works just as well on Blooded 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 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, 78 Church Street, Toronto, Canada.

Radiol



RADIOL TREATMENT prolongs the life of a horse's legs. Completely removes by radiation all soft swellings that afflict and lame a horse, as Sprained Tendons, Windgalls, Bog Spavins, Capped Elbow, Big Leg, Enlarged Glands, etc. No Bilster; No Laying Up; No Hair Removed. RADIOL TREATMENT fines down a worn horse's legs, and is a certain cure for puffy joints and sprains, prevents Filled Legs. An intelligent use of the "RADIOL LEG WASH" counteracts that daily wear and tear of the legs unavoidable with the horse in constant work, whether training, racing or on the road. One flask of "Radiol" will make a gallon of valuable leg wash.

Osler, Uddington, Eng., July 28, 1905. Sirs.—Kindly forward on receipt of P. O. enclosed another bottle of "RADIOL." I have been using it with great success on a Hackney mare with a very bad windgall that the vet. had given up. Yours truly, Thos. Franke.

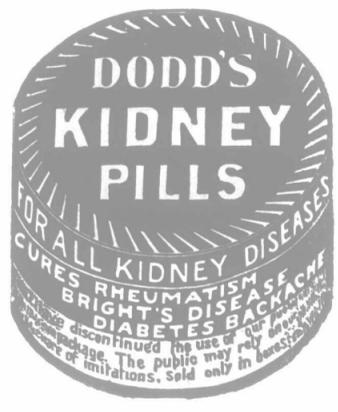
WRITE FOR ILLUSTRATED BOOKLET AND USES OF "RADIOL." Ask your chemist for "RADIOL." Price \$2 a large flask, or post free from Canadian Agent: Thos. Reid, 9 St. Nicholas St., Montreal. Manufactured by The Radiol Co., 213 Westminster Bridge Road, London, England. U. S. Agents: Messrs. Will I. Smith & Co., 2685 Michigan Avenue, Chicago.

Imported Shire Horses

FOR SALE: TWO STALLIONS. FOUR MARES IN FOAL. If not sold before, will be on exhibition and offered for sale at the Horse Show in Toronto next January 13th, 14th and 15th. For particulars write to: WILLIAM LAKING, care of The William Laking Lumber Co., 100 King St., W. Toronto.

Shannonbank Clydesdales, Ayrshires, Yorkshires. One stallion rising three years, by imp. Hopewell. Two young bulls ten months, and some heifers from six months to two years. Yorkshires of both sexes. W. H. TRAN, Cedar Grove, Ont., Locust Hill Sta., C. P. R.

A story is told of a woman whose husband had one day been away from home much longer than usual. She waited patiently, however, when, to her surprise and alarm, a band of ruffians rode up and dismounted a little distance from the hut, and, approaching her, the leader of the party exclaimed apologetically: "We come to tell yer, madam, that we've lynched your husband. We admit we've hung the wrong man, so you've got the laugh on us there."



DODD'S KIDNEY PILLS
FOR ALL KIDNEY DISEASES
CURES RHEUMATISM, BRIGHT'S DISEASE, DIABETES, BACKACHE, GRAVEL, NEURALGIA, MIGRAINE, HEADACHE, AND ALL AFFECTIONS OF THE URINARY TRACT.

woolled, £21; Black-faced Mountain, £105; Kerry Hill, £29 8s.; South Devons, £47 5s.

PIGS.
Berkshires.—Boars, £28 7s.; sows, £43 1s.; gilts, £35 14s. Large White Pigs.—Boars, £69 6s.; sows, £29 8s.; gilts, £52 10s. Middle White Pigs.—Boars, £26 5s.; sows, £21; gilts, £12 12s. Tamworth Pigs.—Boars, £15 15s.; sows, £29 8s.; gilts, £15 15s. Large Black Pigs.—Boars, £12 1s. 6d.; sows, £13 13s. Lincolnshire Curly Coated Pigs.—Boars, £52 10s.; sows, £19 19s.; gilts, £26 5s.

A Tale.
There was a man of modest means,
But inclination gay,
Who sold a corner lot and bought
A motor car one day.
He closed his business up to ride
Within the big machine,
And parted with his diamond ring
To buy the gasoline.

Before, along the country roads
The sunac lit its fires,
He put a mortgage on his house
To purchase rubber tires;
And next he auctioned off his beds,
His tables and his chairs
To give the car a coat of paint
And make some slight repairs.

But speeding in the early dusk,
Without his lamps alight,
A man in blue and brass appeared
And stopped his dizzy flight.
He didn't have a single cent
To pay the fine imposed;
They took the auto for the debt,
And so the tale was closed.

—Popular Mechanics.

GOSSIP.
COMING CONVENTION.
The annual convention of the Nova Scotia Farmers' Association will be held at Digby, N. S., on January 26th to 28th, 1909.

HOLSTEINS AND OXFORD SHEEP.
Mr. W. A. Bryant, Cairngorm, Ont., breeder of Holstein cattle and Oxford Down sheep, writes: As the lease of the farm I have rented has expired, we have decided to give up the dairy business, and are offering all our cows and heifers for sale. They are all richly bred and good milkers, bred from sires bred by A. C. Hallman, Breslau, and Geo. Rice, Tillsonburg. We are going to price them at close prices. There are seventeen head of cows and heifers due to calve in April and May, in calf to our stock bull, Prince Gretqui De Kol, whose dam at three years old, made nearly 19 lbs. of butter in seven days. We are offering our stock bull for sale also. We have shown our cattle at all the principal shows in this part, and have won almost everything hung up in the prize line. To anyone wishing to go into the dairy business and buy the herd, we will sell at a bargain. For further information, write Mr. Bryant as above.

One day Dr. Norman McLeod, who was a large and healthy man, and one of his burly elders went to pay a visit to a certain Mrs. MacLaren, of the congregation, who lived in the Scot Hills. She was a frugal woman, but determined that they should have the best in the house. So she piled the table with jellies and jam and preserves and shortbread, and they partook unsparingly. After the meal the elder said to her: "Mrs. MacLaren, were you at the kirk on Sunday?" "Oh, aye," she said, "I was." "And what did you think of the treatment of the miracle?" (The sermon had been on the loaves and fishes.) "I thought it was good," said Mrs. MacLaren. "And what is your idea on the subject, Mrs. MacLaren?" asked the minister. "Losh," said their hostess suddenly. "I's thinkin' that if you and the elder had bin in the congregation there wadna bin twelve baskets of fragments for the disciples to gather up."

The Inquirer—But what is it you men have struck for?
The Striker—Well, I'm blessed if I know, gov'ner, but we ain't goin' back till we've got it.



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 Acme. 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.

Oak Park Stock Farm Co., Ltd.

have at present for sale a choice selection of young HACKNEYS broken to harness, well worth moderate prices. Also 70 choice SHROPSHIRE RAM and EWE LAMBS, all bred from imported ewes, and sired by the best imported rams. Will be sold at times prices.

