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THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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Genus and Station
Dept. of Agriculture

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

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VOL. XLV.

LONDON, ONTARIO, NOVEMBER 24, 1910.

No. 948

"Frost" Fence

You Must Not Look a Gift Horse in the Mouth

If you look a gift horse in the mouth you are apt to find many disappointing features. You must expect blemishes when you get the horse so cheap. A sound and serviceable horse does not go begging at a bargain price.

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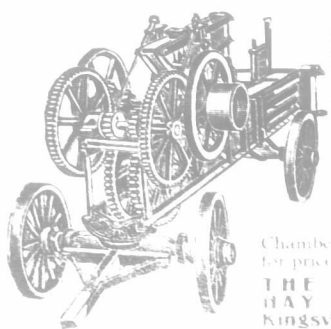
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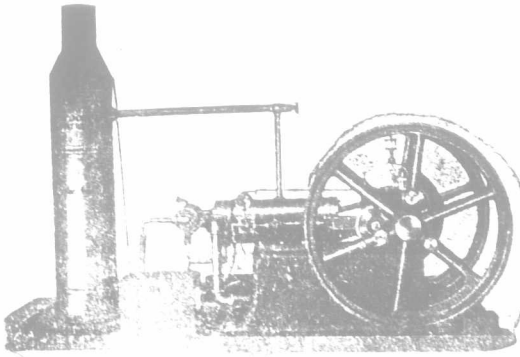
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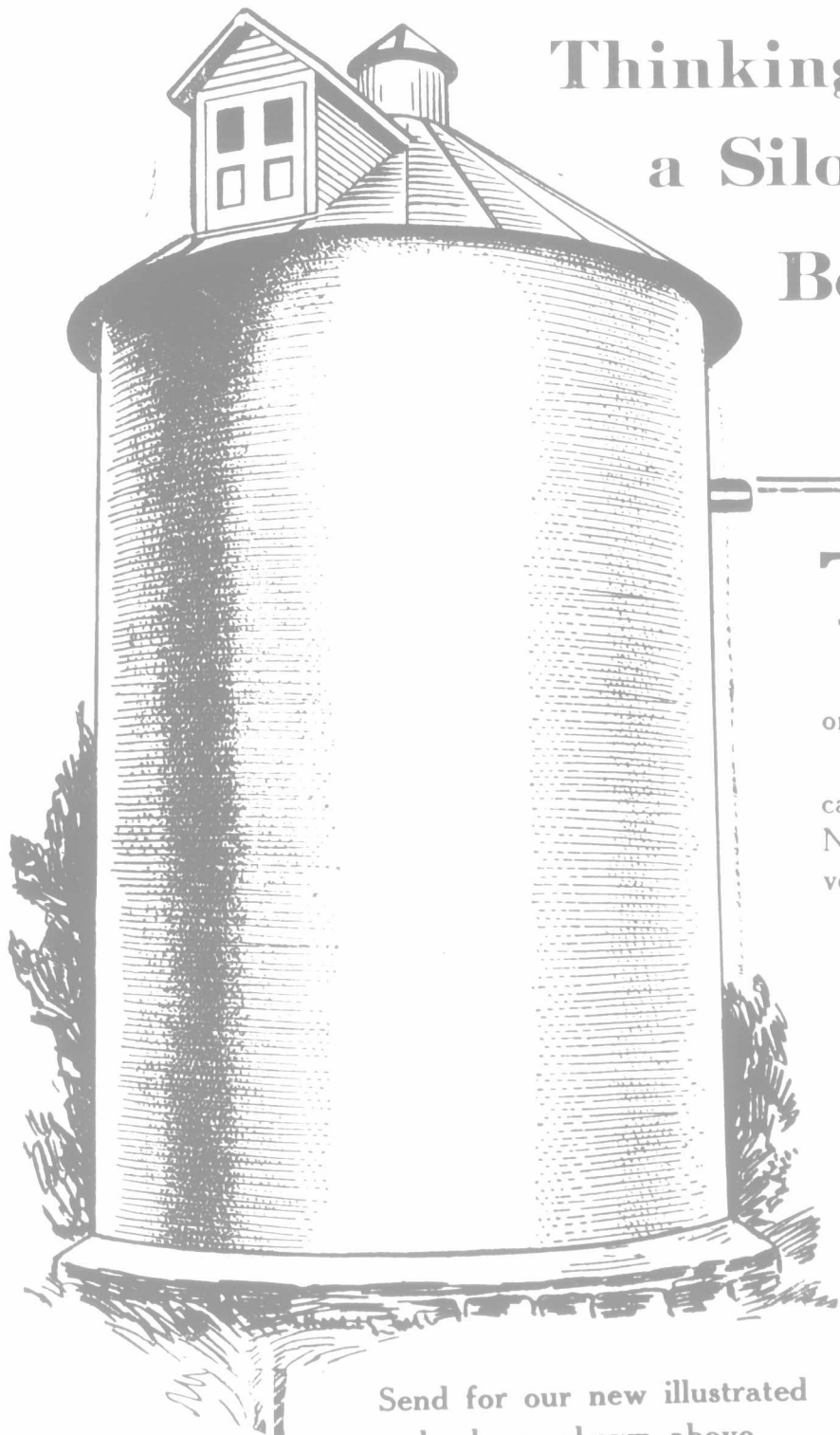
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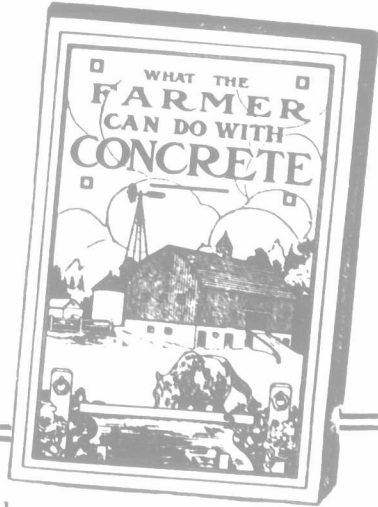
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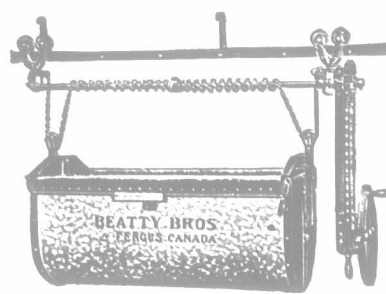
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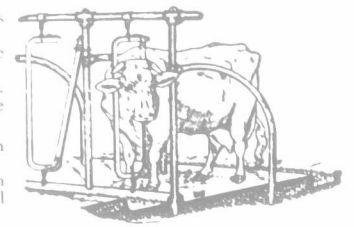
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THEY will make it easier for you to keep your stables clean.
HAVING SANITARY STABLES means more profits.
EVERY cow should be kept clean and comfortable. With "BT" Stalls and Stanchions this is made possible.
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THEY cost no more than the old style, and with cement floors Steel Stalls and Stanchions will practically last a lifetime.



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The Farmer's Advocate and Home Magazine

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Succeed."

Established
1866.

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Vol. XLV.

LONDON, ONTARIO, NOVEMBER 24, 1910

No. 948

EDITORIAL.

To make a nation great externally we must make great souls first. Civilization is only incidentally a material thing; primarily it is a thing of the soul.—N. Dwight Hillis.

Cropping and live-stock returns reported by "Emerald Isle," coupled with the enterprise of Irishmen in bidding for first-class breeding stock, indicate a betterment in Ireland's material prospects that will be gratifying to well-wishers of that country the world over.

That the United Kingdom should have increased its imports of flour from Canada by nearly 44 per cent. in the three years (1907 to 1909), while imports from the United States fell off by 2,800,000 cwts., is a matter of which Canadian millers may well be proud. It is all the more gratifying in view of the rapid expansion of the British milling industry.

Amid the still all-too-abundant evidence of evil in politics, it is encouraging, every once in a while to find public administrators who conceive it their duty to demand efficiency and honor in the conduct of their departments. The announcement of a complete reorganization of the Government printing bureau, at Ottawa, followed by Hon. Frank Cochrane's declaration that the Ontario fire-ranging service is to be made really effective, instead of a profitable holiday for impecunious students, is along the right line.

Lord Strathcona's generosity in donating half a million dollars for the encouragement of physical drill and military training in Canadian schools, has tended to disarm criticism of his idea. There are those, however, who, while favoring physical drill and recognizing the need of national defence, regard with misgivings the proposal to inaugurate military training in the schools. Nor will the demands of this kind of training upon the limited hours of the school-room make any easier the proper balancing of our rural education by introducing those fundamentally necessary features, nature study, school-gardening, manual training, and domestic science.

An eminent medical authority says all that is necessary to control typhoid is to keep human excreta out of the food and drinking water. This, however, is a much larger contract than might be imagined. Milk may be contaminated by infected water used for washing dairy utensils. Oysters fattened on sewage containing excreta from typhoid patients, have been known to originate an outbreak of the fever. Flies are common offenders. A recent epidemic at Orono, Ont., as a result of which twenty or more patients have died, has been attributed, unofficially, at all events, to the infection of cooked meats by flies believed to have come in contact with the germs from a previous case in the vicinity. Because bacteria are microscopic, the layman often fails to trace connection between cause and effect. The lessons, however, should not be lost. Scrupulous care is the price of safety. Exterminate the filthy house-fly and keep human excreta out of food and water, and typhoid fever will be a thing of the past.

Co-operation—A New Angle.

That it will not be to the producers' interest to enlarge the output and improve the quality of our farm products, unless we first of all change the market conditions so as to insure against middlemen taking advantage of the large supply to bear down prices, is the claim stoutly put forth by Peter White, K. C., lawyer, farmer and business man, of Pembroke, Ont. As president of a well-known Canadian incubator company, whose interest coincides with the farmer's interest, in that neither desires an over-production to slump prices and bring about a reaction from the poultry business, Mr. White has been forced to give this subject a good deal of thought, and his conclusion is that there is no hope of permanently satisfactory marketing conditions until the middleman has been eliminated, and producers virtually control the market.

Discussing this subject not long ago with "The Farmer's Advocate," he harked back to the correspondence precipitated by the Flavelle-Duff open letter, alluding to the position taken by several farmers that they would rather have a small production of, say, hogs at high prices, than a large production at the low prices which the packers might bring about again if over-production enabled them to do so. Evidently, he infers, our Canadian farmers are afraid to place power in the hands of the middleman, who is, in this case, the packer.

Co-operation in marketing is the means by which he would strengthen farmers in the confidence that they might safely enlarge production and improve the quality of their produce. As illustrating his idea, he cites the familiar example of Denmark, as well as the reported experience of onion-growers and other producers in the United States, who, finding themselves ground between the upper millstone of the middlemen and the nether millstone of large production, escaped from their intolerable situation by extensive co-operative organization, which eliminated unnecessary expenses, insured the payment of producers according to quality, and to a large extent controlled the market, obtaining a remunerative price for a good article. Coming home to Canada, he points to the successful efforts of our Western grain-growers to secure the fair and stable grading of their wheat, with the result, it is said, that Canadian wheat is now the standard by which the grades of the world are fixed; also to our cheese industry as having been built up on an extensive, enduring and profitable basis, secured against the depression which middlemen endeavor to bring about whenever large production enables them to depress prices to the producer. Other Canadian examples of co-operation that might be more happily cited at present are the fruit-shipping associations, the co-operative onion-growers' organization at Scotland, Ont.; the Kent County Farmers' Produce Company, at Chatham, and one or two agricultural societies in the Maritime Provinces, which save money for their members by the co-operative purchase of commercial fertilizers and other supplies. All these aim to eliminate one or more middlemen, and some of them at least endeavor to reward the grower who supplies articles of superior quality.

That successful co-operation of this kind is a decided economic advantage, no thinking person will deny. That it promises ultimate benefit to the consumer, and thus to society in general, seems scarcely less clear. That it brings about when adopted a prompt and substantial gain to the producer, is proven by results. But that it

will permanently insure against slumping of prices consequent upon large production, is claiming too much. This has been proven clearly the past summer in the case of the cheese industry, as the widespread murmuring about prices abundantly attests. The fact of the matter is, nothing but a closely-organized monopoly or natural devastation can guarantee against over-production and low prices in any particular line. Make a certain business profitable by co-operation or otherwise and you attract more producers to it, and thus reduce profits automatically. In the case of the cheese industry, the result seems to have been brought about partially by a slackening demand, but the principle is all the same. Relatively to other commodities, the production of cheese is at present too large for the demand.

Nor is it correct to contend, as some have seemed to imply, that the margin between five-cent and ten-cent hogs was due wholly or largely to a difference in the packers' opportunity to bear prices. Granting that the packer tries when he can—just as do all other classes of business men—to buy cheap and sell dear, it is nevertheless absurd to argue that he can succeed in depressing prices more than fractionally, unless at rare intervals. If the packers had been regularly "Jewing" hog-raisers to the extent of two or three cents a pound, it is hard to see how our co-operative pork-packing plants could have failed, badly managed and poorly supported as they probably were. And even if they had failed, other private capital seeking investment would have flown into the packing business and furnished competition, if there were none before. We hold no brief for the packers, and heartily agree that if co-operation could save the farmer an eighth or a quarter of a cent a pound on his hogs, or could insure the payment of a premium for quality, it would be well worth while. To say that it could do much more than this is to be guilty of careless statement. The hundred-per-cent. profits reported to have been made by one packing company were accumulated not by doubling its money on a few thousand hogs, but by a small percentage of profits on a large turnover.

The fact of the matter is, our middlemen do not to any great extent control either the buying or the selling market. They are, for the most part, a buffer between producer and consumer. Undoubtedly, they at times hold and use power to modify prices, and this power we would be glad to see placed in the producers' hands. Undoubtedly, also, for their services as speculators and jobbers, they exact a percentage toll. They must do so, or they could not live. This toll, likewise, we would fain see in the producers' wallet, though we must remember that, if he went to the expense of providing storage facilities and holding his produce for a raise, it would cost him a proportion, at least, of the middleman's present toll. Undoubtedly, too, middlemen are often an awkward snag in the securing of payment on a basis of quality. It has proved so with apples, eggs, cool-cured cheese, and many other commodities. For this further reason we would heartily welcome the elimination of the middleman. We believe in co-operation, and have preached it repeatedly. But we must not exaggerate its benefits. We know its history in Canada—how difficult it is to get farmers to co-operate, and how much harder still to keep them together, working smoothly on the principle of each for all. As a general thing, successful co-operation has been born of desperate conditions which have driven producers together of neces-

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL
IN THE DOMINION.

PUBLISHED WEEKLY BY
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

Agents for "The Farmer's Advocate and Home Journal,"
Winnipeg, Man.

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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LONDON, CANADA.

sity. It was so in Denmark, it was true in the case of our co-operative fruit-shipping associations, it was so with the bean-growers at Chatham. Co-operation is a good thing, but it is no panacea. Work for it, but work for it with a full realization of its limitations and the causes of past failures. Thus sensibly promoted, it will be more likely to succeed. Meantime, let every man make the best of the marketing situation as it is. There is room for most of us to expand our profits steadily by larger production of a first-class quality of produce, while, by enterprising business methods, many of us may improve our marketing conditions appreciably, even without co-operation or other organized effort. Make the best of the present, and work for co-operation.

The Winter Fairs.

The fall fairs of another year having had their day, farmers, feeders and stockmen generally are looking forward with interest to the coming winter exhibitions which round up the show circuit of the year. While the summer and autumn shows have their place, and serve a useful purpose in bringing out for competition the cream of the products of the farm in breeding stock, cereals, roots, fruit, etc., the winter fair displays the results of judicious breeding and feeding of commercial stock prepared for the meat market, and showing the most desirable types for profitable production; and the dressed-carcass competition gives an opportunity for comparison of the quality of the living animal with that of its flesh when ready for the shambles, an educational feature the design and character of which should prove helpful to the breeder and feeder, and of interest to all concerned. It is gratifying to observe that the tendency of the times is to encourage the adoption at agricultural exhibitions of practical demonstrations of the work and products of the farm.

The milking trial for dairy cows, which is one of the features of the winter fair, grows in interest from year to year, as does the dairy business

throughout the country, it being now one of the most profitable branches of farming. The test at the winter fair covers quantity and quality of product combined, for a short period, while the Record of Performance adopted by the breed societies affords opportunity for tests for longer periods on the farm throughout the year, and settles the question of the profitability of individual cows and of the herd. The poultry show at the winter fair brings out the birds at a season when they are at their best in appearance, and this branch of the business of the farmer has grown in importance until it ranks among the most profitable in returns, considering cost of production. The poultry show at Guelph is certainly one of the very best of its class in America in numbers, variety and quality, and is in itself well worth the cost of a visit from any reasonable distance; over 4,700 exhibits competed at Guelph last year. Last, but by no means least in importance, is the Horse Show, a feature in which farmers of every class are more or less interested, and which was added to the Guelph show last year, and is continued this year, with an enlarged classification and more liberal prizes, which will, no doubt, bring out stronger competition and a superior show of both heavy and light horses. The farm-seed section of this show is also growing in extent and interest from year to year, and is an important branch of the exhibition. Added to all the features above named, are the lectures by prominent practical farmers, breeders and scientists, which furnish much useful and helpful information. Considering the small admission fee of twenty-five cents, the single railway fare, and the fact that the season is not a busy one on the farm, the attendance at the fair this year, at the Ontario Winter Fair, at Guelph, December 5th to 9th, should be a record one. The programme of events will be published in these columns at an early date.

The Maritime Winter Fair, at Amherst, Nova Scotia, is slated for the date December 5th to 8th, and the dates for the Eastern Ontario Live-stock and Poultry Show are January 16th to 20th. These are conducted largely on the same lines as the Guelph show.

Danish Encouragement of Agriculture.

How liberal Denmark is to her agriculture is shown in a report by a British vice-consul to the Foreign Office. The sum granted this year for the encouragement of agriculture was \$283,313, or one-twentieth of the whole national expenditure. If the United Kingdom gave grants on the same scale as Denmark, the amount in this country would be £8,000,000. In Denmark there are 115 local agricultural societies, with 81,500 members, and the grant to these is £10,900. In addition, the state pays considerable sums for lectures, provides prizes for local shows, and certain travelling expenses.

There are 260 horse-breeding, 1,310 cattle-breeding, 250 pig-breeding, and 90 sheep-breeding associations, and these all receive aid towards the improvement of stock. There are 1,500 creameries which do not receive direct aid, and practically all are co-operative concerns. Indirectly, aid is given through control societies, the sum of £6,666 being spent in experimental and educational work in dairying. The largest sum of all, £222,222, is at the disposal of the parish councils, through the district commission, for five years, for the purpose of assisting peasants to purchase farms. For forestry work, £30,355 is appropriated, and many educational institutions connected with agriculture receive state grants. With this well-directed national assistance, is it any wonder that Danish farmers are prosperous, and their country renowned for the excellence of its produce?

Industrial Education.

Industrial and technical education has the great merit, not merely of not alienating young men from manual labor, but of keeping them in constant touch and sympathy with it, requiring them to practice the simpler mechanical operations as a part of their curriculum, and training them, meanwhile, to take up more complex varieties as a life-work after graduation. There can be no manner of doubt that practical and technical education, while giving the individual student an excellent mental discipline, has also stimulated the agricultural and manufacturing industries of the country. And, at the same time, by binding together the skilled hand and the educated brain, it has wrought powerfully for the maintenance and diffusion of the spirit of social and political democracy.—President Schurman, of Cornell University.

Newfoundland Promoting Agriculture.

Editor "The Farmer's Advocate":

Having returned from judging in Newfoundland, and knowing vague ideas prevail in the minds of many in Ontario and other places regarding that colony, I decided to write you a few notes concerning my observations and impressions. I landed at Port Aux Basque, a well-protected, rock-bound harbor, then travelled by train to St. John's, a 28 hours' ride through an interesting country. Beautiful bays, lakes and streams teem with fish; the valleys in places are dotted with comfortable homes and productive fields; then, there are long stretches of peat bog, and some rocky stretches. Extensive manufacturing plants are to be seen, as well as several railway junctions, with considerable hustle, evidencing business activity along the branch lines. Finally arrived at St. John's, we found a hustling city, built on the shore of a beautiful bay that accommodates all kinds of vessels from Atlantic liners down. The city has many fine churches and schools; large, well-stocked stores; fine residences; beautiful, commodious Government buildings, and is surrounded by some beautiful, productive farm lands. The Government is anxious to improve agriculture, and this year held an exhibition which was so good that it surprised themselves, as well as the visitors. In the agricultural hall were to be seen many excellent exhibits of potatoes, turnips, cabbage, celery, tomatoes, wheat, oats, barley, rye, clover, dairy products; ladies' work, such as paintings, drawings, wearing apparel, and bedding—one quilt was insured for five hundred dollars; it certainly was beautiful. And the decorations and arrangement of the hall would be a credit to any management. The manufacturers' exhibit was splendid. There was a large hall artistically decorated, and a great variety of articles well made and attractively displayed. Outside, a threshing machine was in operation, driven by a gasoline engine, and the straw pressed in bundles as it came from the machine. Amongst the live stock were fine specimens of beef and dairy cattle, sheep and swine. There were many fine horses, especially in the carriage and truck sections; also a great variety of ponies, from stout, useful ones to children's playthings. The exhibition was managed by the members of the Government, one and all of whom are enthusiastic over the agricultural possibilities in Newfoundland, and doing all they can to encourage it. They are importing breeding stock and seeds, securing agricultural teachers, and contemplating a school of agriculture; and this exhibition has been a revelation to many as to what is being done along that line.

J. STANDISH,
Agricultural College, Truro, N. S.

HORSES

The breeder expects the progeny will inherit the attributes of their parents, and should, therefore, carefully select the best type of animals for breeding purposes.

* * *

Both sire and dam should be fine specimens of the breed they represent, in order to produce the best grade of market horses. Defects in conformation of the dam are not eliminated with certainty in the offspring by perfect qualities in the sire.

* * *

The law of heredity insures the transmission of unsoundness and imperfections of ancestors. Breeding animals should be free from abnormal development in any part of their conformation, as such developments are imperfections sure to be transmitted to their progeny.

* * *

When tying colts up, use good strong halters. A good halter, properly tied, not too long, will give a colt a respect for rope and leather that will prevent him from ever becoming a halter-breaker. Don't allow them too much rope, or they may become suicides, a not infrequent happening.

* * *

The small amount of oats and clean hay that a weanling colt will eat the first winter does not cost much money, but will pay more interest on the investment than the same amount of feed given to almost any other animal on the farm. The reason is that the gains made the first winter are permanent, and decide the future scale and weight of that colt when matured. The way to grow big horses is to keep the colt growing every day of its life, especially the first winter.

* * *

At this season of the year, when most of the fall work is done, one is tempted to overfeed and under-exercise the work team. While it pays to tone up the horses that have worked hard all summer, there is danger in overfeeding, unless



Sand Boy 2nd [571].

Two-year-old Shire stallion. First and champion at the Western Fair, London, Ont., 1910. Bred, owned and exhibited by Frank Drury, Charing Cross, Ont.

abundant exercise goes with it. A man finds this out when he takes out a fat, idle horse, and starts for a drive, to find that he has a sick horse on his hands after a few miles, and possibly a dead horse if he goes very far. It is simply the old trouble of azoturia, due to rich feeding, unaccustomed exercise bringing on kidney trouble. There are remedies often mentioned in these columns, but the best remedy is prevention, in the way of rational feeding. Yet nearly every horse-owner seems to have to undergo the loss of one of his best horses before he heeds the lesson.

Carrots for Horses.

If those farmers and horse-owners who have not been in the habit of feeding their stock with carrots, were only once to try the free use of them, they would never be without carrots between October and March, says the London Live-stock Journal. After February, carrots do not keep sound, and during March and April the hardy and welcome mangel is ripe and ready for consumption. Any ripe roots are good for horses, but no food known to the experienced horse-owner is so nutritious, so purifying to the blood, so easily digested, and so cheap, as white Belgian carrots. On gravel or loam, twenty tons to the acre may be grown, and about one acre to every four horses should be drilled in April. Seven pounds of seed per acre, a rather expensive hand-hoeing and digging, but it will result in 30 per cent. reduction in the cost of horse keep, and also greater efficiency and expedition in the cultivation, because the horses are more robust, and consequently more vigorous. A team of twelve farm horses might cost in annual keep, without carrots, £300, and with plenty of carrots the cost would be reduced to something like £200.

Re the General-purpose Horse.

Editor "The Farmer's Advocate":
In your issue of October 27th, E. F. O., on page 1700, introduces a very important subject; at least, it is important to some judges and exhibitors at horse shows, particularly in reference to the general-purpose class, in which such differences of opinion exist. It is generally admitted that rights in dispute should be submitted to a tribunal constituted of judges. Then, if such tribunal has existed, and pronounced on the subject, such declaration should be law, until amended or repealed. I have been at several conventions of horse judges where the general-purpose horse received considerable attention, and while it was generally conceded that the class was a detriment to high class horse production, yet, owing to the fact that at most exhibitions a general-purpose class is presented, the judges decided to define the characteristics desired in a general-purpose horse, and, after deliberating, this resolution was submitted: "That a general-purpose horse be an animal that can be comfortably ridden, driven single or double to a farm—not a special-purpose animal for any one purpose—with the form of a large carriage horse, not possessing extremely high action, and was put to vote, and carried by a large

majority, then declared by the presiding officer to be the standard for general-purpose classes until amended or repealed, neither of which has ever been done, so far as I know. By this standard, weight is not stipulated, nor do I believe that weight should determine this or any other class. A minimum weight may be fixed, say, in draft class, 1,500 pounds and up; in agricultural, 1,300 pounds and up; in general-purpose, 1,050 pounds and up. But, as the draft breeds have representatives below 1,050 pounds, that is no reason that they possess general-purpose character. As to breeding, a general-purpose horse may be pure-bred, or mongrel; and, as many pure-breeds do not possess desirable special class character, still, if they possess sufficient size, they may be good general-purpose animals. I have seen some Hackneys, as well as Standard-breds and Coachers, that would make splendid general-purpose animals, so that pure breeding should not be, nor is it, a bar to the class. I feel, if the class is to be recognized at shows, there should be only two sections, a pair of geldings or mares, or one of each, and a single gelding or mare, in harness, and that mares, colts and stallions should not be permitted in this class. Cannot some understanding be arrived at?
J. STANDISH.

LIVE STOCK.

Carbolic-acid Treatment for Abortion.

The adverse opinion of the Committee of the British Board of Agriculture re the efficacy of the administration of carbolic acid with food or in water as a drench, for the prevention and cure of contagious abortion in cows, has met with severe criticism in letters addressed to the Farmer and Stock-breeder by breeders who claim to have used the treatment with very satisfactory results. James Peter, Berkeley, writes: "I have had a large correspondence with breeders

in all parts of the country as to the treatment with carbolic acid, and, so far as I can gather, the results, where properly carried out, have been most successful. I have no axe to grind on behalf of the carbolic-acid treatment. I know the benefit I have received from its use as a preventive and a cure of abortion. I have published my experience for the benefit of stock-breeders at large. If the report that the committee have been sitting on for so many years does as much good when it is hatched for the cure and prevention of abortion as the carbolic-acid treatment has done, then they deserve well of their country. I think no one ever expected that a professional committee, with little practical knowledge of stock-breeding, would do anything else than condemn a cure adopted by a layman. Of course, we stock-breeders would not think of pumping a pregnant animal full of abortion microbes, and then trying to make her immune from the disease by the carbolic-acid treatment. The wonder to me is that the one experimental swallow that made the summer for the committee did not abort her calf sooner than she did."

Henry Lyne, Marlborough, writes: "I feel it my duty, in straightforward fairness, to state that, having had experience with this scourge at times for over thirty years, I have never found any treatment of any practical benefit until I tried Mr. James Peter's internal treatment with carbolic acid. I consider this is a satisfactory prevention, if carried out with thoroughness (without thoroughness, success cannot be expected). Mr. James Peter has taken such an interest in starting this treatment, and so many people consider that it has been very beneficial, that it is a great mistake to brush aside with contempt, at any rate, until something more efficacious has been discovered."

Another writer says: "On such a question, it is most difficult to obtain empirical knowledge, but when we find that abortion continually ceases after carbolic saturation, we cannot help connecting the two. I have never claimed that it absolutely prevents abortion in every case, although it has done so in every case when the acid was carefully and regularly administered, that has come under my notice. I quite agree that the daily administering of small quantities would answer the purpose better than larger weekly doses. I am now experimenting with diluted carbolic acid given in bran. I started with 20 drops to each daily, and have now worked them up to thirty. I hope to get them to forty before long, which will be four and two-thirds teaspoonfuls a week, or a little over half an ounce. I find it best to keep a large bottle broken down to five per cent. strength—that is, one part of acid to nineteen of water. There is less danger in measuring then. At the same time, the mixture should have a distinctive color, which may be gained by putting a few drops of cochineal in it. One ounce of this mixture (two tablespoonfuls) contains twenty-four drops of acid, so that one can commence with seven teaspoonfuls of the mixture (twenty-one drops), and gradually, as they will eat the mash, work up to thirteen teaspoonfuls to each cow. I am tying all my in-calf heifers up in the same shed and measuring out by a graduated glass the dose for the whole. This is



Blanche Surprise —368—

Hackney stallion, chestnut foaled 1903. First in class, and reserve champion, Canadian National Exhibition, Toronto, 1910. Owned and exhibited by H. G. Boag, Barrie, Ont. Sire Rosador.

further mixed with water to about a quart to each cow. This is poured on to the bran, about 3 pounds to each cow, and well mixed."

Carcass Mutton and Lamb.

From an Illinois Bulletin on Market Classes and Grades of Meat, by Louis D. Hall.

Various styles of dressing mutton and lamb carcasses are used for different branches of the trade, and since the market value depends upon the manner of dressing, as well as the grade of meat, both are usually specified in mutton and lamb quotations. Plain or round-dressed sheep and lambs have the pelt, head and toes removed, and fore leg folded at the knee; they are opened only from the cod or bag to the breast, split about half way through the breast bone, and a spread-stick placed inside the fore ribs. This is the style most commonly used in dressing sheep, and the best grades of lambs are usually dressed in the same manner. Caul-dressed carcasses have the ribs and flanks turned outward, and fastened back with set-sticks, and the caul wrapped about the legs and laid over the inside of carcass, the object being to improve the appearance, prevent drying out, and in some cases (especially in lambs) to furnish the fat necessary for proper cooking. The lowest grades of sheep and all grades of lambs are caul-dressed. The term "pelt on" refers to lambs from which the pelt and head have not been removed. This style is generally confined to light lambs. They are opened the same as round lambs, and in some markets are dressed with back-sets, and caul laid over the belly. Sheep and lambs dressed either plain, round, or "pelt on" are quoted "pluck in" and "pluck out." The pluck consists of the heart, lungs, liver and windpipe, and is either left attached to the carcass or removed, as indicated by these terms. Lambs are generally sold "pluck in," and sheep "pluck out."

The grade and the value of a carcass depend chiefly upon its form, quality, covering and weight. Good width in proportion to length, together with compactness and smooth, even outlines, are the essential points of good shape. This implies a thick loin, broad back, well-meated ribs, a full, thick middle from shoulder to leg; plump, thick legs, filled well down on the shanks, and smoothly-covered shoulders. Covering refers to the fatness of the carcass. It is essential because of its influence on the appearance of the dressed sheep, quality of meat, and shrinkage both in storage and in cooking. The fat should be smooth and even over the entire carcass, but only in the most highly finished sheep are the legs and shanks completely covered. The kidney fat should be well developed, but not excessive; it is an important indication of finish. The lowest grades of carcasses have practically no outside. The flesh should be firm and fine-grained. The color varies from light-pink in lambs to dull red in mature mutton; the fat should be clear white. In lambs, the brisket is soft and red, and the ribs and shank-bones are colored by blood vessels. In mature sheep, the bones are white and hard. Weight is of greatest importance in lambs, though it is of importance in all classes.

The carcass is usually divided between the twelfth and thirteenth ribs, yielding about 49 per cent. saddle and 51 per cent. rack. Subdivisions of the saddle and rack are quoted as wholesale cuts to some extent. The cuts derived from the saddle are the leg and loin, separated at the hip-bone, and including two-thirds and one-third, respectively, of the weight of the saddle. The rack is made into a stew and a short rack, by separating ten ribs (the third to twelfth, inclusive) from the shoulder and breast, as shown in the illustration. The short rack includes two-fifths and the stew three-fifths the weight of the rack. The short rack has the highest market value per pound of the wholesale cuts, and the legs, loin and stew are valued in the order named. Legs of mutton and lamb were formerly quoted and sold at higher prices than the ribs, but retail demand for the latter has, during the last ten or fifteen years, gradually overtaken and exceeded the demand for legs.

Choice, good, medium and common are grades. About one-fourth inch fat over the loin is considered most desirable for choice saddles of medium weight. Since the legs make up two-thirds the weight of a saddle, and sell at about one-sixth higher price per pound, the importance of that portion of the saddle is apparent. Aside from thickness and shape of leg and loin, saddles may grade low by reason of a deficiency in general quality, as coarse bone or soft, uneven covering. The proportion of kidney-fat, its color and brittleness, are also important factors. It is customary, in most markets, to quote mutton saddles by classes, as wether, ewe, and yearling saddles. Weights of saddles commonly handled are 20 to 50 pounds, and the majority average 20 to 30 pounds. Choice and good saddles are, on the whole, somewhat heavier than medium and common grades.

Only a small percentage of saddles are cut up in wholesale markets. A "long saddle" con-

sists of a regular saddle and short rack in one piece; in other words, it is the portion of a carcass that remains when a stew or chuck is cut from it. Legs and loins are cut principally from good and choice saddles.

Regular or "market" racks are graded choice, good, medium, and common. Thickness and quality of flesh, proper thickness of covering on the back and ribs, and absence of coarseness, are essential points in grading racks. The "eye of mutton" is of the same significance as in the case of saddles. The rib cut, or short rack,

other parts of the carcass, is due to the demand for rib chops, which exceeds that for any other cut of mutton. Short racks are largely used by hotels, restaurants, dining-cars, etc., for French chops, which consist of a rib chop with the end of the rib trimmed clean of flesh and fat, leaving only the "eye of mutton" with its covering and bone.

A mutton stew (chuck, wing, slug, or rattle) is the shoulder, breast, and shank, in one piece, including nearly one-third of the carcass weight and two-fifths of the rack. The more important factors in determining their grade are thickness, grain and color of flesh, and quality of bone, indicated by the ribs, shanks and shoulder-blades. This is the cheapest cut of the carcass, frequently selling at less than one-third the price of short racks, and one-half that of legs of the same grade.

Lambs are more largely sold in the carcass than sheep, owing both to their smaller size and to the greater relative demand for cheaper cuts of lamb than of mutton. It is estimated that one-fourth to one-third of the wholesale lamb trade consists of cuts. The methods of cutting and proportions of the various cuts are identical with those of mutton. Lamb saddles and racks, however, are still less commonly cut up than these of mutton.

The grading of lamb cuts is also similar in general to that of mutton cuts. About one-eighth inch of fat over the loin and ribs is desired in choice lambs, and a marked variation in either direction from this amount throws the cut into one of the lower grades, according to the degree of excess or deficiency. The color of flesh in cuts of lamb is lighter or more pinkish red than in mutton. The depth, grain and firmness of flesh and quality of bone, are points of prime importance. As in mutton cuts, the short rack has the highest market value, followed by the legs, loin and stew.

LAMBS.

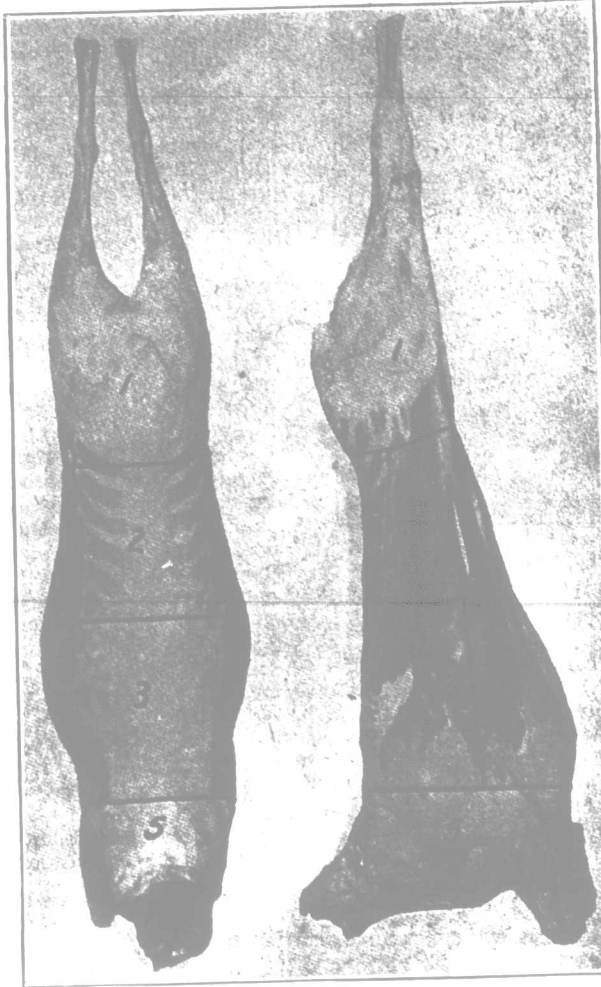
Carcasses of sheep that are more immature than yearlings are classed as lambs. The difference in degree of maturity is indicated principally by lighter color and finer grain of flesh, redder and softer bones, and a break-joint that is smoother and more moist to the touch, combined generally with lighter weight of carcass. Sex is not specified in lamb quotations, and only in fancy trade is discrimination made in favor of wether lambs.

About two-thirds to three-fourths of the wholesale mutton and lamb trade consists of lambs, and they are sold chiefly to city dealers.

The grades of lambs are choice, good, medium, common and culls. The grade is determined more largely by quality and weight, and less by form and covering, than is the case with carcass mutton. Quality of flesh and bone is especially important, for the reasons stated in describing veal. Weight is a matter of much significance in selecting lambs, and a decided preference is shown for weights well below those of yearlings, because the latter are to some extent sold as heavy lambs. Dressed lambs seldom exceed 50 pounds in weight, but no distinct line can be drawn between the two classes either in weight or degree of maturity. The minimum weight of lambs is about 15 pounds, and few carcasses weigh less than 20 pounds. Form and covering are of most importance in the choice and good grades. Plump legs; full, wide backs and loins, and thick flanks and breasts, are the principal points by which good form is judged. In covering, lambs are not as fully developed as yearlings. The back and loin should be well covered, but much less fat is found, especially on the legs and ribs, than in other classes of dressed sheep. Medium and common lambs are, as a rule, caul-dressed; the choice grade is principally round-dressed, and good lambs either caul or round. All grades of caul and round lambs are quoted both "pluck in" and "pluck out."