JAS. J. BROWN, Manager, BRANTFORD



IMPORTED SHIRES

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

Clyde Park Imp. Clydesdales I have on hand for sale several imported Clydesdale stallions and fillies, also 3 foals. Parties wanting something extra well bred and of the big-quality kind should write me. They will be sold at a right price, and on terms to suit.
ALEX. F. McNIVEN, ST. THOMAS, ONTARIO.

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, Queensville P. O. Ont.; Newmarket Sta., G. I. R. Telegraph and telephone one-half mile from farm. Metropolitan Street Ry. from Toronto crosses the farm.

GLENGORE Present offering: One bull 2 years old, and three choice bull calves, and anything in the female line. A choice lot and sold right. GEO. DAVIS & SONS, ALTON, ONT. Station, C. P. R.

ABERDEEN - ANGUS CATTLE!
FOR SALE: Some of the best strains. Several fine heifers; also cows and a couple of bulls. Apply: MANAGER, GRAPE GRANGE FARM, CLARKSBURG, ONT.

Aberdeen-Angus For sale: The right sort, some of them by Klondyke, imp. Drumbo station. WALTER HALL, Washington, Ontario.

Angus Cattle for Sale—A few choice females and young bulls. Prices right. Three miles west of Erin station. C. P. R., 16 miles north-east of Guelph. J. W. BURT, Coningsby P. O., Ont.

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

HOMESTEAD ABERDEEN-ANGUS

Good individuals and good breeding, at prices that anyone wanting a good young bull or heifer can afford to pay. Come and see them. WM. ISCHE, Sebringville, Ont. Bell telephone.

THE "MAPLES" HEREFORDS

Canada's Greatest Show Herd. For Sale: 25 bulls from 6 to 18 months of age, bred from imported and show stock; also about the same number of heifers, none better. Prices right. W. H. HUNTER, Orangeville P. O. and Sta.

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

10 Imported Scotch Shorthorn Bulls 10

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

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

J. WATT & SON, Glen Gow Shorthorns

We have for sale 4 choice bull calves ready for service, one of them a strong show proposition, also 1 yearling. The above mentioned belong to our most fashionable families, and will be priced to suit the times. Write for prices and particulars. SALEM P. O., ONT., ELORA STA. G. T. R. and C. P. R.

SPRING VALLEY SHORTHORNS.

Our herd is pure Scotch, imp. and home-bred. 50 head to choose from. Our present crop of young bulls are the best we ever had. All sired by the great stock bull, imp. Bapton Chancellor. High-class show things among them, including this fall Toronto winners. Nearly every one a herd header. KYLE BROS., AYR, ONT., P. O. and STATION.

Greengill Shorthorns!

We offer for sale our herd bull, imp. Lord Roseberry, also young bulls and females all ages, either imp. or from imp. stock. Prices right. Long-distance phone R. Mitchell & Sons, Nelson P. O., Ont. Burlington Jet. Sta.

SHORTHORNS

An extra good seven months' old red bull calf. Also a number of bulls, heifers and calves. JOHN RACEY, Lennoxville, Quebec.

Rowan Hill Shorthorns The 1908 Toronto grand champion, Royal Chief 65495, heads my herd. For sale are: 3 spring bulls and a few heifers, sired by him, and out of show cows. These are choice young things that are sure to please. R. F. DUNCAN, Carluke P. O., Ont. Caledonia Station, G. T. R., or station 13 Hamilton and Brantford Electric Road.

Shorthorns for Sale Broadhooks Price 5502 imp. Scottish Hero 65793; also eight grand bulls, 6 to 15 months; also cows and heifers of the best dairy sort and of excellent breeding. Prices right, and on terms to suit purchaser. DAVID MILNE, Ethel, Ontario

Stock Bull Trout Creek Sailor = 59421 = 247242, A. H. B., for sale; also roan show bull, fit for service. A. M. SHAVER, ANGASTER, ONT. Station 13, Brantford and Hamilton Electric Line; three minutes' walk from barns. Inspection invited. Priced right

Shorthorn Bulls Ready for service. One will make a show bull. A very young thing from Matchless, Crimson Flower, Miss Ramsden, Rosemary, Diamond and Lady Fanny dams, the get of Champion's Model. Prices to suit times. Come and see. Israel Groff, Elmira Ont

DAIRY-BRED One handsome roan bull, fourteen months old, = 70046 =, and several choice heifers from imported and bred to imported bulls. Come and see. Wellington Stouffer, Ringwood P. O., Ont. Stouffville station, G. T. R.

GOSSIP.

Mr. John Miller, Brougham, Ont., in making a change in his advertisement of Shropshire sheep, writes: I may say that I have had very good sale for rams this fall, having sold nearly all the yearlings I had. The young ewes I am now offering should make good breeders, as their dams were the choice of Minton's flock in 1906. They are now safe in lamb to one of the best rams we ever used. At the price I am offering them at, they should find ready sale.

PROTECTION THAT KILLS.

A recent Canadian railway map shows an undulating line, from Atlantic tide-water to Pacific, marked "Northern limit of cereal-growing territory." In the Northwest the line bulges far up, almost as near to the Pole as the head of Hudson's Bay, embracing a vast area, from which, only a few years ago, nothing except an occasional tale of romance was expected. This Northwest country has already produced a hundred million bushels of wheat in a year, and optimists say it is capable of producing one-third as much as is now grown in the world.

Mechanical invention added these hundreds of thousands of square miles to the useful area of the world within a few years. It was American contrivances in the way of farm machinery which made this new country profitably arable. Seven hundred million dollars a year is the "total potential saving in the cost of human labor," through modern machinery and implements in handling the chief crops of this country, according to the Department of Agriculture's calculation.

It is mostly the machine which makes the difference between the prosperous Canadian farmer and the famine-haunted Russian peasant, who cuts his wheat with a sickle and loses half of it. And the last report of the "harvester trust" mentions "heavy increase of import duties imposed on American agricultural implements" by some foreign countries—that cannot make as good and as cheap implements at home. The United States, in short, is not alone in holding strange "protective" doctrines.

"THE MAPLES" HEREFORDS.

The high-class character of "The Maples" herd of Hereford cattle, and the sweeping character of their success for several years past at the leading Canadian shows, including Toronto, Ottawa and London, where they have won leading honors, stamp the herd as second to none in the country. The property of Mr. W. H. Hunter, proprietor of "The Maples" Stock Farm, a short distance from Orangeville Station, C. P. R., over 100 head of all ages now make up the sum total of the herd, among which are a great many winners of leading honors, including championship honors, at the above-mentioned shows, as well as at a number of county shows. A considerable number of the breeding cows are imported, selected with due regard to excellence, at very long prices, and very many of the other representatives of the herd are the produce of imported stock. The present stock bull is the massive, thick, perfectly-proportioned 2,800-lb. bull, Improver, a bull which for ideal beef type and show-ring conformation has had few equals in the breed. In 1907 he was first and grand champion at Toronto and Ottawa. In 1908 he won the same honors at Toronto, the only place shown. Preceding him were the two great show bulls, Orion and General Togo, the former winning first and championship at Toronto and Ottawa, the latter winning first at same shows. For sale are about 25 young bulls, from six to eighteen months of age, by the above-mentioned sires, and several of them out of imported cows; others out of Toronto, London and Ottawa winners. Among them are last fall's Toronto first and second prize junior yearling winners. Some essentially high-class young bulls are among this bunch, which will be priced right. There are also for sale a large number of heifers, fifteen of them being yearlings. Parties looking for serviceable or show Herefords should visit this herd, as the quality of stock and price will certainly suit.