The term "genuine" is used during April, May and June, to differentiate early spring lambs from other lambs which resemble "springers" in quality and weight, such as frozen lambs stored since the previous summer, and light "yearling lambs." It is gradually dropped after the arrival of the regular supply of spring lambs in May and June.

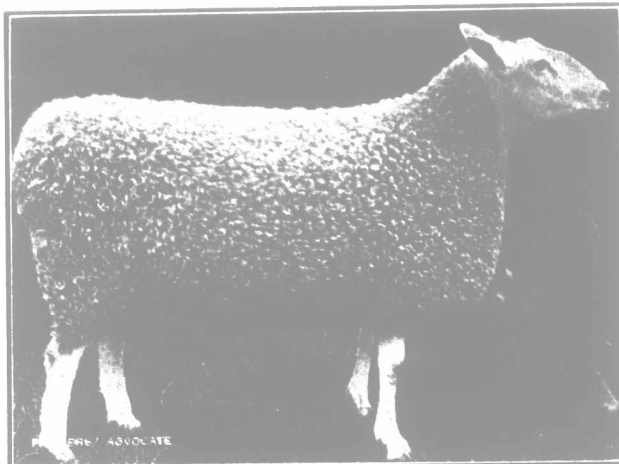
Winter ("hothouse" or "incubator") lambs are light, young lambs which precede genuine spring lambs in the market by two or three months, being in season from January until May, and a small number being available for Christmas trade. They are similar to early spring lambs, but are of lighter weights, and show better development in proportion to their age. They consist principally of native country-dressed lambs, six or seven weeks old. They weigh 20 to 45 pounds, and the bulk, 30 to 40 pounds, gross. They are dressed "pelt on" and "pluck in," with two back-sets, and the caul placed over the belly. They are principally shipped to produce commission firms or direct to hotels, restaurants and clubs, instead of passing through the large wholesale markets. Being marketed in advance of the spring-lamb season, they sell at high prices, and are taken by the most select trade. The few that are sold in retail markets are sold by the quarter, and not by the pound.



- | | |
|----------------|--------------------------|
| 1. Leg. | 1 and 2. Saddle. |
| 2. Loin. | 3, 4 and 5. Rack. |
| 3. Short rack. | 1, 2 and 3. Long saddle. |
| 4. Breast. | 2 and 3. Back. |
| 5. Chuck. | 4 and 5. Stew. |

though only two-fifths the weight of the rack, represents about two-thirds of its value, and must be considered accordingly in grading. Quality and proportion of bone are indicated by the ribs and shanks, as in carcass mutton. The shape of neck indicates whether the rack is from a wether, ewe or buck. The range of weights is the same as that of saddles, viz., 20 to 50 lbs., with the bulk from 20 to 30 lbs.

Short or "hotel" racks, or ribs, are made from medium to choice racks, and graded similarly to them. They are cut 8 to 12 ribs long in various markets, and in some cases are made "shoulder on," but usually contain only 9 or



Border Leicester Ram.
Champion at Royal Show, England.

10 ribs. They are quoted both "blade in," or regular, and "blade out" or "shoulder raised," a premium of one cent per pound being charged for the latter. As explained in describing beef ribs, the shoulder blade is a valuable indication of the age of the carcass and quality of the bone, being a white, soft cartilage in young, well-fed sheep, and gradually changing to bone according to the age and development of the animal. The high value of the short rack, compared with

Tuberculosis.

1. Is the process of testing for tuberculosis of the bowels dangerous?
2. After the animal has been dead for twelve hours, can a veterinarian decide by the post-mortem appearances, with the naked eye, that it died of tuberculosis of the bowels, he having attended the animal during its sickness of only one week?
3. Would tuberculosis of the bowels cause death, the animal being sick only a week?
4. Is it possible that tuberculosis be present in an apparently healthy herd, all cared for and fed alike, and some of them being sold, would die of the disease in six months?
5. Would you advise the former owner of those that died to have his whole herd tested?
6. Is any qualified veterinarian capable of testing with safety?
7. Give details of the test, with length of time required to test one animal or a herd.

wheat which is likely to succeed, as regards yield, under many conditions, both for autumn and spring sowing.—(Weekly Trade and Commerce Report.

Grains, Grasses and Roots at Macdonald College.

One of the chief disadvantages of our Agricultural Colleges is that they are so few and far apart that our farming people do not get in close personal touch with them and with what they are doing. A few hundred students each year are in attendance, and a few thousand farmers annually visit these institutions for one or two days; the former gather much valuable knowledge, but the latter are overwhelmed with the size of the institutions and the multiplicity of their efforts, and go away inspired, maybe, but only slightly informed. If farmers could visit

acre, the second 26.95, and so on down, until the last yielded at harvest 15.90. Thus it is evident that spring wheat must be sown early in Eastern Ontario and in Quebec for good results. With oats, exactly the same conclusion is established, the first seeding averaging over 70 bushels, and the last averaging 59.36 bushels. But, with barley, slightly different results were obtained. The early and the late seeding both averaged higher than the middle periods, the first being the highest, pointing to the inference that, if barley cannot be sown early, it does better sown rather late. Peas on the other hand yielded higher from the middle periods of seeding than from either the early or the late sown crops.

TIME OF CUTTING.

A corresponding line of investigations have been made into the proper time of cutting. Harvesting was done at five different periods a week apart, the fourth one of which represents fully-ripe grain, and the fifth overripe. The yield of grain from the first cutting was 32 bushels per acre in oats, from the second 49 bushels, the third 57 bushels, the fourth 60 bushels, and the fifth 53 bushels, which clearly shows that the grain fills very fast toward ripening, that early cutting is costly, and that in late cutting much is lost by shattering.

VARIETIES.

In the variety testing, several kinds of oats have yielded well for the three-year periods. Early Triumph, however, has headed the list, giving 69.32 bushels per acre, with the Ottawa Experimental Farm strain of Banner oats standing second, with 64.92, the Dery Banner giving 64.72, the O. A. C. Banner 61, and the Joannette 51.28, the latter evidently being poorly adapted to this section of country.

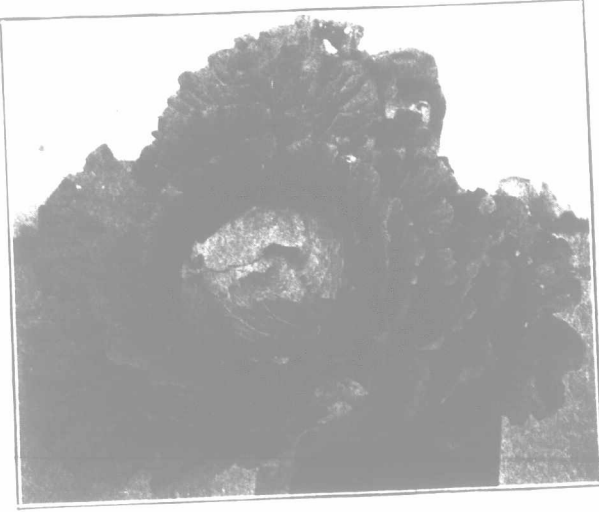
Excellent results have been obtained with milling spring wheats, Pringle's Champion averaging for three years 30.26 bushels per acre, White Russian 29.13, Red Fife (O. A. C. strain) 29.02, Red Fife (Ottawa strain) 26.36, and Crewdson's 24.99. It is also being clearly demonstrated by the work at Macdonald College that winter wheats can be successfully grown in this section of country. The average yield of nine different varieties, covering three years, has been 41.14 bushels. Abundance has averaged, for the three years, 48.77 bushels; Kharkov, 48.12, and Turkey Red, 43.98.

The six-rowed barleys have averaged 8 bushels per acre more than the best of the two-rowed kinds. This ought to be sufficient evidence to divorce farmers of Quebec from the two-rowed kinds to which they have been so long wedded.

GREAT ALFALFA RESULTS.

But what seems to be best of all are the results with alfalfa. Alfalfa flourishes wonderfully at the College. Inoculation is not necessary, perhaps because sweet clover has preceded it in many places. The yields are wonderful, and the stands perfect. This year, one lot has yielded 9.46 tons of cured hay, and another 8.27, in three cuttings. Professor Klinck believes thoroughly in leaving a plentiful amount in the ground to freeze down in winter, and the lots are now about 18 inches high. The value of this practice was demonstrated last year by cutting part of the aftermath back to six inches in height. As a result, this year the first two yields were considerably less on the cut-over part, and the stand weakened. Alfalfa-growers may be able to profit from this piece of work.

Success has been attained with summer sowing, though spring sowing has been giving larger yields. When sown in the fall, the crop must be gotten in about the 8th of



An Excellent Crop for Sheep.
Cabbage yields 42 tons to the acre, at Macdonald College.

them often enough to get thoroughly acquainted, it would be much better. With a view of getting our readers in closer touch with one of these splendid institutions, a visit was recently made to Macdonald College, and a few of the many splendid things being accomplished are here presented.

The Agronomy Department, in charge of Prof. L. S. Klinck, is accomplishing splendid work, obtaining invaluable information in many varied lines of research. Striking results are being obtained along many lines of work in the growing of field crops. Experiments have been conducted for three years to determine the differences in different rates of seeding oats, wheat and barley. Sowing oats 5 bushels per acre gave 71.20 bushels grain and 1.9 tons of straw at harvest time; 3½ bushels gave 69.23 bushels of grain and 2.1

- Ans.—1. No.
2. Yes.
3. Yes, the disease is liable at any time to develop and cause death in a few days, irrespective of the organs diseased.
4. This is quite possible, and often the case. The disease does not cause visible symptoms of apparent disease of any kind until the organ or organs involved become diseased to such an extent as to interfere with their functions.
5. It would be well to have the whole herd tested, and, in fact, it is the only means of ascertaining which, if any, of the animals are diseased.
6. Certainly.
7. The animals to be tested must be kept in the stable, and cared for as usual. The operator should take the temperature of each, say at 3 p. m., 6 p. m., and 9 p. m., and, of course, keep a record. He then (at 9 p. m.) injects the tuberculin, and at 6 o'clock next morning he again takes the temperature, again at 9 a. m., and 12 noon, 3 p. m., 6 p. m., and 9 p. m. If, during this time, an animal's temperature reaches 2 degrees or more above the highest before injection, it denotes that he or she is tubercular. If the increase be between 1 and 2 degrees, it is a suspicious case, and should be again tested in about six months. If the increase, if any, be not over 1 degree, the animal is not diseased. It requires the same time to test one as a herd, provided the herd does not contain more than one man can attend to, in which case he would require an assistant to take temperatures. Of course, the test can be commenced at any time, but the hours named are usually selected, as it allows the operator his night's rest.

Quick Returns from Hogs.

Editor "The Farmer's Advocate":
On May 3rd, 1910, sow farrowed 10 pigs; saved six.

COST OF PRODUCTION.	
Feed for sow	\$ 5.00
Service of sow	1.00
Four bushels wheat screenings	3.00
600 pounds chop	7.80
500 pounds chop	6.50
900 pounds chop	11.25
50 bushels mangels	5.00
2,000 pounds milk, at 25c. per cwt.....	5.00
Total	\$44.55
RETURNS FROM HOGS.	
Sold six hogs on Nov. 3rd, 1910; weight 1,190 pounds, at 7 cents	\$83.30
Cost of production	44.55
Profit	\$38.75

N. M. CLUMP.
Brant Co., Ont.

THE FARM.

Burgoyne's Fife.

As a result of experiments which have been carried on during the past few years, a new seed wheat is claimed to have been produced in England which will combine the well-known milling strength of Canadian Fife with the yielding qualities of English wheat. The success of the experiments under review lies with Professor Biffen, of the Department of Agriculture of the Cambridge University, who has been working in conjunction with the Home-grown Wheat Committee of the National Association of British and Irish Millers. The new seed wheat, which is a cross of Fife and Essex rough chaff, will be known as Burgoyne's Fife, and it has already been tested on a large scale on various soils in different parts of the country. After considering the reports furnished by the growers and the milling and baking interests, the committee have come to the conclusion that Burgoyne's Fife is an improvement upon any known variety of English wheat, so far as quality is concerned, and is a



Mangels at Macdonald College.
The average yield for all varieties grown was 47.53 tons per acre. The maximum yield was 54.47 tons per acre.

tons straw; and 1½ bushels of grain at seeding yielded 59.56 bushels and 2.13 tons straw, thus clearly indicating that light seeding inclines to a straw harvest, in which the grain ripens less regularly. With barley and wheat, little advantage arises in sowing more than two bushels per acre.

TIME OF SEEDING.

As to time of seeding, several sermons stand out in the results. For three years, at five periods, each one week apart, beginning as early as possible in the spring (April 24th), spring wheat, barley and oats were sown. With spring wheat, the first seeding yielded 35.56 bushels per

August, the land manured and lightly topped in the spring again for best results. With spring sowing, weeds are kept in abeyance until the crop is established by the use of a nurse crop. If nurse or cover crops are not used, fall sowing is preferred. Three and three-fourths tons of hay have been obtained the first year from fall-sown crops. The fact that no method of handling on undrained heavy land obtained less than 4½ tons of hay the first year, surely ought to impress farmers in the surrounding country that alfalfa, the queen of the hay crops, may be widely established without much of a struggle.

EQUALLY GREAT CORN RESULTS.

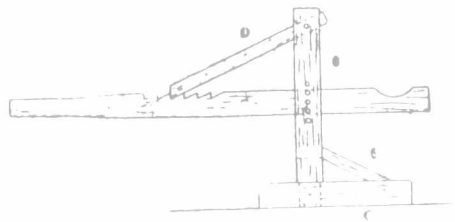
When one considers the work done with corn, it is hard to refrain from saying that this is the greatest of all things accomplished. What has been done? Starting four years ago with a variety called Quebec Yellow, obtained from the late W. L. Davidson, Bethel, Que., by solid, systematic work, there has been built up a kind of corn that has yielded as high as 114.77 bushels shelled corn per acre, and if Professor Klinck ever gets less than 80 bushels per acre from this corn, no one knows of it. In answer to the question if it would be ripe before frost, the reply was that it could be sowed May 24th, and would be ripe September 1st. It is a remarkably fast-growing corn in its early stages, does not run largely to stalk, and matures a splendid ear in plenty of time to be safe. Think of it, you men who are buying hog and cattle feed! Eighty bushels of shelled corn, and eight tons of alfalfa hay, per acre! Half the yield of each is easily in every man's reach (and why not the whole yield?), and what a boon they would be on most farms!

For ensiling, Howie and Lenoher's have proven splendid crops, yielding, respectively, 18 and 17 tons of fodder, and 4 and 4.09 tons of grain per acre, sowed 42 inches apart, three kernels to the hill. Quebec Yellow is not so suitable for silage, being lighter in fodder.

SMUT.

In experiments regarding smut, it was found that, while broadcasted barley had a little, the drilled barley had about 8½ times as much. Oderbrucker barley had but one smut-head for 343 heads in California Brewing barley, 50 in Chevalier, 364 in Duckbill, and 1 head in four varieties of Hulless. Of the wheats, Red Fife proved the most resistant to smut.

Figure-four Wagon-jack.



For lever (A) take a two-by-four, five and a half feet long. Shave out a place for axle, as illustrated, and bore hole for bolt fourteen inches from axle end. For upright (B), take a three-by-four, twenty-eight inches long. Cut a two-inch slot in it to within eight inches of the bottom. For C, use a four-by-four, two feet long. Set B into mortise, and nail or bolt it; the longer end of C goes out under axle. For D, use a two-by-two, two feet long. Brace E is bolted or nailed in. The lever is placed in the slot in B at any height suitable to the vehicle in hand, and supported by a bolt or iron pin. This jack, made of tough wood, is sufficiently strong to raise a heavy road wagon, and it will not allow the vehicle to run forward.—[Fred Glesenkamp, in Farm and Fireside.

Crimes of the Pure-seed Trade.

Not long ago, a merchant of Cookshire, Quebec, ordered 1,200 bushels of English Abundance oats, according to sample, at 45 cents a bushel, from a firm operating in Edmonton, Alta. When the oats arrived, it was evident that they were not according to sample, and the buyer sent a representative portion to the Seed Branch at Ottawa for examination, when it was found that they contained 45 weed seeds of seven different varieties to the pound. Upon following up the history of the shipment, it was found that the car had been filled according to the order of the above-mentioned seller by the Consolidated Elevator Co. at Fort William; that the grain had been screened in the usual way, and that no orders were received by the fillers of the car regarding any particular variety of oats.

So, if it had not been for the services of the Seed Branch, this purchaser would have been buying at 45 cents a bushel, mixed oats of no particular breeding, containing many obnoxious weed seeds, and the country round about have been polluted for years. A long term, with hard labor, within stone walls, would be a healthy corrective for such unscrupulous practice.

Buyers of seed must beware. As far as possible, know the man from whom you buy, and always take every precaution to know your seed.

The business side of farming has been so successful that the farmers have been able to move to town at fifty years of age, and so the country has been robbed of their influence in many ways—their farms have gone to tenants, and the social life has been broken up. Our state of civilization has not been successful in developing a type of country life that would wish to remain in its environment.—[H. Bailey.

THE DAIRY.

Cost of Milk Production.

Editor "The Farmer's Advocate":

As a record of my herd appeared in "The Farmer's Advocate" last winter, this must, of necessity, be to a certain extent a repetition; but as since January last the cream has been sold instead of being made into butter at home, I will give the figures for the nine months from January 1st to September 30th of this year. This, while not quite an average for individual cows, will be a fair average for the whole herd, as the time includes about equal periods of stabling and pasturing.

The herd consists of grade Shorthorns and Jerseys, and cross-breeds. The winter feed, as in 1909, consisted of mixed straw and chaff, oat and barley chop, a little hay, and a few roots. In summer the cows are on pasture alone until July; peas and oats, green, are fed then until corn is ready, and corn is the main feed until late fall. No grain is fed in summer, but is commenced about October; the amount fed depending on the condition of the pasture.

Whatever success has been attained is mainly due to care in feeding and handling the cows, and paying attention to their individual needs. With better cows, and a silo, the cost of production could be still further reduced. But just here I would like to say that every farmer would get rid of his poor cows if he were certain of replacing them with better ones. So, since not one farmer in a hundred keeps records, I prefer to keep the cows I have and know, rather than buy on the chance of getting better ones. As for the silo, it is like many other good things, out of reach at present; and I, with thousands of other farmers, have to do the best I can without one; using whatever feed I have to the best advantage I can. However, no one need be without plenty of summer feed, though many say it is "too much trouble" to feed in summer; they are usually those who have never tried soiling. The chief thing is to get the habit, and then it is no trouble at all.

As regards the time in caring for the cows and the milk, I am more than ever convinced, after again working out the problem, that in most cases, my own in particular, the manure will pay for all the labor entailed. As some cows require more attention than others, and as such different values are placed on a ton of manure, it seems quite impossible to arrive at any conclusive figures for either.

During the nine months recorded, the cream has been shipped to Eaton's, Ltd., Toronto, who pay for the fat contained in the cream (not the butter produced from it); and also pay all express charges, and find the cans. The average net price during the period has been 25.12 cents per lb. fat, varying from 22 to 30 cents. As I naturally want to keep as much milk as possible at home, a fairly rich cream is skimmed, containing from 25 to 33 per cent. fat, which leaves about six-sevenths of the total quantity of milk as skim milk. This is fed to calves, pigs, and poultry, and is cheap feed at 20 cents per cwt. No credit is given for the calves, as they are valued at the cost of bull service only, except in the case of one cow, and she has not calved in the period under consideration. No doubt, in the case of pure-bred cows, the calves would add materially to the net profit; which, of course, is a strong argument in favor of keeping pure-breds.

The statement below shows the total amount of milk produced, food fed, cost, value and profit. Each milking is weighed and recorded; and all feed is weighed and recorded whenever a change is made. Good pasture can be had here for \$6 per cow per season; so that \$5 is a fair price until end of September. Soiling is valued at \$5 per season, or \$4 for the time stated. Costs of winter feeds are: Hay at \$8 per ton, grain at \$25 per ton, and roots at 10 cents per bushel; these being current prices last winter in this district.

Considering the "ordinariness" of my cows and feeds, I consider that the figures given are an encouragement to every farmer to keep as many cows as possible, as there is certainly no other line of farming which pays better and makes quicker and more dependable returns. The milk harvest never fails.

STATEMENT.

Lbs. milk, 6 cows, 9 months	22,355
Cost of milk (feed for 6 cows)—	
3,808 lbs. grain	\$47.60
3,327 lbs. hay	13.30
24 bushels roots	2.40
Pasture	30.00
Soiling	24.00
	\$117.30

Value of milk—	
9,129 lbs. fat	\$230.38
(Being 816 lbs. sold, and 4% fat from 2,400 lbs. milk fed calves and used in home.)	
19,162 lbs. skim milk	38.32
	\$268.70
Total profit	\$151.40
Cost per cwt.	\$ 0.53
Value per cwt.	1.20
Net profit per cwt.	\$ 0.67

Waterloo Co., Ont. W. HARGRAVE.

How Much is Time Worth?

Editor "The Farmer's Advocate":

I have read with much interest the prize essays on the cost of producing 100 pounds of milk. It is an old saying that figures do not lie, but it is very easy to figure out a profit when there is none. Take, for example, H. S. Austin's contribution; he figures out a profit of over \$37 per cow. In the first place, he only allows one hour per day for caring for the cows, feeding, cleaning stables, and one hour for milking and caring for milk; it is too low. But, still worse, he values his time at only ten cents per hour, with the use of a cream separator thrown in. Even the editor's estimate of 12½ cents per hour is not much better. We pay our school teachers—little girls scarcely out of their teens—salaries which pan out to 40 or 50 cents per hour; even laborers in the city can command 25 cents per hour; and, again, while in Toronto, attending the exhibition, I had occasion to need the services of a professional man for less than one hour, and the fee demanded was \$50. So, just imagine me turning the separator ten hours per day for fifty days, and board myself, to pay the bill! And still the wonder is why the boys leave the farm. Now, take the three veal calves which he sold for \$24; it would be interesting to know what he fed them, since he credited the cows with all the skim milk at 25 cents per hundred. Worst of all is the way he arrives at the value of skim milk, by crediting the cows all the profit on feeding 12 hogs, less \$30, which is as much as to say he would have only had \$30 profit on 12 hogs without the milk, in spite of the high prices which hogs were bringing. Now, the last hogs I sold were a bunch of seven, seven months old, for which I received \$150, and they never got any milk—nothing but barley and oat chop and water, and I estimate my profit on the hogs at about \$75. So, where does the skim milk come in? It also disproves the statement of Owen Fonger, that you might as well feed sawdust as oat chop, as the drover who bought my hogs said they were the finest bunch of hogs he ever saw. I might say that I fed those hogs some alfalfa, which I cut green and fed in pen, and I might just as honestly credit the alfalfa for the profit on the hogs as Mr. Austin credits the profit on his hogs to the skim milk, which would be absurd, as I did not feed them as much as one ton of green alfalfa. For my own part, I never got down to figures as to what it cost me to produce one hundred pounds of milk, but had an idea that my cows just paid for feed and attendance, leaving the manure for profit, and I would not value the manure from five cows at \$100, as H. S. Austin does, but \$50 would be nearer the mark. I agree with Mr. Huffman, in the third prize essay, where he backs up his statements with proof; and, while he appears to have the better herd, is only able to show a profit of \$3 per cow for the best half of the year. And, if that profit is not wiped out during the remaining six months, I will lose my guess; and, in my humble opinion, A. F. Huffman should have had second prize. Not having first prize essay by me, I make no comment on it. S. H. Bruce Co., Ont.

[Note.—While we fully believe in placing a good fair value on time, and consider our own suggestion of 12½ cents an hour a minimum, rather than a maximum valuation, still we must dissent from the idea that the rate of farm wages per hour could be fairly compared to the rate per hour paid teachers or skilled professional men. The rate at which equally efficient labor may be hired is the rate at which a farmer should charge his own time. For his services as manager he may reasonably expect an extra reward, if he is competent. That should show in the profits. As for comparison of the second and third prize essays, we may remark that we considered them very close. In some respects, Mr. Huffman's is the superior. It will be noticed, however, that he did not figure out a direct answer to the question, "How much per cwt. does it cost to produce milk?" As a matter of fact, his estimates make the cost out to be about 10 cents per cwt. lower than do Mr. Austin's. The latter's estimate of the value of manure we consider not excessive; some thoughtful men place it even higher.—Editor.]

GARDEN & ORCHARD.

Expert Advice that Paid.

We are indebted to Mr. Caesar, Demonstrator in Fungous Diseases and Insects at the Ontario Agricultural College, and author of the excellent series of articles which appeared in "The Farmer's Advocate" last spring, for the following letter from an old subscriber of ours in Oxford County, who is delighted with his results in spraying this past season. The letter was a personal one, addressed to Mr. Caesar:

"Do you remember my bothering you considerably early last spring about spraying, spraying machines, and material to spray with, and when to spray? I am very thankful for the valuable information you gave me. I followed the instructions as nearly as I could, and had surprising results. I will tell you as nearly as I can how I treated my orchard. The fine days of last March we scraped all the loose bark off the trunks with hoes. I purchased a London machine, and we sprayed the trunks with lime-water (Mr. Carey, when he was here, told me I should have sprayed the whole top). Before buds burst, we sprayed with Bordeaux mixture and arsenite of lime, and before the blow opened we sprayed with the same mixture, and when blow fell we sprayed the last time with Bordeaux and Paris green.

"My orchard was a sod till last spring. In May we plowed it, worked it down, and manured it on top of plowing, and worked it occasionally till the apples weighted the limbs down too much. I sold the crop to a local buyer; the packers came on and put up 94 barrels, two grades: 89 barrels first, and 5 barrels seconds, and 1,100 pounds of culls. They turned out so many firsts, the buyer gave me 25 cents per barrel more than he was paying other people. My orchard is only small, as this was an off year, and some of the trees did not bear, and some had very few on. When we were picking, the mixture could be seen on the leaves. I intend to spray next spring again.

"Last year we had a full crop. I sold to the same man, and the packers put up just the same number of barrels, 94, two grades, but very few firsts, and 76,070 pounds of culls.

"I will tell you about two apple trees in my orchard. They were both common fruit, with the exception of one having some Spy grafts, but there were still some common fruit branches. We sprayed this one with the Spy grafts, but not the other one. The common fruit on the one we sprayed was so nice in color and in size that the packers put them up, and the fruit on the other tree was small, scabby little bits of things. I think this letter will give you to understand that I am well pleased with spraying."

Apples Originated in the Horticultural Division.

In the last three annual reports of the Central Experimental Farm, descriptions were published of 34 of the best varieties of apples which have been originated in the Horticultural Division, and 14 more are described in the coming report. Since the year 1897, many new seedling apples have been fruiting here. The first of these were of Russian parentage, the seed having been imported from north of Riga in Russia. Three thousand trees grown from this seed were set out in 1890, and began to fruit in 1897. Few of these proved of sufficient merit to propagate for use in Eastern Canada, but a number are being tested in the Prairie Provinces on account of their hardiness. In 1898, seed was saved of some of the best varieties of apples which fruited at Ottawa that year, and from this seed about 2,000 trees were raised and set out in the orchard. Of these, 523 have now fruited, 89 of which fruited for the first time in 1909. Among these are some very promising summer, autumn and winter apples. New seedlings of other sorts are being raised, which will be set out when large enough.

Some good varieties of apples have also been produced by cross-breeding, in the Horticultural Division. In 1909, there were 417 cross-bred crosses growing, and there should be between 400 and 1,500 more young trees from the seed resulting from the crossing done in 1909. In order to make the chances of obtaining desirable apples greater, quite a number of varieties have been used as parents, in most cases reciprocal crosses with the same varieties having been made, thus making many more combinations than the number of varieties might indicate. The varieties used as parents have been Anisim, Antonovka, Bexter, Bichel, Ducher, Dyer, Fameuse, Forest, Hesperid, Lawyer, and Raspberry, Malinda, Marquette, McIntosh, McMahan, Newton, Northern Spy, Northern Greening, Scott Winter, Stone Winter, and Walton.

A. P. E. Island Potato-growing Experiment.

Dr. Andrew McPhail, whose experiment in the scientific growing of potatoes is causing so much interest in Prince Edward Island, has returned to Montreal. When seen by a representative of "The Farmer's Advocate," he spoke rather deprecatingly of the experiment in growing potatoes, which he and his brother were making. The experiment was unfinished and the results inconclusive, he said, and hoped no one would be led astray by the partial and comparative success they had met with.

But, more important than the success were the failures. The causes of them required further investigation. The great difficulty they had to contend with was scab. This, he said, was induced or aggravated by various substances which have been added to the soil—lime, ashes, shell. Certain areas showed the result of ashes which had been in the ground for seventy years. This fall they were burying all this "manure" by deep plowing, to bring to the surface fresh soil. If this did not remedy the evil, then there was no use, so far as he could see, contending further with the impossible. Other soil must be sought.

The principle underlying success in farming, he said, was to find out what any given soil was best suited for, and then make it do its work. The theory of rotation of crops violated this principle, by asking the land to produce crops for which by nature it was never intended. Besides, manure which would help one crop, was fatal to another. For example, potatoes require a "poor," sandy soil, with hard subsoil, in which grain and grass will not thrive. He was afraid that the soil along the rivers was too heavy and rich for potatoes, and it might be necessary to select the "poor" land which was found in the hilly districts in the interior or along the seashore.

sonable, and the agents took as much care over a consignment as if it were their own.

The practice has been to exclude rigidly barnyard manure from the fields, and to employ commercial fertilizer instead, using the same ground year after year. If at any future time there would appear to be a lack of humus, it is proposed to supply it by one crop of clover or by seaweed. They compound their own fertilizer from nitrate of soda, sulphate of potash, and basic slag, using about 800 pounds to the acre, which costs \$16. Their experience with the Bordeaux mixture was inconclusive and unsatisfactory. Indeed, they had serious doubts as to whether, in their hands, it was of any value whatever. They think that success lies primarily in the selection of seed; that is, of tubers growing under tops to which is attached the original set which had been planted in the spring. If this set were not perfectly sound in the fall, it was evidence that there were the elements of rot in the potato, whether it could be detected, or not.

[Note.—Here, again, an unwarranted statement has been made. While Dr. Macphail may have obtained no results from Bordeaux under his conditions, it certainly is of very great value, if properly applied, in combating blight and the particular form of rot induced by the spores of the late blight. For certain other forms of rot it is of no avail.—Editor.]

The farm where these interesting experiments are being carried on is situated in the thriving settlement of Wigg, on the Murray Harbor branch of the Prince Edward Island Railway, 20 miles from Charlottetown. The property consists of 75 acres, and is in close proximity to Wigg Station, making it convenient for shipping.

In this experiment, select tubers only were used for seed, after being treated with formaldehyde.

A planter was used which cut the sets and dropped them, and a fertilizing attachment distributed the fertilizer in the drill close to the sets, where the young plants could get access to it as soon as they were able to use it. The moulding attachment made up a drill. The drills were three feet apart. The cultivator was used between the rows before the plants came up, and the ground was kept stirred frequently to kill weeds and retain moisture. Bugs gave a good deal of trouble, but were kept in check by a plentiful use of Paris green.

The potatoes were harvested with an American and a Canadian potato-digging machine. The former did excellent work, leaving the potatoes in rows from which they were easily and quickly gathered. This machine took four horses to operate it, while the Canadian-made, also a good machine, when some weak parts are strengthened, was operated with two horses.

Only white potatoes were grown. Varieties included Green Mountain, Carman No. 1, Royal Kidney, Orwell Square, and others. The aim in this experiment is to produce ideal table potatoes by selection, the best methods of cultivation and fertilizing, and also to produce them in paying quantities.

For shipment, the tubers were packed in boxes holding 75 pounds each. A rigid selection was made, rejecting all that showed any defect. A good market was found for them in Montreal, and a lot was also shipped to Newfoundland, and sold to the Government, to be distributed for seed. To extend the acreage, next year's preparation has been made by sowing peas and vetches in June on old sod, which has been plowed down in October, and the land well worked up with disk harrow.

The yields obtained were very good, when we consider that the Prince Edward Island potato crop this year was very little over half an average one.

We look forward with confidence that Dr. Macphail's study of the potato, and the experiments he is carrying on, will be of great benefit to our farmers, as a man of the Doctor's scientific knowledge cannot fail to get some new and useful ideas that will make potato culture more profitable on this Island, and the crop a surer one, when we succeed in combating the blight, scab, etc. The soil of the Island in general is well



Rob Roy.
Hereford bull. A Royal champion.

[Note.—In the matter of rotation, Dr. Macphail has, we think, stated his principle much too broadly. As a general thing, rotation is of very great benefit, and only in special cases is it objectionable. Even in these, the benefits of a carefully-chosen rotation usually outweigh the objections.—Editor.]

The potato, he said, was at once the easiest and most difficult to grow; the most profitable, and the most liable to end in loss. That was why it was so interesting.

Potato-growing was also the most pleasant or the most disagreeable work on the farm—pleasant on a sunny September day, with white, clean potatoes lying in rows, at the rate of 400 bushels to the acre, and worth 55 cents a bushel in the market; but very unpleasant on a cold October day, scabbed and rotten, and fit only for "feed." When farming is made "pleasant," the boys will stay on the farm.

"In the light of your experience," Dr. Macphail was asked, "would you advise farmers to devote more attention to growing potatoes?"

"Farmers are receiving so much ill-considered advice from theoretical farmers," he replied, "that I should hesitate to add to their burden; but it might be worth watching our experiment next year with 25 acres."

"Is there any money in growing potatoes with so much care?"

"That question can best be answered by our neighbors, who were good enough to supply us with several lots to fill orders which we accepted under the impression that our own yield would be better than it was."

Dr. Macphail said that the facilities for shipment by rail and steamer from Prince Edward Island were unsurpassed. The rates were rea-

suited to the production of the potato, but, so far, little or no thought has been given by growers to quality. Attention has been altogether given to get big yields, and the result is that, in discriminating markets, such as Boston, New York and Montreal, our potatoes are classed down, and have to take a lower price in competition with potatoes of better quality.

Value of Potato Spraying.

This last season, plots of potatoes were arranged in three series at the Central Experimental Farm, Ottawa, for spraying tests to control blight. One lot was sprayed with Bordeaux mixture the usual number of times, and yielded 272 bushels per acre; a second lot was untreated, and gave 125 bushels per acre; a third lot was treated with the soda-Bordeaux mixture, and yielded 213 bushels per acre. A fourth lot was not treated for blight until after the first of August, and received but one application of Bordeaux; this lot yielded 224 bushels per acre. From this work, it is seen that it pays handsomely to spray with Bordeaux to prevent the ravages of blight, and that in localities where blight is known, one may confidently expect a full crop yield where no treatment is given. It further shows that, unless the season is unusually favorable, it pays to spray three or four times in the season. However, if one fails to spray early, one treatment about the first of August may give handsome results in increased yields.

THE FARM BULLETIN.

A Conference of Farmers' Club Officers.

Another step forward in the organization of the Farmers' Club movement was taken this month, when the officers of the Clubs of Waterloo County, Ont., met in conference at Galt, on November 11th and 12th. The conference was purely a business affair for the discussion of Club operations, and only the men most interested were invited. One of the delegates designated the conference as an Agricultural Board of Trade. It was called by F. C. Hart, District Representative of the Department of Agriculture for Waterloo County, and the thirteen Clubs of the

county were well represented. No set speeches were delivered, but all the delegates took an active part in discussing the topics brought up.

"The Club Meeting, and How to Make It Successful," constituted the subject of the first session. "Starting on Time," "Managing the Business Part of the Meeting," "How to Get Backward Speakers to Take Part," "Choosing the Place of Meeting," "A Social Gathering," subjects that proved especially interesting, were some of the topics thrashed out. Addresses were delivered by C. F. Bailey, of Toronto, and H. H. Ledrew, O. A. C., Guelph.

The Saturday morning session consisted of a discussion of the operations of the Clubs outside of the meetings. Under this heading, those present gave their experiences in such matters as "Instituting a Plowing Match," "Obtaining a Railway Station for the District," "Starting a Rural Telephone Service," "Obtaining a Continuation Class," etc. Experiences in co-operation were also given by the Clubs in the matter of getting supplies and buying good seed. None of the delegates were enthusiastic in co-operating to buy supplies that could be obtained from the local merchant. Egg-circles formed an important part of the discussion.

One important result of the conference was the realization of the benefits of working together, and the desire that similar conferences be held annually. Provision was made for the formation of a central committee of the clubs, so that all clubs of the county will in future be kept in touch with one another. There is no doubt that the members of this conference will carry back to their clubs fresh inspiration in forwarding the movement in Waterloo County.

Ontario Crops Good.

The following statements give the area and yields of the principal field crops of Ontario for 1910. The areas have been compiled from individual returns of farmers, and the yields by a special staff in each township, in addition to the regular crop correspondents of the Ontario Department of Agriculture:

Fall Wheat—743,473 acres yielded 19,837,172 bushels, or 26.7 per acre, as compared with 15,967,653 and 24.1 in 1909. The annual average per acre for 29 years was 21.0.

Spring Wheat—129,319 acres yielded 2,489,833 bushels, or 19.3 per acre, as compared with

2,223,567 and 16.5 in 1909. Annual average, 15.9.

Barley.—626,144 acres yielded 19,103,107 bushels, or 30.5 per acre, as compared with 18,776,777 and 27.0 in 1909. Annual average, 27.8.

Oats.—2,757,933 acres yielded 102,081,924 bushels, or 37.0 per acre, as compared with 90,235,579 and 33.5 in 1909. Annual average, 35.7.

Rye.—95,397 acres yielded 1,620,333 bushels, or 17.0 per acre, as compared with 1,573,921 and 16.6 in 1909. Annual average, 16.4.

Buckwheat.—194,913 acres yielded 4,693,881 bushels, or 24.1 per acre, as compared with 4,280,790 and 21.2 in 1909. Annual average, 20.3.

Peas.—103,414 acres yielded 6,016,003 bushels, or 14.9 per acre, as compared with 7,613,656 and 20.0 in 1909. Annual average, 19.3.

Beans.—49,778 acres yielded 892,927 bushels, or 17.9 per acre, as compared with 826,344 and 18.4 in 1909. Annual average, 17.2.