QUESTIONS AND ANSWERS. Veterinary.

TUMORS.

Mare has had small lumps on her ribs for a year and a half. G. E. H.

Ans.—These are, no doubt, little fibrous tumors and should be carefully dissected out. Secure the mare so that she cannot kick. Clip the hair off. Grasp a tumor between the thumb and finger of the left hand, and, with a sharp knife in the right hand, cut through the skin and tumor, dividing it into two. Then carefully dissect each half from the skin. Dress the raw surface twice daily until healed with a 5 per cent. solution of carbolic acid. Unless you are accustomed to operating it will be wise to employ a veterinarian. V.

PARTIAL LUXATION OF PATELLAS.

Seven months' old colt got stiff behind. A swelling appeared in front of each stifle. When walking a cracking sound was heard. The enlargements were punctured, and at least two quarts of oil escaped. The colt is able to walk around now, but is very stiff, and a jerky movement and crackling sounds are noticed when he moves. E. S.

Ans.—The jerking and crackling are caused by the stifle bones slipping out of and into place. The lancing of the tumors was, to say the least, heroic. Few veterinarians would operate for fear of complications. However, while it did not effect a cure in your case, it apparently did no harm. Your colt will never be right, but it is possible he may make a useful animal. Get a blister made of 1½ drams each of biniodide of mercury and cantharides, mixed with 2 ozs. vaseline. Clip the hair off front of stifles. Tie so that he cannot bite the parts. Rub the blister well into the front and inside of joint once daily for two days. On the third day apply sweet oil. Let loose in box stall now and oil every day. Keep as quiet as possible and blister as above once every four weeks until time to turn on pasture next spring. V.

Miscellaneous.

WHITEWASH FOR STABLE-SHEEP DIP.

My bank barns have been built and occupied for six years. All have cement floors. I consider an ounce of prevention is worth a pound of cure.

1. Would you advise me to whitewash all the stalls? If so, what mixture would you advise? Or would you advise me to keep horses, cows, or hogs, in apartments otherwise disinfected?

2. Would you suggest a cheap and effective mixture of "sheep dip"? J. M. M.

Ans.—1. It is good practice to apply a thorough coat of whitewash to stables every season. Before doing so, of course, it is necessary to sweep down all dust and cobwebs and to remove litter and other materials that may have collected. Ordinary whitewash may be used, though a very satisfactory mixture that has been recommended for outdoor work and that should give satisfaction also inside, can be made as follows: Take one-half bushel of lime, slack with boiling water, make into a milk and strain through a fine sieve. To this add a brine made of one peck of salt, dissolved in warm water; also add a paste made by boiling three pounds of rice in water, stir in three pounds of rice in water, stir in while hot. Then add half a pound of Spanish whiting and one pound of glue, previously dissolved in a glue pot over a slow fire. To this mixture add five gallons of hot water, stir well, cover and allow to stand for a few days. This wash is best applied while hot. If your stables and pens have been kept clean, and no diseased animals have been in them, special disinfectants should not be necessary.

2. Tobacco water sometimes is used as a sheep dip, but nothing is superior to the preparations advertised from time to time in "The Farmer's Advocate." They are cheap and effective, and can be prepared by mixing in water. All that is necessary is to follow directions which accompany the package.

DISPERSION AUCTION SALE OF 30 Head of Highly-bred Scotch and Scotch-topped Shorthorns, and a Number of Poland-China Pigs.

ON JANUARY 1ST, 1909. I have never exhibited at the large fairs, nor done any advertising, and don't expect fancy prices. It will be a rare opportunity to get something to suit very reasonably. Should no outsiders attend, they will no doubt go at butchers' prices. Sale to commence at 1 o'clock p. m. Terms: 10 months' credit. Morning trains will be met at St. Jacobs, G. T. R., and Wallenstein, C. P. R. Reduced rates on all railroads. Write for catalogue.

Thomas Ingram, Guelph, Auctioneers. C. R. Gies, Prop., HILDEBERG, Albert J. Mickers, Waterloo, ONTARIO.

Shorthorn Cattle J. A. WATT, AND LINCOLN SHEEP. SALEM, ONTARIO.

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

J. T. GIBSON, DENFIELD, ONT.

J. A. WATT, SALEM, ONTARIO.

Elora Station, G. T. R. and C. P. R.

I can sell twelve young bulls, two of them leading winners at the big Western show and Toronto. Look up the records of the leading fairs, and note the breeding of many of the winners

Scotch Shorthorns

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

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

VALLEY HOME SHORTHORNS

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

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

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

Pleasant Valley Herd

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

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

Shorthorns!

BELMAR PARC

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

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

Nonpareil Archer, Imp. Proud Gift, Imp. Marigold Sailor. Nonpareil Eclipse.

Females, imported and from imported stock, in calf to these bulls. An unsurpassed lot of yearling heifers.

1854 MAPLE LODGE STOCK FARM 1908

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

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

A. W. SMITH, MAPLE LODGE P. O., ONT.

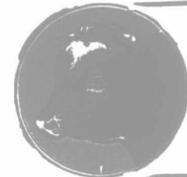
Lucan Crossing Station, G. T. Ry.

Willowdale Stock Farm

LENNOXVILLE, QUE.,

Offers for sale a few CHESTER WHITE PIGS, 6 weeks old; Leicester Rams; Shorthorn Bulls; White Plymouth Rocks; Belgian Hares. Also breeder of Clydesdale Horses.

J. H. M. PARKER, PROPRIETOR



Shorthorn Home-bred Bulls

of the best breeding and quality at attractive prices for the buyer. To see them is all that is necessary. Try to do so if you are in the market. It will pay you.

JNO. CLANCY, H. Cargill & Son, Cargill, Ont. Manager.

SHORTHORNS

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

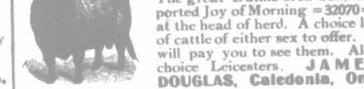
CLYDESDALES

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

JAMES McARTHUR, Gobles, Ontario.

WILLOW BANK STOCK FARM

Shorthorns, Leicesters. Herd established 1855; flock, 1848. The great Duthie-bred bull, imported Joy of Morning = 32070 =, at the head of herd. A choice lot of cattle of either sex to offer. It will pay you to see them. Also choice Leicesters. JAMES DOUGLAS, Caledonia, Ont.



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

That No Man Keeping Live Stock Can Afford To Overlook: Two imported bulls, tried sires, very valuable, will sell or exchange at moderate price. One Clydesdale filly coming three, from imported sire and dam, amongst the best. The filly is good and has the quality wanted in a show mare. A small number of imported cows and heifers, and some splendid young bulls and heifers from imported sires and dams. Good young Shropshire and Cotswold ewes in lamb to high-class imported sires. ROBERT MILLER, Stouffville, Ont.

Choice Shorthorns FOR SALE!