Potatoes.—168,454 acres yielded 21,927,804 bushels, or 130 bushels per acre, as compared with 24,615,283 and 145 in 1909. Annual average, 116.

Mangels.—68,972 acres yielded 34,686,137 bushels, or 503 per acre, as compared with 28,928,347 and 410 in 1909. Annual average, 459.

Carrots.—3,551 acres yielded 1,049,348 bushels, or 296 per acre, as compared with 1,101,653 and 286 in 1909. Annual average, 345.

Sugar Beets.—26,879 acres yielded 11,238,577 bushels, or 418 per acre, as compared with 7,001,565 and 353 in 1909. Annual average, 413.

Turnips.—108,360 acres yielded 49,425,472 bushels, or 456 per acre, as compared with 50,738,940 and 447 in 1909. Annual average, 430.

Mixed Grains.—497,936 acres yielded 18,261,803 bushels, or 36.7 per acre, as compared with 16,199,434 and 34.1 in 1909.

Corn for Husking.—320,519 acres yielded 24,900,386 bushels (in the ear), or 77.7 per acre, as compared with 22,619,690 and 70.1 in 1909. Annual average, 71.4.

Corn for Silo.—326,627 acres yielded 3,788,364 tons (green), or 11.60 tons per acre, as compared with 3,374,655 and 11.70 in 1909. Annual average, 11.46.

Hay and Clover.—3,204,021 acres yielded 5,492,653 tons, or 1.71 tons per acre, as compared with 3,885,145 and 1.20 last year. Annual average, 1.46.

Horticultural Exhibition and Conventions.

Bright Outlook for Ontario Fruit-growing.

Prosperity characterized the appearance and pervaded the tone of the discussions of the Ontario Fruit-growers, assembled in fifty-first annual convention at Toronto last week. High prices, consequent partly upon the very poor crop of apples produced in the Province this year, had something to do with this condition, giving rise to some seemingly extravagant statements, such as that Canada could market one hundred times as many apples as she is now doing. Mr. Case, the New York State delegate, who has 170 acres planted to fruit, and has made at least fifty thousand dollars at fruit-raising in the last ten years, declared that, while he had found by his system of time-cards, he could not under his conditions make dairying pay with butter at 40 cents a pound, he was, on the other hand, making excessive profits out of fruit. Two dollars a barrel, he declared, was as big a price as apples ought to bring, although, of course, when a larger price was going, he accepted it. Instances were cited of orchards in New York State which had yielded ten per cent. interest on a thousand dollars an acre for a successive period of years. "The Farmer's Advocate" orchard, it will be remembered, paid 13½ last year on that valuation, after defraying an exceptionally heavy bill of expenses. Similar examples might be cited from other quarters, and, while these cases are no more representative of average conditions than is the twenty-thousand-pound production of a phenomenal cow, still they indicate the high-water possibilities of the business when managed with expert care. And expert care is the order of the day. Profits from neglected orchards are becoming fewer and smaller. The orchardist of the future, whether a farmer or a fruit specialist, must be an expert. The past season has demonstrated more conclusively than ever before the immense profits of spraying. In many localities it made all the difference between a fair crop and nothing at all. Lime-sulphur and arsenate of lead are the spraying materials of today. With them, almost every known fungous and insect pest of our apple orchards may be controlled.

Still, much wants more, or, at least, declines to submit to a decrease, and the convention was led to adopt a resolution opposing reciprocity in trade with the United States. To be sure, it

was aimed not so much against reciprocity in apples as in some other fruits, but as the profit in growing many of these is scarcely less than in apple culture, the objection in their case is based on the belief that the Canadian fruit-grower has rather more to lose by American competition than to gain by opening American markets. As for the consumer—well, he is reminded that the import duty on fruit is already less than on manufactured goods.

Without attempting in this issue a resume of the convention, it will suffice to touch upon a few of the new and outstandingly important points.

President Jas. E. Johnson, in his opening address, urged active participation in the discussions, remarking truly that the man who learns most at these meetings is the man who tells most. Reviewing the season's work, he stated that the co-operative committee of the Association had been active in assisting local co-operative organizations. The sale of fruit last year from the Horticultural Exhibition had defrayed all expenses of transportation and other items incident to the exhibition of it. It was expected that similar results would be the case this year. Raising the question as to the desirability of holding a special apple show in Ontario, he expressed the opinion that this Province should be able to put up as good an exhibition as the one recently held in British Columbia. The apple industry in Ontario has been on the decline, among the causes being the increasing ravages of insect and fungous diseases, careless culture, apple-buyers who will purchase inferior fruit, and the Department of Agriculture at Ottawa being unable to supply enough inspectors to enforce proper compliance with the Inspection and Sale Act. He suggested the passing of a Provincial law regarding the inspection and packing of our fruit, pointing out that British Columbia had some such law. The possibility of conflict of authority between Provincial and Federal officers was not overlooked, but it was considered probable that such might be avoided with care.

Appropriate reference was made to the loss sustained by the Association in the death of three of its oldest members, A. M. Smith, Murray Pettit and W. E. Wellington; also the further loss through the untimely demise of H. S. Peart, director of the Jordan Harbor Experiment Station.

In the correspondence read by the secretary,

P. W. Hodgetts, was a letter from Wm. Armstrong, of Queenston, suggesting an increase in the size of the present legal standard basket, so that it would hold two rows of first-class fruit. He suggested a bottom similar to that of the present 11-quart basket, with sides now used on the 10-quart.

A letter from the traffic officer of the shippers' section of the Winnipeg Board of Trade, pointed out that the railroads now charge \$2.50 per ton of ice on shipments under the 66c. commodity rate from Eastern Canada. This results in a variable icing charge, running from \$12 to \$25 per car, in addition to the initial icing. This makes it rather difficult for shippers and consignees to decide how much they shall allow for icing. A more satisfactory arrangement, it was considered, would be a uniform charge per car, based on the average cost, \$16 being the figure suggested.

ORCHARD FERTILIZING.

The time has come, said Professor R. Harcourt, of the Ontario Agricultural College, addressing the convention on this subject, when we must supplement barnyard manure with commercial fertilizers applied to our orchards. Fertilizers are not, however, to be used exclusively, but rather along with some humus-forming substance, such as barnyard manure and cover-crops. German experiments have demonstrated that fruit crops feed as heavily as vegetable crops, but that fruit trees will not make quite the same use of the fertilizing constituents in barnyard manure as will the vegetables, apple trees being, however, somewhat of an exception to this rule. With apple orchards, potash appears to be the element predominantly needed, nitrogen standing second, and phosphoric acid last. Potash has a function in the formation of starch, sugars and other carbohydrates. Every large-growing, freshly-leaved plant requires plenty of potash and nitrogen. The lack of potash is indicated by poor leaf development. Some remarkable results of European experiments were cited to illustrate the profits of fertilizing, but as these appear to be in excess of what might be ordinarily expected under Canadian conditions, we hesitate to quote them. For example, one German experiment with plums indicated that \$193 worth of fertilizer increased the fruit crop to the value of \$1,709.



The "Baldwin House" at the Apple Show.

leaving a profit of \$1,560. The mineral constituents seem to have an important influence on the flavor of the fruit, and have been thought, also, to affect the color, though Professor Harcourt does not consider that the data on this latter point are conclusive.

ORCHARDING FOR PROFIT.

"The weakest part of farming to-day is the failure to keep books," said B. J. Case, President of the New York State Fruit-growers' Association, and himself an extensive commercial fruit-grower, of Sodus, N. Y. Mr. Case has 170 acres of all kinds of fruit, except berries. He does not want these among his trees. The time has passed, he explained, when we can grow fruit as our fathers grew it. To-day we must spray and cultivate our orchards, and small fruit among the trees hinders these operations, besides taking moisture and plant food from the trees. But to come back to the bookkeeping: A show of hands was requested from all men present who could tell exactly what they had made in returns and profits from an orchard. The invitation was responded to by a showing of only three hands. He then proceeded to explain his system of time-cards, by means of which he keeps track of the labor bestowed on every crop he raises, and is, in this way, able to decide which ones pay. These time-cards, he says, drove him out of grain-growing years ago. Ten dollars an acre was the best he could make out of wheat; barley was a little better; he didn't make anything out of his corn, but his apple orchard yielded him from \$600 to \$800 a year clear profit.

TRIMMING.

The system of trimming old orchards in such a way that in the center there is a circle 10 or 15 feet in diameter bearing no fruit, was criticized by Mr. Case as seriously defective. A common practice is to cut off the side limbs and send the long branches out further and further. Now, a bushel of apples five feet nearer the center of the tree is not nearly such a strain to hold up as a bushel at the extremity of the long limbs, so his practice is to haul in the diameter of these old trees, and force the bearing wood in to the center, by leaving a few suckers in the center of the tree, and cutting off the limbs which reach out farthest. It is possible to draw in the diameter of the tree three feet a year. He prunes all winter, when the weather is mild enough. To protect the ends of the larger limbs, he uses grafting wax, although some growers use a thin cement.

In planting new orchards, he sets all his apple trees 20 x 24 feet apart; even standard varieties, such as Baldwins, Greenings and Spies, are set this distance in squares. "Many fruit-growers," he declared, "are now getting their orchards to throw paying crops in seven years, instead of twenty. They are coming to low-heading and that helps to secure early cropping." He has been held back ten years in adopting the low heading system by the difficulty in figuring out a way to cultivate these low-headed orchards. The gasoline engine has solved the problem. He is now using it to draw harrows and cultivators. Six, seven-inch plows can be hauled by this engine and can be made to run close up under the trees. The wheels of the motor are forty inches in diameter, and the total cost of it about two hundred dollars. Going back to the matter of pruning, Mr. Case submits that these trees set

20 by 24 will not crowd until fifteen years of age, and if they commence bearing at seven years, that gives a chance for eight crops of apples. He then purposes to take out the trees diagonally, leaving the rows 31 feet apart, at which distance they should be good until twenty-five years of age; then, taking out the odd trees, he will have them 40 x 48.

Intercropping an orchard, Mr. Case considers about like swapping dollars; you put a dollar in in the spring, and take one out in the fall. His plan is to sow Mammoth clover as a cover crop about June 15th, and plow it under in the spring. If a little feed is required for the horses, a strip of this clover growing between the rows of trees in a young orchard may be used in that way. Mr. Case emphasizes the advisability of sowing the cover crop early; too late cultivation of a bearing orchard he finds to militate against color on the fruit. A tree is like an animal—during the period of incubation and early growth it wants the best of feed in a readily assimilable form. During the months of May and June the tree is forming blossoms and embryo seed; it then wants plenty of plant food to stimulate growth. Provide this by early and thorough cultivation, then sow the cover crop, and mow it a couple of times before fall. To cultivate too late will stimulate a big, thick leaf-growth, and shade the fruit, preventing it from coloring as it should. It may increase the yield somewhat, but orchards handled on the plan above outlined will yield abundant harvest of well-colored fruit.

THINNING.

"We sent some apples to a chemist to analyze; he reported that the flesh of the fruit was nearly all water, with a trace of potash and phosphoric

acid. The seeds were high in phosphoric acid. It doesn't tax a tree very much to pump up water, but it does tax it to pump up and elaborate the mineral elements, so we want to grow as much flesh as possible, and as few seeds. We accomplish this by culling out surplus fruit that sets. We started thinning in September, and tried to utilize the fruit picked off, but this would not do, so now we thin in July, after the June drop, and throw hundreds of bushels of apples away."

FERTILIZERS.

"I never grew such crops of apples as when I began to use commercial fertilizers," declared the speaker. "I tried keeping stock to make manure, but I couldn't make my cows pay, even when I credited the manure at \$2.00 per ton, so now we depend chiefly upon cover crops and commercial fertilizers, using about 112 pounds of sulphate of potash and 600 pounds of ground bone per acre. I use sulphate in preference to muriate of potash, because my land is quite wet. I have miles and miles of underdrains running through the hollows and, leading into these, 3-inch tiles between each two rows of trees in the low places. The drains are 2 feet deep in the shallowest places; we try to get them down 2½ feet. With culture of this kind, it is no trouble to make an orchard bear four, five and six barrels of apples to a tree." As to profit, the Geneva Experimental Station some years ago started an experiment on what they called "The Outer Farm" with a ten-acre orchard, half cultivated, and half in sod. Results published showed that the five acres which had been cultivated yielded in four years net proceeds amounting to 10 per cent. per annum on a valuation of \$1,000 an acre. The part in sod did not do so well. Mr. Case took the same four years, and figured out that the proceeds on his orchard had averaged 14½ per cent. per year on \$1,000 an acre.

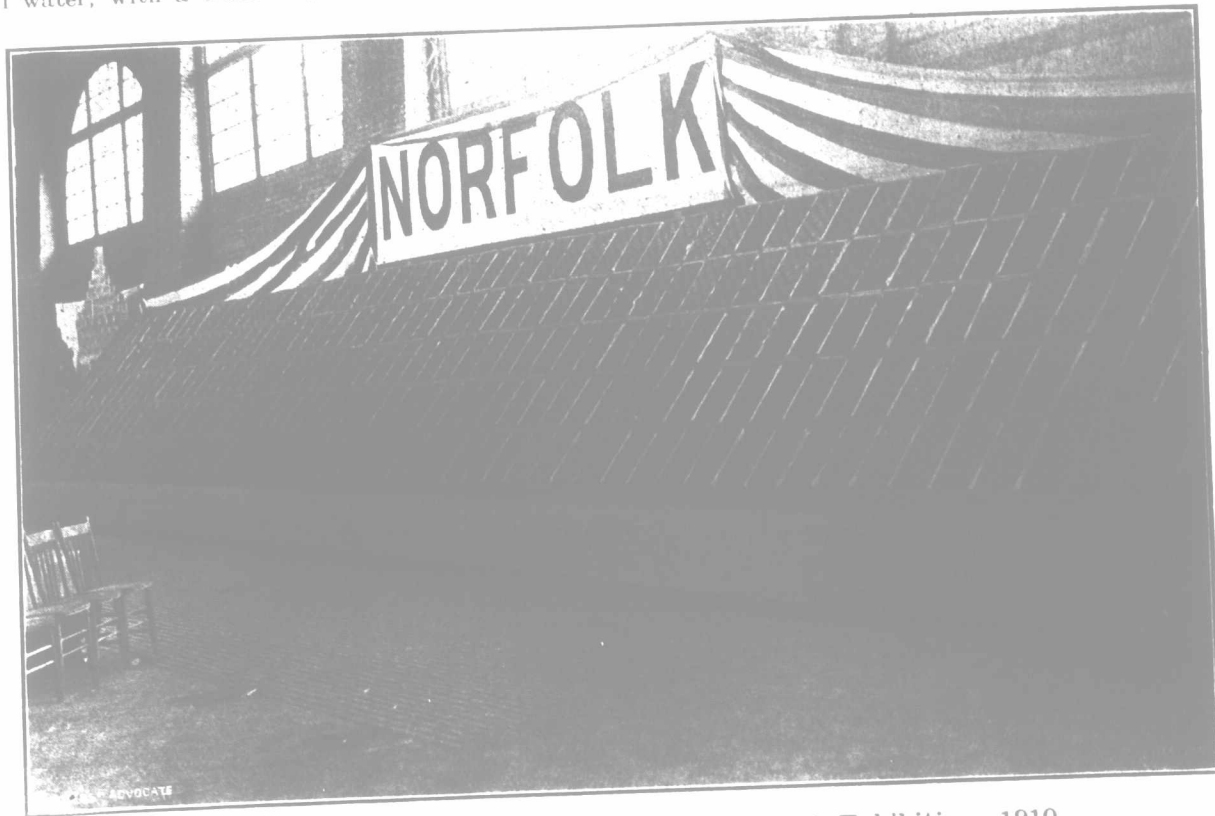
Moving a vote of thanks to Mr. Case, A. McNeill, Chief of the Fruit Division, Ottawa, heartily endorsed his suggestions as to close planting, low-heading, etc., stating that he himself had planted about 2,000 trees on that very plan.

APPLE-SHIPPERS INSIST ON SPRAYING.

Samuel Nesbitt presented to the Convention a resolution adopted by the Ontario Apple-shippers' Association, a body representing buyers who have purchased from year to year 750,000 to 850,000 barrels of apples in this Province, declaring that they would refuse henceforth to buy apples from unsprayed orchards. The trouble has been that there are too many producers asking any kind of an old price for any old apple grown on any kind of an old tree, and there had been buyers who would take this fruit at some price or other. The shippers, however, had been thoroughly disgusted with their operations this year in these unsprayed orchards, and at a meeting in Toronto last week resolved that they would agree among themselves, each for himself, not to buy apples in future from any grower who did not spray his orchard with lime-sulphur and arsenate of lead, or some other equally good spray. The shippers, declared Mr. Nesbitt, were determined to live up to this resolution.

DELAY IN FREIGHT SHIPMENTS—PILFERING AND ROUGH HANDLING.

For fifty-one years, said W. H. Bunting, Chairman of the Transportation Committee, we have been preaching the gospel of good culture, and



Norfolk's Exhibit at the Ontario Horticultural Exhibition, 1910.

for some years back your Transportation Committee has been trying to improve carrying conditions, meeting with some success. Rates have been improved as the result of its efforts, and it was one of the first bodies to move for the appointment of a railway commission. There are, however, still grievances, one of which is the delay in forwarding freight shipments. The railroad companies will give us schedules of say four and a half days to Winnipeg, twenty-four hours to Montreal, and twelve hours to Toronto, but these are not adhered to. For example, it was common, in the early part of the season to require seven, eight or nine days for shipments to the West, thirty-six or forty-eight hours to Montreal, and eighteen or twenty hours to Toronto. These delays caused much loss and damage to the shippers, piling up receipts irregularly at the markets. So much for the freight end of it. As all are aware, it is not possible to handle the whole of our fruit by freight, and a good deal of it must go by express. The express service is not wholly satisfactory, one company, at least, apparently making no great effort to improve its service. Mr. Bunting has, in his own business, been trying to cater to a private trade, shipping by express, but finds much difficulty and loss by pilfering. He was finally moved to address a letter to the chairman of the Railway Commission, setting forth the grievance and pointing out that consignees sometimes refused to accept the goods, while in other cases they accepted them at the shipper's responsibility, and in any event the pilfering dissatisfied the customers and disorganizes the shipper's business. The Chairman of the Commission replied, agreeing that something should be done, but pointing out that the matter would have to be dealt with by Parliament, as the Commission had no authority in the premises. Mr. Bunting also addressed letters to Mr. Bryce, of the Canadian Express Company, but he replied very evasively and unsatisfactorily.

Letters were then read from customers acknowledging receipt of fruit shipped to order, which arrived showing evidence of serious depreciation; in one case all the peaches on the top layer of the box had been removed, and one package of grapes had only a single bunch left. In another case, fruit sent carefully packed and covered with papers and leno, arrived with the papers and leno torn, and considerable fruit removed. Peaches with the baskets broken and the handles off, were received by another customer after twelve hours' delay in notification of their arrival. A fine shipment of melons had seven fruits knocked to pieces by rough handling. In a letter from Mr. Bryce, replying to the complaints, he laid the responsibility mainly at the door of the grower, insinuating that it was obvious that fruit which had been thrown into the baskets, as he had seen it done by many growers, would show slack upon its arrival. As evidence that Mr. Bunting's shipments had been carefully packed, and should have arrived in good condition, he read one or two letters from customers who received their fruit without pilfering, and found it satisfactory in every respect. Evidence as to rough handling was submitted by several members of the Association. One man saw baskets thrown two or three feet at Welland station, and in other cases stacked up in such a way that the fruit was almost pressed through the leno covering. E. F. Augustine reported having seen two or three hundred baskets of fruit, carelessly piled, thrown together into a jam by the shunting of a car, and so badly smashed up that twenty or thirty of the baskets were simply thrown together into a heap by the attendant. Another man saw crates of berries kicked about, and, writing to the district agent, got a letter in reply stating that the case would be taken into consideration, which, of course, was the end of the matter.

F. G. H. Pattison, of Winona, suggested that a committee should be appointed by the Association, and authorized to make a test case or two. He charged that, when just complaints were made to the Canadian Express Company, particularly, the company kept dragging the matter out by writing letters until the shipper got tired of pressing the matter, and let it go by default. He remarked that people did not require to accept fruit in damaged condition from the express companies, but might send it back to the express company, lodging complaint, and notifying the shipper. A. E. Sherrington submitted that the express companies should be required to deliver to all parts of cities free. W. L. Smith stated that in many parts of Toronto it cost more to get fruit delivered than to get it to the station. In Toronto, it seems that the express companies do not deliver free past the line of Dundas St. bridges. A flagrant case of injustice and delay was that of H. Moyle, who ordered a shipment of strawberry plants from Three Rivers, Michigan, which cost, with duty added, \$11.00, the express rates being \$9.71. The plants were so long on the route over the three express companies concerned, that they were dead when they arrived. Complaint was made, and the secretary of the Fruit Growers' Association took the mat-

ter up, but it was sent from one of the three express companies to another, and ended up in nothing being done.

The following resolution was passed by the convention: "Resolved, that this Association respectfully call the attention of the express companies to the annoyance, inconvenience and serious loss sustained by shippers and consumers of fruit on account of the pilfering from express fruit packages in transit, and also the careless handling, which results in the broken and damaged condition of the packages; these evils having become so notorious as to constitute a positive injury to the business, which curtails consumption and exposes the shipper to a serious loss, for which compensation is practically refused by the company."

POOR FRUIT IN OPEN PACKAGES.

That the Fruit Marks Act should cover open packages, as well as closed, was urged by G. C. Caston, of Craighurst, who pointed out that a good many shippers were sending trashy fruit in barrels without heads to the West, thus demoralizing the market to a certain extent for good fruit.

A. McNeill, Chief of the Fruit Division, pointed out, in reply, that the inspection already covers open packages in this far, that the fruit must be truly and fairly faced. It does not require, however, to be graded and marked according to the standard for closed packages. The matter was discussed when the Act was drafted, but it was considered that, to make it apply to open packages in the same way as it did to closed packages would interfere unnecessarily with local trade at various points, as a good deal of fruit is taken into the Toronto and Montreal markets and other cities in open packages.

It was felt by a number that the matter would right itself, as the shipping of this trashy fruit in open barrels would not be found very remunerative.

LIME-SULPHUR VERSUS BORDEAUX.

A year's further experience with lime-sulphur versus Bordeaux, was the subject of one of the most important discussions of the convention. It was opened by R. R. Waddell, of Simcoe, who had found orchards sprayed with each material with fruit practically free from scab, while some sprayed with each material had thirty per cent. affected, the difference in results being due to lack of thoroughness, not spraying at quite the right time, or to some other defect of practice. W. F. Kydd reported results from the Government demonstration orchards, of which he had charge in Simcoe County this summer. The first spraying, just when the leaves were peeping forth, was all done with lime-sulphur, one part concentrated solution to ten parts water, afterwards reduced to 1 to 20, for fear of injuring the foliage. No injury occurred, however, and Mr. Kydd was sorry he had not continued 1:10. The second spraying, just after the blossoms fell, was done with lime-sulphur, 1:40, except on one-half each of two orchards, on which Bordeaux was used. No difference was to be seen in the cleanness of the fruit, nor was there any rust. The apples graded 85 per cent. of No. 1. Only two sprays were given, but they were very thorough. For the first, about four gallons was applied per tree, and, for the second, after the petals had fallen, about five gallons per tree.

M. C. Smith, of Burlington, Ont., Manager of the Niagara Brand Spray Co., whose orchard was sprayed very thoroughly this spring with lime-sulphur and arsenate of lead, reported that from one eight-acre orchard, 1,100 barrels of fruit had been packed, and, notwithstanding that a reward had been offered for any apples affected with scab, only two spotted ones were found. He had failed to find any Bordeaux-sprayed apples as clean. No doubt, Bordeaux will control scab, but there is the disadvantage of the russetting which it sometimes causes. Lime-sulphur seems to put a bloom and freshness on the apple that cannot be secured by spraying with Bordeaux. Lime-sulphur, used 1 to 30, or 1 to 35, with arsenate of lead added for the codling moth, will enable you to grow absolutely clean fruit at a less cost for spraying than when Bordeaux is used. Mr. Smith's orchard was sprayed this spring four times; first, before the buds opened, with lime-sulphur, 1 to 10 or 11, afterwards at the rate of 1 to 35. For codling moth, 2 pounds of arsenate of lead was used to a barrel of water. Eight or ten gallons of spray mixture was put on each tree at each spraying, except the first, when five or six gallons was applied per tree. High pressure and a rather coarse nozzle were used. A carload of Spies was sold from this orchard for \$5.00 per barrel, grading 70 per cent. No. 1.

A. D. Campbell, B. S. A., Representative of the Department of Agriculture, Dundas Co., reported apple scab exceedingly prevalent upon the McIntosh Red and Fameuse apples grown in that section. Few apples in the unsprayed orchards remained on the trees until after harvest. Of the eight or nine sprayed orchards with which he had had to do, Bordeaux was used on three, lime-sulphur on three, while both sprays were

tried in the remainder. There was little difference to be observed in the effect of the two fungicides in controlling the scab. In none of the orchards were the apples absolutely clean, although good results were obtained. In the orchard sprayed with Bordeaux there appeared at one time to be a good deal of spray injury, and the owner of a three-acre block of McIntosh trees came into the Agricultural Office about the first of July, complaining strongly against Bordeaux mixture. However, he afterwards sold his crop for a good price, and the buyers apparently did not notice the injury at all. It seemed to become less apparent as the crop advanced towards maturity. It was from this section that the McIntosh apples came that went to British Columbia.

The last speaker announced to discuss this subject was L. Caesar, Ontario Agricultural College, who dealt with it authoritatively as a master of his subject. We submit Mr. Caesar's conclusions, based on experiments in 1909-10, and also upon information gathered by travel, correspondence, etc.:

1. Either Bordeaux mixture or lime-sulphur will thoroughly control the ordinary fungous diseases of the orchard, one, apparently, being just about as effective in this respect as the other.

2. One remains on the foliage and fruit just about as well as the other.

3. There is very little difference in the price as a summer spray. Bordeaux mixture, 4-4-40 formula costs 5 cents a pound for bluestone, and $\frac{1}{2}$ cent for lime— $4 \times 5 = 20 + 4 \times \frac{1}{2} = 2$, plus about 3 cents for labor in preparation, equals total of 25 cents per barrel. Commercial lime-sulphur, at \$8.00 per 40-gallon barrel, which is equivalent to 20 cents a gallon, costs, when used at the strength of 1 to 30, about 27 cents per barrel of diluted spray; and when used at 1 to 40, costs 20 cents per barrel. Nothing is allowed for labor of preparation here, because practically none is required.

4. Wherever there is San Jose scale in the district, or where red spiders are abundant on the foliage, a fruit-grower will act wisely in using lime-sulphur, instead of Bordeaux mixture, as a summer spray, in addition to the spring application of this mixture. It would also be well to use it in the same way if the orchard is badly infested with oyster-shell scale, because the summer applications are quite valuable against this pest also.

5. Bordeaux mixture is much more inclined to russet the fruit than lime-sulphur properly diluted. In some districts very little damage is done from this cause, and in such districts, unless scale insects or red spiders are troublesome, it makes very little difference which wash is used. In many districts, however, Bordeaux injury to the fruit is quite serious. Professors Scott and Waite, of Washington, D. C., both of whom have been studying this problem, state that of late years, from some unknown causes, there has been a decided increase in the amount of russetting of fruit and injury to foliage from Bordeaux mixture. The injury to the foliage often takes the form of small, circular, brown spots looking almost exactly like the disease known as Leaf-spot. Both these men seem to think that concentrated lime-sulphur, whether commercial or homemade, is likely to supersede Bordeaux mixture in the near future on account of this injury. When in Michigan, this October, I visited a famous apple orchard at Fennville, and watched the packers putting up the fruit. The apples were very large, and fairly free from worms, but were so severely russeted that I could scarcely tell a Baldwin from the other varieties. The packers said that, owing to the unsightly appearance, only a small percentage of the apples would grade No. 1. In cases like these, it is very clear that there should be no hesitation in using lime-sulphur, instead of Bordeaux mixture.

PRECAUTIONS THAT SHOULD BE TAKEN IF LIME-SULPHUR IS USED AS A SUMMER SPRAY.

1. Arsenate of lead is the only insecticide that we know of to-day that it is safe to use with lime-sulphur. The combination of these two substances seems not to lessen the value of either. In some seasons and localities arsenite of lime has been used without any injurious effects, but this year's experiments prove that it will sometimes burn very severely, especially in the latter sprays of the season. Paris green, likewise, cannot be safely combined with lime-sulphur.

2. The strengths of lime-sulphur that should, in my opinion, be used for the different applications, are as follows: For the spring applications, 1 gallon diluted with water to 10 (if there are no scale insects in the orchard this may be diluted to 12); for the application just before the blossoms open, 1 gallon diluted to 30 or 35; for the application just after the blossoms fall (the time for the codling moth spray), 1 gallon diluted to 35, or preferably to 40. If a later application is given, it should be at least as weak as 1 to 40, if applied at all heavily.

In the above I am taking as a standard a

commercial wash with a hydrometer reading of between 1.300 and 1.320 specific gravity. One to ten at this strength gives an hydrometer reading of 1.030 to 1.032 specific gravity, while 1 to 30 gives a reading of about 1.010; 1 to 35 gives about 1.009, and 1 to 40 about 1.008.

Most of the commercial companies recommend a uniform strength of 1 to 30 for summer use, but I have known several cases in Ontario, and have been informed of several more in Oregon and in Michigan, where this strength was found too strong for the heavy application required at the time for the codling moth spray, and I know 1 to 40 gives excellent results.

If a homemade concentrated spray is used on the foliage, it should be so diluted that each barrel will contain four pounds of sulphur in solution; for instance, if the formula used be 100 pounds sulphur, 50 pounds good stone lime, and 40 gallons water, boiled vigorously one hour. It is clear that, as with ordinary care, almost all of the 100 pounds goes into solution, this should, therefore, make for summer use about 25 barrels of spray. For spring use, each barrel should contain about 13 pounds of sulphur, so that the above 100 pounds sulphur would be sufficient to make slightly over seven barrels when diluted.

In conclusion, I wish to say that it would be a most desirable thing if a guaranteed standard of strength could be set for the commercial washes, and stamped on each barrel, so that the fruit-grower would be able to rely on the mixture being of uniform density. The standard might read from 1.300 sp. gr. to 1.320 sp. gr., or from about 33 to 35 Beaume. The adoption of such a standard would help the companies, as well as the fruit-growers.

ROOM FOR EXTENSIVE PLANTING.

"Is the present activity in the extension of orchards liable to be overdone?" was the subject of a most heartening discussion participated in by several growers, all of whom agreed with Robert Thompson that we are not growing nearly enough fruit to fill our markets, and that there is an opening for much more planting than is being done.

D. Johnson, of Forest, referring to the peach boom in Lambton County, attributed it largely to the discovery that spraying would control the curl-leaf. It was estimated that from one to two hundred thousand fruit trees would be planted in Lambton Co. this spring. In Lincoln County, said Mr. Thompson, the number of apple trees planted would be equal to that of the past ten years. Two or three delegates declared, optimistically, that one hundred times the present quantity of fruit grown in Canada could be marketed. The United States would soon absorb its whole supply. Our own Western market was growing rapidly, the British market would take enormous quantities, Germany would now again be a factor in the demand, and, in short, the prospects were painted in the most roseate hues, with the proviso, however, that the demand would be for first-class fruit. Poor fruit hurts the market by restricting consumption.

OFFICERS.

Directors for the ensuing years were: Wm. Alford, Ottawa; Harold Jones, Maitland; Walter Dempsey, Trenton; W. H. Gibson, Newcastle; Wm. Stainton, Oshawa; L. A. Hamilton, Lorne Park; J. W. Smith, Winona; A. Onslow, Niagara-on-the-Lake; Jos. Gilbertson, Simcoe; D. Johnson, Forest; R. R. Sloan, Blythe; F. M. Lewis, Burford; Adam Brown, Owen Sound; Prof. J. W. Crow, Ontario Agricultural College.

RESOLUTIONS

The tariff resolution drafted by the committee for this purpose, provoked discussion, and had to be amended to be passed at all. As finally adopted, it read: "Resolved that, in view of the possible negotiations with the United States in regard to reciprocity of tariffs, the Ontario Fruit-growers' Association wish to put on record their unqualified disapproval of any reduction in import duties, without consulting a committee appointed by this Association, the duties being now much lower on the average than on manufactured goods, and lower than they ought to be, in view of the fact that there can be no monopoly or combine in fruits, the price being fixed absolutely by the law of supply and demand, within the Dominion, which contains ample territory suitable to produce in the utmost profusion all the fruit the country can consume for many decades, which insures that the consumer cannot be injured in the long run, and the fruit industry can be extended in proportion to the growth of population, with some assurance of a market at home."

The tariff committee appointed by the Association to deal with this matter, if it should arise, was A. Onslow, Niagara; J. W. Smith, Winona; A. W. Peart, Burlington; R. Thompson, Burford; Catharines; H. Jones, Maitland; W. H. Dempsey, Trenton; E. D. Smith, Winona; D. Johnson, Forest; R. W. Grierson, Oshawa. Other resolutions were passed, favoring an extension of the system of district agricultural rep-

resentatives, by locating them in additional counties, and by having them give short courses in the public schools on the rudiments of agriculture, with especial regard to insects and fungous diseases affecting fruit trees.

In view of the great success attending the recent apple show in Vancouver, the meeting was of the opinion that the time was opportune for the inauguration of an annual National Apple show, and a committee was appointed to take up the subject of holding such a show in Ontario in the fall of 1911.

STANDARDS FOR JUDGING FRUITS AT EXHIBITIONS.

It has long been recognized, said Harold Jones, of Maitland, speaking on the above subject, that there was a wide difference of standards and of opinions among judges of fruit. Score-cards designed to secure uniformity have been tried, but found faulty, and discarded. Endorsing the remark, W. T. Macoun, Horticulturist at the Central Experimental Farm, and chairman of the Association's committee appointed to deal with this matter, remarked that, owing to the confusion arising from want of a standard, not few exhibitors had become disgusted and quit exhibiting, or, perhaps, successful ones had tried again, and lost on the points which would be helpful for a judge to have before him, even if he did not actually use it in judging. What is needed is to educate judges and exhibitors. In Nova Scotia, the veteran judge, R. W. Starr, has educated them so that they know what points a good judge should expect. The standards recommended by the committee for various classes were as follows:

- Apples and Pears, single plates.—Form, 15; size, 15; color, 25; uniformity, 20; freedom from blemish, 25; total, 100.
- Apples and Pears, single plates, seedlings.—Form, 15; size, 15; color, 20; uniformity, 10; freedom from blemish, 10; quality and texture, 25; season, 5; total, 100.
- Peaches, single plates.—Form, 15; size, 20; color, 25; uniformity, 15; freedom from blemish, 25; total, 100.
- Plums, single plates.—Form, 10; size, 20; color, 15; uniformity, 15; freedom from blemish, 20; quality, 20; total, 100.
- Cherries, single plates.—Form, 10; size, 10; color, 15; uniformity, 20; freedom from blemish, 20; quality, 25; total, 100.

packing, 25. Total for fruit, package and packing, 100.

Some criticism was offered concerning the lack of allowance for quality in single plates of apples, pears and peaches other than seedlings. It was felt that the omission of quality would handicap Ontario fruit in competition with that from the Pacific Coast in an interprovincial competition. Mr. Macoun explained that the reason it was not included was the difficulty, in judging, of considering quality in a class of say 20 plate exhibits of apples. It was finally decided to adopt the proposed standard for one year.

The many other valuable papers and discussions we must reserve for later publication. A special word of commendation is merited by the demonstration of spraying with hand and power pumps of the leading makes. In this connection a word is in order as to the very effective exhibit of the Niagara Brand Spray Co., which showed not only spray pumps, but a large quantity of superlative fruit sprayed with lime-sulphur and arsenate of lead. Other features demonstrated were the packing of boxes and barrels, with criticisms of packages on exhibition.

Ontario Beekeeping Flourishes.

The opening session of the Ontario Beekeepers' Convention, held in Toronto, Nov. 16th to 18th, was largely attended by officers and members of the Association. In his presidential address, Mr. Couse said: "As beekeepers of Ontario, we have again been favored with a fair crop of honey, of good quality, and have received fairly satisfactory prices. The extreme heat of part of June and July hurt the clover-honey yield considerably. The demand seems to be increasing, the credit being due to the demand from the West, one beekeeper having received an order for five carloads of honey from one firm, a thing unheard of a few years ago.

"From the yearly reports received through the Honey-crop Committee, a fair estimate of the annual production of honey in this Province would be about 5,000,000 pounds. The most noteworthy feature in the advancement of our industry to-day is that expert beekeepers are handling in home and out-yards from 200 to 500 colonies each.

"The greatest detriment to our advancement is foul brood, surely. Let the best men possible be appointed to the positions of spreading knowledge of beekeeping in general, and eradicating foul brood in particular. Our Provincial Apiarist is now established at the Ontario Agricultural College, Guelph, where he has facilities to assist beekeeping as never before.

"The membership of the Association is steadily increasing.

"The plan adopted for getting up the programme was to ask each director to suggest topics, so there would be something to suit the different parts of the Province. Conventions help in a practical way by the many good papers read, and discussions upon them, and by practical demonstrations."

Mr. Dickinson, of Lancaster, in his address, "Lessons for Beginners," advised going slow, say, with one, two, or, at most, half a dozen colonies; that a beginner should always start in the spring, rather than the fall, so as to put off possible winter loss for another season.

He always puts his out of cellar towards evening, to prevent mixing. He cleans bottom boards, to save bees the trouble. He advised putting the extracting supers on early to keep the brood-chamber free for raising young bees for the clover-honey harvest; not extracting the honey until one-half or three-quarters of the comb was capped; using the system of tiering up the supers; getting into the way of using the bee-escape; cultivating the bee-escape habit, no matter who says no; feeding the bees in the last week of September, or first week of October, all they need, 25 pound being the least a large colony requires. Prepare the colonies carefully for winter, as upon their condition in the fall depends their fitness or unfitness for the next season's work.

MAKING QUEENS TO ORDER.

H. G. Sibbald, of Claude, in his address on "A Year's Experience with Clark's System of Queen rearing," said: "Before describing in detail the Clark system, as outlined here last year, I might mention the principle, which is in itself wonderful. By the hand of man, queen-cells can



Marchioness 19th =88442=.