Some fine young stock, either sex, including some extra heifers from imp. dams, and all got by the Cruickshank (Duthie-bred) bull, Sittytan Victor, imp., = 50093 = (87397). Also young Yorkshires, either sex. Address: JOHN BRYDONE, C. P. R. and G. T. R. Milverton, Ont.

SHORTHORNS FOR SALE!

I have a dozen young cows and heifers, got by the Brawith Bud bull, Golden Abel (imp.), and in calf to the Bruce Mayflower bull, Royal Bruce (imp.), that I will sell very reasonable. A number of them are out of imported dams, and registered in Dominion and American Herd-books.

A. Edward Meyer,

P. O. Box 378, Guelph, Ontario,

Breeds SCOTCH SHORTHORNS Exclusively.

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

R. J. DOYLE, OWEN SOUND, ONT.

CONSTIPATION IRREGULARITY OF THE BOWELS

Any irregularity of the bowels is always dangerous, and should be at once attended to and corrected.

MILBURN'S LAXA-LIVER PILLS

work on the bowels gently and naturally without weakening the body, but, on the contrary, toning it, and they will if persevered in relieve and cure the worst cases of constipation.

Mrs. James King, Cornwall, Ont., writes: "I was troubled with sick headaches, constipation and catarrh of the stomach. I could get nothing to do me any good until I got a vial of Milburn's Laxa-Liver Pills. They did me more good than anything else I ever tried. I have no headaches or constipation, and the catarrh of the stomach is entirely gone. I feel like a new woman, thanks to Milburn's Laxa-Liver Pills. I used in all about half a dozen vials."

Price 25 cents a vial, 5 for \$1.00, at all dealers or mailed direct by The T. Milburn Co., Limited, Toronto, Ont.

A lecturer was touring through the country recently, and delivered an address before an audience in a country school-house.

In the course of his remarks he reviewed the agricultural prospects of the country, and as an illustration told a story of a poor farmer who had died, leaving to his wife the farm heavily mortgaged. He said that the widow set to work with a will and succeeded upon one year's wheat crop in paying off the entire mortgage.

When he had completed his lecture, the gentleman shook hands and greeted the members of his audience. One middle-aged man finally approached him thoughtfully, and began:

"I say, mister, you told a story 'bout the widow raising a mortgage on one year's crop?"

"Yes, my friend, that was a true story. It happened only two years ago."

"Well, sir, could you tell me who that widow is? She's just the kind of woman I've been looking for all the time."

Bell—You dance the two-step divinely. Who taught you?
Nell—My two step-sisters.

GRAND NEWS FOR WOMEN

Mrs. E. P. Richards Tells How Dodd's Kidney Pills Cured Her.

After Suffering for Twenty-eight Years From Pains and Weakness and Sleeplessness—Dodd's Kidney Pills the Only Medicine She Wants.

Cottle's Cove, Notre Dame Bay, Nfld., Dec. 14.—(Special).—Grand news for suffering women is that being scattered broadcast by Mrs. Elizabeth P. Richards of this place. For years she suffered from that terrible weakness and those agonizing pains so many women know. She has found relief in Dodd's Kidney Pills and she wants all suffering women to know it.

"For twenty-eight years," says Mrs. Richards, "I suffered from Rheumatism, Kidney Trouble, and Neuralgia. I got so weak I could not do my housework. Sleep was out of the question except for a few minutes at a time. My back ached so I could not sleep. I tried all kinds of medicine and had come to the conclusion there was no cure for me, when reading advertisements led me to try Dodd's Kidney Pills. I now sleep well and rise refreshed every morning. Dodd's Kidney Pills are all the medicine I want."

The woman who has healthy kidneys will never know the pains and weakness that make life hardly worth living. Dodd's Kidney Pills always make healthy kidneys.

QUESTIONS AND ANSWERS. Miscellaneous.

WILD TARES—PREPARING FOR CLOVER SEEDING—FEEDING CALVES.

1. On my farm there are quite a few wild tares. I have been told that wild tares will not grow the first year after sowing; if so, it would not be necessary to hand-pick seed for sowing when the intention is to seed with clover. Would you give me a good plan to rid my farm of them?

2. What is the best preparation for a good catch of clover? Last year I manured 16 acres in the winter, cultivating in the spring and seeding with clover and had a fine catch.

3. We make butter, raising about 10 calves a year on skim milk. How should I feed those calves to be the most profitable? They are good grade Holsteins, well marked. Would you advise baby-beef, or keeping two years?

YOUNG FARMER.

Ans.—1. There are three conditions under which seeds must be placed in order to have them sprout or germinate, viz.: Sufficient moisture, proper temperature, and a reasonable supply of oxygen, or air. Different seeds will grow under different conditions in each of these three particulars. The wild tare being a comparatively hard seed, requires considerable moisture. Seed which ripens and falls to the ground late in the summer might not sprout before winter sets in. In fact, they would not, a season such as that just closed. On the other hand, if the late summer and fall months are wet, and the seeds lie close to mother earth, or are slightly covered, as they would be by the use of a disk harrow or spring-tooth cultivator on the field, practically all of them would germinate before the weather became so cold as to give unfavorable conditions as to temperature. The fact that wild tares ripen early in the season makes them difficult to fight. Surface cultivation after harvest, and a short rotation of crops in which clover is introduced, is the best practice. Four seasons out of five, the precipitation after harvest is sufficient to induce germination. The young plants are killed by frost later.

In clover the hay crop removes the tares before seed is ripened, or if in pasture the stock eat them. Hand picking of seed is tedious and expensive. If weed seeds cannot be removed by fanning-mill it is better to procure other seed.

2. To ensure a good catch of clover it is necessary to have a fairly rich soil worked into a mellow seed-bed. Usually best results are derived from thin sowing of the grain, and the use of a grain that ripens early, so that the young clover may have time to develop after the crop is harvested, before winter sets in.

3. Your grade Holstein calves could be sold with greatest profit as veal or as baby-beef. If raised past the veal stage, your aim should be to keep them growing. In order to do this it will be found necessary to feed some whole milk while the calves are young. A good plan is to give all whole milk for a few days and then gradually introduce skim milk and decrease the whole milk until the calf is three or four weeks old. A jelly made by boiling flax seed can be used to advantage in the skim milk to take the place of the fat. During the early days in the calf's life, also, precautions should be taken to make ground grains part of the daily ration. A mixture of ground oats, corn and flax-seed meal is good. A start can be made by throwing a handful of meal into the pail when the calf has emptied it of milk.

Veterinary.

CONTINUOUS OESTRUM.

Cow has been in heat continuously for three and a half months. Another has been showing oestrus for ten days. Is this contagious? E. L.

Ans.—It is not contagious. Animals that act in this way are called nymphomaniacs. The symptoms indicate disease of the ovaries, for which nothing can be done. It will be better to feed them for the butchers, as it is not probable they will breed. In some cases oestrus ceases after the animal has been bred. Medical treatment has no effect. V.

Maple Line Holsteins and Oxforde— For Sale: 17 cows and heifers, due to calve in April and May, and stock bull, whose dam has official record of nearly 19 lbs. at three years old. Also a few choice Oxford Down ewes. W. A. BRYANT, Cairngorm, Ont. Middlesex Co.

The Maples Holstein Herd! RECORD OF MERIT COWS. Headed by Lord Wayne Mechthilde Calamity, also in the Record of Merit. Nothing for sale but choice bull calves. WALBURN RIVERS, Folders, Ont.

HOLSTEINS Choice bull calves, one to six months old, from high-producing dams. One heifer, 2 years, due in December. White Rocks, Buff Oringtons, or dollar up. David Rife & Sons, Hespeler, Ontario.

OIL CAKE

J. & J. Livingston Brand

DOMINION LINSEED OIL CO., LIMITED,
BADEN, ONTARIO. 31 Mill St., MONTREAL, QUE.

Now is the time to buy a bull for service next year, because we sell CHEAPER now than we do next spring. Why not write to us RIGHT AWAY for a BARGAIN in bulls from R. O. M. dams? Or better yet, call and see us.

E. & F. MALLORY,
FRANKFORD, ONTARIO

Spring Brook Holsteins and Tamworths. 32 choice young Tamworths from imp. sows, and sired by imp. Knowle King David, of best British blood and Royal winners. Correct type. Holsteins of best strains. Write for what you want, or, better, come and see. Will not exhibit this year. Stock better than ever. A. C. HALLMAN, BRISLAU WATERLOO CO., ONT.

The finest feed known for stock. Once a user, always a user. Sold either fine or coarse ground. Write:

FAIRVIEW HERD HOLSTEINS

The greatest A. R. O. herd of in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose seven-day records average 29¼ pounds each, and over 4 3/4% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple, 31.62 pounds butter in 7 days, and 126.56 pounds in 30 days, at 4 years old. Cows and heifers in calf to the above two bulls for sale, also young bulls sired by them out of large-record cows. Write, or come and inspect our herd. E. H. DOLLAR, Nevelton, St. Lawrence Co., N. Y., near Prescott, Ont.

LYNDALE HOLSTEINS!

Bull calves out of cows with records of from 18 to 20 lbs., also three heifers coming two, and a number of young cows in Record of Merit, bred to a grandson of Pieterje Hengerveld's Count De Kol. BROWN BROS., LYN, ONT.

EVERGREEN STOCK FARM offers for sale choice young HOLSTEIN BULLS, from 10 to 12 months old, sired by sons of Mercena 3rd and Tidy Abbe-kerk, each of which made over 27 lbs. of butter per week, and 80 lbs. milk per day. Also choice young females. Write for prices. F. E. PETIIT, Burgessville, Ont.

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way to arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. 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. Putnam station, near Ingersoll.

H. E. GEORGE, Crampton, Ont.

Centre and Hillview Holsteins Riverside Holsteins

125 head to select from. 35 in the R. O. M. Stock bulls Bonheur Statesman, high official backing, and is closely related to Colantha 4th's Johanna; Brookbank Butter Boy. All nearest dams over 20 lbs. From these sires, out of R. O. M. dams, are several young bulls and a few heifers. Prices right. P. D. EDE, Oxford Centre, Ont. Woodstock Station.

For sale: Seven young bulls from two to nine months old, out of Record of Merit cows, sired by Sir Pieterje Foch De Boer, whose dam and sire's dam average in official test 25.87 lbs. butter in 7 days, and 87.6 lbs. milk in 1 day.

J. W. Richardson, Caledonia, Ont.

Only Bull Calves FOR SALE, HOLSTEINS and AYRSHIRES, Of the best performing strains.

GEO. RICE, ANNANDALE STOCK FARM, TILLSONBURG, ONTARIO.

Holsteins & Yorkshires

R. Honey, Brickley, Ont.

All surplus stock of Holsteins sold, except this crop of calves. Ready to book orders for them. Best bacon type Yorkshires, one to six months, both sexes, at moderate prices.

Maple Glen For sale: Two bull calves born April 28th. One sired by Brightest HOLSTEINS Canars; dam of calf has 22½ lbs. butter record, over 4 per cent. fat. The other from 19.48-lb. 2-year-old A. R. O. test, sired by a bull with a 22¼-lb. tested dam, with 93 lbs. milk 1 day. Also a 4-year-old cow due in Oct., sire's g. dam sister of Carmen Sylvia. G. A. Gilroy, Glen Buell, Ont.

BUSINESS HOLSTEINS!

Over 60 head to select from. Milk yield from 60 to 85 lbs. a day, and from 35 to 47 lbs. a day for 2-yr-olds. There are 10 2-yr.-old heifers, 8 1-yr.-olds, and a number of heifer calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. W. Higginson, Inkerman, Ont.

Maple Hill Holstein-Friesians

Special offering: Two bull calves eleven months old; well bred; in fine condition; now fit for service.

G. W. CLEMONS, St. George, Ont.

ESTABLISHED 1865.
E. T. CARTER & CO.
84 Front Street, East.
TORONTO, CANADA.

Write for our **LATEST PRICE LISTS**
CONSIGNMENTS SOLICITED.
We Pay All Express Charges.
Prompt Returns.

RAW FURS

STOCK FOR SALE AT A number of Springburn Stock Farm Ayrshire bulls and heifers of WILLIAMSBURG, ONT. of s.e.p.-milk strain. 15 Oxford Down shearing and ram lambs. Ewes any age. Prices reasonable. H. J. WHITTEKER & SONS, Williamsburg, Ont., Props.

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 St., Menie P. O., Ont.

UTILITY GLENORA OF KELSO = 15798 = AYRSHIRES at head of herd. For sale: Females of all ages, and several young bulls, some out of 11,000 lb. cows. Come and see, or address: R. C. CLARK, Hammond, Ont. Railway station, Hammond (G. T. R. and C. P. R.).

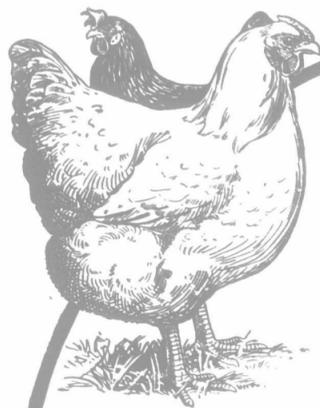
CHERRY BANK AYRSHIRES. Farm now offering young bulls and heifers true to type and high in quality. Some with imp. sire and dam; also will spare a few older females. P. D. McArthur, North Georgetown P. O., Que. Howick station, Que.

GOSSIP.

John Gibson, who bred the noted Canadian-owned horse, "The Eel," has given the facts about the gray pacer, and has answered the somewhat disparaging statements made by a Michigan man, who sought to throw cold water on the horse.