Two-year-old Shorthorn heifer, in dispersion sale of S. J. Pearson, Son & Co., Meadowvale, Ont., Dec. 14th.

Grapes, single plates.—Form of bunch, 10; size of bunch, 15; size of berry, 10; color, 10; bloom, 5; freedom from blemish, 20; flavor, 25; firmness, 5; total, 100.

Collections of Apples, Pears, Plums, Peaches, Cherries and Grapes, on plates.—Freedom from blemish, 20; color, 15; uniformity, 10; size, 10; commercial value, 10; quality, 10; nomenclature, 5; arrangement, 5; season, 5; total, 100.

Barrels of Apples.—Fruit—Size, 10; color, 20; uniformity, 15; freedom from blemish, 15; texture and flavor, 15; total for fruit, 75. Package—Material, 4; finishing, 6; total for package, 10. Packing—Facing, 6; tiling, 2; racking, 3; pressing, 4; total for packing, 15. Total, 100.

Boxes of Apples, Pears, Peaches.—Fruit—Size, 10; color, 20; uniformity, 15; freedom from blemish, 15; texture and flavor, 15; total for fruit, 75. Package and Packing—Material, 3; finishing, 4; fullness or bulge, 4; solidity or compactness, 5; attractiveness and style of packing, 5; alignment, 4; total for package and

be made from beeswax. A small, thirty-hours-old larva may be removed from its cell, where, undisturbed, it would have hatched a humble worker bee. Thus removed and placed in the artificial cell, and fed by the bees on what is known as 'royal jelly,' will produce a queen capable of producing thousands upon thousands of her kind." Mr. Sibbald has been very successful in raising queens by Clark's system, and introducing them to nuclei for use in his own yard. He has succeeded in getting a large proportion of his artificial queens matured and laying.

Morley Pettit, Provincial Apiarist, O. A. C., Guelph, addressing the convention on "The Large Exhibition and the Beekeeper," gave it as his opinion that the large exhibitions have brought and are bringing great benefit to the beekeeper. They come under the head of that broad term, "Advertising," which has been such a science in the distribution of all produce either mental or material. It is one thing to produce a good article; quite another to persuade the public that they need it. The prospective consumer is attracted by an attractive display of goods. Thousands of consumers of honey have become such by seeing the honey display at some large exhibition. The handling of living, moving bees on combs by an operator, while he explains the life-history and habits of the bee, at the large exhibition, enlightens and awakens an interest in the bee and its product. Ocular demonstrations of bees and bee products at large exhibitions are also an education to the men and women who have a few hives, but are not giving them proper attention.

There is room for valuable work for competent persons right along this line in regard to treatment of disease, proper ripening and handling of honey, method of selling, etc. All of these points could be explained to crowds of people daily by lecturers at large exhibitions, to the benefit of the specialist. The Ontario Beekeepers' Association should endeavor to devise some workable plan to induce beekeepers to put up good displays of honey at the county fairs, as well as at the greater exhibitions.

It is true that honey prices are advancing, as are those of other goods in various lines, but they may be still further advanced by the means aforementioned.

"Beekeeping for Young Men," was the subject ascribed to Homer Burke, Highland Creek, who showed the vast difference between the young man of to-day entering this field of bee-culture, and the young man of past days. At present, beekeepers are conducting a business of four times the volume that the same men could have done years ago, and prices are increasing with the increased output. Good honey only seems to increase the demand with corresponding advancement in prices. Put none but good honey on the market. An average of three supers on each strong hive at a time gives an opportunity for ripening honey well before it is extracted, assuring its good quality. Queens should be raised from the best stock.

The Government is awakening to the fact that beekeeping is one of the most promising of our industries, and it behooves the young beekeeper to put the bees into the fields to collect the nectar and the money.

BEEKEEPING BY WOMEN.

Miss Ethel Robson, of Ilderton, gave an address on, "Can a Woman Keep an Apiary." In this address, which was very acceptably given, the speaker said: "If success means doing a little better each year than the year before, then I may reasonably lay claim to success."

The subject of this paper originated from the many inquiries from the girls at the O. A. C., as to whether women can run an apiary. This is an age of specialization, and what more fitting specialization than the healthful, remunerative employment of beekeeping can there be for women?

After giving an account of her experience with bees, Miss Robson asks: What are some of the lessons to be learned from it? The experienced beekeeper soon learns to control swarming in a measure. The greatest difficulty that women have to overcome is heavy lifting, and unless she is fairly strong she should not enter this field. Outside of heavy lifting, there is no reason why a woman might not succeed as well as a man in running an apiary. The fact that all the work is done in the fine weather of summer should have its attractions for women. Then, too, a woman might easily become a very successful queen-rearer, and make a light job of beekeeping, with a heavy bank account in the prospective.

The selection of officers resulted in the election of W. J. Craig as president, Dennis Nolan as 1st vice-president, J. L. Byer as 2nd vice-president, and P. W. Hodgetts re-elected as secretary-treasurer for the Association.

FOUL BROOD STILL WITH US.

The reports on foul brood have but one story to tell: We have it with us yet; that is, American foul brood. A clarion note was struck by Mr. Byer when he said, in regard to European foul brood: "I am not an alarmist, but I want

to tell you beekeepers here that, unless we succeed in subduing this scourge, it will not be long before the beekeeping industry of Ontario will be wiped out." American foul brood cannot begin to compare with the new-comer in virulence. The consensus of opinion in the meeting was that Italianizing was the only sure cure for this disease.

CO-OPERATIVE SELLING OF HONEY.

The subject of co-operative selling of the honey crop was broached by Mr. Couse, and \$50 voted, to be available for the use of the committee appointed to further the work of co-operation. So far, the scheme is only in embryo, but may lead to a joint-stock company of beekeepers, shareholders in the company, and practical controllers of the price of honey.

A resolution, in at the last meeting, seeks to give better legislation for the beekeeper in regard to spraying of fruit trees.

The Ontario Horticultural Exhibition.

The horticultural enthusiasts have for the seventh consecutive year brought together in Toronto as fine a collection of their products as the most critical could desire. The show this year was held again in St. Lawrence Arena. There has been a steady growth in this Exhibition, not only in its size, but also in the quality of the exhibits and the interest shown in the exhibition. If it were not the case, the exhibition would have failed in its object.

The attendance is increasing each year, but still there are a large number of people, not only in Toronto, but all over the Province, who should take advantage of the cheap fares, and spend the time necessary to see one of the finest displays of horticultural products on the continent.

A noteworthy fact is the greater number of exhibitors competing this year; the money is much more evenly distributed among a larger number of people. Everywhere, exhibitors and other interested persons could be seen discussing the different exhibits, and gaining for themselves a greater knowledge of this very important industry, and, from present indications, this good work will proceed, with ever-increasing growth.

Although this has been an off year for apples, which make up a large part of the display, there was an increase in the number of boxes shown of over 350 per cent., and in the number of barrels, over 40 per cent. In nearly every other class there has been a considerable increase in the number of entries and exhibitors. The packing of the boxes has been from 25 to 50 per cent. better done than formerly, and this year there were no boxes that could be called badly packed. The growers have apparently mastered the art of box-packing. The floor space devoted to the exhibits has been increased fully 25 per cent., by rearranging the interior of the hall, so that the exhibits are displayed to better advantage than formerly.

The outstanding exhibits in the apples were the county exhibits, and in these the Northumberland and Durham exhibit, and the Norfolk exhibit, were especially attractive. The Norfolk County display comprised half a carload of fancy boxed apples, which had been very carefully graded and packed. The Northumberland and Durham exhibit represented a house built of apples, surrounding which were many boxes and barrels of as fine fruit as could be desired. This was one of the features of the show. Prince Edward County, Leeds and Grenville, and Ontario County, also had large exhibits of apples in boxes and on plates. They are adopting the box for their best grades of apples, and their showing is only a fair indication of what can be done and what is being done in their orchards. There are yet quite a number of counties that should and can put up exhibits equally as good as the five counties already mentioned.

Through the Ontario Department of Agriculture demonstration orchard exhibits, and the Jordan Experimental Station exhibit, the fruit-growers have been given ample demonstration of what good methods will do in the orchards, and it behooves the great number of apple-growers to follow quickly in the footsteps of their more successful brothers who have reaped their reward during the past few years.

The St. Catharines Cold-storage and Forwarding Co. again had a large showing of a variety of fruits in boxes and on plates. These came up to the high standard set by this very aggressive company. Their peaches and grapes were in perfect condition for this season of the year.

The Central Experimental Farm, Ottawa, had a fine collection of seedling apples originated at the Government farm or elsewhere in Canada, and among these there are many which soon should come into prominence, particularly in the more northern sections, where some of the less hardy varieties cannot be grown.

Apples from British Columbia, Nova Scotia and Ontario were shown by the Dominion Department of Agriculture. These apples illustrated

the differences in some of the leading varieties when grown in different Provinces, and it was evident that Ontario apples did not have to take second place. They also showed a few cases of peaches similar to those packed for export to England, and they were still in good condition.

The county plate exhibits of apples have been discontinued, as the prizes always fell into the hands of a few, and, consequently, there was not such a big show of plate apples as before. There were not quite so many entries in pears, but the quality was good, compared with that of other years. The box pears were particularly well packed in the pear boxes.

The flowers always attract much attention, and this year were at their best. It was pleasing to see a few new names among the exhibitors. The chrysanthemums are always in the majority, and it is a marvel how the florists can produce such immense and perfect bloom. In these, the Dale Estate, Sir H. M. Pellatt, T. Manton, and Jennings, carried off the chief honors. T. Manton had a very fine exhibit of orchids, which deservedly won first prize; and Dunlops were particularly successful in their exhibit of roses. The other exhibitors deserve mention, for their exhibits won many prizes, and helped to swell the great profusion of bloom, which made everyone desire one of those immense chrysanthemums, fragrant roses, or delicate orchids.

The floral designs and the eight decorated dinner tables always attract the women, and come in for their share of comment. The tables this year are judged by the visitors, who vote on the different tables, and the table receiving most votes is awarded first place.

Vegetables compared very favorably with former years, and the vegetable-growers have continued their interest in the Exhibition, and have added their share to its success. The vegetables were clean and well grown. The squash were particularly large, but the cauliflower and celery not quite as good as in some of the former years. There are still a large number of growers who should come forward and exhibit in this class.

The fruit-grower is beginning to realize the great part the bees play in making his crop. A number of very fine displays of the products of the apiary were to be seen.

The women deserve especial mention for their part in making for the success of the show. The importance of their work cannot be too highly emphasized, and we look forward to much more of this work being done in connection with the exhibitions. The Women's Institute exhibit of preserved fruits was in the hands of Miss Shuttleworth and Mr. Woelard, and these ladies disseminated and distributed a large quantity of information in regard to methods of canning fruits and vegetables, and recipes for serving them in an inviting and appetizing way.

The directors of the exhibition are to be congratulated on the high standard to which they have brought this exhibition, and it is playing no little part in the education of the exhibitor and the public to the possibilities that lie before them in their particular line. This old Ontario is fast coming into her own. T. G. B.

Heavy Fines for Milk Adulteration

"Why, hello! What are you doing at a fruit show?" was a question asked G. G. Publow, Chief Dairy Instructor for Eastern Ontario, at the Horticultural Exhibition in Toronto last week. "Oh, I'm just here seeing the fruit which tempts our cheese-factory patrons to skim the cream off their milk," was the reply. Fred Streit, the prosecuting officer in Eastern Ontario, had twenty-three cases of adulteration before the magistrate at Plantagenet the other day, there being eleven from one factory. Seven hundred dollars was collected in fines, the magistrate's fee alone amounting to \$50.

Coming Events.

International Live-stock Exposition, Chicago, November 26th to December 3rd.
Smithfield Fat-stock Show, London, Eng., December 5th to 9th.
Ontario Winter Fair, Guelph, December 5th to 9th.
Maritime Winter Fair, Amherst, N. S., December 5th to 8th.
Toronto Fat-stock Show, Union Stock-yards, December 12th to 13th.
Eastern Ontario Live-stock and Poultry Show, Ottawa, January 16th to 20th, 1911.
Ontario Corn-growers' Exhibition, Chatham, Ont., January 31st to February 3rd.

The Ontario Corn-growers' Exhibition is to be held this year at Chatham, on January 31st to February 3rd, inclusive. Single-fare rates will obtain on the railways within the \$2.50 radius.

Turn to Page 1864 of this issue, and read our Premium Announcement.

The Conference of Representatives of Farmers' Institutes and Farmers' Clubs.

Contemporaneously with the meetings of the Ontario Women's Institutes, the Beekeepers' Association, the Horticultural Association, and various other bodies which met in Toronto during the week of the Horticultural Exhibition, representatives of the Farmers' Clubs and the Farmers' Institutes of Ontario held a conference of four sessions in the Capital City. Many of the active spirits of these organizations from various parts of the Province were present, and, while all the leaders were not able to come, there were no lukewarm enthusiasts forward, so that the hundred to one hundred and fifty that attended the meetings made good use of every moment. They were essentially experience meetings. Institute speakers, secretaries, presidents and organizers brought forward their disappointments of the previous year for airing and curative treatment; men who had found new and profitable methods of working presented them for the benefit of their fellow workers. The men of vision and discernment in attendance at the meetings could readily sort out from the many ideas presented numerous splendid suggestions for their incoming year's work.

OPPORTUNITIES.

Superintendent Putnam, in the opening address of the conference, admitted the failure of the Farmers' Institutes in getting hold of the people generally, and of the young people in particular. He pointed out the splendid advantages of the local clubs, which, in their frequent meetings and interchange of ideas have a force beyond the regular Institute, and illustrated it by the great success of the Women's Institutes. Mr. Putnam emphasized the tasks of increasing production, improving farm life, and regulating the markets, as amongst the things which Farmers' Institute workers must aim to accomplish. Co-operation must be exercised, if farmers will obtain the full advantage of their investment of capital, labor and thought. All lines of knowledge must be called into service by producers to a greater extent; the specialist's contributions to knowledge must be turned to practical account. Local organizations must spring up everywhere in the country to contribute to the permanent improvement of the communities. The work of the experiment stations and the colleges must be diffused by demonstrations into every locality. These are the tasks which, until they are done, are the most urgent needs before Institute workers.

Frank D. Ward, a prominent Institute worker from Batavia, N. Y., in his address upon the work of the Institute, brought out many valuable points. He emphasized the fact that Institutes should always instruct, and that this must be done by arousing the interest of the people and maintaining it. Unless Institutes make men and women better people, and broaden and enrich their lives, they fail. Pointing to the benefits of Institute work in New York State, he stated that the Institutes had raised the average annual yield of the dairy cow 40 per cent. for the entire State. Like many other men at the conference, he emphasized the importance of the Institute lecturer being a practical, successful working man. A party of leaders of rural education from the Southern States visited the last session of the convention, some of them making short but strikingly strong addresses.

INSPIRATIONS.

The most inspirational session of the conference was that held in conjunction with the other societies in Convocation Hall, on Toronto University Campus, and addressed by Deputy Minister of Agriculture, C. C. James, and President Falconer, of Toronto University. Mr. James, after outlining the trek of the population from the country to the towns, pointed out the glaring failure of the Men's Institutes in their duty to the country school. Addressing himself particularly to the women's organizations, he pointed out their task of developing and building the home, in the country, the village and the town, and putting all on an equal footing, and the task of remaking the rural school.

Dr. Falconer, with the strength of earnest conviction, carried his audience from the pettiness of commercialism to the broader, deeper, basic thing which must be sought in all such work as the Institutes are doing. His address was grand in its simple strength, and inspirational beyond telling. He pointed out the necessity of permanence in the development of a sturdy, independent thinking people; our homes should be permanent things; we should take pride in them; the house should be built not to sell, but to remain there as a home; a home of beauty is an asset that cannot be valued in dollars. He expressed it as our duty to put thought in our homes, as a permanent center from which we and

our kindred will influence mankind. He said: "The interaction between comfort and morality is very subtle; it is much easier for a boy to be moral when well fed, comfortable, having a good home, and a mother he is proud of and loves." Probably the most-valued point among the many valuable points made was that life is tolerable and enjoyable in so far as one has variety of interests; that it is not in the giving of better markets to the people, or telephones or autos, but by adding interest to their life, that we make people happy, and that interest should lie in the work before them for their doing.

The Hon. Jas. Duff, Minister of Agriculture, addressed one of the sessions, emphasizing the splendid future lying immediately before the Province. He pointed out what was being done in the way of experimental flocks to restore the status of the sheep industry of the Province, and assured the heartiest appreciation of the importance of the agricultural problems, and the co-operation of the Government as far as in its power lies.

Crop improvement was treated thoroughly in a paper by Prof. C. A. Zavitz, of the O. A. C. He pointed out that frequent changes of seed was not necessary for crop improvement, but rather that this should be accomplished by selection. This selection should be of the seed, and of seed from the entire plant growing in the field. The quality of the seed is of great importance. Varieties must be studied by the producer, that the best for his conditions may be obtained. Mr. Zavitz showed the advantage of seed selection on at quoting the results of experiments carried on at Guelph in comparing plump vs. shrunken seed, well-matured vs. immature, sound vs. unsound—all of which showed the advantage of care in selecting seed. He then discussed hybridizing and breeding operations, and their value in crop-improvement, pointing out the many problems that have yet to be solved.

SPLENDID SUGGESTIONS.

While the older Institute workers were admitting the failure of "old-line" policies in getting hold of the people; the discussions introduced by the District Representatives of Agriculture and the Farmers' Club leaders were of another stripe. A. D. Campbell, from Dundas County, told of the success of the live-stock-judging courses; of how in little villages as many people turned out to these as appeared at the O. A. C. short courses; how they were intensely interested, and always wanted the work continued. He showed that such work, without any doubt, was interesting to the young men, and the old men as well. They were learning by actual experience, were acquiring new interests, instead of being presented with the voluminous talk. I. F. Metcalf, of Peterborough, and J. H. Hare, of Whitby, showed how readily the people were co-operating in poultry work, and how successful such work was with them. It is proving the entering wedge of improved methods in poultry production. The people are learning by practical doing. F. C. Hart, Galt, told of the formation of twelve live Farmers' Clubs that are working in his county, improving the roads, the schools, the crops, bringing in telephones, bringing a new life to their communities. A. McKenney, of Essex Co., and Ross Huff, of Kent Bridge P. O., showed how farmers were practicing in seed selection, and caring for their corn crops, and making from 5 to 25 bushels more per acre than they used to make. These young men are doing things. They perhaps took about ten minutes each to give their addresses, but they were full of optimism, for they are getting the hearts of the people, and they are already getting results. Institute managers and secretaries who have gone home without being impressed by the work of these young men have missed procuring the touchstone which will bring success to their work.

Deputy Minister James, in a second address, brought out forcibly the truth that the day for talking is about over; that demonstration work must hereafter take the place of the old method of hiring a hall, getting the people in, and then presenting a rattling good speaker, and after him another.

There were other good talks made, but space precludes a further reference to them.

A motion, that the organization of Farmers' Institutes urge upon the Government the advisability of making a special branch in the Department of Agriculture to forward the Farmers' Club movement, was unanimously carried.

Railway Passenger Rates to the Winter Fair.

From all stations in Ontario, Kingston, Sharbot Lake, Renfrew, and west, but not west of Azelda, the railways have granted the low rate of single fare for return tickets to the Ontario Winter Fair, at Guelph. These tickets will be on sale each day from Saturday morning, December 3rd, until Friday night, December 9th. They are good for the return journey any day up to and including December 12th, 1910.

Canadians Discuss Institute Problems Abroad.

At the fifteenth annual meeting of the International Association of Farmers' Institute workers, held in Washington last week, Canadians figured rather prominently. Geo. A. Putnam, Superintendent of Farmers' Institutes in Ontario, in his presidential address, emphasized three desiderata: (a) Increased production; (b) a better home and community life in the rural districts; (c) a lessening of the all-too-wide margin which now exists between the prices received by the producer and the prices paid by the consumer. Local demonstration of improved methods was recommended as an effective means of accomplishing the first of these aims, and co-operation to accomplish the latter, especially along poultry, dairy and fruit-growing lines. Another notable address was that of C. C. James, Deputy Minister of Agriculture for Ontario, who endeavored once more to bring home to the resident of the city and town the fact that, whatever helps the farmer to larger production and larger life, necessarily contributes to the prosperity and uplift of the whole community. The possibility of adding two or three hundred million dollars yearly to our rural income surely makes this a big problem. The foundation courses upon which this great wealth is to be built are plain and simple: (1) Drain the soil; (2) sow only the best seed; (3) carefully protect and store the products of your fields or orchards; (4) feed these products only to profitable stock; (5) put the finished product on the market in the best form.

All this line of development looks so simple, and therein is one of the greatest difficulties. It is easier to build a Dreadnought than an agricultural college.

Helping our farmers to larger production and to larger life can be justified only on the ground that thereby we are contributing to the prosperity and uplift of the whole community.

Lotus Fields' Ayrshire Sale.

At the Lotus Fields' sale of Ayrshire cattle, at West Berlin Vt., on November 10th, advertised in "The Farmer's Advocate," some handsome prices were realized, some of the highest being paid by a Canadian, William Hunter, Maxville, Ont. The imported three-year-old bull, Barge-noch Bonnie Scotland, sold at \$1,600 to John Showin, Cleveland, Ohio, Mr. Hunter being the runner-up. The ten-weeks-old heifer calf, Jean Armour 2nd, whose picture, with her dam, appeared in the Nov. 3rd issue of "The Farmer's Advocate," was taken by Mr. Hunter at \$1,000, and the two-year-old heifer, Howie's Cream Pot, (imp.), the Scottish champion female of 1910, fell to the same buyer at \$1,000. The next highest price was \$725, for the eight-year-old cow, Daliddle Fibbie 3rd (imp.), purchased by Chase & Beeman, Brandon, Vt. The average for the 37 head sold, including 14 bull calves, was \$236.

Advertising Our Apples in Belgium

Following is a copy of a letter received at Ottawa from Wm. Hutchison, Canadian Commissioner at the Brussels Exhibition. It was addressed to Dairy and Cold-storage Commissioner J. A. Ruddick, and referred to a shipment of 150 boxes, forwarded during the first week of October:

"We have received the shipment of apples, and can assure you they are a fine lot.

"By the numerous complimentary remarks received as to the quality of the apples, I am satisfied Canada has made a big advertisement; besides, it will enable these people to know the difference between the apples received from us and those that are offered for sale by the merchants here as Canadian apples. The fact of the matter is our fruit exhibit has been very popular with the people, which has been taken advantage of by the trade, who, no matter where they buy their stock advertise it as Canadian, adding, these apples are the same as are on exhibit in the Canadian Pavilion."

F. C. Nunnick, District Representative of the Ontario Department of Agriculture at Alexandria, Ont., is to join the Toronto office staff of the Department about December 1st. N. D. McKenzie, B. S. A., Galt, Ont., has gone to take up the district representative's work in Glengarry County. Mr. McKenzie graduated in 1909 from the O. A. C., and, after graduation, took up the management of a 1,500-acre farm in Michigan. Such practical experience should be of splendid value to him in his work with Eastern Ontario farmers.

Maine Fruit Show and Convention.

The effect of the N. E. Fruit Show, held one year ago, was noticeable in the display of fruit held in connection with the annual meeting of the Maine State Pomological Society, in Auburn, November 8th, 9th and 10th.

For the first time in the history of this Society there was a big exhibit of box fruit, and, more than that, nearly all of the 110 boxes composing it, were packed by the growers, men who up to this year, with few exceptions, had never packed a box before. The idea of the arrangement was copied from the Boston Exposition, and was as attractive on a small scale as that from which it was patterned. There was a good display of barrelled apples, also.

The live issues of the convention were the laws governing growing and packing. These were brought out in the address of the president, Dr. Geo. M. Twitchell, as recommendations that he thought were needed to insure continued advance. The new law he did not consider stringent enough after a trial of it, and he thought it advisable to remove the ten-per-cent. leeway, and demand a package that should represent perfection.

Some thought that the ten per cent. should stand and be lived up to before trying perfection in the package; others, who were enthusiastic for better fruit, would eliminate it. The law as it stands was obnoxious to some who did not wish to have the responsibility of packing, because it called for the name of the grower to appear on the package, and they did not wish to stand back of the packing done by others.

Discussion of the matter caused the appointment of the Executive Committee to be named as a committee to appear before the Legislature the coming winter to ask for an appropriation for enforcement, and to have the ten per cent. removed. Among other things that were to be brought up was that measures should be taken to have old trees that were dead or worthless removed, and all living trees and orchards sprayed.

In the course of the discussions it was brought out that the Canadian Fruit Marks Act, from which Maine's present law was framed, had worked to the interest of the Canadian apple trade. This was used as a lever to raise the standard.

Points emphasized by all the speakers, concerning the care of the orchard, were, first and foremost, spraying, culture and pruning. Mr. Van Alstyne advocated the idea that one thorough spraying would give fruit 95 per cent. perfect. In the case of Mr. Hardy, spraying was what had won for him the prize on his Baldwins. In four years from the time of taking his father's neglected orchard, by pruning, spraying and feeding heavily, he had grown the fruit that had out-classed other exhibitors at the Boston Exposition. He was a little in doubt in regard to cultivating; he felt afraid that the color would not be so good as from sod, as in the orchard that he cultivated the fruit had been greener than from the sod.

Mr. Powell, in the course of his lecture, advocated better fruit by the propagating of better trees. This was to be accomplished by the use of strong and healthy stock, and buds and scions from trees known to be hardy, thrifty and excellent bearers of good fruit; or, as Professor Hitchings puts it, pedigree stock. Mr. Powell thought the idea of Dr. Twitchell, that Maine-grown trees were hardy, a good suggestion. Mr. Powell thought it not without the pale of possibility that at some future time trees might be grown that would be insect and fungus resistant, and the necessity of spraying be reduced. This would, of course, be brought about by careful selection, stock, scion and bud being taken into consideration.

There is a lack of apples to meet the demand, and this condition was charged, among other things, to unavailability of much of the plant food that is in the soil. This condition Mr. Powell has overcome in his orchards by the sowing and plowing in of clover. For the last 16 years this is what he has done, and the result that so much humus in the soil insures plant food enough to grow the crop, and the trees do not suffer from drouth in a dry season.

The gentleman was called upon to illustrate the proper way to cut back trees for setting. He cuts a peach tree off a foot from the roots, leaving it to make its entire top growth, which he says it will do in a season. If a tree has a root system somewhat small and dried from some cause, he cuts that tree's top off from two to three feet from the roots; that, too, will make satisfactory growth. A normal tree, with roots in normal condition, he cuts off the roots one-third, and tops to correspond.

Being placed on a committee in his State to arouse an interest in agriculture in the public schools, he introduced a series of lectures on nature study, insects, plants and kindred subjects, which created such interest in the county where he was working that other sections put in a plea for the same instruction. He offered for distribution six strawberry plants to any child in

the district that would agree to write a composition on the care and culture of the plants. Not only in that locality, but from all over the State, came the requests, until his own stock was exhausted, and he had to call for help from his friends. In all, 25,000 plants were given out, and, contrary to the idea of his co-workers, the compositions were written, even to the youngest child, and the language used and the observations made showed that the children had grasped the situation in good shape.

Mr. Van Alstyne had many recommendations to make concerning setting out orchards. Strong, vigorous trees, of good shape; standard varieties, not new ones, and those having slender stems; red apples are in demand; good shippers, rather than delicate kinds; fall varieties mingled with the winter; that the seasons of spraying and harvesting may be prolonged. Low-headed trees were advocated, because there was less danger of scald; the apples could be picked better and cheaper, and the same was true of spraying. He believed in catering to the barrel trade, rather than the box. It was to the Rooseveltian families that one should look for profitable trade—the ones that would buy one barrel, and turn around and buy another when that was gone.

Wilfred Wheeler, in his talk on small fruits, mentioned the Pan-American as a strawberry that would lengthen out the season, an important consideration when planning a strawberry campaign for the family plot. He thought the small-fruit industry might be greatly augmented by the introduction of canneries, and believed them a profitable proposition. He spoke of a young Dane living in Massachusetts, who, by hybridizing, had obtained a new variety of gooseberry that had yielded at the rate of \$2,000 per acre. The Danish Government has recognized the young man's success by an appropriate gold medal.

The paper of Prof. Bonns gave an account of certain experiments conducted at Highmoor the past season to compare lime-sulphur sprays of various makes with Bordeaux. The results show that the new mixtures are as efficacious as the old, and do much less damage to leaf and foliage. They were combined with lead arsenate as an insecticide. Sulfocide was tried with this poison, and results were disastrous, but the gentleman thinks that the combination might have been what was in fault, as, in another orchard, where it was used in combination with Paris green, it proved excellent; but, as Paris green is so liable to burn the foliage, he thinks there is less risk in the lime-sulphur sprays with the arsenate.

The point next to be determined is what the minimum strength would be that would prove effective.

In his talk on sanitation, Prof. V. R. Gardner laid stress on the wisdom of cultivation to get rid of the railroad worm, apple maggot and curculio. Someone advanced the theory that molasses and arsenate of lead would kill the moths or beetles that produced some of these pests. It had been used with good effect. Prof. Bonns was asked in regard to it. His answer was that if the insect took a free lunch before laying her eggs, and the poison acted quickly, there was a possibility, but not a probability, of the combination being effective.

A pleasant feature of the meetings was the attendance at every session of pupils of the public schools. The younger ones were given apples, the president, Dr. Twitchell, donating two barrels for the purpose. MARY BURR AIKEN.
Penobscot Co., Me.

Notes on New York Horse Show.

The New York Horse Show scored another unequalled success at the Madison Square Gardens last week. Never in the history of the show has this year's display been surpassed in point of number of entries, quality of horses and attendance, and not for many years has it been even approximated.

The breeding classes of heavy-draft, harness and road horses had fewer contestants to the fore than would have been naturally expected. But the horses in harness, hunters, jumpers and cavalry classes were out in full force. In the open jumping class, 24 horses were in the ring, while most of the other classes had from 30 to 60 forward each time.

Contenders were conspicuous in most of the classes by the excellence of their entries, and by the number of prizes which they succeeded in carrying off.

The Clydesdales marked the top notch in heavy weight horses, the blue ribbons going to Canadian horses. In the two-year-old stallion class, Baron Marcus was placed in front of his only competitor, Evador. He is a two-year-old of great promise, and should be capable of holding his own in a much larger class. In the three-year-old class, Sailor King, a big, active horse, took the blue, with Wamphray Lad second. There was more competition in the next class for stallions four years old and upward. General conformation, compactness, strength and beauty were their express characteristics. The complete awards in the Clydesdale classes follow: Clydes-

dale stallion, two years old—First prize, \$100, Baron Marcus, Graham-Renfrew Co., Ltd., Toronto; second, \$50, Evador, Fair Acre Farm, Clydesdale stallions, three years old—First prize, Sailor King; second, Wamphray Lad, both exhibited by Graham-Renfrew Co. Clydesdale stallions four years old or over—First prize, \$150, Gay Sprig, Graham-Renfrew Co.; second, \$75, Nether Baron, Blythewood Farms, Pittsfield, Mass.; third, \$35, Top Spot, Graham-Renfrew Co., Ltd., Toronto. In the classes for American Standard-breds, Miss K. L. Wilks, Galt, divided honors with H. N. Bain, of Poughkeepsie, N. Y. However, contrary to expectation, the hitherto unbeaten stallion, Mograzia, so well known to Canadian horse-lovers, was placed second to L. W. Wnan's Allan Winter 2.06½. Oxford, an American-bred Hackney stallion, won the championship for that breed, which is the first time in the history of the show that any other than an English-bred stallion has achieved that distinction. The Mel Valley ponies, Master and Masterpiece, won first and second for ponies not exceeding 13.2, in harness. Judge Moore, of New York, captured the \$500 challenge cup with Lady Seaton, offered for harness horses sired by Hackney sires registered in the English studbook. He also carried the field in the contest for the challenge cup presented for four-in-hands, with that widely-renowned hitch, Lord and Lady Seaton, Robin Hood and Burgomaster.

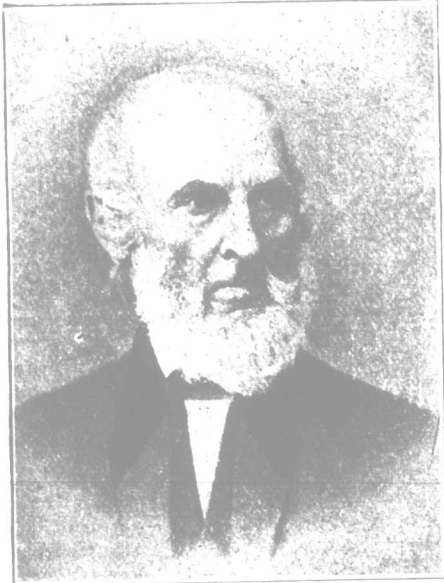
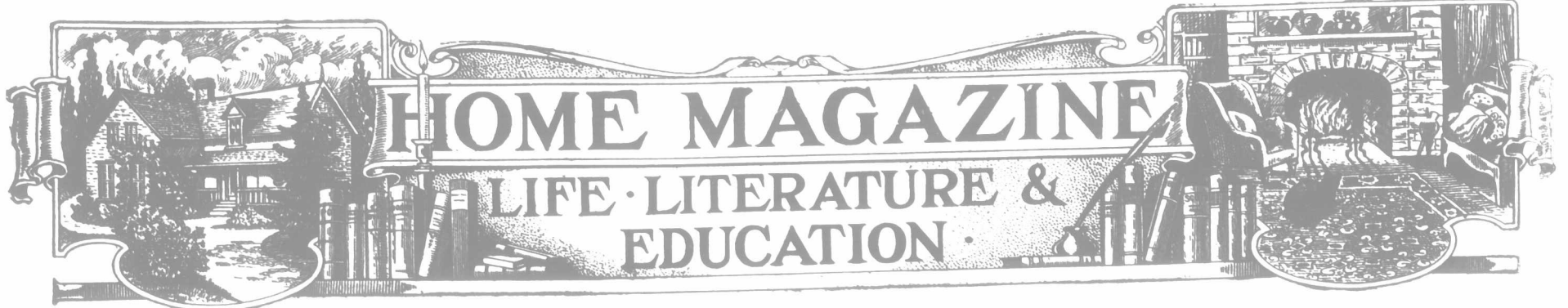
In the hunter and jumper classes, horses either bred and owned by Canadians, or bred by them and now owned in the United States, won the majority of the events. Especially was this true in classes where conformation, as well as performance, was taken into consideration. In the light-weight hunter class, Adam Beck took second prize with Sir Frederick. In the heavy-weight class, first was captured by a Canadian representative. In the middle-weight hunter class, Lieut. Sifton's "The Wasp" was first, and Beck's Sir Frederick third. In the international jumping competition for the Adam Beck cup, an English representative led the field, a second English representative was second, a Frenchman third, and Lieut. Sifton fourth. In the jumping contest, four Canadians swept the boards, then later an American was placed up to share equal honors with Lieut. Sifton in first place. For qualified hunters ridden by an amateur, Herbert Cox, Toronto, landed in second place. The London (Ont.) Hunt Club led in the class for qualified hunters, and, by so doing, won the biggest event of the whole show. This honor is made doubly great by the presence among the defeated of the team which won in England at the Olympia last June. Sifton's Confidence cleared 7 feet 1 inch in the high jump, capturing first honors. Likewise, in the two other jumping classes, Canadian horses led. It was, in fact, pretty much of a Canadian show, and the excellence of Canadian-bred horses of all kinds was well advertised by their distinctive winnings at Madison Square.

Modern magazines of the best class devote many pages of space to illustrated articles about interesting industrial and agricultural processes, from the manufacture of boots to the vaccination of swine to ward off hog cholera. It is just such things that are calculated to stimulate a child's interest and, through curiosity, to quicken his intellectual faculties. But, while the parent reads about things he is interested in, the child of tender years is forced to apply himself to the acquisition of all kinds of dry facts about kings he never heard of, wars he cannot picture, capes and bays he will probably never see, and all sorts of abstract things utterly beyond the ken of his present life and interest. Small wonder if class-leading and the passing of examinations come to be his chief scholastic ambitions. The whole thing is wrong. We should educate the child so far as possible through vital contact with actualities, and especially with unfolding life. The kindergarten method should be continued up through the public school, educating the pupils as much as possible out of doors, and leading their interest on from the immediate to the ultimate or abstract. We are putting the cart before the horse.

Agriculture is going to attract the hardy and rugged in the future, as it has in the past, who like to steel themselves against a worthy antagonist. I want every farmer to have in him the spirit of challenge, the fighting view. You can never develop a strong civilization until we do it. The open country must solve its own problem. It must have help from everybody and every source, but, after all, the country man must prepare himself consciously for it. This means we must have leaders.—L. H. Bailey.

Many of the most valuable farms were at one time sloughs and swamps, and could be worthless. Drainage has made them what they are.

Turn to Page 1864 of this issue to read our Premium Announcement.



John Greenleaf Whittier.
(1807 - 1892.)

Little Trips Among the Eminent.

Whittier.

John Greenleaf Whittier, who has been called "in a small way, the American Burns," is, perhaps, more than any other American writer, the poet of the country. During the greater part of his life he lived close to its homely heart and life, and he loved it as only one who has so lived can love it.

He was born on the 17th of December, 1807, on a farm near Haverhill, Mass., and there he grew up, observant, happy, care-free, living the life that he afterwards pictured in "The Barefoot Boy":

"Blessings on the little man,
Barefoot boy with face of tan,
With thy turned-up pantaloons
And thy merry whistled tunes."

Who does not know it?

Indeed, his early education was chiefly that of the woods and fields, for the little schooling that he received was that of the district school, augmented by a short time at a local academy. There was, however, a small family library in his father's house, and there was an uncle somewhere who, noting the lad's fondness for books, took care to add to his stock from time to time.

Then there came a great day for the boy, when one of his teachers lent him a volume of Burns' poems. "Later," we are told, "there came a 'wandering Willie' from Scotland who could recite Burns' dialect poems in an entrancing manner," and the result of it all was that the youth began to write verses, some even in Scotch dialect. His first published poem, however, was more in the manner of Moore than of Burns.

This poem was "The Exile," sent, we may suppose, with much trepidation, to the paper of which William Lloyd Garrison, the great anti-slavery reformer, was editor, although then but twenty years of age. It was published along with a very laudatory editorial note, and the paper containing it was thrown over the fence to Whittier one day, while he was working in the field. The happiness, the ambitions raised

by this event may be well imagined.