In the article written by the Michigan man, and which appeared in The Horseman, signed by "Mich.," the writer states that John Gibson, some years ago, lived some miles west of Dundee, in Munroe County, and that he had a gray horse with a peculiarly wobbly gait, which got over the ground in pretty good shape, but was such a ludicrous spectacle that Gibson, who was something of a horseman, failed to have much faith in his future as a colt, and sold him for about \$50 to a man who seemed to want it. Less than a year ago the purchaser seemed to lose faith in the horse, and a Canadian who happened along offered him \$150. The deal was closed. Meanwhile the horse developed into a pretty fair pacer, and Canadian people thought him worth training, although on account of his wobbly gait they named him The Eel. It has been learned that Mr. Gibson, former owner, is now residing somewhere in the northern part of the State. As to this, Mr. Gibson says:

"The facts of my connection with The Eel are as follows: I bred the gray stallion now known all over the world as The Eel 2:02 1/4. He was foaled in 1902, and while a weanling I drove Belle Bidwell, his dam, to Deerfield, and she showed so much action and speed that Joe Bragg, owner of Gambolier, sire of The Eel, became anxious to own her colt by Gambolier, especially as Belle Bidwell was then known as the dam of Henry C. Smith 2:16. After some dickering, I sold the colt to Bragg for \$90 and the service of Gambolier (the service that resulted in The Eel) to Belle Bidwell and one other service to Belle Boyd, dam of Belle Bidwell. The colt at that time was as pretty as a picture, but was not even halter-broken, but was a natural pacer, and as pure gaited as any colt I ever set eyes on. After Bragg got him he had him registered under the name of Silver Joe. Along in the spring or late winter—anyway when the Wabash sale was on that year—Bragg attended the sale and became acquainted with Frank Entricken, of Tavistock, Canada, and persuaded him to visit Deerfield to see Henry C. Smith, then for sale. Mr. Entricken at that time saw the gray colt, and was so impressed with his appearance that he passed Henry C. Smith by and returned to Canada. Within a month he returned to Deerfield, accompanied by Dan McEwen, and the colt, still only halter-broken, was sold to Mr. Entricken, the showing of the colt's dam, which could show a 2:30 trotting gait, and was known to have roaded fourteen miles in 57 minutes, having a lot to do with the sale. At this same visit Mr. McEwen drove Henry C. Smith, then 2:16. In 1907, when the colt Silver Joe was but five years old, he was taken along with McEwen's string, part of the time in the Grand Circuit, and letters from Mr. Entricken to me informed me of the colt's wonderful speed trial miles, at Rochester, N.Y., in 2:05 1/4, and quarters better than a two-minute gait. It is now turf history, the wonderful coup that McEwen carried to a successful issue last winter on the ice track, when he captured the \$1,000 slow class at Ottawa, Canada, and a few days later the \$1,000 free-for-all pace at the same place, beating a big field of horses in the second race, among them being so good a pacer as Nervolo 2:04. In the stake race he not only romped away with the offered money, but took into camp all the money that the speculators from the States, especially the Syracuse (N. Y.) betting crowd, had with them. The Canadian papers at the time stated that it took a Government mail pouch to hold all the money that the bookies had turned over to Messrs. Entricken, McEwen & Co. To the cover of Gambolier, on Belle Boyd, a gray filly was foaled, and is at present owned near Blissfield, Mich., which had all kinds of speed, but getting into bad hands, developed pulling traits that made her hard to control. As she is now only five years old, it seems she should, in some patient, intelligent trainer's hands, develop into a very fast trotter. She is the counterpart of The Eel in appearance. My mare, Belle Bidwell, is now in foal to



Eggs A-Plenty

That's what the poultry man gets who follows right ideas about feeding, and that's what you *should* get. Just as well have eggs in winter as in summer—just as well have them when they are high and when other folks don't have them. A hen can be made to lay almost the year 'round.

What all hens need is Dr. Hess Poultry Pan-a-ce-a, given (a little of it) in soft feed every day. Dr. Hess Poultry Pan-a-ce-a was formulated to provide hens *in confinement* with elements they need to make eggs. It does this, not because of any food value *in it*, but because it makes more of your ration available. In other words, it makes your hens digest all that's possible for them to digest, and thus they have everything they need for growth and eggs.

DR. HESS Poultry PAN-A-CE-A

is very different from so-called egg foods. It is *not* a stimulant; instead, it brings about a *natural* increase and consequently a steady one. Increasing growth and egg production by increasing digestion is known as "The Dr. Hess Idea." Sound reason is back of this idea, and leading poultry associations in United States and Canada endorse it. Besides tonic principles, Dr. Hess Poultry Pan-a-ce-a contains blood-building elements like iron and nitrates which eliminate poisonous matter. Give it as directed and you will be amazed at the wonderful increase of eggs. It also cures gapes, cholera, roup, etc. It helps old hens and all market birds to fat in a short time, and saves young chickens. A penny's worth is enough for 30 fowls one day. **Sold on a written guarantee.**

1 1/2 lbs. 35c; 5 lbs. 85c; 12 lbs. \$1.75; 25 lb. pail \$3.50. Duty paid. **Dr. HESS & CLARK, Ashland, Ohio, U. S. A.**

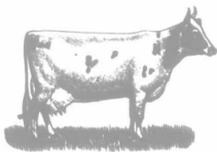
Send 2 cents for Dr. Hess 48-page Poultry Book, free.

DR. HESS STOCK FOOD

Feed a steer a heavy ration; continue it any length of time, and you are likely to bring on annoying and costly digestive disorders. Animal organs can't stand this strain without help, and Dr. Hess Stock Food is the tonic to give it. It was "The Dr. Hess Idea" to provide a prescription acting *directly* upon stomach and intestines, giving strength and "tone" to the organ and thus maintaining appetite and healthful assimilation of a large amount of food. The profit saved by keeping stock in condition, free from disease, is another valuable feature of "The Dr. Hess Idea." Thousands of feeders testify that Dr. Hess Stock Food is the foundation of their success. It is **sold under a written guarantee.**

100 lbs. \$7.00; 25 lb. pail \$2.00. Smaller quantities at a slight advance. Duty paid. Send 2 cents for Dr. Hess Stock Book, Free.

INSTANT LOUSE KILLER KILLS LICE



Stoneycroft Ayrshires

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

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

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

Stonehouse Ayrshires.

36 head to select from. All imported or out of imported sire and dam. For sale: females of all ages. Am now booking orders for bull calves.

HECTOR, GORDON, Howick, Quebec.

HOWGLEN AYRSHIRES!

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

AYRSHIRES AND YORKSHIRES!

We will sell or exchange for a young cow our (imp.) 3-year-old bull. On hand: Young bulls fit for service (imp. or home-bred). Choice August and September, 1908, calves from imp. sires, some imp. dams. One grandson of Eva of Menie. Females any desired age. Bargains now, as we are crowded. We will only fill orders for 1909 importation. Young sows ready to breed. Phone Campbellford.

ALEX. HUME & CO., MENIE, ONTARIO. HOARD'S STATION, G. T. R.

Ayrshire Cattle for Quick Sale—Choice

bulls, heifers and cows, imported or Canadian-bred, for immediate sale. Prices very low considering quality. Good teats. Heavy milkers. For particulars write: WILLIAM THORN, Trout Run Stock Farm, Lynedoch, Ont., Norfolk Co.

JERSEYS We have the get of Ethel's John, a 75 FOR SALE per cent. Mary Ann of St. Lambert bull; also of Minette's Star, a son of Brampton Minette, Brampton Monarch (imported), Blue Blood, and Financial King. Write for what you want. H.S. Pipes & Son, Amherst, Nova Scotia.

YOUNG SHROPSHIRE EWES

FOR SALE. Bred to one of our best rams. Glad to receive communications.

MAPLE SHADE FARM. Long-Distance Phone. John Dryden & Son, Brooklin, Ont.

SHROPSHIRE

Flock of the most approved type. We offer good animals at reasonable prices.

W. D. MONKMAN, BOND HEAD, ONT.

SOUTHDOWNS AND COLLIES.

Long-Distance Telephone.

Stockwood Ayrshires!

My Ayrshires are producers as well as show stock. For sale are females of all ages. Also my stock bull, Pearlstone, a high-class sire and show bull.

Am now booking orders for bull calves.

D. M. WATT, ST. LOUIS P. O. & STA., QUE.

AYRSHIRES Bull and heifer calves from producing dams. Right good ones.

Hickory Hill Stock Farm, Dundas Station and telegraph. N. DYMENT, Clappison, Ont.

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.



DEMORN YOUR CATTLE

Wonderful how it improves them. Heifers develop into better milkers. Steers fatten quicker.

KEYSTONE DEMORNER does it. Oats clean—hurts little—does not bruise flesh or crush bone. Write for free booklet.

R. M. McKenna, Late of Flinton, Ont. 219 Robert St. Toronto

OXFORD DOWN SHEEP

AT FARNHAM FARM.

We have 50 yearling ewes, all bred to our imported ram, champion at Toronto Exhibition, 1908, which we will sell at especially reduced prices for the next thirty days, in lots to suit purchaser. Also a few yearling rams and ram lambs by imported sires. Terms reasonable.

HENRY ARKELL & SON, ARKELL, ONTARIO. Arkell, C. P. R. Guelph, G. T. R.

Sheep Breeders' Associations

American Shropshire Registry Association, the largest live-stock organization in the world. Richard Gibson, President, Delaware, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.

Shropshire and Cotswold Ewes

I am offering 70 choice shearing Shropshire ewes of my own breeding, from imp. Minton and Buttar dams, and bred to a first-class imp. ram; also 20 extra good Cotswold ewes of first-class breeding. They must be sold to make room.

JOHN MILLER, Brougham, Ontario. Claremont Stn., C.P.R.

FAIRVIEW SHROPSHIRE EWES

For sale at very moderate prices. They were sired by a champion ram. And are being bred to another champion. Are of first-class type and quality. Write for circular and prices.

J. & D. J. CAMPBELL, WOODVILLE, ONTARIO.

SPRINGBANK OXFORDS

20 lambs from imp. stock; both sexes. A choice bunch of shearlings, both sexes. Low prices in lots for quick sale.

WM. BARNET & SON, Breeders and Importers, Fergus, C.P.R. and G.T.R. Living Springs, Ont.

POPLAR LODGE SOUTHDOWNS AND BERKSHIRES.

At right prices, 2 aged, 3 shearing rams, 2 ram lambs. Flock headers. Berkshires all ages, both sexes. Ideal type. Correct description guaranteed. S. Lemon, Kettleby, Ont., P. O. and Sta., also Aurora Sta. Long-distance phone.

Maplehurst Herd of Tamworth Swine Bronze Turkeys, Toulouse Geese, Pekin Ducks, S. C. W. Leghorns.

Tamworths of excellent breeding and ideal bacon type. Herd won sweepstakes at Toronto and London, 1905-6-7-8; winnings at World's Fair, St. Louis, 1904—sweepstakes aged and junior herd, and two grand championships. Apply to: D. DOUGLAS & SONS, MITCHELL, ONTARIO.

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 Bacon 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 champions and grand champions. Prices reasonable.



D. C. FLATT & SON, Millgrove, Ont.

Morrison Tamworths, Shorthorns and Clydesdales. Tamworths from Toronto winners. Either sex. Any age. Sows bred and ready to breed. Pairs not akin. **CHAS. CURRIE, Morrison, Ont.** Schaw Sta., C. P. R.

ELMFIELD YORKSHIRES 50 young pigs for sale, both sexes. Young sows bred to imported boar, also sows to Canadian-bred boar due to farrow about 1st October. **G. B. Muma, Ayr, Ont.** Ayr. C. P. R.; Paris, G. T. R.

Willowdale Berkshires!

Won the leading honors at Toronto this fall. For sale are both sexes and all ages, from imp. stock on both sides. Show things a specialty. Everything guaranteed as represented. **J. J. WILSON, MILTON, ONT., P. O. AND STATION. C. P. R. AND G. T. R.**



OHIO IMPROVED CHESTER WHITES.—Largest strains. Oldest-established registered herd in Canada. Young sows in farrow. Choice pigs 6 weeks to 6 months old. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe delivery guaranteed. **E. D. GEORGE Putnam, Ont.**

SUNNYMOUNT BERKSHIRES

Highest standard of type and quality. For sale: Sows of all ages, and 4 yearling boars. A grand, good lot. Also younger ones. Pairs not akin. **JOHN McLEOD, C.P.R. & G.T.R. Milton P.O., Ont.**



Duroc-Jersey Swine and Leicester sheep. 25 one and two shear ewes, 3 shearing rams, and this year's crop of ram lambs. Also sows in pig, and sows ready to breed; boars fit for service, and pigs ready to wean. **Mac Campbell & Sons, Harwich, 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

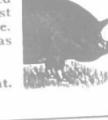
MAPLE GROVE YORKSHIRES

A choice lot of boars fit for service. A few sows bred and ready to breed. Young pigs of both sexes and all ages. We have one type, and that the most approved. We sell on the purchaser's approval. Satisfaction guaranteed. **H. S. McDIARMID, Fingal P.O., Ont. Shedden Sta.**



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. BROWNRIDGE, Milton, C. P. R. Ashgrove, Ont. Georgetown, G. T. R.**



GOSSIP.

(Continued from page 1979.)

Green Tell 2:20 (this season), by ANSEL and to just show that this stock is of some value, I have refused an offer of \$600 for the foal, the money to be paid as soon as the foal is dropped and is alive and able to stand. Anyone that has ever seen The Eel pace will vouch for his smoothness of gait, and there is not one expert horseman in the world but knows for a dead certainty that a wobbly-gaited horse could never have raced to a 2:02 1/4 record.

HOMESTEAD ABERDEEN-ANGUS.