Henceforth Whittier devoted himself strenuously to poetry-writing, whenever time could be snatched for it, but out of the reams of verse which he sent out in quest of recognition, but little was possessed of any extraordinary merit. Most of it returned, like the dove sent out from the ark, and only that written for Garrison received recognition. Indeed, in later years, Whittier himself told of how for twenty years he was "shut out from the favor of book-sellers and magazine editors." "But I was enabled," he says, "by rigid economy, to live, in spite of them." Indeed, it was as journalist, rather than as poet, and that because of his interest in the anti-slavery campaign, that he first won standing-room among the literary men of his day.

After becoming mixed up in some political intrigues, not wholly with credit to himself, Whittier finally found himself, and began to make his mark as a man of principle and talent. Drifting into editorship, he was connected with several magazines, notably the New England Review, published at Hartford, Connecticut. In 1831 he published his first book, "The Legend of New England," but was immediately so disgusted with his production that before long he was offering five dollars for each volume, in order that he might burn them all up.

In 1836 the farm was sold, and the family removed eight miles, to Amesbury, which, but for two short breaks, was to be henceforth the poet's home. One of these breaks, the longer one, was due to a two-years' residence in Philadelphia, where he was editor of the Pennsylvania Freeman during the fiercest period of the slavery agitation, and

of his best poems were contributed, was first published. "Snow-bound," his greatest poem, describing the New England farmer's life so sweetly and simply and poetically, that it has been compared to "The Cottar's Saturday Night," was published in 1866, and immediately took the New England heart by storm. "The Tent on the Beach," following in the succeeding year, "sold at a rate which Whittier could only with difficulty reconcile to his sense of the right relation of the poet's work to his reward."

Whittier never married. Though always very delicate in health, he lived to a ripe old age, dying on the 7th of September, 1892, at almost the completion of eight-five years of age.

Among his best-known poems, in addition to those already mentioned, are "Maud Muller," "Barbara Freitchie," "The Pipes at Lucknow," "Ians Deo," and many beautiful hymns, among them the one beginning with the well-known lines:

"I know not where His islands lift
Their fringed palms in air;
I only know I cannot drift
Beyond His love and care."

Upon "Snow-bound," however, Whittier's fame will chiefly rest.

From "Snow-bound."

(Whittier.)

Shut in from all the world without,
We sat the clean-winged hearth about,
Content to let the north wind roar
In baffled rage at pane and door,
While the red logs before us beat
The frost-line back with tropic heat;
And ever, when a louder blast



Whittier's Home, Amesbury, Massachusetts.

the enthusiasm and determination of the man are shown from the fact that, although his office upon one occasion was burned by a pro-slavery mob, he disguised himself, saved some of his effects, and "published his paper next day with a defiant note." As it was said, "A man of peace by virtue of his Quakerism, he beat his song into swords and muskets in the time of the great Civil war."

His purely literary life, however, hardly began until 1857, when the Atlantic Monthly, to which the most

Shook beam and rafter as it passed,
The merrier up its roaring draught
The great throat of the chimney
laughed,
The house-dog on his paws outspread
Laid to the fire his drowsy head,
The cat's dark silhouette on the wall
A couchant tiger's seemed to fall;
And, for the winter fireside meet,
Between the andirons' straddling
feet,
The mug of cider simmered slow,
The apples sputtered in a row,

And, close at hand, the basket stood
With nuts from brown October's
wood.

What matter how the night behaved?
What matter how the north wind raved?
Blow high, blow low, not all its snow
Could quench our hearth-fire's ruddy glow.
O Time and Change!—with hair as gray
As was my sire's that winter day;
How strange it seems with so much gone
Of life and love, to still live on!
Ah, brother! only I and thou
Are left of all that circle now—
The dear home faces whereupon
The fitful firelight paled and shone.
Henceforward, listen as we will,
The voices of that hearth are still;
Look where we may, the wide earth o'er,
Those lighted faces smile no more.
We tread the paths their feet have worn,

We sit beneath the orchard trees,
We hear, like them, the hum of bees
And rustle of the bladed corn;
We turn the pages that they read,
Their written words we linger o'er,
But in the sun they cast no shade,
No voice is heard, no sign is made,
No step is on the conscious floor!
Yet love will dream, and Faith will trust
(Since He who knows our need is just),
That somehow, somewhere, meet we must.
Alas for him who never sees
The stars shine through his cypress trees!
Who, hopeless, lays his dead away,
Nor looks to see the breaking day
Across the mournful marbles play!
Who hath not learned in hours of faith,
The truth to flesh and sense unknown,
That Life is ever Lord of Death,
And Love can never lose its own!

In School Days.

(Whittier.)

Still sits the schoolhouse by the road,
A ragged beggar sunning;
Around it still the sumachs grow
And blackberry vines are running.

Within, the master's desk is seen,
Deep-scarred by raps official;
The warping floor, the battered seats,
The jack-knife's carved initial;

The charcoal frescoes on its wall;
Its door's worn sill, betraying
The feet that, creeping slow to school
Went storming out to playing!

Long years ago a winter sun
Shone over it at setting;
Lit up its western window-panes,
And low caves' icy fretting.

It touched the tangled golden curls,
And brown eyes full of grieving,
Of one who still her steps delayed
When all the school were leaving.

For near her stood the little boy
Her childish favor singled;
His cap pulled low upon a face
Where pride and shame were mingled.

Pushing with restless feet the snow,
To right and left, he lingered;
As restlessly her tiny hands
The blue-checked apron fingered.

He saw her lift her eyes; he felt
The soft hand's light caressing,
And heard the tremble of her voice
As if a fault confessing.

"I'm sorry that I spelt the word;
I hate to go above you,
Because," the brown eyes lower fell—
"Because, you see, I love you."

Still memory to a gray-haired man
That sweet child-face is showing,
Dear girl! the grasses on her grave
Have forty years been growing!

He lives to learn, in life's hard school,
How few who pass above him
Lament their triumph and his loss,
Like her—because they love him.

The Windrow.

A statue of Edgar Allan Poe was recently set up in the United States Hall of Fame.

Prince Victor Napoleon Bonaparte, pretender to the throne of France, was last week married to Princess Clementine, daughter of the late King Leopold of Belgium.

An annual income of \$20,000 will be realized for the promotion of physical and military instruction in Canadian public schools from the gifts of Lord Strathcona for that purpose, recently increased to half a million dollars.

At time of going to press, the news has just come that Tolstoi, the great Russian writer, is dead. Ever the friend of the Russian people, he was excommunicated some years ago for his plain-speaking, but has been for many years a man too much feared in high places to be tampered with. He was the author of many works, among them "Toil," "Art," "My Religion," "What Can We Do?" and his great novel, "Anna Karenina."

One million "Dickens" stamps have been issued, to be sold to all owners of Dickens' books and pasted in them. The revenue is to go to the descendants of the novelist, not one of whom is receiving anything from the sales of the books, and it is hoped that the number sold will amount to at least 10,000,000. The scheme has been proposed by literary men in England as a centenary memorial to the memory of the great novelist.

The Comte de Lovenjoul has just presented by will to the French Academy a very valuable collection of letters written and signed by Balzac. The Comte de Lovenjoul became possessed of them in a peculiar way. One day he saw a cobbler lighting his pipe with a twisted letter. The ink on the letter was old, and the handwriting interested the Comte, who asked the cobbler to let him look at it. He recognized Balzac's handwriting and signature, and gave the man sixteen shillings for his letter. The cobbler told him he had got a lot of them. He had bought them in a heap of waste paper to wrap shoes in, and he sold them all to Comte de Lovenjoul, who, in his turn, has bequeathed them to the French Academy.

The war among the aviators, in consequence of misunderstandings, or worse, in connection with the Belmont Park aviation meet, has not yet been satisfactorily settled. The story is as follows: On October 30th, three contestants, Claude Grahame-White, representing England; John B. Moisant, the United States; and Count de Lesseps, France, flew in a race around the Statue of Liberty, a prize of \$10,000 being the reward to the one who made the circuit in the best time. The conditions were that each could make the flight more than once during the meet. Moisant came first on the 30th, but Grahame-White applied for permission to try on the following day, and was refused on the ground that the meet had officially closed on the 30th, the 31st being given over to exhibition flights. As a consequence, the aviators are divided into two

camps, the one party holding that the award was given correctly; the other that the rules were changed so often as to create misunderstanding. During the meet, a 40-mile wind was safely faced, and Ralph Johnstone reached an altitude of 9,714 feet.



Ralph Johnstone.

Who climbed with his Wright biplane to a height of 9,714 feet, establishing a new world's record at Belmont Park, and was killed at Denver, Col., Nov. 17th.

The Habit Builder.

"How shall I a habit break?"
As you did that habit make.
As you gather you must lose;
As you yielded, now refuse.
Thread by thread the strands we twist,
Till they bind us, neck and wrist;
Must untwine, ere free we stand.
As we builded, stone by stone,
We must toil, unhelped, alone,
Till that wall is overthrown.

Ah, the precious years we waste
Levelling what we raised in haste;
Doing what must be undone,
Ere content or love-be won!
First across the gulf we cast
Kite-borne threads, till lines are passed,
And habit builds the bridge at last!
—John Boyle O'Reilly.



John B. Moisant.

The young Chicago architect, who entered and won the race around the Goddess of Liberty at the eleventh hour. He won from Grahame-White by 42 1/2 seconds. On his shoulder is the cat which flew across the British Channel with him.

Hope's Quiet Hour.

Is Jesus Passing By?

They told him that Jesus of Nazareth passeth by.—S. Luke xviii. : 37.
"What is the faith that burns within the heart of man?
Can it be summed and stated, spoke out quick
Upon demand, as this, and this, and this, as we
Might state arithmetic?
"Or is it some far deeper, sweet, diviner thing
That will not lend itself to words—a cry,
A broken sob, a hand-clasp in the dark,
A glimpse
Of Jesus passing by?"
This morning I was talking to a neigh-

bor about a time—years ago—when she had obeyed God's call to nurse some children who had diphtheria. If there was one disease she feared it was diphtheria, and yet when the call came she obeyed it, not expecting to come out of that germ-laden atmosphere alive. All the children were saved, and the faithful nurse did not catch the disease. I said to her: "How sorry you would feel now if you had refused God's call, and some of those children had died." She answered: "How wonderful it is to think that God cared about me at all."

That is the wonderful and inspiring thought to encourage each of us. God is watching us with unflinching interest, as a mother watches her only child. Let us refuse to be absorbed in outward things, and be on the lookout for His signal of guidance. When the blind beggar heard that Jesus was passing by, he was quick to seize the opportunity of speaking to Him. He is not really passing by us—He is always close to us, always watching our fight, with deepest, tenderest interest. When conscience accuses us, we may perhaps try to hide from our holy Lord—as Adam tried to hide among the trees of Eden—but we know how useless that is, for "The eyes of the Lord are in every place, beholding the evil and the good."

The thought of God's Presence is not intended to fill us with terror, but rather to inspire joyful courage—"The eyes of the Lord are upon the righteous, and His ears are open unto their cry." We can bear our burdens with a good heart when we know that God is testing our faith; that He wants to show us our weakness so that we may be on our guard, and wants us to grow strong by the patient bearing of the daily cross.

Once the disciples of Christ were fighting a desperate battle against sea and storm. They thought themselves alone, for their Master had sent them away from Him, with orders to go to the other side of the lake. He was on a mountain, high above them, and perhaps they imagined that He did not notice their hard battle with the head wind. Still they struggled manfully in the darkness and loneliness until, when it was nearly morning and they had given up all hope of His help, their Master suddenly appeared. What did it matter, though they were apparently out of His reach? He could, and did, walk on the sea when they needed him. Jesus was passing by, but their cry brought Him close beside them, and as soon as He was with them in the ship their hard fight was over, for, we are told, "immediately the ship was at the land whither they went."

What a beautiful object lesson this was, a lesson for us, too. How safe they would have felt if they had known all the time that "He saw them toiling in rowing." If they had felt sure that He had good reasons for keeping out of sight, but was ready to stand beside them the moment they needed Him. God does not give us our heart's desire—at once. How poor and weak our souls would grow if He did. He is using our eager longings to draw us on and up. If He gave all we wanted now we might sink down in slothful selfishness and receive lasting and terrible harm from that apparent kindness. As a friend quoted to me at a time when life seemed unusually difficult:

"I ask not that false calm which many feign
And call that peace which is a dearth of pain.
True calm doth quiver like the calmest star,
It is that white where all the colors are,
And for its very vestibule doth own
The tree of Jesus and the pyre of Joan."

I am repeating the quotation from memory, but I think that you will understand the meaning of the poet, even if I have made some mistake in the exact wording of his message.

Again, our Lord has gone up into a mountain, apart from His disciples, to pray—to pray for us that we may be victorious. And it is far nobler to be a victor than to hide in a safe shelter until all danger is over. Very often He shows no sign of interest when we are struggling against a head wind and a heavy sea of trouble and difficulty. Let us wake up to the fact that we are not

alone, that Jesus of Nazareth passeth by. Let us cry out through the darkness, and change our dim vision of His figure to a clear certainty of His near and abiding Presence. He does not want to pass us by, any more than He wanted to pass by the blind beggar at Jericho.

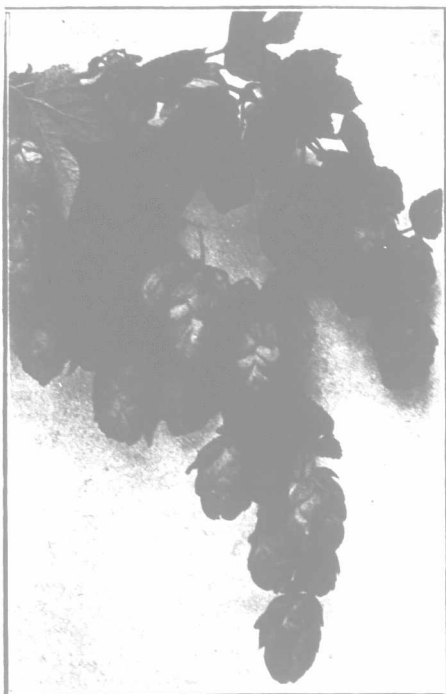
It has been remarked that when the Gazette of Honor is issued after an earthly battle, many who deserve mention there may find themselves overlooked because they have chanced to "fight in the dark"—their gallant service has not been noticed. But no one who fights bravely and patiently for the Great Captain will find his name omitted when the last "Gazette of Honor" is issued. Men may think that they are fighting in the dark, alone and unnoticed, but He who leads the Great Army has eyes "like a flame of fire," and never overlooks the smallest service. He is not only watching the struggle, and giving help wherever it will be better for the soldier than letting him fight his own battles, but He also appoints each soldier his post. He says, as long ago to Joshua, "As Captain of the host of the Lord am I now come." Let us be ready to obey in soldierly fashion when we understand the orders for the day.

The multitude may say to an asking soul: "Jesus of Nazareth passeth by." But He has no intention of passing by anyone who really calls out to Him. When the blind beggar cried out, "Have mercy on me!" Jesus stopped the whole procession until his desires were satisfied. Then the man—no longer either a beggar or blind—followed Him, praising God. Are we willing to ask needed help, and then—when it is freely supplied—do we turn our backs on our Saviour and again become deeply absorbed in earthly business, forgetting to follow Him or to praise God?

Is Jesus passing by? Can we be satisfied to spend our lives in seeking pleasure or advantage for ourselves when the One who gave His life in perfect self-surrender for men is before us, and when we see following in His train the long line of those who dare to walk in His steps? We cannot number them, but the reader knows them all.

Did you ever hear of the investigations of yellow fever, carried on in Cuba ten years ago? Eleven volunteers were bitten by infected mosquitoes—calmly allowing themselves to be bitten. Two of these men—two doctors—caught the terrible disease and one died of it. Then a ghastly experiment was tried to find out whether the plague of yellow fever were contagious. A closely-shut building, with heavy wooden shutters, was built. The air was kept humid and unventilated. Into this house of death were carried three large boxes of clothing and bedding, which had been used by yellow-fever patients and had been shut up tightly for two weeks. Three young Americans shut themselves up with these boxes of soiled clothing, shook out the things and used them for their own beds. For twenty nights they slept in the close, hot room, shaking out the sheets, etc., each night to scatter the germs through the air. When these three volunteers came out unscathed from the terrible ordeal, two others took their places, sleeping every night in the very clothes that had been used by fever patients—the unwashed pyjama suits, sheets, pillows, etc. After twenty-one nights they went out in perfect health, and two other volunteers underwent a still more dangerous testing. Then the room was divided by a wire screen, and one man entered the screened part in the company of fifteen contaminated mosquitoes. Twice the first day and once the next day he allowed himself to be bitten. He took the disease, while two other men, behind the wire screen, escaped.

Was it worth while? Well, only God knows how many thousands or millions of lives have been saved through the discovery that malaria and yellow fever are disseminated by mosquitoes. Jesus—God the Saviour—has taught by word, by life and by death, that "he that loveth his life shall lose it; and he that hateth his life in this world shall keep it unto life eternal." He says also: "If any man serve Me, let him follow Me." Are we shirking His call to daily self-sacrifice? DORA FARNCOMB.



Our English Letter.

One of my disappointments during my stay in the dear old land has been my being prevented by circumstances from visiting, as I had rather hoped to do, the hop-gardens of Kent during the picking season. A dear friend, whose family had for over 200 years occupied a certain most interesting old manor in the very center of the hop industry, having given me a very vivid description of the busy three weeks through which they had lately passed, I begged of her to put together some notes for my column in "The Farmer's Advocate." This she has kindly done, sending me some illustrations, and I gladly pass them on to the readers of our Home Department, in the hope that they may prove of as much interest to them as they have to myself. In this big Canada of ours it may be difficult to realize what to the slum-dweller of overcrowded London this brief period of wage-earning in strong, pure air really means, and how eagerly it is looked forward to by the hop-pickers who seek for employment in the hop-producing fields of Kent and other counties where the industry flourishes. That devoted men and women, clergymen and laymen, undergraduates from Oxford, etc., arrange to spend their holidays in the midst of the workers, with a view to kindly care and gentle guidance, has a wide significance, and has proved of inestimable value in many known instances.

My friend tells of the delight of the hoppers in the entertainments and social evenings provided for them, but from another source I read of what may sound somewhat of an anachronism to Canadian ears, that hop-picking time is turned to good account in the formation of Band of Hope Circles and Temperance Societies. I am told that, some years ago, at the first meeting held at Five Oak Green, only five people turned up; one worker made the remark, "There are the five oaks"; hence its name. The society now numbers some hundreds. Every stalwart who keeps his promise to abstain from intoxicating drinks for a year is presented with a medal at the end of each succeeding year, for five years, a bar is added, when the faithful one is entitled to a gilt medal. Associate members are allowed to join for the time being, if they will faithfully promise to keep "right off the drink" during the hopping.

But it is time to give you my friend's promised notes.

"ON HOPS."

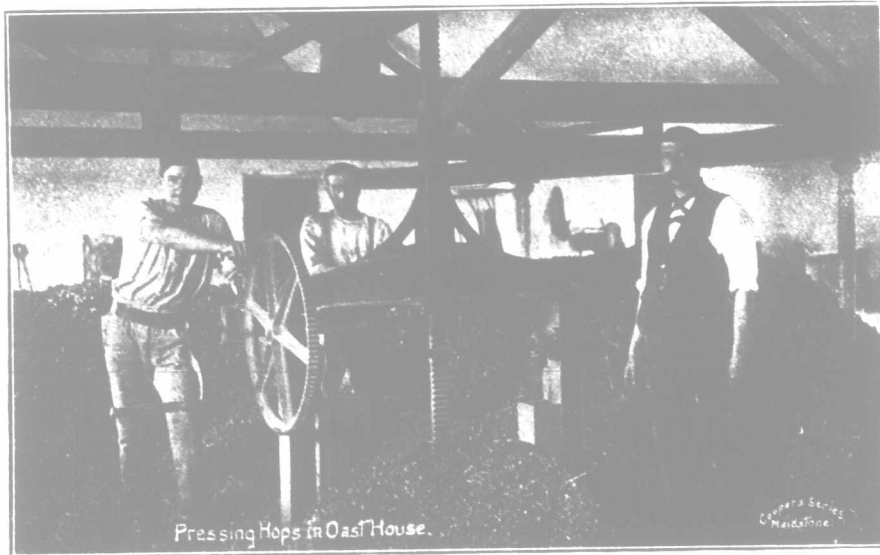
Now to tell you a few incidents of my summer in the hop-growing gardens of Kent. The hop, as you know, is a vine-like plant—used in beer-making—grown on strings tied to wires which are stretched from pole to pole. The plants are rooted in little hillocks about four feet

apart, and in early spring the women (home workers), when the shoots are about a foot high, cut away the extra ones, and twist those that are left around the different strings—generally four strings to a hillock—and tie them. This goes on till they are nearly to the top of the strings, and is called "twiddling." During the summer, the hop plants go through many troubles, being preys to insects, cold, blight, wind, mould, etc. For the first, washing is resorted to by means of a machine with many nozzles, and pretty it is, at a distance, to see the clouds of spray blown across and under the plants; for the insects are mostly under the leaves. The best friends of the hops are the Ladybirds, which live on the aphids, one kind of insect which infect the leaves. About July the burr or flower comes, and at the end of August the hops are fully grown and ready for picking. The fields or gardens about here have funny names, such as "Squints," "Honeyfield," "Starve Crow"—a very stony one—"Bobbins," and many others, too numerous to recall.

Well, we have reached the time of hop life, which now becomes keenly interesting. Two months ago the "London Pickers" have been accepted; now word is sent to them to come, and the night trains bring them down in hundreds. Indeed, many thousand come into Kent alone, whilst hops are grown in several other counties, too. Of

are only helpers. Then, measurers and bookmen go round. Seven bushels to a shilling, is sometimes the tariff, but it varies, according to goodness or quantities of hops. When measured, the hops are put into pokes or sacks, and carted to the "oast," the place in which they are dried first, laid out on horse-hair cloths, through which hot air is passed by a revolving fan, driven by an engine. After about nine or ten hours, according to experience, as to color, dryness, etc., the hops are thrown off and left to cool—others taking their place for drying—then are pressed into large bags, called "pockets," which weigh, when finished, about one and a half cwt. These are marked and stored, till all are ready to be sent to the London warehouse, to be sold. Before being dispatched, samples are cut out of each pocket, and others put in, by men specially expert in this work. So, you see, many experiences are needed, though the master overlooks all.

Pickers are allowed to draw part of their earnings on sub-nights, generally three times a week. Those evenings are busy ones in the village and at the coffee stalls; also in the church-rooms, which are used during these weeks for the hoppers, who are free to spend the evenings there, in writing letters, playing quiet games, or reading, ladies superintending. Many appreciate the quiet place to come to on wet evenings.



Pressing Hops in Oast House.

Pressing Hops in Oast House.

course, most of the hoppers are accompanied by their families. On this farm there are 400 pickers, besides "binmen," "measurers" and "bookers." The hopper houses here are built of brick and slates on the heath, and in rows of twenty or less, only used for the three weeks during hop-picking time. They contain only a bedstead, shelf, window (small), and plenty of clean straw. At the end of the season these are thoroughly cleansed, and left empty till next year.

The folks arrive mostly by train, some by roads, and some in caravans and coster-carts. In the station-yard there is a coffee stall, where cakes, bread and jam, tea and coffee, can be had for one half-penny each. The other night, one attendant took in £2 in half-pennies—i. e., in cents. Indeed, there is a big trade for five or six hours, and the seven or eight attendants are all kept busy.

The hoppers then go to their employer, all with cards, and get their quarters allotted to them. Sometimes this is a difficult business, as they want the same houses as they had last time, but the barliff's word is law. The next morning, picking begins. The pickers are divided into binman companies, a binman to each, who helps to move bins, and is answerable for his company. A bin, I must tell you, is a sack between poles made to stand open, in to which the hops are picked. Generally there are two pickers to each bin; children or others, with them

pital is run for emergencies, the only here only being open for the necessary three weeks, and you can understand what a boon it is.

I only wish you could see the hop-gardens, with the pretty light-green hops and dark leaves; but sometimes, sad to say, these get spoilt with insects, wind or rain, and then they turn black, and are not worth the picking, which means a heavy loss to the grower.

Hops are an expensive crop, costing £50 an acre, more or less, according to the farming—the better the farming, the better the crop.

I must not forget to tell you that we have clergy and church-workers working among the pickers; special services and, what they much like, magic-lantern entertainments, and sometimes a concert or baby-show, the prizes being some garments for the children, and maybe tea and buns for the mothers.

Occasionally there is a strike for more money or to pick less; but good masters get good pickers, and then all goes on smoothly. When all is over, we say, "Summer's gone, and autumn comes apace! Let us begin again to collect magazines and books for next year, as the big pile from the cupboard has all gone."

H. A. B.

The Roundabout Club

Topics for the Winter's Work.

The following subjects have been decided upon for the remainder of the winter's Literary Society work. Kindly bear them in mind, and write your essay on each according as you are ready. Do not, however, send any of the essays to us, until you see the announcement regarding the particular subject required.

Study III. Give your opinion on establishing an intellectual standard as a basis for the suffrage.

IV. Write a "character" sketch. This may be in story form, if you choose, but may be simply a descriptive essay.

V. Would it be to the advantage of Canada to have a reciprocity treaty providing for the free exchange of natural products between Canada and the United States?

VI. Write an essay on your favorite poem or novel.

The Beaver Circle.

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

Prize Essay (Boys').

Dear Puck and Beavers,—I saw in the Beaver Circle that the competition for the boys of the Circle was on the subject of "A Corn-roast," so I decided to write.

It had been planned to hold a corn-roast in a neighboring field, and all



Hop Picking.

Hop Picking.

asked were anxiously awaiting the eventful night. It was one of the most, clearest nights in August when we assembled at the home of our host at about eight o'clock, each equipped with a long fork made of stiff wire, on which to hold the corn. There was a fine plot of corn in the field to which we made our way, and nearby was a huge pile of brush from a large tree recently felled in the field.

It was about half-past eight when our party of about twenty sat around the blazing bonfire waiting for the wood to turn to a mass of glowing coals. We had each secured an abundance of corn, according to our desires. We had our forks ready with a cob of corn fastened to each one waiting for the fire to die down, and, in the meantime, we sang some songs, among which were "My Old Kentucky Home," and "We're Tenting To-night on the Old Camp Ground."

This gave animation to the outing, and we entered gaily upon the work of roasting the corn, and our hands, also, before the hot fire. We entered just as happily upon the pleasure of eating the corn when roasted, with the addition of homemade candy, made by the girls of our party.

We sat round the fire eating corn and candy, telling stories, and singing songs, until we were tired and in danger of going home the next day, then we retraced our steps, and, after thanking our host, we each went to our respective homes, and I am sure we were all of one mind when we thought that there could never be so much fun at a corn-roast as at that particular one. CHARLES FLATT (Age 13, Continuation Class). Millgrove, Ont.

Prize Essay.

Dear Puck and Beavers—I am writing this letter to tell you about a corn-roast which was at a beautiful little place called Rock Glen, on August 13th.

On the afternoon before the roast, my sister and I got one hundred and seven cobs of corn in one of our fields. That night I got my chores done early so I could go to bed and get up early next morning. About seven o'clock I got my chores done early and got my breakfast. Then I got ready and went to the stable to get our pony, Dixie.

Then my sister Bertie and I got in the buggy and started. When we were going there we saw an old tramp in a schoolhouse. We also met a large automobile.

When we got there, I tied my horse up to a post and went down to the river. I then saw a number of my friends boat-riding. My friend and I hired a boat and went off with it. We had a good race with another boat, but we won. When we got back, we built a bonfire while some of the other people husked the corn. After that, we procured twigs and stuck them into the corn, then we put them over the fire which we had built, and some had the misfortune to lose their cobs, because the corn easily slipped into the fire. We roasted the cobs and put butter and salt on them, and ate the corn with relish. I then got another boat-ride which was very pleasant. After that I got my horse and we started home, after spending a very enjoyable day.

CHARLES PATTERSON (Age 12, Book IV.) Arkona P. O., Ont.

Prize Essay.

Dear Puck and Beavers,—I read about your competition and thought I would like to try it.

A corn-roast was held by the villagers around here on every Monday evening. One night my father took me. I had wished to go for some time. They were nearly all there then. Soon after we got there they put on the corn to roast. One man burned his finger, but he did not care. We then told of adventures we had. I had none, so I did not have to tell a story. When the corn was roasted, we each were given a tin saucer on which there was some corn all ready to eat. Most people ate it at once. When the rest were nearly through, I started mine, and I finished in half the time they took.

This is my first letter, so I do not expect a prize.

CECIL MILLER (Age 10, Book IV.) Lawrence Station, Ont.

"The Farmer's Advocate" The Garden of a Com-
Fashions. muter's Wife.

(By Mabel Osgood Wright.)

CHAPTER III.
Concerning Gardeners.
(In Particular.)

October 27.—To return to the procession of gardeners who have crossed my path either directly or indirectly, by pouring their woes into father's sympathetic ear, he being a sort of confessor, labor-bureau, and first aid to the mentally and financially, as well as to the physically, injured of a fifteen-mile circuit, comprising open country villages and a factory town—my knowledge of them is based upon stern fact.

The most usual and really least offensive of the group may be found abundantly in England also. They are the old men who have drifted through feebleness to drink, and think that gardening is merely a gentle disturbing of the soil and a tying up of vines in the opposite direction to which they desire to go, like the usual unqualified curate's idea of the ministry.

Second to these are the young men with weak lungs, for whom outdoor work has been advised, who are naturally depressed, and must not be expected to turn over the soil more than half a spade's depth. These we also pity. But we wholly fail to appreciate the services of the next grade—the natural fools, whose relatives steer them into gardening as a fitting occupation. These three classes may be excused as unfortunate not wholly responsible for the disappointments they cause.

The most trying type of all, however, is the one that I found here on my return—the know-it-all individual who, after spending a few months in potting cuttings for a florist, and mowing dooryards, advertises, "Wanted, a position by a graduate gardener, to take charge of a gentleman's place. Can milk." He doesn't say "will milk," mind you! Oh, if unsophisticated folk only realized the tragedy concentrated in those two words, Can milk!

Once arrived, he assumes the dignity of a professional, and considers himself as far above the mere laborer who cheerfully spits on his hands and wields the spade, as our present housemaid—a young Irish-American whom father has with difficulty coaxed from the factory work that was killing her "to accommodate," and who is betrothed to a factory youth, whom she marries at Christmas, and whose mother owns "rale" estate—feels above the usual rank and file of "livin'-out girls."

The caste spirit among the American working classes? Most assuredly, quite as absurd and strictly drawn as among their employers. Neither are we as a family quite what we should be in this housemaid's eyes, I gathered from a conversation that took place between her and Martha Corkle, as we belong to the working class, for do not both father and Evan work for a living?

One learns much in two years of absence from home and country, much that is not realized until the return. Theoretically, we are free and equal. In reality we are often bondsmen, and not to our real or fancied superiors, but to our servants. Perhaps, however, when we are better educated to command, the fetters will be broken.

One thing we must always lack, now that slave days are past, and that is one of the great benefits of ancestry—the hereditary servitor. In the old countries, especially England, that is the inspiration, as well as the despair, of those who have lived in one of its home gardens and hope ever to equal it here on a similar financial basis—hereditary outdoor labor is as honorable as any profession that descends from father to son. The gardener has probably pattered about the place from the time he was a chubby-cheeked boy,

earning his first thri'penny bit by washing flower-pots, served an apprenticeship of experience, until in old age his trembling fingers can hardly hold the sprays of apricots that he strives to fasten against the wall which alone draws the heat necessary to ripen them. Unconsciously, he knows the soil, he knows the spots that the sun warms earliest in spring; he knows the borders that catch the drip of winter rains; in what corner mildew flourishes, and which is the chief resort of the pervasive earwig, and all the other capabilities and shortcomings of the ground intrusted to him, be it large or small, as the physician knows the constitution of a patient that he has tended from birth. But, to have this type of servitor, he must be inherited with the garden, and this implies the law of entail. What will you have? My previous decision about gardeners in general, and our present incumbent especially, was confirmed by the dumping of that great load of sand in the wrong place at a time when a day's delay in planting the bulbs might have brought frost to lock the ground until spring. You may argue that a few days' delay is a small thing, but that proves that you were not born to the soil.

I had said to Chris, the gardener, "Go over to the river for the sand, and when you return, call me, and I will show you where to spread it." Instead, the man, a Swedish youth, a hospital protege of father's, who was of the class that had once potted endless cuttings in a mechanical way, while he thought of everything else than his work, drove in by the lower gate and scattered the sand over two strips that are to be shrubberies, simply because, as he said, in grudging explanation, he "thought nice beds of tulips in stripes would look good dere, and be more best dan vere you dink to put them." The bugle call of revolt was sounded, but in a novel and unusual way; the commuter's wife arises mentally against the "gardener," instead of vice versa, and his downfall will be swift.

It took the rest of the day to sweep up the sand and get another load. Meanwhile, Chris worked in a huff, as if a deep affront had been put upon him.

I could see by the hard, caked condition of the soil in the old flower-beds, by the long walk, and in the vegetable garden generally, that it had not been deeply and properly stirred all summer. But when I asked him to fork up the ground thoroughly between the roots of some of mother's hardy plants, he replied:

"It is not best. In my country we do not so. Stiff ground on top, he keep out both heat and cold."

A similar request to rake a mass of chickweed off a bed, instead of digging it in, brought the rejoinder: "It is time wasted. The winter, he will kill it," while everyone knows that in most places this weed blooms at intervals in all months but perhaps two, and flourishes mightily.

In despair, I went to father and asked him who had given the man directions the eighteen months of his stay, where he came from, who recommended him, and whether he understood that I was to be obeyed?

Father appeared rather embarrassed for a man with surgical nerve, to retain which, perhaps, he has always been an avoider of domestic flurries. Then the end of his nose twitched as it does when he is cornered and wants to laugh, which he finally did as he said:

"Chris was employed by a florist over in town, cut his hand, got blood poisoning, and turned up at the hospital. He seemed intelligent and a great reader. Why, really, Barbara, the first morning he worked here in spring, he stopped me when he was weeding radishes, and asked me if I like Ibsen, saying he did not, because he takes the hope from man. I'm sure, Bab, that showed discernment. And then, he really prefers well-printed books to cheap affairs with paper covers, and



6344 Child's Tucked Dress, 2 to 3 years.

6795 Girl's Dress, 10, 12 and 14 years.



6788 Girl's Round Yoke Dress, 3 10 and 12 years.

6340 House Jacket, 34 to 44 bust.



6559 Russian Turban and Scotch Cap, 2, 4 and 6 years.



6799 Child's Bishop Dress, 6 months, 1, 2 and 4 years.

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

With the Flowers.

Storing Dahlias.

Editor "Home Department":

In answer to your inquiry of the 1st inst., regarding the storing of dahlia roots, I may say that we have never found any difficulty in storing them if put away in a cellar where they are not reached by frost. They require much the same conditions for storage as potatoes, and do not need to be packed in sand except in a very dry cellar to prevent them from drying out too much. We usually store ours in a frost-proof cellar, on an earth floor, where the atmosphere is moist enough to prevent them drying out too much. H. L. HUTT.

O. A. C., Guelph.

PRECISELY STATED.

Teacher—"Tommy, what is the feminine corresponding to the masculine 'stag'?" Tommy (whose mother is a society leader)—"Afternoon tea, ma'am"—Milwaukee Evening Wisconsin.

A FLOOD OF LIGHT FROM KEROSENE COAL OIL

THE ALADDIN MANTLE LAMP generates, with coal oil (Kerosene), a light far more brilliant than gas or electricity. It is simple, durable, portable, odorless and safe. Satisfaction guaranteed.

AGENTS MAKE BIG MONEY by showing the lamp, the light makes the sale. It revolutionizes rural lighting, needed in every home. The SUNBEAM burners fit all ordinary lamps. Ask for Agency proposition or how you can obtain a lamp FREE to introduce it.

The MANTLE LAMP CO. of America, Chicago, Winnipeg and Dept. B, MONTREAL.

How to Make Better Cough Syrup than You Can Buy.

A Family Supply, Saving \$2, and Fully Guaranteed.

Sixteen oz. of cough syrup—as much as you could buy for \$2.50—can easily be made at home. You will find nothing that takes hold of an obstinate cough more quickly, usually ending it inside 24 hours. Excellent, too, for whooping cough, sore lungs, asthma, hoarseness and other throat troubles.

Mix 2 cups of granulated sugar with 1 cup warm water, and stir for 2 minutes. Put 24 ounces of Pinex (fifty cents' worth) in a 16-oz. bottle, then add the Sugar Syrup. It keeps perfectly. Take a teaspoonful every one, two or three hours.

This is just laxative enough to help cure a cough. Also stimulates the appetite, which usually is upset by a cough. The taste is pleasant.

The effect of pine and sugar syrup on the inflamed membranes is well known. Pinex is the most valuable concentrated compound of Norway white pine extract, rich in guaiacol and all the natural healing pine elements. Other preparations will not work in this formula.

This Pinex and Sugar Syrup recipe is now used by thousands of housewives throughout the United States and Canada. The plan has been imitated, but the old successful formula has never been equalled.

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

A Thick Neck

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

GOITRE SURE CURE

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

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

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

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JUST THINK OF IT!

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"It's not the cough that carries you off, it's the coffin they carry you off in."
—New York American.

He—I am crazy to kiss you
She—Well, if you think so, you needn't
—Harvard Lampoon.

quite appreciated the green morocco bindings on my Bacon's works. I haven't told you that last winter I secured a copy of that 1753 folio edition, in three volumes, with the Vertue portrait, that I missed through irresolution at the sale, though I could not have it bound until after your Aunt Lot's marriage.

"He is all eagerness, too, about a course of reading I had planned for him this winter, even hoping for early frost, so that he may begin."

"Early frost is one thing he cannot be allowed to have, for I want open ground for a month to come," I said, hardly able to keep my face straight.

Dear old dad was terribly in earnest, and so easily imposed upon, and this wretch had keenly scented out his chief foible. It also made my heart ache to think of father's loneliness during those two years, when he had no one to appreciate his treasures but a gardener. Book-collecting up to a certain point is a secretive occupation, but something in the pleasure is lacking if there is no chance to display the latest purchase in a nonchalant way to the gaze of someone who knows its value.

"He may be discerning," I said, after steadying myself; "in fact, too much so for our needs, but not in gardening. You weren't thinking of employing him to catalogue your books, I suppose?" I ventured.

Then father laughed heartily to cover a certain confusion that told me plainly that he entertained Quixotic views of Chris's capabilities of education, and stammered:

"My dear, he can write like copper plate!"

"Were the vegetables good last summer?" I continued frostily. "There seems to be very little over in the root cellar."

"No, not very, but—er, you see it was first dry and then wet—quite wet."

"Why have the grapevines been allowed to tumble off the arbor and lie on the ground?"

"Chris said the string I bought was poor."

"Why isn't the celery banked yet?"

"He says the new way is to let it get a touch of frost first."

"Is he cheap?"

"Barbara, my child, you know I never beat down the price of labor."

"Of what use is Chris?"

"He has some good points, and—er—we must have someone for Tim has all he can do to follow me about and keep horses and stable in trim."

"Mother was her own gardener, and I want to follow her as closely as I may, and yet be quite myself," I said gently.

"Then, all will be well, indeed," said father, a load seeming to slip from his shoulders, "for after all I believe that I must have let Chris go," he continued, with a suspicious twinkle in his eyes, "for he told me yesterday that you do not appreciate him, and that sympathy is more to him than wages. He announced that he can go to the big house on the bluff where folks never interfere with the gardener. Though, come to think of it, his remarks were hardly consistent, for 'letting alone' is not sympathy, and I believe he mentioned that they offered wages which were really fabulous."

"Still, I am afraid you'll be disappointed. You are so eager to block out your garden and plant all those bulbs before frost, and Evan is too busy in getting settled at his work to do more than give you advice. I fear you are undertaking too much, and you will have no time left for enjoyment."

"Not a bit, and nothing could suit me better. Now, you dear old father, please pay me every month the wages that you paid Chris, and—you shall see—well, either something or nothing. You may not notice the difference at first, but you will soon. Oh, daddy, daddy I don't believe, after all these years, even, you know exactly how I love flowers and all things that made the old home, which are increased tenfold in

the new. Evan does, and that is the wonder of it, and the reason why he is content to take up this life and help to make it surer for me every day. The thought of what it all means for the years to come goes singing through my head even when I'm asleep. I want to do the things, not have them done for me. You know you always preach that babies brought up by servants and led in after dinner are not at all the same things, nor as lovable, as those cuddled and nursed by their mothers. And it's the same way with a garden."

"Of course, I must have an animated shovel in the person of a useful man, maybe a boy to do weeding in the growing season; and that reminds me that I must ask Tim if he can't find me a man for to-morrow. We'll give Chris the rest of his month's wages and let him go, won't we, dear? for he is as impossible to gardening as a bump in a shoe to walking. And you need not have qualms, for he has really dismissed himself."

"Perhaps there is someone about the hospital I could get," suggested father.

"Daddy, dear," I begged, putting both arms around his neck, and looking him in the eyes until our noses met, a trick of childhood, to fix his attention, "I'm the same Barbara as ever, but my eyes have seen, and I have learned a few new things. I will sew for the hospital, grow flowers and vegetables for it, visit it, bring the poor convalescents over here to sit in the sun, grow white flowers for those who never go home, and give it a great deal more of your time than I want to spare, but please, please, let wages be wages, and charity charity. The two are harder to mix properly than mayonnaise in hot weather. Don't you remember, dearest, what times we have had with the people you have tried to serve without putting them under obligation, by letting them think they were aiding you, while it usually ended, after much discomfort, in our being considered under obligation? People that were not ill enough for the hospital, and yet needed tinkering. I don't think I was troubled by it at the time, but I observed, and the facts must have stowed themselves away somewhere in my brain; for since I have been a wife, and the domestic side of me is developing, I partly realize Aunt Lot's dilemmas, and the whole fantastic crowd lit in front of me, exhibiting their infirmities, as if in warning."

"There was the man with rheumatism who thought he could care for cows because he had driven a milk wagon. The first thing he did was to dump a load of windfall apples into the corner of the pasture, so that when Black Bess, who was always greedy, came home that night, she did not lead as usual, and her ears hung down and she leaned against the gate, she was so intoxicated from the cider the fermented apples had made in her stomach. Then you had to fuss over her all night, and her milk dried up."

"Surely you remember the winter that Aunt Lot struggled with the cook who had a lame knee and couldn't go down cellar, and the waitress who had vertigo and couldn't take the dishes down from the top pantry-shelf without dropping them. Then the next cook couldn't even wash her dish-towels, because it hurt her to bend her liver, and when the washing was all put out, expected higher wages than if she had been able to do it."

"But Tim came to us through the hospital," said father, brightening as he caught at this plank in a whirlpool of disasters, "and surely we could not do without him."

"No, Tim is the exception to the rule. In the face of experience even, we should never dream of parting from him, or he from us. I firmly believe."

Tim, Tim'thy Saunders, or Crumpled Tim, as he is locally called on account of his curious body, which, owing to a railway smash-up, with-

out being absolutely hump-backed, looks as if a giant had taken him in his hand and literally "crumpled" him up, is a Scotchman, with a keen, not over-suave tongue, a sharp eye, and as honest a heart in his crooked body as ever beat. He has lived with father ever since I was little enough to call him my camel and think that being given a ride on his hunched shoulders was the finest sport in the world.

Now, happily for me, Evan and Tim had formed an odd friendship early in our courtship, based on national loyalty, so that neither could do wrong in the eyes of the other. This was providential, and promised to make the "commuting" side of daily life smooth, for Tim will never grumble at the extra horse, or if he has upon occasion to drive Evan to an earlier train than usual; while Evan seems fully prepared to take the blame upon himself, instead of scolding Tim, if they fail to catch it, which mischance, of course, may happen. Now, in addition, Martha Corkle, egged on by reason of family and national pride, had served a good breakfast to the minute of promptness during this, as we call it, "commencement week," so that the rocks of which neighbors are already so kindly warning us, me at home and Evan on the cars, have not appeared in the road. In fact, I've a glimmering idea that it is because we commuters and others hold our servants responsible for bridging certain inconveniences of living, instead of acknowledging them and bearing the responsibility ourselves, that makes domestic service such a vexed question in America. Personally, I do not know of but a single family of all my acquaintances with whom, were I a servant, I would be willing to live, and I'm not yet sure that I would live with myself; but I shall probably decide this when the anniversary of my return comes around.

In short, at present I feel at perfect liberty to give myself to the garden, body and brain. I think my soul always stays outdoors, except at night, when it watches my sleeping body.

After a few moments' silence, during which each of us did some thinking, father said, "How would you like a married man with a family as well, to please you I won't call him a gardener, but a 'general useful'?" You know there are four or five good living-rooms that were once used, over the carriage-house. Perhaps a married man would have more ambition, and certainly more experience, and his wife also might be occasionally useful."

"To a married man I have no possible objection, but to having his family on the place, no, if you please. There are doubtless very competent married men and women, but they are rarely married to each other. Oh, father, do you remember the last time those rooms were occupied? You surely haven't forgotten Peter Schmidt?"

"No; for though he insisted on straight lines, worshipped cabbages, and slighted the flowers, he was the most faithful worker we ever had or ever shall have," he replied, very significantly.

"I beg pardon. I should have said, do you remember 'Mrs.' Peter Schmidt?" I hastened to add.

At this father laughed until the tears came to his eyes, though there was a time when it was not considered a laughing matter, and fled to his gig, which Tim was driving around from the stable, I following to bespeak for the next morning the man with the shovel—who, by the way, is an infinitely superior grade of being to the "man with the hoe," who merely walks slowly along, shuffling his inefficient tool.

(To be continued.)

Little Willie—Say, pa, what is the difference between "well" and "good"?
Pa—I have noticed, my son, that about the only time when you are good is when you are not well.—Denver Post.

NOVEMBER 24, 1910

The Ingle Nook.

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

Re House Decoration.

Dear Dame Durden,—As I have written you before, and you have given me the information I needed, I venture to come again. We have purchased a farm with a house very much in need of painting and papering, and we wish to know, could we have the doors of living-room, den and bedrooms painted an ivory-white? I am so fond of white, at the same time I wish to have things up-to-date. I have read so many splendid things about home decorations in "The Farmer's Advocate" that I love the paper more than ever, and having read all this, you will probably think I should know enough about matching colors, etc., not to need an answer to the following question:

For the living-room I would like to know what color in paper would go best with a light and dark green rug? The border is in dull crimson and brown, and a still darker shade of green.

Would cream madras curtains look well, or is a dark curtain necessary to give added width?

Trusting I am not troubling you too much, and thanking you sincerely for past help.

F. S. T.

Toronto.

Ivory-white is very much used for drawing-rooms, for bedrooms, and even for living-rooms, if there are no children to keep smudging the surface with their little fingers. The light color is particularly good to lighten up a dark room.

For the living-room paper a dull-finished fibre paper in a soft green, approaching the lighter shade of the rug, would do splendidly. If the walls are high, you could have a landscape frieze run around the top, with a narrow wooden moulding between it and the paper. If you object to so much green in the room, you could have the wall-paper of tobacco or wood brown, with a frieze in brown and green.

I really think that it pays to spend some money, as well as thought, on a good wall paper. The paper wears better, and, besides, makes everything in the room look fifty per cent. better. A cheap-looking or badly-chosen paper, makes carpet, furniture, and everything else, people included, look common—at least more common than they would otherwise look.

If I couldn't find a paper that suited me, or could not afford the price, I believe I should fall back on one of the wall-finishes, such as water-paint, and spend the extra in frieze. I saw some ceilings lately, in a very handsome house, which were done with "muresco," a sort of water-paint which is now to be got in the cities. Probably any dealer in paints, anywhere, could get it. It gives a beautifully soft finish, much prettier than paper, for ceilings, and, I fancy, would be splendid for walls, too. It can be got, I understand, in all shades, and is not very expensive.

Cream madras curtains are always pretty, but look better with a cream wall. Why not get madras with the leading tone that of your wall paper, and then have cream net curtains next the glass? To give added width to the windows, draw the dark madras well back over the wall, and have a short valance of the same run across the top of the window between the side curtains, and fastened to them if you like. If you prefer, you may have it quite across the top and separate.

Many thanks for Lullaby. Will probably find space for it soon.

For "Queechy."

How to make new bread-starter: One quart potato water without salt, 1 cup sugar, 2 yeast cakes. When it has become light, bottle and put away. If Queechy would add a yeast cake to her starter once a month, and when bakings are far apart, add a little fresh potato water and sugar to her starter, it would not sour.

Hop-yeast Bread—For yeast—1 good handful hops, 4 large potatoes, 1 cup flour. Steep the hops and drain the water off closely. Boil the potatoes well, and mash them, and scald the flour with the water of each; add 1/2 cup sugar, 1 tablespoon ginger, and a yeast cake; have enough water to make two quarts. When fermented, bottle and keep cool.

For Bread.—Two cups mashed potatoes, 1/2 cup sugar, 1/2 cup flour. Scald the flour with the water off the potatoes; add sugar and potatoes, and, when lukewarm, add 2 cups of the hop yeast. This will be up in a foam in a half-hour. When going to bed, add enough warm water to make a gallon; cover up, and leave until morning, then sift the flour and leave near a coal stove, if you have it, over night. In the morning, set the yeast in a dish of warm water (not hot), and, when it is slightly warm, add a handful salt and knead it to a nice dough. When it has risen, have a bake-board warm, and give it a good kneading. Let rest again and knead into loaves. If there is more than can be baked at one time, leave it to rise again, and knead into loaves later on. This will make eight or nine loaves, and I have what my neighbors call good bread, without any trouble.

HELPMATE.

Wellington Co., Ont.

Dress for Conversazione.

Dear Dame Durden,—We have taken "The Farmer's Advocate" for years, and I have been an interested reader of your Nook; have tried some of your good recipes, and enjoyed your helpful hints, but, like many newcomers, I am going to ask some questions.

I have been thinking about attending the "Conversazione" at Queen's, Kingston, and I would like if you would suggest the color and material that would be suitable for me. I am medium height, and a decided blonde, and can only afford a fair sum to be spent.

If you would also mention the way you would like it made, I would be delighted. Hoping to see my answer soon, I will give you my pen name.

ANNIE BOLEYN.

P. S.—I am 22 years old.

Lanark Co., Ont.

You were very wise to tell your age, even in a P. S., in asking about this question of dress. Age, as you have understood, is a most important condition; one of the "older girls" would look foolish in a gown which a girl of from 18 to 22 can wear to perfection. As you belong to the "younger set," however, here goes!

I have just talked to a former Kingstonian about your letter. She says the Queen's Conversaciones are very dressy affairs; in fact, quite full dress. If I were you, though, I should not have my gown cut very décolleté. You are young enough to have it just a little low in the neck, with short sleeves. Any pretty, girlish pattern would be nice, not fussed up much with trimming; only older folk look well with elaborate gowns. If you are very girlish-looking, you might have just a baby-waist, full, the neck cut low, and either round or square (the round is the newer), and edged with a bit of handsome lace-edged insertion or embroidered banding. The skirt should, of course, be of good dancing length, and just full enough, by means of tucks or gathers, to give it a graceful sweep. You might have a little of the banding or insertion on the skirt, but don't let your dressmaker pull it in tight enough to be hobble. If you like a little glitter—which is permissible on an evening dress—you might have a band of the new, square-cut bead trimming around the neck, but nowhere else.

Above all things, have the fit good, and the material something soft, dainty, and light. Silk mull, either plain or dotted, is always beautiful; but there is a host of evening-dress materials to choose from. A thin silk-and-wool crepe is new, and quite pretty; so is a fine silk-and-wool taffeta. Some of the fine, flowered muslins are always pretty and suitable, provided the design is dainty, and in very pale, not gaudy, coloring.

As you are so fair, you could wear the palest of blues or greens, with, say, a bit of white insertion at neck and sleeves, and, if you liked, a touch of silver-bead banding around the neck. Or you might have a cream crepe, with a touch of embroidery in palest pink and green. Pure

Just an outline

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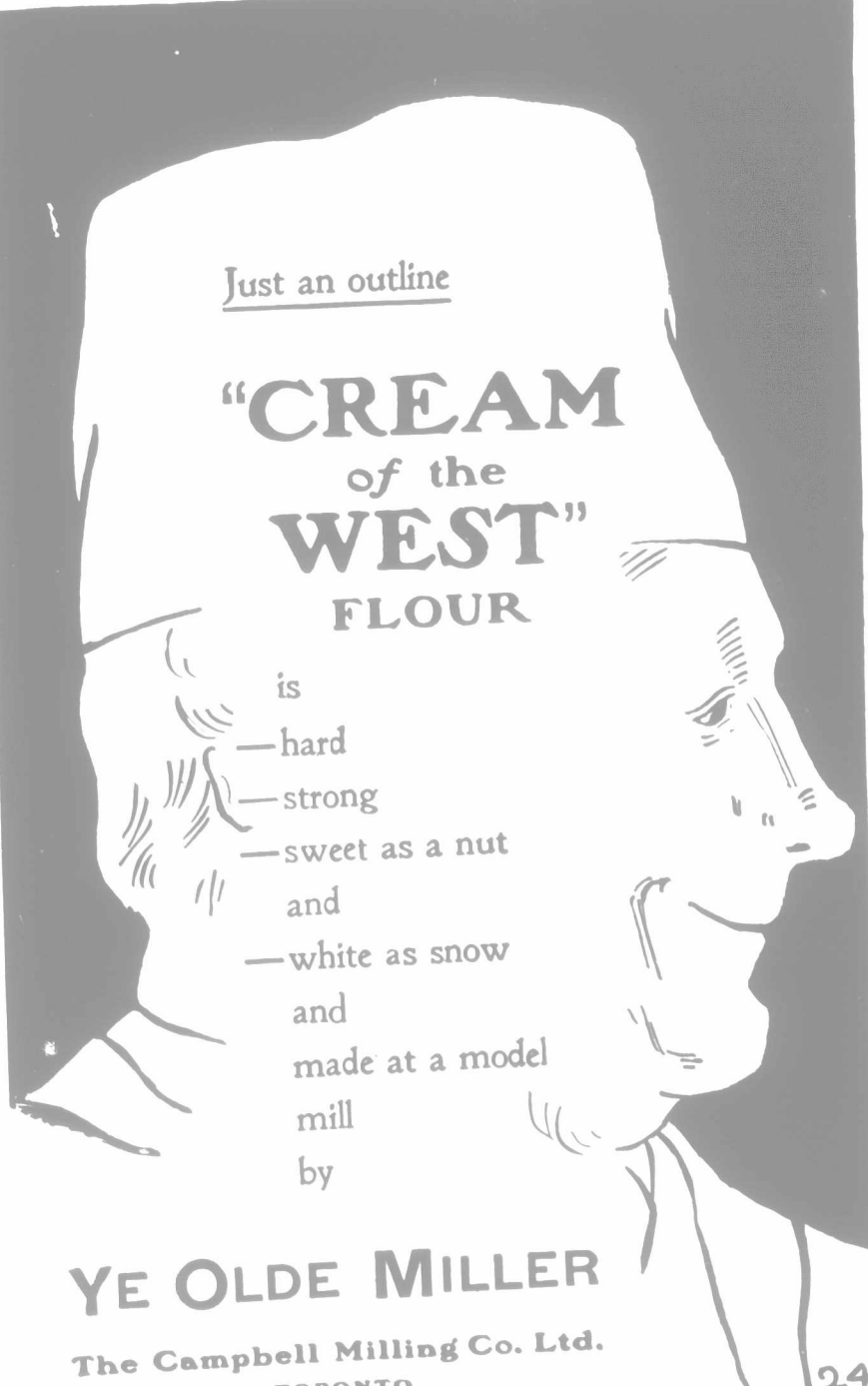
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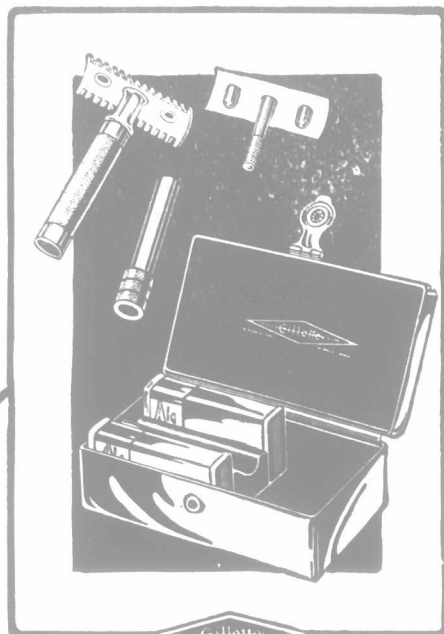
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fluffy white mull or organdy would be pretty, too, with no garniture save a touch of black velvet ribbon somewhere on the corsage, and a knot of pink roses. You must, of course, wear long gloves, and embroidered or lace stockings to match the gown. Your slippers may be black patent-leather, or kid of the shade of your dress.

Answer to C. I. B. re Weaving.

If C. I. B., or others who wish mats or carpets woven, will correspond with Mrs. D. L. Rose, Embro, Ont., she will give them the address of a weaver in that village who will be glad to get such work. We may say that in all such cases as this, courtesy demands that stamps be enclosed for reply. Kindly do not forget this when writing to any stranger for information.

Women's Institutes and Public Schools.

The advent of Women's Institutes has been of decided advantage to every community where they have been taken seriously. No doubt there has been a good deal of the holiday spirit and the theoretical about their meetings. Some papers read have been a little oversoulful, and a good many suggestions brought forward remind one of something read in a book, yet, while all this may be true, the ladies in such institutions are, on the whole, progressive and sensible to a degree. Believing them to be this, the writer begs leave to submit the following suggestion:

Would it not be well for the local institutes to appoint committees of three to visit the public schools in the neighborhood with a view to discovering the

sanitary conditions under which their children live for six hours in the day for five days in the week? Let them, for instance, observe the cup from which the children drink in common. Day in and day out, year in and year out, this cup goes unwashed. From it, children with sore mouths, children with coughs, children with sore throats and bad teeth, all drink with sickening promiscuousness. Then there is the condition of the out-buildings, of which no description can be given here, but in regard to which mothers should be informed. Their little girls are silent upon such topics, but mothers' eyes should be wide open. Every year the condition of these buildings paves the way for ill-health for thousands of growing girls. The subject is not a pleasant one, but the mother who is too "nice" to face it squarely, is too "nice" to have children, and far too stupid to be entrusted with the care of a growing daughter. The whole question of rural public-school sanitation may well engross the attention of the Women's Institutes of Ontario for the next six months. Should it do so, such changes will be speedily wrought as will simply transform the school life and make the existence of teachers and scholars a delight. The women of the Province may rest assured that the need of doing thoroughly some work along the lines indicated is far greater than they believe.

Our Scrap Bag.

Corn meal is said to form a good dry shampoo to use occasionally during cold weather. Rub the meal into the hair, pin the coils up, tie a silk handkerchief about the head, and sit before a sunny window, if possible, for a while, then brush out with a warm brush. Toilet bags made of cheesecloth filled with corn meal and bran, mixed with some finely-shaven soap, are excellent for the bath.

Take a square of stout material, hem it, and fasten strap loops of the material at each corner. When the four straps are slipped over a closet-hook, a handy laundry-bag is formed, easily accessible at four different places, and easily emptied by dropping one of the corners.

Eggs sometimes crack upon being immersed in boiling water, or are found to be so when required for use. To prevent the contents from oozing out, rub the crack with moistened salt, allowing a little time for it to penetrate, then put in the boiling water.

Do you know the convenience of a large, strong pair of scissors kept for the kitchen? They are better than a knife for cutting tough pieces of meat, celery, and many other things.

To Renew Nickel Plate.—Prepare a mixture of 50 parts alcohol and one part sulphuric acid. Dip the article in this solution for exactly ten minutes, then rinse quickly with pure water, wash with pure alcohol, and rub dry with a soft cloth.

Seasonable Recipes.

Stewed Celery.—Wash the outer stalks clean (a small brush is useful), cut them into inch-long pieces, and soak an hour in cold water. Drain and put in a stewpan with boiling water to cover, and let simmer slowly about ½ hour, or until tender. The water should now be reduced to not quite ½ cupful. Add a cupful of rich milk, and when the liquid boils, thicken to a cream with a little flour rubbed smooth in a tablespoonful butter. Season and serve.

Fried Parsnips.—Scrape and boil till tender. Drain, and when cold cut in long, thin slices, and season each slice with salt and pepper. Dip in melted butter, then in flour, and fry in hot lard, butter or dripping, until both sides are browned. Drain and serve.

Baked Onions.—Take large onions, wash them and trim them off, but do not peel. Put them in slightly salted boiling water and boil for about an hour. Drain well, then take each onion separately, wipe it, and roll in a square of thin buttered paper, twisting it at the top to keep it closed. Place the onions in a baking-pan, and bake one hour in a slow oven. When done, remove the papers, peel the onions, and serve at once with hot melted butter and a little salt and pepper dusted over.

Turnups in Cream.—Peel, cut in small

cubes, and boil until tender. Drain, and milk to nearly cover, and, when it boils, thicken to a cream with a little flour mixed with one tablespoon soft butter. Season, boil two minutes, and serve.

Pork and Apple Pie.—Cut nice, fat salt pork very thin, and slice some tart apples. Line a deep pie-plate with pastry, put in a thick layer of apples, thin one of pork, sprinkling between layers with spice, pepper and sugar. Put a layer of apples on top, and sprinkle also with the seasoning. Then put on a top crust and bake.

Squash Pie.—Two cups stewed squash, ¼ teaspoon each of salt and cinnamon, ½ cup sugar, 1 teaspoon ginger, 2 eggs, 1 scant pint milk. Heat the eggs until light. Put the squash in a quart dish (it should be very dry), add the sugar, salt, spice, then the beaten eggs and 1 tablespoonful melted butter. Stir well, and add enough milk to make a quart of the whole mass. Turn into a pasted pie-tin, and bake slowly for 45 minutes. Pumpkin, custard and squash pies should not be allowed to boil, or they will become watery.

Infant Mortality.

During the early part of 1910, a report on the above subject, by Dr. Helen MacMurchy, whom many of our readers know through the Women's Institute, was published in Toronto.

Beginning with the statement that "every year nearly 10,000 children in Ontario, under the age of five years, go to their graves," Dr. MacMurchy proceeds to demonstrate that the MOTHERS need education along the line of caring for children, in order that this appalling death-rate may be stopped.

"There is something wrong with the place where children die," she says. "Whoever is in fault when the baby dies, it is usually not the baby," and then she goes to an important root of the matter: "If the baby is nursed by its mother, the chances are great that it will live. If it is fed in any other way, the chances are great that it will die . . . of gastro-intestinal diseases."

In order, then, that a mother may nurse her child, she must be herself well-nourished, and so well has this fact been grasped in some places, that municipal help has been obtained to provide food for the very poor mothers, who otherwise might not obtain it. In Paris, for instance, several mothers' restaurants have been established at which two good meals per day are supplied to nursing mothers, free—the meals consisting of soup, lentils, beans, potatoes, macaroni, beef, bread, cheese, or a stick of chocolate. Paris also has a dispensary where pasteurized milk is supplied for infants which are dependent upon such food.

The work in Boston is especially noted, more particularly the "Consultations" to which all who are in charge of very young children may come.

We quote directly: "The Consultations usually, but not always, begin with a short general talk to those present. . . . The talks are given by physicians who speak in the native tongue of the mothers present. The language used is as simple as possible, and only the most important points are emphasized, all unnecessary details being omitted. An attempt is made to give the reasons for the advice, and illustrations are used which are likely to appeal to the common sense of the mothers. They are then encouraged to ask questions, however simple, and it is in this way that some of the most valuable points are brought out and enforced. Regularity of feeding, bathing, clothing, fresh air—these are some of the topics dealt with. A talk would run somewhat as follows: A large number of babies die every year in Boston, from 'summer complaint.' Most of these babies could be saved if the mothers knew just how to feed and care for them. That is what we have come here for, to tell you how to care for your baby. Ask questions of the doctor, not of some neighbor. The doctor has studied babies for many years, and his advice is safe to follow. That of the neighbor may not be.

"Do not dress your baby too warmly in hot weather. Have the clothing thin and light. Consider it as drapery rather than clothing. The baby will not 'catch cold' if the clothing is reasonably light.

"Let the baby kick. Have the arms

POULTRY AND EGGS

BARGAINS—Rhode Island Red Cockerels, from the famous Harris prizewinning stock, \$2.50 each. If sold out, money will be returned at once. E. Jenkins, Aylmer, Ontario.

FOR SALE—Buff Orpington cockerels, \$1 each. Geo. F. Lewis, Centreville, N.B.

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

FOR SALE—Mammoth Bronze Turkeys, pure-bred; also Single-comb Black Minorca cockerels, "Northup strain," good ones. J. H. Rutherford, Caledon East, Ontario.

FOR SALE—Mammoth Bronze Turkeys, off prizewinning stock. Eric Ritchie, Elmvale, Ontario.

FOR SALE—Pure-bred Bronze Turkeys, just right for winter shows, and 62 varieties of poultry. Eggs in season. William Ferguson, Spencerville, Ontario.

FOR SALE—Light Brahmas, Buff Orpingtons and White Wyandottes. Cock birds; cockerels and pullets. T. E. Smith, Vigo, Ont.

I HAVE some grand birds, in R. O. White and Black Leghorns and W. C. Black Polands, at bargain prices. Robert Houser, Canboro, Ontario.

MAMMOTH BRONZE TURKEYS, Banded Plymouth Rock cockerels (Pringle strain); also White Wyandotte cockerels and pullets (Martin and Russell strain), for sale. Alton Stevens, Lambeth, Ontario.

RHODE ISLAND REDS, of high quality. W. J. Bunn, Spruce Grove Poultry-yards, Birr, Ontario.

TWELVE PEKIN DUCKS—Nine ducks and three drakes, not related, for \$15. Apply to Russell A. Younie, Brysonville, Que.

WHITE HOLLAND TURKEYS for sale. Tom's, \$4.00. Miss Mary Caldwell, Box 10, Shanty Bay, Ontario, Canada.

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

WHITE WYANDOTTES (Martin hatching), Rose-comb Reds (Klager hatching), cock, cockerels, hens, pullets; one to three dollars each. Pens not related. Satisfaction guaranteed. Duncan McTavish, Chesley, Ontario.

WOULD like to rent small farm, with house, neighborhood London. Mainly for poultry business. Might buy outright if terms are reasonable. Would form partnership with good farmer. Address: Health, Farmer's Advocate, London.

WANTS SAFE

AGENTS WANTED—For two new lines. Apply for particulars to The Electric Beans Chemical Co., Ltd., Dept. A., 223 Albert Street, Ottawa, Ontario.

BOARD WANTED ON FARM—Neighborhood London, by gentleman in search of health. Good plain cooking and warm room. Stay till spring if satisfied. State full particulars and rates. Address: Comfort, Farmer's Advocate, London.

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

CLIQUEUS KOOTENAY, British Columbia—Buy a fertile fruit farm; \$10 cash, \$10 monthly. No irrigating. Delightful climate. Free booklet by Investors' Trust & Mortgage Corporation, Ltd., 134 Hastings W., Vancouver, B. C.

WANTED—Situation as herdsman; life experience; good milker. H. Burbidge, care Mr. Harris, 81 Terauley St., Toronto.

WANTED TO PURCHASE—Timothy, Canadian Blue Grass, Kentucky Blue Grass, Mixture and Red Clover. Send samples and prices to Box G S, "Farmer's Advocate," London, Ont.

WANTED—A bright, capable young man (preferably a farmer's son), to take charge of delivery end of a retail milk business. Must be well recommended and have previous experience. Also a capable man to work in the cutting department. Apply: Box 65, Montreal West.

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

Maple Hill Holstein-Friesians
Females, all ages. Write for what you want, or come and see them.
G. W. CLEMONS, St. George, Ont.
Bell Telephone.

and legs free. Babies love to kick. That is the way they get the exercise they need. Do not bind up the chest. If the chest is bound tightly, the baby cannot breathe easily.

Bathe the baby every morning in lukewarm water, and in hot weather sponge it off two or three times each day.

Don't allow the napkins to remain on the baby after they are soiled. If you do they will make the skin red and sore.

Every mother should try to give her baby the breast. It is better for the mother as well as better for the baby.

Ten babies die on the bottle to every one on the breast. Even if you have enough for only two or three feedings, still give the breast and help out with the bottle.

If you have to give the bottle, be sure that you keep the milk cold until you are ready to warm it for the baby. Be sure to keep everything very clean.

If the bottles and the nipples are not clean, the baby may get sick and may die.

"In feeding the baby, have the baby in the right position.

"Feed the baby regularly. If you do not, you will upset the child's stomach. How would you like to have your meals every hour? You would soon lose your appetite and detest food. It is easier to upset a baby's stomach than a grown person's.

If the baby cries, he may not be hungry—he may be thirsty. Give him water. He needs it. But give no milk except at the times ordered. If he doesn't take it all in 20 minutes, take the bottle away. And don't use what is left in the bottle. Throw it away and use fresh milk next time. If the baby is asleep when the time comes to feed him, wake him to be fed.

Do not give the baby tea or coffee, or a 'taste' of the things you have to eat. One taste may give the baby diarrhea, and from the diarrhea it may die.

If the baby has green movements, it is sick. Stop feeding, and give water instead, and take it to the doctor. Don't wait because your neighbor tells you it is only the teeth. It probably isn't the teeth, but the food. Get advice from the doctor.

Here is a baby that has gained only 3 ounces in the last 2 weeks. This baby has been fed every hour. That is wrong. The mother was told to feed the baby every 2 hours, but she thought he was hungry and fed him every hour, and he has not gained. If she will feed the baby every 2 hours he will gain faster. Let us see how much he will gain by next week.

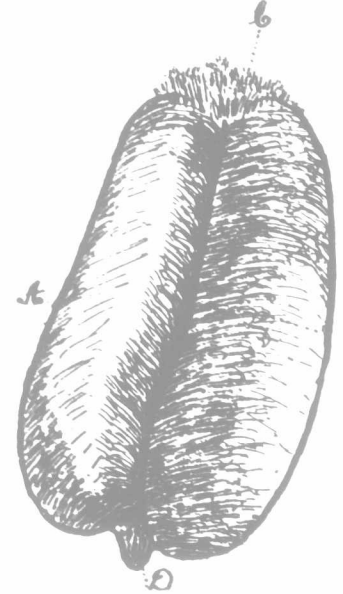
Here is a baby that is vomiting. It is on the breast. The mother has no regular time for feeding, but gives him the breast every time he cries. He cries all the time. He is a very fussy baby. He should be fed regularly every 2 hours. The mother is going to try regular feeding and let us know next week how the baby has improved.

This baby is 6 months of age. He has a severe diarrhea, and is vomiting everything he eats. He looks sick. His mother goes out to work, and his older sister cares for him. The day before yesterday, she gave him a taste of ice cream from one of the little cones that the children buy. The baby liked it so well that he was given seven of them, which he ate, one after the other. That is why he is now sick. You should not give your young babies such things to eat. You should give nothing but milk, except by the advice of the doctor.

Dr. MacMurchy also refers especially to the work done by a parish priest in Quebec: "In Vol. 9, Bulletin Sanitaire, published by the Provincial Board of Health of Quebec, we find that he noticed the large mortality among infants in his parish, and came to the conclusion that the ignorance of the mothers and the lack of proper care were principally responsible for the sad results. Speaking from the pulpit, he pleaded with the mothers of children about their duties towards their offspring, and enlarged on the proper care of infants. Before the sermon was given to the mothers, 19.78 per cent. of newborn children died in that parish; since then, 8.53 per cent. have died, a saving of 18 lives in one parish in two years." "Is there any reason," queries Dr. MacMurchy, "why someone in every parish in Ontario should not do what this priest did?"

After touching upon various other points, chiefly concerning conditions in cities, and warning mothers against the

SMUT
and its attack upon grain



- A, - Grain of wheat, magnified 15 diameters.
- B, - Crease, where many smut spores lodge.
- C, - Brush, where smut spores also lodge.
- D, - Germ end.
- E, - Smut spore magnified 600 diameters.

Formaldehyde coming in contact with smut spores causes them to dry up and wither, and finally die without injuring the wheat.

WATCH FOR THE NEXT DRAWINGS

Pamphlet regarding Smut mailed free on request to

The Standard Chemical Company of Toronto, Ltd.

MANNING CHAMBERS TORONTO

Farmers' Sons and Daughters

ATTENTION!

WE WANT you to begin at once to represent THE FARMER'S ADVOCATE AND HOME MAGAZINE in your locality. We will give you very liberal cash commission for securing new subscribers. You will doubtless be having some spare time during the next few months, and we know you can make good. To one who will devote his whole time to this work, we guarantee satisfactory remuneration. See also our premium list announcement in this issue. These premiums are all extra good value. We never send out anything else. Write TO-DAY for sample copies and agents' lists to:

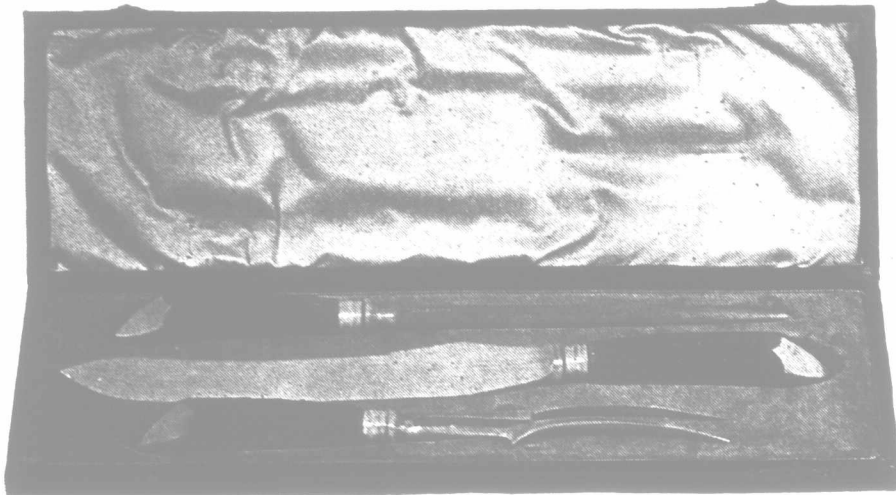
THE CIRCULATION DEPARTMENT
FARMER'S ADVOCATE, LONDON, CANADA,

use of so-called "soothing syrups," the Bulletin continues: "At about nine months of age, the baby should begin to use clean cow's milk. Sometimes babies have to use it sooner. Improvement in the milk supply alone has been known to cut the infant mortality rate in two. We urgently need legislation defining clean milk, giving a legal standard, both chemical and bacteriological, and requiring a nourishing milk with a low bacterial count, and clean. The provision of free ice in summer is very important for poor mothers. Milk depots are good, but consultations are better, and their success is measured by the small quantity of milk they sell and the large number of nursing babies and mothers that come to them." When prepared milk and foods must be

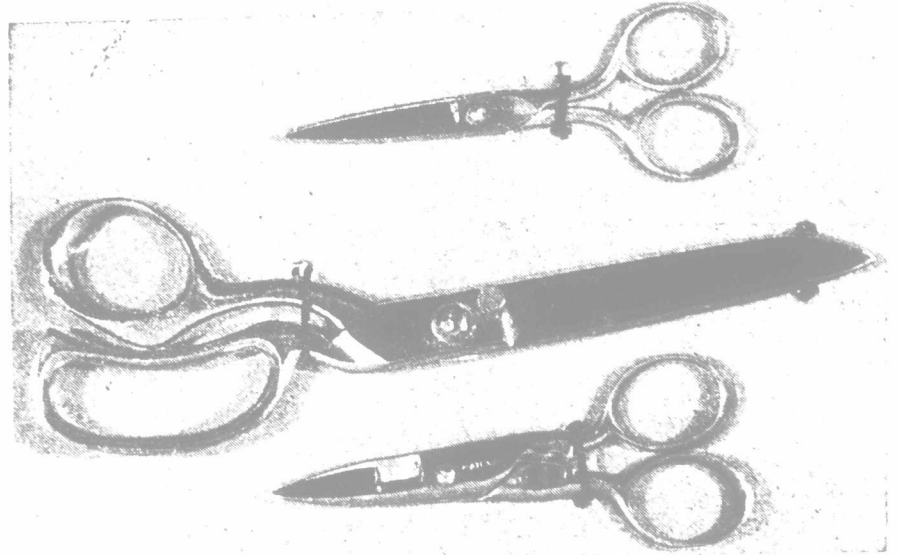
CHRISTMAS IS NEAR

and you will find below some excellent suggestions for Christmas Gifts. Begin now to secure one or more of these handsome premiums by obtaining the required number of new yearly subscriptions to THE FARMER'S ADVOCATE AND HOME MAGAZINE.