The Homestead Stock Farm, the property of Mr. Wm. Ische, Sebringville P. O., Ont., breeder of Aberdeen-Angus cattle, is situated in the County of Perth, four and one-half miles north-west of Sebringville Station, G.T.R.; five miles north-west of Stratford. This herd, founded fifteen years ago, is now 35 strong. The foundation females were Art Gown Favorite, of the well-known Favorite strain, and her daughter, Favorite of Willow Grove, dam and sister of Emlyn Favorite, winner of first prize at the World's Fair at Chicago. Since then additional purchases to the herd were Ladysmith Lass, a Heather Bloom cow; Witch of Mote (imp.), bred by Lord Crofton. She belongs to the fashionable Mayflower strain. Thus on blood lines the herd represents the Favorite, Mayflower and Heather Bloom strains. The stock bulls in use on the herd were: Lord Forest of Willow Grove, following him was Gordon of Tweedhill 32188. His successor and the sire of the two-year-olds in the herd was Noble of Willow Grove. The present stock bull and sire of all the youngsters from one year down is Klondyke 10th 97517, by Imp. Klondyke; dam Maple Bank Newtons. Mr. Ische thinks he has cows in his herd that for milk yield and persistence of milking will stand comparison with anything in Canada among the beef breeds. One of several in the herd is Homestead May 2nd 79513. This cow has now been 20 months in milk, although freshening in the interval, and for a goodly share of that time has given from 40 to 45 lbs. a day. The herd is one essentially typical of the breed—low down, thick-fleshed, straight-lined, and good doers. Anything in the herd is for sale, at very easy prices, including five two-year-old heifers, ten heifers from 10 to 16 months of age, three bulls from 6 to 18 months of age, and younger ones of both sexes. The farm is connected at Sebringville with long-distance Bell 'phone.

ORNITHOLOGICAL EXPRESSION.

It is not at all surprising that the American vernacular should sometimes prove a little too much for the Englishman. A case in point was that of a visitor from London who came to New York last summer and was taken by his host to see one of the league baseball games at the Polo Grounds. The game had progressed as far as the third inning without anything in particular happening, when suddenly one of the Giants pounded out a three-bagger that set everybody howling with joy.

"That was a bird!" ejaculated the Englishman's host, after the excitement had subsided.

A moment later a foul tip sent the ball flying back into the grand-stand.

"And what do you call that?" queried the Englishman.

"That is a foul," said his host.

"Ah," returned the Englishman, "a fowl, eh? Well, it seems to me that the language of base-ball is most extraordinary. A fowl is a bird and a bird is a fowl, and yet you use those terms to describe two plays that seem to me to be diametrically opposed to each other. Do you call that logical?"

"Yes," said the American. "Ornithological."

Two village worthies were discussing a mooted point in grammar as to whether a hen "sits" or "sets" when she takes to her nest.

"Seems to me it's a heap more important," interrupted a by-standing farmer, "whether she 'lays' or 'lies' when she settles."

I Give My Electric Belt Free

Take my Electric Belt for what it will do for you. Wear it while you sleep at night or while you are resting after your work. You will find it a vitalizer, a tonic to your nerves, a rejuvenator of waning vitality. Use it for any ailment which drugs have failed to cure, and you will never cease praising it.

I claim that I can cure weak men; that I can pump new life into worn-out bodies; that I can cure your pains and aches, lumber up your joints, and make you feel as frisky and vigorous as you ever did in your life. That's claiming a good deal, but I have got a good remedy, and know it well enough to take all the risk if you will pay me when you are cured.

No man loses on this. If the cure is worth the price, you don't have to pay for it until you get it. When you are ready to say you are a big, husky and frisky specimen of vigorous manhood, that you haven't got an ache or pain in your whole body, and that you feel better than you ever did in your life, I get paid. If you can't say it after using my belt for three months, then give me back my old belt and I won't ask a cent. All I ask is security while you use it.

A short time ago I took a case that I couldn't cure, and I didn't see why, as I had cured hundreds like it. Anyway, my patient returned the belt and said I hadn't done him any good. He said he thought I had treated him honestly, and wanted to pay me the cost of the belt, because it couldn't be used again. I refused, and told him that I had made a contract to cure him or get nothing, and I wouldn't take a dollar I hadn't earned.

READ THE PROOF

Nothing Short of Miracles are being Performed Every Day:

Dr. McLaughlin: Otter Lake, Que., Oct. 27, '08.

Dear Sir,—Words would fail to tell you the good that your Belt has done for me. At the time I got it, I had been an invalid for nearly two years. Some of the ailments I had for over 20 years. Well, Doctor, I often say,—God bless you—and thank God that ever such a thing was discovered by the art of man. The Rheumatic pains prevented me from sleeping or walking. One night, when suffering greatly and could not sleep, I placed it around my leg, and after six hours' sleep, I awoke as free from pain as when 10 years old. The next night I applied it to the other leg with the same result, and have not had any pains since. It has done its work, and I would not sell it or exchange it for any other Belt. I expect that through my recommendation you will sell not less than a dozen Belts, as a great many came to me to find out the results in my case, and found me walking and working, the same as 30 years ago. I told them that it was Dr. McLaughlin's Belt that had done it all. Now, sir, you can use my name in any way, as I am prepared to vouch what I say is true. Hoping the Lord will bless you, and that you will be ever successful in your business. From your friend, **JAMES WAY.**

Dr. McLaughlin: Apple Hill, Ont., Oct. 5, '08.

Dear Sir,—Since I last wrote to you I feel like a new man. I now eat meat, which I have not for three years, and I can work all the time, and do hard work too. I thank you a thousand times for having advertised your Belt in the papers, and I shall recommend it to all the people who have the same sickness as I had. Yours very truly, **MILES AMELOTTE.**

Now, what would you give to be able to say as these men do—that you are twice the man you have ever been before? You can do so, and it will cost you nothing until you experience these grand benefits. I have cured thousands of men who have squandered the savings of years in useless doctoring.

My Belt is easy to use; put it on when you go to bed; you feel the glowing heat from it (no sting or burn, as in the old-style belts), and you feel the nerves tingle with the new life flowing into them. You get up in the morning feeling like a two-year-old.

Wherever you are, I think I can give you the name of a man in your town that I have cured. Just send me your address and let me try. This is my twenty-fourth year in the business of pumping new vim into worn-out humanity, and I've got cures in nearly every town on the map.

If you will come and see me I'll explain it to you. If you can't call, let me send you my book full of the things a man finds inspiring to strength and courage. Free if you send this ad. Office Hours—9 a.m. to 6 p.m. Wednesday and Saturday to 9 p.m. Consultation Free.

Until You Are Cured



Lock Box 19, Bobcaygeon, Ont., June 13, 1908.

Dr. McLaughlin:

Dear Sir,—I cannot speak too highly of your Belt. I cannot speak of its faults, as it has none whatever. My appetite is good, and I sleep well, though I never was a heavy sleeper. You can use my name if you choose, and any recommendation or any and every good quality your Belt possesses that you wish to publish in my case. I am ready to back it up for you, as I know it is all true, and I hope others who are sufferers will just give it a fair trial and be convinced. Respectfully yours,

W. A. GRAHAM.

South Bay, Ont., Aug. 13, '08.

Dr. McLaughlin:

Dear Sir,—One year ago last February I was taken with Nervous Exhaustion (the Doctors pronounced it). I suffered all the tortures of that disease; was all run down, so weak I could hardly do anything at all. Since I began to use your Belt there has been a marked improvement in my condition in the different ways mentioned. I have slept good every night since wearing your Belt, which is one of the greatest blessings of mankind. I have a great deal more ambition; work used to seem such a mountain, now it seems more a pleasure; more strength and vim; memory better; digestion better; constipation about gone, which I was bothered with a great deal; head feels better, and I feel far better in every way. Yours truly,

NELSON ROSE.

DR. M. S. McLAUGHLIN

112 Yonge St., Toronto, Can.

Please send me your book, free.

Name _____

Address _____