Every Premium We Offer is Exceptionally Good Value. We Give Greater Value in Our Premiums Than if You Were Paid a Cash Commission. Note the Following List:



SET STAGHORN CARVERS.—High-class goods. First quality of steel, and staghorn handles and handsome nickel mounting. These carvers will retail at \$3.50 to \$5.00 per set. Three new subscribers.



SET SCISSORS.—One self-sharpening scissors, one embroidery scissors, one buttonhole scissors—will cut buttonhole any size. All good quality steel. For only One New Subscriber to "The Farmer's Advocate." Must be sent by present subscriber.

40-PIECE AUSTRIAN CHINA TEA SET, handsome and dainty in shape, coloring and design; ordinarily retailing from \$4.00 to \$6.00, depending on locality. Four new subscribers.

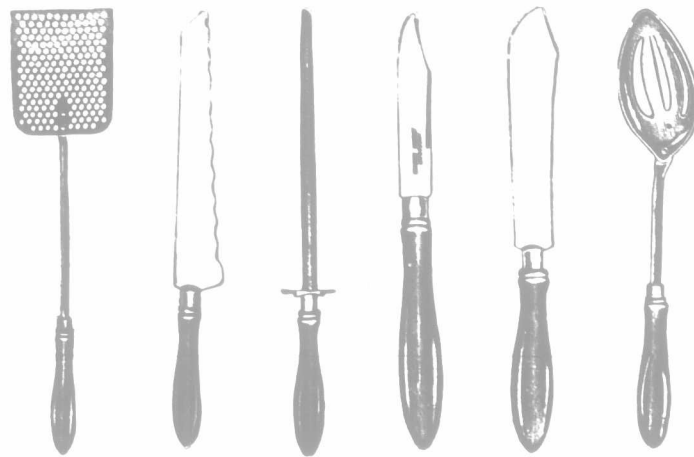
STENCILLING PATTERNS, containing a variety of designs for curtains, cushions, portieres, table covers, etc. A set of 20 patterns, all ready to be cut out (which may be easily done by laying the pattern over glass and cutting with a sharp knife). For only one new subscriber.

FARMER'S ADVOCATE KNIVES—Manufactured by Jos. Rodgers, Sheffield, England. Jackknife and Penknife, both nickel-handled and having two blades. These knives were manufactured specially for "The Farmer's Advocate." Worth, retail, \$1.00 each. One new subscriber for each knife.

BARON'S PRIDE. Handsome picture of the Champion Clydesdale. Size, 17 x 13 in., including margin. Suitable for framing. One new subscriber.

DICTIONARY.—An indispensable volume in every home. The Chambers' Twentieth Century Dictionary. Cloth bound, contains 1,200 pages, profusely illustrated, printed on superior quality of paper. Two new subscribers.

These premiums are given only to our present subscribers for sending in bona-fide new yearly subscriptions, accompanied by \$1.50 each.



A COMPLETE KITCHEN EQUIPMENT—A Utensil for Every Purpose.—All made of the highest grade of crucible steel, carefully tempered, ground and polished by the latest improved process. Rubberoid finished hardwood handles, mounted with nickel-plated ferrules. Now is your opportunity to supply your kitchen with a complete cutlery outfit. All six articles sent to any subscriber for sending in only one strictly new subscription and \$1.50.

Any subscriber may have the date on his own label advanced 8 months by sending us the name of one new subscriber and \$1.50.

Send Postal for Sample copies and Agent's Outfit and Start to Canvass at Once.

The William Weld Company, Limited
LONDON, ONTARIO.

BIBLE—Old and New Testaments in beautifully clear, legible type; references; concordance to both Old and New Testaments. Index to names of persons, places and subjects occurring in the Scriptures. Twelve full-page maps, all excellent in type and outline. This book is of most convenient size, being 7 x 10 inches when open; weight, 23 ounces; with strong and flexible binding; and would sell at regular retail price for \$1.00 or over. Sent postpaid to any subscriber for sending in only one new subscription accompanied by \$1.50.

We have a large stock of **PRAYER BOOKS,** with **NEW HYMNAL,** in good print and beautifully bound. Will give two, worth in the ordinary way \$1.00, for one new subscriber; or one book of superior quality for one new subscriber. These books are extra good value.

"THE VISION OF HIS FACE": by Dora Farncomb, writer of "Hope's Quiet Hour" in "The Farmer's Advocate," contains 18 chapters (224 pages), in cloth, with gilt lettering. One of the many expressions received regarding it is: "I am pleased, edified and comforted in reading it. It is better, fuller and richer than I expected." Cash price, \$1.00 For only one new subscriber.

"CARMICHAEL": A Canadian Farm Story. Bound in cloth, illustrated. Just the thing for Christmas or Birthday Gift. "Should be in all the homes of the people" (Toronto World.) Two new subscribers; or cash, \$1.25.

used, as is absolutely necessary in some cases, expert medical advice should be immediately sought. No experimenting should be done with a baby.

GOSSIP.

The dates claimed for the annual contribution sale of Shorthorns, by the Miller Bros. and others, at Union Stock-yards, Toronto, are Feb. 8th and 9th, 1911.

The auction sale on Nov. 11th, of Lyman C. Smith's little herd of Holsteins, at Glanford, Ont., was handicapped by unfavorable weather, and prices realized were lower than was deserved, when the excellent milking qualities of the herd are considered. The highest price was \$160, for Bleske Clothilde, taken by R. Logan. Two others sold for \$110, \$137 and \$145, and the average for the pure-breeds, old and young, was \$95.

At the auction sale last week of the Jersey herd of John F. Boyd, at Rushville, Indiana, the 75 head sold made an average price of \$176.33, in spite of very unfavorable weather. The highest price was \$500, for the bull, Fern's Golden Sultan, and the highest for a female was \$495, for the heifer calf, Derry's Golden Bess.

SHORTHORN DISPERSION.

On December 13th, as advertised in this issue, Henry L. Stead, of Wilton Grove, Ont., six miles from London, and one mile from Westminster Station, on the London and Port Stanley railway, will sell his entire herd of Shorthorns, 18 females and 3 young bulls, the females of breeding age being bred to the richly-bred imported Queen's Counsellor. There are two young bulls of serviceable age, sons of the imported bull, in the offering. There will be no catalogue issued, but the cattle will be sold with their regis-

tered pedigrees, which will show that their breeding is first-class. They are in only good breeding condition, and fancy prices are not expected.

LAST CALL FOR THE "INTERNATIONAL."

The twenty great buildings and the grounds of the splendid International Live-stock Show at Chicago, which begins November 26th, and continues until December 3rd, are now alive with an army of the busiest kind of workmen making final preparations for this highly-interesting and important event, which follows the International Horse Show, to be held on the same site during the previous week.

There will be on exhibition during the stock show, 1,191 magnificent and beautiful horses, 1,194 splendid cattle, 1,163 sheep, and 807 hogs, making a total of 4,355 animals entered in the pure-bred and fat individual classes, while there

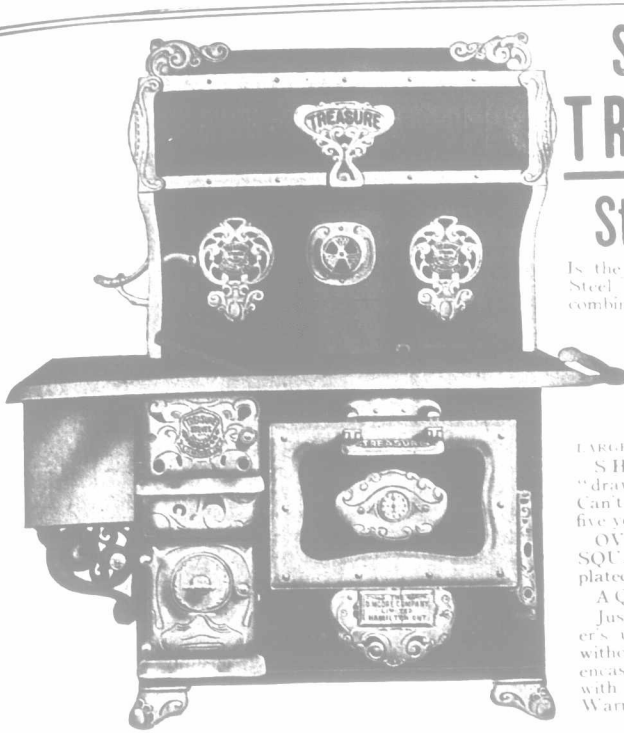
will be shown also thousands of prize-winning cattle, sheep and swine, in car-load lots, in the adjoining pens of the Union Stock-yards. Do not forget the dates, November 26th to December 3rd, inclusive.

TRADE TOPIC.

FARMERS' DAUGHTERS.—If you want to give your friend a Xmas box that will be appreciated, turn to page 1864 of this issue, and read about our forty-piece Austrian China Tea Set, and other premiums.

British Cattle Markets.

Liverpool—Prices in the Birkhead market were as follows: States steers, from 12½c. to 13½c.; Canadians, from 11c. to 12½c., and ranchers, from 10c. to 11½c. per pound.



Sovereign TREASURE Steel Range

Is the highest grade and best Steel Range ever made. It combines Durability, Strength and Beauty of Finish. Made for wood or coal-burning. BODY is made of two heavy steel plates interlarded with asbestos. FIRE-BOX is extra LARGE, takes 28-in. stick of wood. SHELL-BAR (patented) "draw-out" duplex grates. Can't burn out. Guaranteed five years. OVEN is large, deep and SQUARE. Removable nickel-plated edges and towel bar. A QUICK, even BAKER. Just the range for the farmer's use. Can be had with or without reservoir left hand or encaused on right hand. Made with or without Tiled Back on Warming Closet.

Made by the oldest and largest manufacturers of stoves and ranges in Canada.
The D. MOORE COMPANY, Limited, HAMILTON, CANADA.
 AGENTS EVERYWHERE.

POULTRY PRIZE

\$100 IN Gold

For the best exhibit of
Turkeys, Chickens, Ducks and Geese

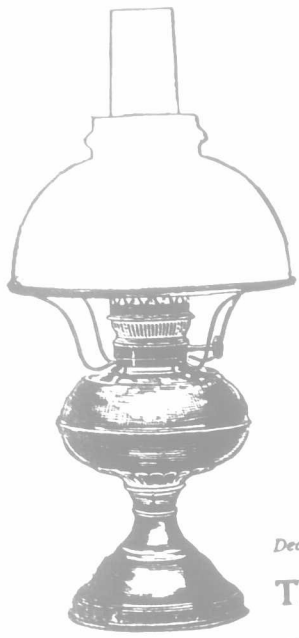
Judge: Prof. Frd. C. Elford, of MacDonald Agricultural College. Write for particulars and entry blanks.

GUNN, LANGLOIS & CO., LIMITED
 Montreal, Que.

CANADA'S LEADING PRODUCE AND POULTRY HOUSE

The Famous Rayo

Does Not Strain the Eyes



Don't use a small, concentrated light over one shoulder. It puts an unequal strain on your eyes. Use a diffused, soft, mellow light that cannot flicker, that equalizes the work of the eyes, such as the Rayo Lamp gives, and avoid eye strain.

The Rayo is designed to give the best light, and it does.

It has a strong, durable shade-holder that is held firm and true. A new burner gives added strength. Made of solid brass and finished in nickel. Easy to keep polished. The Rayo is low priced, but no other lamp gives a better light at any price.

Once a Rayo User, Always One.

Dealers Everywhere. If not at yours, write for descriptive circular to the nearest agency of the

The Queen City Oil Company Limited.

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

GOSSIP.

SALE DATES CLAIMED.

Dec. 13th.—Henry L. Stead, Wilton Grove, Ont.; Shorthorns.
 Dec. 14th.—S. J. Pearson, Son & Co., Meadowdale, Ont.; Shorthorns.
 Dec. 15th.—John I. Balsdon, Markham, Ont.; Shorthorns.

E. Watson, manager of T. B. Macaulay's Mount Victoria Stock Farm, Hudson Heights, Quebec, writes: "I have sold the two-year-old Hackney stallion, Terrington Temple-bar, recently advertised in 'The Farmer's Advocate,' to Mr. Edgecombe, St. John, N. B. The other stallions, Clydesdale and Hackney, mentioned in the advertisement, are for sale."

I am well pleased with my advertisement in 'The Farmer's Advocate.' It is bringing me excellent results. I have sold 29 head of Holsteins since July; also 400 bushels of seed wheat, with enough orders on hand for another 400 bushels. I will also have some registered barley and oats for sale, and will advertise them in your paper towards spring.
 C. R. GIES.
 Waterloo Co., Ont., Nov. 15th, 1910.

INTERNATIONAL SHORTHORN SALE.

The sale of Shorthorns, which will be held during the International Live-stock Show, will afford farmers and stockmen an opportunity to procure high-class cattle from the best herds in the United States. In it can be found show cattle that have won champion and grand champion prizes this year, also several young bulls with sufficient merit in form and breeding to entitle them to stand at the head of good herds. The consignors to the sale are: F. W. Harding, Carpenter & Ross, D. R. Hanna, Elmendorf Farm, Abram Renick, W. B. Dale, E. W. Monnier, D. Tietjen, White & Smith, J. H. Miller, W. O. Minor, Mrs. Virginia C. Meredith, Prof. C. F. Curtis, C. E. Clarke, Robt. Failon, J. N. Tittmore, Fox & Gallagher, J. S. Wright, Lewis Stookey, J. G. Withers, A. M. Rawlins, H. G. Bowers. The sale will be Thursday, December 1, at 1 p. m. For catalogue, write B. O. Cowan, Assistant Secretary, American Shorthorn Breeders' Association, Chicago, Ill.

TRADE TOPICS.

Attention is called to the advertisement in this paper of W. F. Earl, Athens, Ontario, of the Earl Acetylene Generator for lighting farm dwellings and barns.

AN IMPORTANT BUSINESS CHANGE.

It will be of interest to the produce trade throughout Canada to learn that Howard B. Clemes, late of Flavelles, Limited, Lindsay, has severed his connection with this company, to assume the management of the produce department and Toronto branch of the Gunns, Limited. Mr. Clemes will devote his energies principally to the development of Gunns Limited's extensive eggs, poultry and cheese business, for which he is peculiarly qualified by his experience of over twenty years in the Canadian produce business.

QUESTIONS AND ANSWERS. Miscellaneous.

GASOLINE-ENGINE POWER.

I am going to install a gasoline engine to do general work, such as grinding, cutting straw, and pulping turnips. Would like to be able to grind from eight to ten bags per hour, and do it almost as fine as flour. What size of an engine would you recommend, and how much gasoline would it require to grind one bag?

A. R.
 Ans.—To grind half a ton per hour of chop as fine as stated would probably require a 13-horse-power engine, but much depends on the grinder, which should be first-class. Good work could be done with an 8-h-p. engine, grinding about 500 lbs. per hour. One and a half cents per hour per horse-power is the estimate for gasoline.

DOES A WASHING JUST LIKE PLAY!

Six Minutes to Wash a Tubful!

Ladies! just see how easy I do a big washing with my 1900 Gravity Washer. I start the tub a-whirling. Then the gravity device under the tub begins to help and the rest is just like play. Washes a tubful in six minutes! How's that for quick and easy work? The 1900 Washer Co sent me this marvellous machine on trial. They didn't ask for notes or cash in advance. And they let me pay for it a little each week out of the money it saved me! They treat everybody the same way.



You can have one shipped FREE

on thirty days' trial, the same as I got mine. The company will let you pay for it on the same easy terms they offered me. The Washer will actually pay for itself in a very short time. Mine did! I wouldn't take \$100 cash for my 1900 Gravity Washer if I couldn't get another just like it. It does beautiful work—handles anything from heavy blankets to daintiest laces. Every housewife who is tired of being a drudge and a slave to the washtub should write to

F. A. E. BACH, Manager, The 1900 Washer Co., 357 Yonge Street, Toronto, Ont., for their beautiful Washer Book and generous offer of a Washer on free trial.—Mrs. R. H. Frederick, 2191

This offer is not good in Toronto, Montreal, Winnipeg or Vancouver and suburbs, as we have branch offices in these places. Special trial arrangements are made in these districts.

PHONOGRAPHS and RECORDS



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

Cash or monthly payments. Send for catalogue.

WILLIAMS PIANO CO., LTD.,
 194 Dundas St., London.

Cowan's "Perfection" Cocoa

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

Absolutely pure. That rich chocolate flavor. Very economical.

The Cowan Co. Limited, Toronto. 88

Don't Throw It Away

USE **MENDETS**

They mend all leaks in all utensils—tin, brass, copper, granite, hot water bags, etc. No solder, cement or rivet. Anyone can use them; fit any surface, two million uses. Send for sample pkg., 10c. COMPLETE PACKAGE ASSORTED SIZES, 2c. POSTPAID. Agents wanted. Collette Mfg. Co., Dept. K, Collingwood, Ont.

Old Gentleman (to waiter)—Can you tell me if my wife is here?
 Waiter—Yes, sir; eighth hat to the left.

It Does More Work for You

Because the feed-opening will take larger charges of hay, because the compound leverage power is greater, because the sweep is shorter, enabling the plunger to give more strokes in a given time, the DAIN PULL-POWER HAY PRESS has much greater capacity than a push-power press.

With the DAIN the horses never complain of heavy draft. There is no pitman or other high obstruction for the horses to stumble over. There is no heavy rebound, no whipping of the tongue to make the horses' necks sore, as with pitman-presses. The simplicity of the compound-leverage construction reduces the draft to the lowest degree. The DAIN is the easy hay press—easy on horses, easy on men.

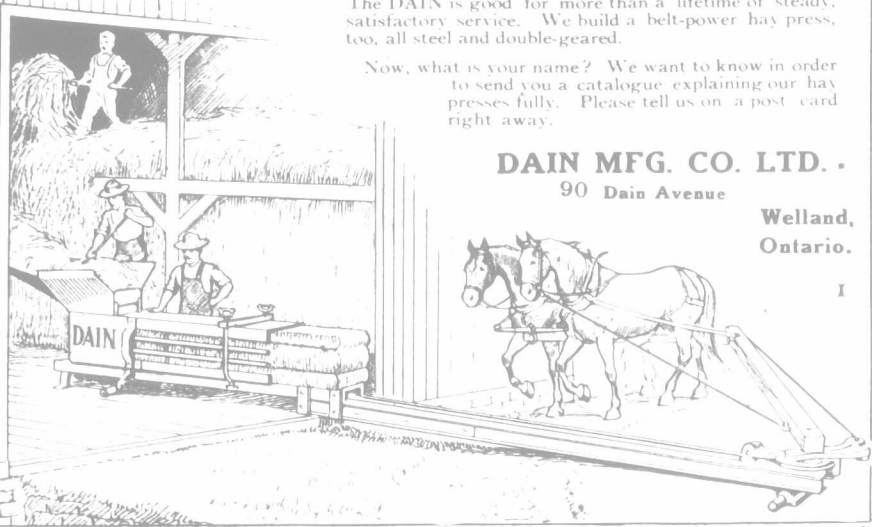
You can set the DAIN PULL-POWER HAY PRESS quickly anywhere, as it does not need to be level. Because it delivers the bales towards the horses and away from the stack, it can be set at the centre, or at any part of the stack. Thus you do not have to fork the hay so many feet, as with presses you have to set at end of stack. You stand up all the time you are tying, too. Three men with the DAIN can do as much work as five with ordinary press.

Dain Pull-Power Press

The DAIN has no delicate mechanism—no toggle joints—to get out of order. Neither will exposure to the weather cause it to warp, shrink or swell out of shape. It is practically all steel construction. The DAIN is good for more than a lifetime of steady, satisfactory service. We build a belt-power hay press, too, all steel and double-g geared.

Now, what is your name? We want to know in order to send you a catalogue explaining our hay presses fully. Please tell us on a post card right away.

DAIN MFG. CO. LTD.
90 Dain Avenue
Welland,
Ontario.



DISPERSION SHORTHORN SALE

20 Head of Pure-bred Shorthorns

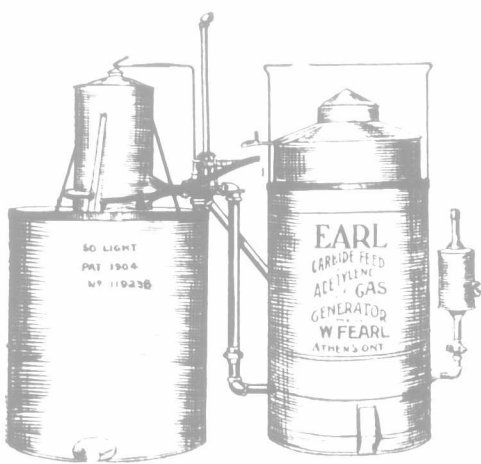
At the farm, lot 13, con. 4, Township of Westminster, about 6 miles south of London, and one mile from Westminster station, on the London and Port Stanley R. R., on

TUESDAY, DECEMBER 13th, 1910

The offering consisting of **18 FEMALES AND 3 YOUNG BULLS**. The females of breeding age have all been bred to the imported bull, Queen's Counsellor—64218. Sale to commence at 1 o'clock. Terms: 10 months' on approved joint notes. 5 per cent. discount for cash.

DIBB & LAIDLAW,
Auctioneers.

Henry L. Stead, Proprietor
Wilton Grove, Ontario



The Earl Acetylene Generator

For absolute safety, perfect action, uniformity of gas pressure, ease of recharging, the EARL AUTOMATIC stands at the front. The EARL has been approved by the Canadian Underwriters for use in any insured building for use in any insured building in Canada. Up-to-date farmers are lighting their barns as well as dwellings. One machine does it all. Write for descriptive folders.

W. F. EARL,
Atheus, Ontario.

NEWEST DESIGNS
BEST MATERIALS
CAREFULLY MADE

BEATH
IMPROVED

STRONGEST CONSTRUCTION
EASIEST RUNNING
QUICKEST HOISTING

FEED AND LITTER CARRIERS

Made in Two Styles. Awarded Medals and Diplomas
Toronto Exhibition. LIVE AGENTS WANTED.

WRITE FOR CATALOGUE AND PRICES

W. D. BEATH & SON, LIMITED TORONTO

QUESTIONS AND ANSWERS. Miscellaneous.

DAMAGE TO HORSE.

I have a gelding valued at about \$180. Some time ago the hired man, in a passion, struck him a blow on the eye, causing a blind eye. Can I hold him responsible, and for how much?

Ontario. FARMER.

Ans.—You are entitled to recover damages from him. But as to the amount we cannot say. It would be just what the judge or jury might deem reasonable under the circumstances; and the estimate would be mainly based upon the depreciation in value of the animal.

SMALL ONIONS AS SETS.

I have a lot of small onions that grew from seed this year. They are about the size of a ten-cent piece, or smaller. They ripened up early. Can anyone tell me what they will grow? If I set them out in the spring, will I have a crop of good onions, or a crop of seed? I am told they are the same as the Dutch sets you buy to raise large onions.

FARMER'S WIFE.

Ans.—We presume these are Yellow Danver sets, in which case, if planted out in shallow rows, two to three inches between each set, early in the spring, the majority will produce large onions, the remainder will most likely run up to seed. In order to procure the best results, onion sets should be as small as possible, anything above 4-inch in diameter being liable to run to seed, though much, of course, depends on the season.

MAIN & COLLYER.

SNARING RABBITS—KILLING DOGS.

1. What is the law pertaining to the snaring of rabbits?
2. What is the law pertaining to the killing of dogs which are not your own, but are owned by people nearby, and are frequently seen on your premises without their masters?

Ontario. AN ENQUIRER.

Ans.—1. The general rule is that they cannot lawfully be snared. But they may be taken by snares by the owner or occupant of any land upon which they can be proved to cause actual damage to trees or shrubs, provided that any killed are to be handed over to the nearest officer of the department for distribution to charitable institutions.

2. They may not lawfully be killed unless endangering sheep. But see your local municipal by-laws, if any, for restraining or regulating the running at large of dogs, and for killing dogs running at large contrary to such by-laws.

SCHOOL TRUSTEES.

A, B and C are trustees of a public school. D is a carpenter. A, B and C hired D to do some work at the school-house, he in turn to hire C to help him do the said work. D hires C, and they go and do the work. When the work is nearly completed, a ratepayer advises A and B that they had better not pay C's wages, or they might have to pay it from their own pocket, and C would be unseated from the School Board of Trustees as well.

1. Can D collect C's wages from the school section?
2. If the trustees pay D his full account, which includes C's wages, can the ratepayer who advised A and B not to pay C's wages make the trustees pay this money into the school funds again from their own pockets?
3. Is there any way in which C can get his wages and still hold his seat on the Board?
4. Is it necessary for the newly-appointed trustee, at an annual public-school meeting, to take the oath of office, and, if so, who delivers it?
5. Can a man who holds a vote as farmer's son and not as a ratepayer, hold office as a trustee in a rural public school?
Ontario. A RATEPAYER.

Ans.—1. No.

2. We think so.

3. Not legally.

4. We do not think so.

5. Yes, provided he is a resident farmer's son within the meaning of the Consolidated Municipal Act, 1903, and of the full age of 21 years.

"DAT NEW CENTURY WASHER SUAIN DO CET DE DIRT OUT."—Aunt Salina.

The easy-running principle on which this washer is built is correct, and it will extract every particle of dirt from all descriptions of wearing apparel and household fabrics without injury to the goods, and without the use of acids.

If your's doesn't handle it write direct.

"Aunt Salina's Wash Day Philosophy" is our new FREE book, and gives valuable hints and secrets about washing. Send postal for it to-day.



CUMMER DOWSWELL, Limited
HAMILTON - ONT.

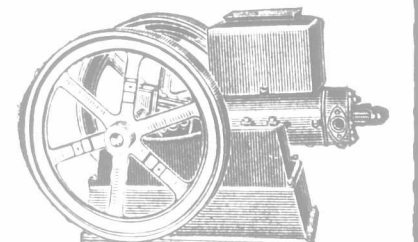
Cheap Power!

Do you know that a horse costs **three to six times more** than a Gilson "Goes Like Sixty" Engine of like power?

That a Gilson Engine of same cost as a horse will do **four to eight times** as much work?

That the feed of a horse costs **six to ten times more** than a Gilson Engine doing like work? Of course the idle horse keeps eating, but the idle engine costs nothing. Surely you want to know lots about the

GILSON "Goes Like Sixty" ENGINE



The money making, money-saving helper on the farm. The up-to-date, standard engine with a reputation for quality.

Write for catalogue to-day.
Full particulars.

Gilson Mfg. Co., Limited
31 York St., Quehph, Ont. A56

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WINTER TOURS TO

Mexico, Colorado, California and
Pacific Coast Points

The Grand Trunk Railway System is the Popular Route from all points east through Canada via Chicago.

FEATURES

Double Track, Fast Service, Finest Roadbed, Modern Equipment, Unexcelled Dining-car Service. All elements of safety and comfort.

TO THE SUNNY SOUTH

No more desirable route than via Grand Trunk and connecting lines.

VERY LOW RATES

Secure tickets and full particulars from ANY GRAND TRUNK AGENT, or address:

J. D. McDONALD,
District Passenger Agent,
Union Station, Toronto, Ontario

Logs Wanted!

400 Maple Logs, 10-16 ft long, 22 in. and up diameter small end; 800 Rock Maple Logs, 15-30 ft long, 12 in. and up top end; 250 loads of Walnut Logs 15 in. and up diameter small end.

BRADLEY CO., HAMILTON, ONTARIO.

Maple Leaf Berkshires

For sale. Young sows bred and ready to breed; bears fit for service; also young pigs eight to ten weeks old. Imp. sows and dams. Pairs not taken. C. P. R. and C. T. R. Bell phone.

Joshua Lawrence, Oxford Centre, Ont.
ADVOCATE ADVERTISEMENTS PAY.

QUESTIONS AND ANSWERS.
Miscellaneous.

MANURIAL VALUE OF CORN COBS.

What amount of manurial value is there in corncocks, such as come from an elevator? What kind of soil would benefit most by them, sand or clay loam?

OLD SUBSCRIBER.

Ans.—We are unable to give any information as to the manurial value of corncocks. We are of the opinion that they can be more economically utilized as fuel than as manure. Dry cobs burn well, but when spread on the land, decompose slowly, and tend to leave the soil too loose and open. They would have a more beneficial effect on clay than on sand.

POLAND-CHINA HOGS.

Could you let me know anyone who keeps Poland-China pigs? Also how do they compare in point of growth with the Berkshire or Yorkshire breeds?

A. I.

Ans.—We do not know of any Poland-Chinas in Canada at present. As bred in the United States, where they are fairly popular, they are comparatively short-bodied, and are disposed to run to lard rather than flesh. They do not, as a rule, meet the requirements of the Canadian or British markets for pigs of the bacon type; that is, having long sides, with a large percentage of lean meat.

CROSSING BREEDS OF SWINE.

Which way would you prefer to cross in breeding for bacon purpose, so as to get best results, Berkshire sow to a Yorkshire boar, or a Yorkshire sow to a Berkshire boar, or is there any preference either way?

A SUBSCRIBER.

Ans.—While we do not approve of crossing breeds, believing that by selection of suitable sires of the same breed a desired type and quality may be developed and maintained, we would prefer mating the Berkshire boar with the Yorkshire sow of lengthy type rather than adopting the reverse mating, provided both are pure-bred, for the reason that the lengthy sow is likely to produce larger litters, while the Berkshire sire will probably transmit easier-feeding qualities and earlier maturity. While crossing produces some good animals, the cross-breeds cannot be depended upon to reproduce stock of uniform type.

RHEUMATISM.

I have a valuable sow a little over one year old. She has had one litter of pigs. The other morning she could hardly get up, and her hind legs seemed very stiff and sore. She is a little better now, but she still walks lame, and it seems to hurt her to move. She has been running out through the day, and I have fed her grain night and morning (peas). What is wrong with her, and what can I do to help her?

J. H. R.

Ans.—This is, evidently, muscular rheumatism, which may be caused by over-feeding with strong, rich food, as peas. Preventive treatment is important, which means providing dry, comfortable quarters, and the avoidance of exposure to cold drafts or rain. Salicylate of soda is the most useful drug to give. The dose is 20 to 30 grains, according to size and age of sow, in the feed, or as a drench, three times a day. Rub the joints and loins well with liniment made of 4 ounces alcohol, 1 ounce oil of turpentine, 4 drams camphor, and water to make a pint.

ABERDEEN-ANGUS BILLS.

The Forster Farm, Oakville, Ont., have just published a herd of Aberdeen-Angus cattle and have three bulls of this excellent breed to offer for sale. One is a stock bull, Royal Chief of Penance; another bull, and an excellent bull calf. These bulls are well worth looking after.

"Shakespeare was a smart man," said Sam, "but there was times when he was 't'at right?"
"I instance?"
"I remark about 'rather bear the lie than fly to others that we are out of.' If that was the case, wouldn't he be no boss trader?"

We will buy and give away hundreds of thousands of 50-cent bottles of Psychine (pronounced Si-keen).

There is one for you. Do you think we could afford to do that were we not supremely confident of its great value?

Do you know another such sweeping proposition as ours?

Did you ever hear of anyone offering to prove any curative preparation along similar lines?

All the risk is ours, all the cost is ours.

You yourself are to be the sole judge of all we claim for Psychine.

Its beneficial effect alone will tell you, without prejudice, without any self-interest from any source.

It shows our confidence—this plan—does it not?

Yet our confidence to us is not phenomenal, not out of the way.

Nor would our confidence seem extraordinary to you were you in our place, and were you to know the things we know.

We've known Psychine for a third of a century—almost a generation.

We know of the hundreds of thousands it has cured.

We have hundreds of thousands of unsolicited testimonials.

It doesn't require any great stretch of confidence to know from facts like these.

Psychine cures by increasing and strengthening the white corpuscles of the blood, or phagocytes.

These white corpuscles eat every disease germ that finds entrance to the body, when they're strong enough and in sufficient numbers.

And Psychine builds these white corpuscles because of certain medical herbs it contains, nature's true remedy.

Which science now knows will do just that.

We go to great expense to make Psychine.

Our materials come from the ends of the earth.

They are compounded in one of the finest laboratories, in apparatus that is costly in the extreme.

But costly and all as it is we know what it will do, hence the reason of our buying a 50-cent bottle from your druggist and giving it you, free.

Now if you have any of these ailments, fill out the coupon and mail it to us to-day.

You'll never regret your decision so to do.

- | | |
|--|----------------------|
| La Grippe | Bronchial Coughs |
| Bronchitis | Weak Lungs |
| Hemorrhages | Weak Voice |
| Sore Throat | Spring Weakness |
| Anaemia | Early Decline |
| Female Weakness | Catarrhal Affections |
| Indigestion | Catarrh of Stomach |
| Poor Appetite | Night Sweats |
| Chills and Fevers | Obstinate Coughs |
| Sleeplessness and | Laryngitis and |
| Nervous Troubles | Dyspepsia |
| After-effects of Pleurisy, Pneumonia and | |
| La Grippe | |

Now, we don't ask you to take our word for the tremendously beneficial effect of Psychine. Fill out the coupon below, mail it to us and we'll give your druggist an order (for which we pay

him the regular retail price) for a 50-cent bottle of Psychine to be given you free of cost.

We will undoubtedly buy and distribute in this manner, hundreds of thousands of these 50-cent bottles of Psychine.

And we do that to show our entire confidence in this wonderful preparation.

A confidence that has been based on our thirty years' experience with this splendid preparation, with a full knowledge of the hundreds of thousands of cures it has made.

COUPON No. 34

To the Dr. T. A. SLOCUM, Ltd.
193-195 Spadina Ave. Toronto

I accept your offer to try a 50c. bottle of Psychine (pronounced Si-keen) at your expense. I have not had a 50c. bottle of Psychine under this plan. Kindly advise my druggist to deliver this bottle to me.

My Name.....

Town.....

Street and Number.....

My Druggist's Name.....

Street and Number.....

This coupon is not good for a 50c. bottle of Psychine if pre-ented to the druggist—it must be sent us—we will then buy the 50c. bottle of Psychine from your druggist and direct him to deliver it to you. This offer may be withdrawn at any time without notice. Send coupon to-day.

BOOK REVIEW.

PLANT AND ANIMAL IMPROVEMENT.
In the introduction to his remarkably valuable new work, entitled "Domesticated Animals and Plants," Prof. Eugene Davenport, dean of the College of Agriculture, and director of the Agricultural Experiment Station of Illinois, justifies giving more attention to the study of plants and animals in the schools, for the potent reason that agriculture engages the lives of one-third of the population, and provides the food for all. And who can demonstrate that the educational value of such subjects is less than that of more orthodox, academic curricula? In teaching the youth how to do things, and how to live, may such means not be of even greater service? The volume under review deals with the origins and means of improvement of domesticated plants and animals, expressed in simple, popular phraseology, and we have rarely seen as much intelligible data packed in the small compass of 320 pages. The author deals with natural selection, and the use made by man of its principles. He explains very simply how it is, that, while crossing will produce some good animals, they will be worthless as breeders. He describes the three methods of improvement by the breeder of plants or animals: (1) Selection in imitation of nature; (2) Crossing and improving the new strains upward by selection; (3) Mutation, the fortunate mutants being seized upon and made the most of as a free gift of nature, as has been elaborated in De Vries' book. An excellent feature of Prof. Davenport's volume is the chapter summaries and practical exercises for scholars suggested, and equally good the hints on stock judging, use of score cards, and the glossary in the appendix, giving students an excellent working idea of technical terms commonly used. The mechanical execution of the work and illustrations are admirable. Publishers, Ginn & Co.; ordered through this office, \$1.50.



RUBEROID ROOFING

Trade Mark Registered. Pronounce it RUE-BER-OID.

In Colors

RUBEROID is the only ready roofing made in permanent colors.

Its beautiful soft shades—red, brown and green—are impregnated into the roofing—not painted on it.

The result is that the RUBEROID colors retain their beauty and last as long as the roofing itself—and Ruberoid has outlasted every other prepared roofing on the market.

Our Booklet, "All About Roofing," explains why Ruberoid is the best roofing made. We'll send it free, with samples of Ruberoid, for the asking.

THE STANDARD PAINT CO. OF CANADA, LIMITED,

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Dealers
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LEARN RAILROADING

If you want a big salary. We teach and qualify you by mail in from 8 to 14 weeks without loss of time from your present work. Positions are secured; there are many openings right now. Our course is the most complete treatise in existence on the subject of Railroading. FIREMEN AND BRAKEMEN EARN FROM \$75 TO \$150 A MONTH! Two or three years advances you to engineer or conductor with a salary of from \$90 to \$185 per month. This is the only school of its kind in Canada with textbooks written for use on Canadian Railways. When writing for our FREE BOOKLET state age, weight and height.

WRITE MAILING CLERK NO. F Dominion Railway School, Winnipeg, Canada

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

KENDALL'S SPAVIN CURE

**To Bring Him Back
to the "High-
Stopping"
Class**

**THE
REMEDY
USED ALL
OVER THE
WORLD**

**For
Spavin,
Curb, Splint,
Ringbone, Soft
Bunches, All Lameness**

Horse dealers have made thousands of dollars by buying lame, Spavined Horses, curing them with Kendall's Spavin Cure, and then selling the sound animals at a handsome profit.

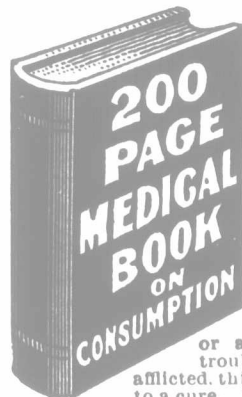
You can do the same with your own horses. Here is one man who saved his horse and his money by using Kendall's.

Oak Bay Mills, Que., Dec. 15th, 1909
"I wish to inform you that I have used Kendall's Spavin Cure with good success, on my horse. I found that it cures quickly and well". Yours truly, ROY HARPER.

\$1. a bottle—6 for \$5. A copy of our book—"A Treatise On The Horse"—free at dealers or from us. 48

Dr. B. J. Kendall Co. - - Enosburg Falls, Vt.

Consumption Book FREE



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

Write at once to the Vonkerman Consumption Remedy Co., 1577 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait—write today. It may mean the saving of your life.

A DRY SADDLE WHEN IT RAINS IF YOU WEAR TOWER'S FISH BRAND POMMEL SLICKER

**THE LONG SERVICE AND THE
COMFORT IT GIVES MAKES IT
THE SLICKER OF QUALITY**

SOLD EVERYWHERE

TOWER CANADIAN CO., LTD.
TORONTO, CANADA.

Landlady—You find her honest, don't you?
Former Mistress Honest? Why, she never takes even an order from me.

GOSSIP.

J. G. Truman, manager of Truman's Pioneer Stud Farm, Bushnell, Illinois, writes: "In your issue of November 10th, on page 1796, under the heading Gossip, I find that in reporting the horse sales at Crewe, England, last month, in speaking of Shire geldings, you say, the highest price for a gelding was \$1,125, for a horse purchased by F. Lowndes, for Illinois, U. S. The facts of the case are, the horse in question was purchased by J. H. Truman, and is at the present time here on our farm at Bushnell."

RAILWAYS FINED FOR CRUELTY.

Reports in the newspapers during the last few weeks indicate that several fines have been imposed on railway companies for cruelty to animals, the cruelty under question being lack of attention while the poor brutes were being hauled over long distances. The news that live stock frequently are left without food or water while being transported by the railway companies does not startle those of the Canadian West who have had anything to do with shipping stock. It is, however, more or less of a satisfaction to know that those in authority have taken the matter in hand with a view to putting a stop to such practices. Many of us have heard of cattle being left for forty-eight to almost seventy hours without any attempt being made to give them food or water, and in some cases the appearance of the animals would indicate that they had received neither nourishment nor stimulant for a week.

It sounds good to hear of the company being fined; but, after all, what does a paltry fine signify with those fellows? It is just possible, however, that it will induce them to get after those who are responsible for such shameful neglect. Perhaps in the not distant future, even the live stock produced by hard-working farmers will be treated humanely by the corporations who get good pay for hauling them to market.—"The Farmer's Advocate and Home Journal," Winnipeg.

GROWTH OF FLOUR MILLING IN UNITED KINGDOM.

During the past ten years, a very rapid expansion has taken place in the milling industry in the United Kingdom, writes J. M. Mussen, Canadian Trade Commissioner in Leeds and Hull, Eng. This is attributed, in part, to the erection of large mills equipped with the latest machinery and appliances for flour production; also to the facilities which these mills possess—situated, as they are, at the ports—for receiving and handling all varieties of wheat from abroad on the most economical basis. The following figures of the imports of wheat flour would indicate that an extraordinary change is taking place in connection with the milling industry:

	Imports of wheat Cwt.	Imports of wheat flour Cwt.
1890	60,500,000	15,800,000
1900	68,700,000	21,600,000
1909	97,900,000	11,100,000

It will be observed from the above statement that whilst in nine years the imports of wheat have risen by nearly 30,000,000 cwts., the imports of flour in the same period have fallen by over 10,000,000 cwts. It is estimated that the present total production of flour in the United Kingdom is not far short of 40,000,000 sacks per annum, and that, compared with 1900, the production is about 9,000,000 sacks more than it was in that particular year.

In the small space of three years (1907-1909), the imports of flour into this country from the United States have fallen by no less than 2,800,000 cwts., those from Austria-Hungary by 322,000 cwts., and those from France by 189,000 cwts. Whilst the imports from these and other countries are either stationary, or are showing a gradual decline year by year, it must be gratifying to Canadian millers to learn that, on the other hand, the imports of flour from the Dominion show a material increase, having risen from 1,430,420 cwts. in 1907 to 2,059,100 cwts. in 1909.

World's Greatest Separator

Standard

**BUY IT
IN
NOVEMBER**

WINS

the heart of every farmer who tries it, every dairy expert who tests its skimming, and every agent who sells it.

Efficiency Accounts for It.

Good material, good machinery, good mechanics, care in making and assembling, is your best guarantee of satisfaction with the "STANDARD." The gearing and every bearing runs in oil. There are no glass lubricators, and no oil can. The bowl is built to SKIM PERFECTLY and DOES IT. The machine turns easily, is easy to clean, and has a low supply can. All running parts are enclosed. Write for our catalogue; it explains all about it, and will be sent free.

We will also send you information about our "STANDARD" MANURE LOADERS, for loading on to a wagon or spreader. Write us to-day for particulars of these machines.

The Renfrew Machinery Co. (Limited). Renfrew, Ontario.

In Auto, Sleigh or Wagon on Cold Days Use a Clark Heater—

It is neat, compact, attractive and unbreakable; supplies the heat without flame, smoke or smell.

We make 20 styles of these heaters from 90c each to \$10. Most of them have attractive carpet covers with asbestos lining. They have been on the market ten years and please every purchaser. We guarantee that you will be pleased or money refunded. They fit in at the feet, occupy little space and are just the thing.

DON'T SHIVER AND BE UNCOMFORTABLE

when one of these heaters will keep you warm and cozy and comfortable on every business or pleasure trip in cold weather.

Ask your dealer for a CLARK HEATER—the only kind that will last indefinitely, never get out of order, and heat as much or as little as you want. Insist on the CLARK. Write for complete catalog—a postal brings it. WRITE NOW.

CHICAGO FLEXIBLE SHAFT COMPANY, 110 La Salle Avenue, CHICAGO

This catalogue is waiting for you

Send for it; it's free, new and interesting. You should certainly know about the

Olds Gasoline Engine

before you buy. It is simple, durable, the most economical, has exclusive features absolutely necessary to a satisfactory engine. No repair bills for one year.

Seager Engine Works
Seager St., Lansing, Michigan
Agent: E. B. Echlin & Company,
13 Park Street, Hamilton, Ont.

Telephones and Switchboards for Rural Lines a Specialty.

Made in Canada by Canadian Experts.

It will pay you to get our prices and investigate the merits of our apparatus before placing your order. Poles, wire, brackets, insulators, tools, lightning arresters, ground rods, batteries, insulated wire, and everything necessary to construct a telephone system of any size. If you are interested, let us send you our 112-page Rural Book, giving complete information HOW TO ORGANIZE, CONSTRUCT AND OPERATE RURAL TELEPHONE SYSTEMS. Will be sent you FREE for the asking. WRITE US NOW.

Dominion Telephone Mfg. Co., Ltd., Dept. "C," Waterford, Ontario.

Please Mention The Advocate

Our Telephones Sent on Free Trial

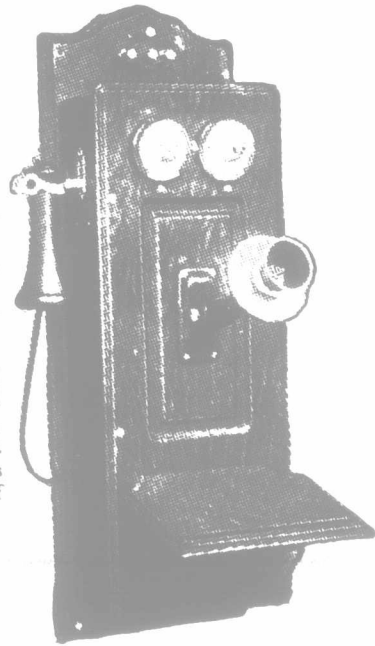
So sure are we of the all-round superiority of our telephones that we will welcome the opportunity of sending you two or three for a comparison test with others. Write us for particulars.

Our telephones are made in Toronto in one of the best-equipped telephone factories in the world. They are distinctly high-class. They are built so as to give steady service without material depreciation. Their cost of maintenance is low enough to surprise you. And they are guaranteed for ten years against defective material or workmanship.

But, if interested in rural telephones, send for our two books. One, a handsomely-illustrated book, entitled "Canada and the Telephone," shows, with 32 pictures, the benefits of the telephone to the farmer. The other, Bulletin No. 2, tells you how to build and equip a rural telephone system. You'll find these two books very interesting, so don't delay reading them.

BULLETIN NO. 1 gives detailed descriptions of our telephones and switchboards. Ask for a copy. And, remember, please, that we carry a large supply of construction materials in stock, and make a specialty of prompt shipment's.

CANADIAN INDEPENDENT TELEPHONE CO., LIMITED
20 Duncan St., Toronto



Clydesdale Stallions and Mares

Just landed, per S. S. Athenia, from Glasgow. Some of the best we ever imported, including several prizewinners, and all up to big size. Good colors; one choice grey, which has proved himself a good stock horse. Ages two to seven years. Come and see this consignment.

Dalgety Bros., London, Ont.

AT GUELPH WINTER SHOW

Be sure and see our exhibit of stallions and mares at this show. They are for sale. Our selling clothes are on every day, and we can sell cheaper than many firms, as we haven't any agents. Our aim is to please you, and terms to suit.

Smith & Richardson, Columbus, Ont.

MYRTLE, ONT., C. P. R. BROOKLIN, ONT., G. T. R. 'PHONE CONNECTION.

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

ORMSBY GRANGE STOCK FARM, ORMSTOWN, P. QUEBEC.
Duncan McEachran, LL. D., F. R. C. V. S., Etc., Importer and Breeder.
The demand for the special selections, and satisfaction so far given by them, has been such that I will hold annual auction sales, the first on the 26th Oct. Special importations on order will in the intervals be made at lowest cost, by buying from the breeders and paying cash.

Imported Clydesdales
My new importation of Clydesdale stallions for 1910 have arrived. They were selected to comply with the Canadian standard, combining size, style, quality and faultless underpinning with Scotland's richest blood. They will be priced right, and on terms to suit. **BARBER BROS., GATINEAU PT., QUEBEC.**

IMPORTED CLYDESDALES AND PERCHERONS.
My 1910 importation are in my stables at Bolton, Ont. There never was a better bred lot landed, nor a better lot of big, typical draft horses, full of quality and with perfect underpinning. Clydesdale stallions and fillies, and Percheron stallions. I will not be undersold.
T. D. Elliott, Bolton, Ontario.

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

NEW IMPORTATION OF CLYDESDALES
Superior breeding and quality, selected for the requirements of the Canadian trade—9 stallions, 6 fillies, 3 colts, including prizewinners and champions. This consignment will bear close inspection, and will be sold at moderate profit.
GEORGE G. STEWART, Howick, Que.
Phone connection.

Imp. Clydesdale Stallions and Fillies
My 1910 importation of Clyde stallions and mares are in my stables at Mitchell. They are ideal in draft character, big in size, toppy, and have perfect underpinning, and bred from the best blood of the breed. Prices right.
Wm. Colquhoun, Mitchell, Ont.
'Phone connection.

Subscribe for "The Farmer's Advocate and Home Magazine." \$1.50 per Year in Advance.

QUESTIONS AND ANSWERS. Miscellaneous.

TO KEEP BLOOD COOL—WARDING OFF LYMPHANGITIS.

1. Kindly tell me what to give heavy colts to keep blood cool while feeding heavily.
2. I have a mare supposed to be in foal; has had attack of lymphangitis. What would be good to give her to ward off disease? G. B.

ELIGIBILITY FOR STANDARD REGISTRATION.

1. Are house plants injurious in sleeping-rooms?
2. Can a two-year-old filly be registered whose sire is Standard-bred, and whose dam, grandam and great-grandam are from Standard-bred sires? J. H.

WAGES FOR PARTIAL PERIOD OF SERVICE.

A hires with B for a year for \$175, beginning on the 26th of March. After working six months, A quits, giving B notice eight days before the six months are up, and B says, all right, and would pay him in a few days; but, when paying him, he just allows him \$15 per month for the months worked. Can A legally collect any more for the six summer months than for the winter months, as A has been getting \$20 a month since the 28th of September?

LOVER OF FAIR PLAY.
Ans.—It would seem reasonably certain, from the statement as submitted, that by violating the terms of his agreement, A has placed himself in a position where he may not fairly claim for the summer months anything more than the stipulated rate per month at which he engaged.

FERTILIZERS FOR BLACK MUCK.

I have some black-muck land, from one foot to two feet deep with muck. It is well ditched with open ditches, so that the water does not lie on it, and I can sow it early (sometimes on the frost), but apparently it has become poor. Do you know of any cheap fertilizer, or any way of enriching it? I think I heard of basic slag, or some such name as that, being used satisfactorily. If you know of anything, please advise how and when to use it, and where to secure it, and at what cost. W. E. T.

Ans.—What answered in one case would not necessarily do so in another. Basic slag might be beneficial, and again it might be of little effect. Potash, in the form of wood ashes, or potash salts, such as sulphate of potash, 200 pounds per acre, would be more likely to prove valuable, and the combination of potash with basic slag might be better than either alone. In not a few cases, barn-yard manure has given most marked results on such soils, its benefit consisting largely, no doubt, in the bacterial activity it stimulated in the soil. In some cases, where the subsoil is not too impervious, tilling is of much value. But no one can, by chemical analysis or examination, tell you positively what is best to do. The only thing is to experiment on your own soil. Write Prof. R. Harcourt, O. A. C., Guelph, and see whether he will, through the Experimental Union, supply you with materials for a co-operative plot experiment, comparing fertilizers with manure.

HORSE OWNERS! USE



CAUSTIC BALSAM.

A safe, speedy and positive cure. The safest, best BLISTER ever used. Removes all bunches from Horses. Impossible to produce scar or blemish. Send for circular. Special advice free.

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

BITTER LICK MEDICATED Salt Brick



The Great Conditioner, Tonic, Digestor & Worm Destroyer.

For Horses, Cattle and Sheep

SEND FOR BOOKLET B.

WILLIAM COOPER & NEPHEWS
152 Bay Street, TORONTO, ONT.

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use

Fleming's Spavin and Ringbone Paste
Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of Fleming's Vest-Pocket Veterinary Adviser.

Ninety-six pages, durably bound, indexed and illustrated. Covers over one-hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.
FLEMING BROS., Chemists
75 Church St., Toronto, Ontario

SPECIAL PRICES THIS MONTH

LISTEN!
Wilson Pays the Freight.



WRITE TO-DAY.

C. Wilson & Son, 79 Esplanade St., E. Toronto, Can.

You Can't Cut Out A BOG SPAVIN, PUFF or THOROUGHPIN, but ABSORBINE

will clean them off permanently, and you work the horse same time. Does not blister or remove the hair. \$2.00 per bottle, delivered. Book 4 E free.
Mr. S. Nixon, Kibride, Ont., writes, Jan. 21, 1910: "I have used ABSORBINE with success on a curb."

W. F. Young, P. D. F.,
258 Temple St., Springfield, Mass.
Lymans, Ltd., Montreal, Canadian Agents.

Messrs. Hickman & Scruby

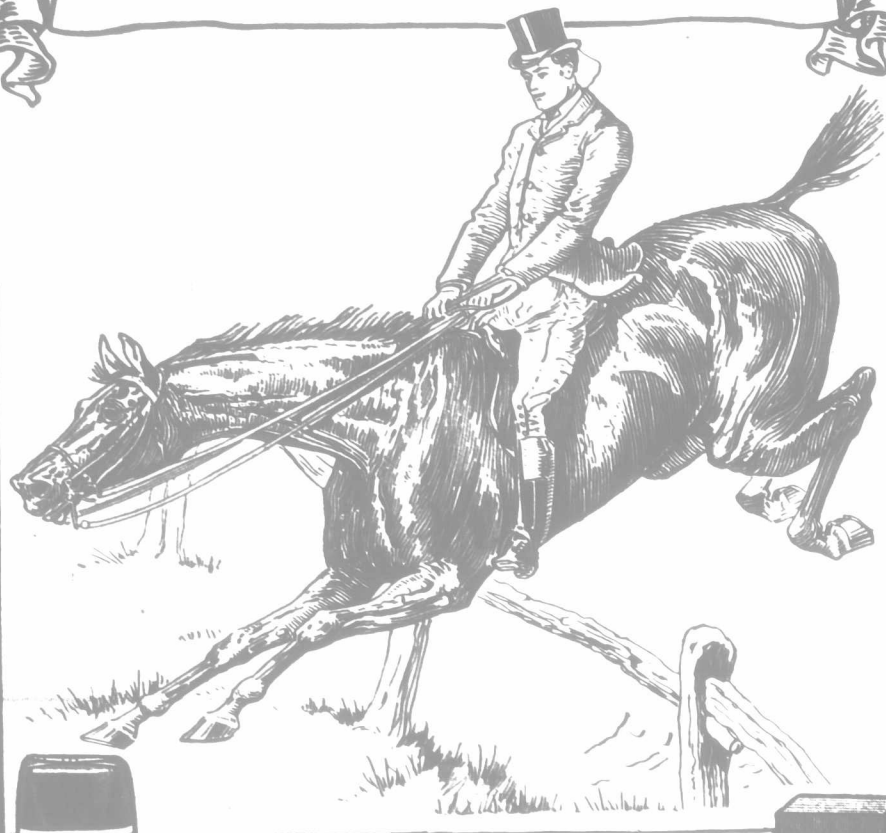
Court Lodge, Egerton, Kent, England.
EXPORTERS OF PEDIGREE LIVE STOCK OF EVERY DESCRIPTION.

During the fall months the export of heavy horses will be a specialty. A trial order will convince you that it is to your advantage to do business with us. Write for full particulars, stating what you require.

Diner—Waiter, this knife is blunt, and the steak is like leather.

Waiter—Yessir; do nicely for stropping the knife on, sir.

ELLIMAN'S EMBROCATION



Royal in the Stable,
ELLIMAN'S
for Sprains, Rheumatism, Curbs, Splints when forming, Sprung Sinews, Capped Hocks, Overreaches, Bruises, Cuts, Broken Knees, Sore Shoulder, Sore Throat, Sore Backs in Horses, Sprains in Dogs, Cramp in Birds, etc.

Universal, Human Use
ELLIMAN'S
for Rheumatism, Sprains, Bruises, Lumbago, Sore Throat from Cold, Neuralgia from Cold, Cold at the Chest, Chronic Bronchitis, Cramp, Backache, Soreness of Limbs after exercise, etc. Elliman's added to the Bath is Beneficial.

ELLIMAN, SONS & CO., SLOUGH, ENGLAND.

Imp. Percheron Stallions

We have at our stables some of the finest Percheron Stallions ever imported to this country. The large drafty kind, with plenty of good flat bone and the best of movers. Our horses range in age from 2 year-olds to 5-year olds.

We also have three German Coach Stallions of the true type. We invite inquiries from all intending purchasers, and assure them that they will do well to get our prices and terms before buying, as we are in a position to sell below competition.

R. HAMILTON & SON, SIMCOE, ONT.





**UNION
STOCK - YARDS Horse Exchange
WEST TORONTO, CANADA.**

The Greatest Wholesale and Retail
Horse Commission Market.

Auction sales of Horses, Carriages, Harness, etc., every **Monday and Wednesday.** Horses and harness on hand for private sale every day.

The largest, best equipped and most sanitary stables in Canada. Half-mile of railway loading chutes at stable door. Quarter-mile open track for showing horses. **Northwest trade a specialty.** **HERBERT SMITH, Manager.** (Late Grand's Repository.)

Imp. Clydesdale Stallions and Fillies

For Sale Gentlemen, don't miss this opportunity. I am out for business now that my Toronto and London prizewinners are in my stables at Milverton. I am open to compare prices and quality with any man in the trade. Don't be without a good stallion or mare when I will either buy, sell or exchange for Canadian-bred stallions or workable, sound horses. Write me or call, and you will have every attention.

JNO. SEMPLE, SPRING HILL STUD FARM, MILVERTON, ONTARIO.
Stations, G. T. R. and C. P. R. Phone connection, long-distance.

CLYDESDALES COMING!

T. H. Hassard, Markham, Ont., sailed for Scotland Sept. 28th, to select another consignment of Clydesdale stallions, mares and fillies, the best that money will buy. Intending purchasers will do well to wait for this new importation.

T. H. Hassard, Markham, Ontario.

IMPORTED CLYDESDALES AND HACKNEYS
In my stables at Ingersoll, Ont., I have always on hand Clydesdale stallions and fillies, and Hackney stallions, personally selected in Scotland for their high-class type, quality and breeding. Let me know your wants.

W. E. BUTLER, INGERSOLL, ONT.

MENTION THE FARMER'S ADVOCATE WHEN WRITING ADVERTISERS.

QUESTIONS AND ANSWERS. Miscellaneous.

WOOD AND MEALS.

A is an old lady living alone. She owns two acres of land and a cow, and by a little help from her neighbors is trying to get a fair living, and now, and for months past, has had no wood only what she could gather along the roadsides. B has plenty, but just lives wherever he can, and has for over twenty years been coming quite often and having meals, and has not given or offered anything for them, except just lately B has offered some wood if A could get someone to draw it, which was soon done. A does not ask B to come to the house, but B comes and splits some wood or cleans out the stable, and then steps into the house, and when the meal is ready, A tells B to sit in.

1. Can B, in any way, or any time, collect pay for the wood?
2. Can A collect anything from B for board?

Ans.—1 and 2. From the statement of facts, it does not appear that A can collect anything for the meals. Whether B can collect anything for the wood will depend upon how it was offered. From the statement as submitted, we do not see that he can.

JAPANESE FERN—DEVELOPING VELOX PRINTS.

1. Will a Japanese air fern freeze during the winter if left in a room where there is no fire?
2. How should velox photo prints be developed so they will not fade? After they come out of the developer, I put them into a bath composed of hyposulphite of soda 1 ounce to 4 ounces water. I leave them in this for 15 minutes, then wash them. Is this sufficient?
3. Should the hypo soda be dissolved beforehand, and what proportions of it and water should be used?

Ans.—1. If by "Japanese air fern" you mean the greenery usually sold in stores under that name, we may assure you that it may be left any place. Unless we have been misinformed, it is simply a sort of seaweed, and is quite disdainful of all such trifles as drouth or temperature.

2. The method of procedure stated is correct. Acid hypo, however, should be used, and is prepared as follows: Water, 64 ounces; hyposulphite soda (crystal or granular, 16 ounces). When thoroughly dissolved, add following, dissolving chemicals separately: Water, 5 ounces; sulphite soda (desiccated), 4 ounce; acetic acid, No. 8, 3 ounces; powdered alum, 1 ounce.

3. Use hypo as above.

HYPOTHEC.

A holds a mortgage, or, as it is called on the paper, obligation, from B to A. It reads: "B, of the township of —, farmer, hereby acknowledge myself to be indebted to A, of the township of —, the sum of two thousand dollars, payable in five years from date thereof, with interest at five per cent. per annum, payable annually, with interest on arrears of interest at the same rate, and for securing the payment of the principal and all interest that may accrue thereon as aforesaid, I hypothecate all that piece of land being known in Book of Reference, Township of —, Province of Quebec, under number —. As B has had the money on obligation three years now, and has not paid any interest, if it runs on for five years without him paying any interest, can I hold place for the principal and also all the interest. I have been told I could only collect two years' interest if I let it run, and he does not pay me any interest."

Quebec. **SUBSCRIBER.**

Ans.—No; that would not be your proper course. You are entitled to sue, and, having obtained judgment, proceed for a judicial sale of the property, and to be paid out of the proceeds of such sale. But you cannot safely let the matter stand for the five years. You ought, rather, to place it in the hands of a lawyer now, in order that your interests may be properly safeguarded, and your claim realized in due course.

WRITE TO THIS WOMAN

IF YOU WANT TO STOP A MAN FROM DRINK

She Cured Her Husband, Her Brother and Several of Her Neighbors and Prompted by Her Restored Happiness, she Generously Offers to Tell You of the Simple, Inexpensive Remedy that she so Successfully Used.

For over 20 years the husband of Mrs. Margaret Anderson was a hard drinker, but nine years ago, by using a simple remedy, she stopped his drinking entirely. He has not touched a drop since.



MRS. MARGARET ANDERSON

She Will Tell You How To Stop a Man From Drink

The remedy can be given secretly, so there is no publicity of your private affairs. She wants every man or woman who has drunkenness in their home to write to her so she can tell them just what remedy she used. Hundreds have freed their homes from drink by using the information she gave them, but there are still hundreds of others who need and should have it, so we earnestly advise every one of our readers who have a dear one who drinks, to drop her a line to-day.

The proofs of the hundreds of really remarkable cures are too strong to be doubted or denied. Yet she makes no charge for her help, (she asks for no money and accepts none); so there is no reason why you should not write her at once. She only requests that you are personally interested in curing one who drinks. Send your letter with confidence to her home. Here is her address:

Mrs. Margaret Anderson,
183 Home Avenue, Hillburn, New York.
Note: (Write your full name and address plainly—do not delay.)

DUNHAM'S PERCHERONS

For forty-six years renowned as the best of the breed. Six large importations since February 1, 1910 (the last arrived October 12th), insure fine selection, as each animal was individually selected for size, bone quality and excellence. If you want choice stallions or mares, write for catalogue, illustrated from life.

W. S., J. B. & B. DUNHAM
WAYNE, ILL.

3 ANGUS BULLS

For sale: Our stock bull, Royal Chief of Penzance; a yearling bull and a bull calf. Write for prices. Also DORSET HORN SHEEP.

Forster Farm, Oakville, Ontario

Imported Clydesdales Imported and Canadian-bred Clydesdale mares and fillies and young stallions, of most fashionable breeding, up to a big size, with character and quality. Phone connection. **ALEX. F. McNIVEN, St. Thomas, Ont.**

ABERDEEN - ANGUS

Will sell both sexes; fair prices. Come and see them before buying. Drumbo station.

WALTER HALL, Washington, Ont.

Balmedie Polled Angus and Oxford Down sheep — Offering several exceptionally nice heifers, and a few young bulls. Discriminating buyers will be pleased with my herd. Anything in the herd will be priced. Also ram and ewe lambs. **T. B. Broadfoot, Fergus P. O. and Station.**

Warden—"You'll get six months for this job."

Prisoner—"Just my blooming luck. Only had my hair cut last night. Those once chucked away, as you might say."

Heart Trouble

Caused Dizziness, Weakness and Smothering Spells.

Through one cause or another a large majority of the people are troubled, more or less, with some form of heart trouble. Wherever there are sickly people with weak hearts, Milburn's Heart and Nerve Pills will be found to be the most effective medicine on the market.

Mrs. F. Leslie Craig, 114 Erie Ave., Brantford, Ont., writes:—"It is with the greatest of pleasure I write you stating the benefit I have received by using Milburn's Heart and Nerve Pills. I suffered greatly from heart trouble which caused dizziness, weakness and smothering spells. I used a great deal of Dr.'s medicine but received no benefit. A friend advised me to buy a box of your pills, which I did, and before I had finished one box I felt so much better I continued their use by taking two boxes. I highly recommend these pills to any one suffering from heart and nerve trouble."

Milburn's Heart and Nerve Pills are 50 cents per box, or 3 for \$1.25, at all dealers, or mailed direct by The T. Milburn Co., Limited, Toronto, Ont.

Maple Lodge Stock Farm

1854-1910.

A lot of choice young SHORTHORN BULLS, and a splendid lot of LEICESTER rams and ewes for sale.

A. W. Smith, Maple Lodge, Ont.

GEORGE D FLETCHER,

BINKHAM P. O., ONT.

Offers a few choice **Shorthorn Cows** at bargain prices, bred to stock bull, Benachie (imp.) 6954-5, also Shorthorn heifer calves. Three Clydesdale fillies 1 and 2 years old; and Yorkshire sows ready to breed. **Trin Shipping Station, C. P. R.**

Spring Valley SHORTHORN We have for sale Newton Ringleader (imp.) 7378. A good bull, with first-class breeding. Also a Canadian-bred 15-months-old bull of the choicest quality. Phone connection. **Kyle Bros., Ayr, Ont.**

HIGH CLASS SHORTHORNS

I have on hand young bulls and heifers of high-class show type, pure Scotch and Scotch-topped, sired by that sire of champions, Mildred's Royal. If you want a show bull or heifer, write me. **GEO. GIER, Grand Valley P.O. and station, also Waldemar station.**

JOHN GARDHOUSE & SONS

Still have for sale a right good lot of young Shorthorns; a few No. 1 Shore stallions and fillies just imported in August; also a choice lot of ram lambs. **Weston Station, G. T. R. and C. P. R. Long-distance phone. HIGHFIELD, ONTARIO.**

OAK LANE FARM

Clydesdales, Shorthorns and Cotswolds Young stock for sale—most fashionably bred.

GOODFELLOW BROS., MACVILLE P. O., ONT. Bolton Station, C. P. R.; Caledon East, G. T. R. Local and Long-distance telephone.

CLOVER DELL SHORTHORNS

Always have for sale, young stock of both sexes. Milking strains a specialty. Moderate prices.

L. A. Wakely, Bolton, Ont. Bolton Junction, on C. P. R., within half mile of farm.

Imp. catch Shorthorns—When looking for Shorthorns, be sure to look me up. Young bulls fit for service, and females all ages; bred in the purple, and right good ones. **A. C. PETTIT Freeman, Ont.**

INVERNESS SHORTHORNS.

I can supply Shorthorns of all ages, with richest Scotch breeding and high-class individuality.

W. H. EATERBROOK, Freeman, Ont.

A HIGH-CLASS YOUNG FOR SALE, sired by imp. Ben Lomond; also a heifer calf of good quality. Prices reasonable. **Stewart M. Graham, Port Perry, Ontario**

Shorthorns, Clydesdales, Oxford Downs

A number of red bulls, 9 to 15 mths., by Protector, imp. some with imp. dams. Heifers 2 and 3 yrs. Clydesdales of both sexes. Lincoln and Oxford Down ram and ewe lambs. All at reasonable prices. Phone connection. **McFarlane & Ford, Dutton, Ont.**

Shorthorns and Oxford Down Sheep

Frank McK. Wonder at head of herd. Young bulls and heifers of richest Scotch breeding. Phone connection. **Duncan Brown & Sons, Iona, Ontario.**

"I think your family name is such a fine one."

"—Do you? I get dreadfully tired."

GOSSIP.

ADDITIONAL HOLSTEIN-FRIESIAN CATTLE ACCEPTED IN THE RECORD OF PERFORMANCE.

Cozey of the Old Farm (7110), three-year-old class: 11,709.25 lbs. milk, 392.89 lbs. fat; average per cent. of fat, 3.35; number of days in milk, 320. Owned by M. N. Matthews, Luton, Ont.

Korndyke Pet (10532), two-year-old class: 8,334 lbs. milk, 318.67 lbs. fat; average per cent. of fat, 3.82; number of days in milk, 304. Owned by John Marks, Norwood, Ont.

Meadowlane Lassie (10565), two-year-old class: 9,369.4 lbs. milk, 313.65 lbs. fat; average per cent. of fat, 3.34; number of days in milk, 355. Owned by B. Mallory, Belleville, Ont.

Rose Omega (3490), mature class: 12,181.8 lbs. milk, 372.58 lbs. fat; average per cent. of fat, 3.05; number of days in milk, 305. Owned by B. Mallory.

Ruby A. (1812), mature class: 13,633.5 lbs. milk, 413.22 lbs. fat; average per cent. of fat, 3.03; number of days in milk, 345. Owned by F. Leeson, Aylmer, Ont.

Daisy Pietertje Johanna (6190), four-year-old class: 14,237.18 lbs. milk, 523.75 lbs. fat; average per cent. of fat, 3.67; number of days in milk, 348. Owned by D. C. Flatt & Son, Millgrove, Ont.

Faforit 10th's Beauty (5622), four-year-old class: 13,337 lbs. milk, 417.59 lbs. fat; average per cent. of fat, 3.13; number of days in milk, 365. Owned by A. E. Smith & Son, Millgrove, Ont.

Ida Mechthilde De Kol (8783), two-year-old class: 11,208 lbs. milk, 373.73 lbs. fat; average per cent. of fat, 3.33; number of days in milk, 365. Owned by G. H. McKenzie, Thornhill, Ont.

Lady Faforit Posch (8949), two-year-old class: 10,595.6 lbs. milk, 385.84 lbs. fat; average per cent. of fat, 3.64; number of days in milk, 365. Owned by G. H. McKenzie.

Helma Hengerveld De Kol (4337), mature class: 16,302.62 lbs. milk, 534.81 lbs. fat; average per cent. of fat, 3.28; number of days in milk, 365. Owned by A. D. Foster, Bloomfield, Ont.—G. W. Clemons, Secretary.

AGRICULTURAL IMPROVEMENT IN EGYPT.

The following extracts in a British consular report are calculated to interest Canadian exporters. The demand for agricultural machinery seems to be steadily improving.

Considerable progress has been made in the employment of more modern machinery, such as pumps, grain-cleaning and levelling machines. One United States firm imported more than a dozen reaping and mowing machines during the year, all of which were sold, and are now working satisfactorily. The competition for all kinds of machinery at present in use in the country is very keen. However, there is a growing demand for light and simple machinery in almost all processes incidental to agriculture. Any labor-saving machinery specially adapted to the undeveloped markets of Egypt, might also be in demand in India. Cheapness and simplicity are essential. Since coal is relatively expensive, oil engines or steam engines up to a certain size, with boilers designed for use with oil fuel, would prove most suitable to local conditions. Firms should make a point of having a center at Cairo for supplying duplicate parts for repairs. The majority of the population depends for its support on small holdings, from 1/2 to 5 feddans; up to the present, agricultural machinery has been little used, as the lack of roads prevents co-operation. This limitation will gradually decrease in importance with the making of good country roads, and joint ownership of the more expensive machinery would then be possible.

On the larger estates, the landowners are showing increased interest in the management of their property. Some have already installed pumping stations of considerable magnitude for irrigation, and others are looking about for labor-saving machinery to enable them to cultivate large areas to better advantage. Egypt produces about 1,000,000 tons of maize cobs per annum, and the United Provinces of India yield about 1,500,000 tons. These are at present entirely a waste product, being usually burnt as fuel.

BOVRIL

IS A GOOD FOOD FOR CHILDREN

It quickly builds up the system, increases vitality, and makes them ready for any form of work or play.

45 Shorthorns 45 BY AUCTION

At Valley Home Farm, MEADOWVALE, ONT., on

WEDNESDAY,

December 14, 1910



The entire Valley Home herd of 45 head of **Scotch Shorthorns**, representing the most useful families in the breed, such as the Nonpareils, Minas, Jilts, Marchioness and Lady Brants. Among the 1st are many show animals, also the grand stock bull, Royal Diamond 2nd = 58469 =.

TERMS cash, or six months' credit on bankable paper, with 5 per cent. interest per annum.

Catalogues sent on application to

S. J. PEARSON & SON, Meadowvale, Ont.

Auctioneers | CAPT. T. E. ROBSON, London, Ont. | W. A. RUSSELL, Hanlan, Ont.

OIL CAKE

J. & J Livingston Brand

The finest feed known for stock. Once a user, always a user. Sold either fine or coarse ground. Write:

DOMINION LINSEED OIL CO., LIMITED, BADEN, ONTARIO. 31 Mill St., MONTREAL, QUE.



SALEM SHORTHORNS

One three-year-old roan bull by Springhurst = 44864 =, out of a Royal Sailor cow. Anybody in search of a good sire would do well to look him over. Have also a number of young bulls with best breeding for sale. Elora sta., G. T. R. and C. P. R.

J. A. WATT, SALEM, ONT.

PLEASANT VALLEY SHORTHORNS

For Sale: 1 red, 1 roan, 2-year-old show bulls. Several good bull calves, also some yearling heifers. Some show propositions among them. If interested, write or call and see us before buying. **GEO. AMOS & SONS, MOFFAT, ONTARIO.** Farm 11 miles east City of Guelph on C. P. R. 1/2-mile from farm.



Rowan Hill Shorthorns

Herd headed by "Best of All," a Campbell Bessie, sired by Uppermill Omega. For sale is a roan 15-months show bull, one 2-year-old show heifer and a few young cows and heifers. Write, or, better, come and see.

R. F. DUGGAN, Carluke Ont.

CHOICE SCOTCH BULLS

FOR SALE, HERD-HEADING QUALITY. Farm adjoins Exeter, on G. T. R.

H. SMITH R. R. 3, Hay, Huron Co., Ont.

Scotch Shorthorns

—One choice imported bull, a Cruickshank Butterfly, dam bred at Uppermill. Six extra good bull calves, suitable to head high-class herds. Two good farmers' bulls. 25 heifers, mostly forward in calf to high-class imported bulls. Farm 1/4 mile from Burlington Jct. Sta., G. T. R.

J. F. MITCHELL, Burlington, Ont.



Irvine Side Shorthorns

Property of J. WATT & SON—Will price (Imp.) Pride of Scotland = 45213 = (out of same dam as \$5,100 Lord Banff). Having used him for four seasons, we have a number of his heifers on hand, and cannot use him to advantage. He is a good worker and sure, and will be priced reasonable. Five young bulls on hand, of choicest breeding.

Salem P.O. Elora Sta., G. T. R. and C. P. R.

Subscribe for The Farmer's Advocate

FIRST ANNUAL TORONTO FAT-STOCK SHOW

Union Stock-yards, Toronto

MONDAY AND TUESDAY Dec. 12th and 13th, 1910

Grand Display of Live Stock. Auction Sale of Prizewinners.

\$1,100 in Cash Prizes

ENTRY FREE. ENTRIES CLOSE DEC. 1, 1910

Admission free. Public invited. Reduced rates on all railroads. Entry blanks and full particulars on application to

J. H. ASHCRAFT, JR., General Manager
Union Stock-yards, TORONTO, CAN.

COTTON-SEED MEAL

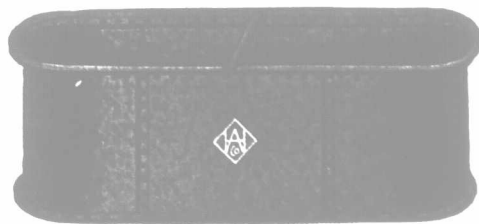
The Greatest Milk - producer Known

The highest protein dairy feed. Recommended by every agricultural college and experimental station in the United States.

Averages from 40 to 44 per cent. protein. Send for samples and prices. Warehouse at Windsor, Canada, for ton-lot shipments.

The Dominion Feed Co., Windsor, Ont

H.-A. Galvanized Steel Tanks



Water Storage and Stock Watering Tanks, Thresher Tanks, Tank Heaters, Hog Troughs, Feed Cookers, Oil and Gasoline Tanks. We guarantee our tanks will not be injured by freezing. Catalogue B on request. We also make a complete line of water well supplies. "Baker" Windmills, Pumps, Cylinders, Gasoline Pumping Engines, etc. Ask for catalogue No. 58.

The Heller-Aller Co.,
WINDSOR, ONT.



H. CARGILL & SON

have to offer at the present moment an exceptionally good lot of young bulls, which combine all the requisites necessary for the making of superior stock sires, viz.: Quality, Size, Conformation and Breeding. If interested, come and make your selection early. Catalogue on application.

John Clancy, Manager, Cargill, Ontario.



WILLOWDALE SHORTHORNS

We have for sale some exceptionally good heifers from 6 months to 2 years old. Also a few extra young bulls, Joy of Morning and Broad Scotch blood.

J. H. M. Parker, Willowdale Farm, Lennoxville, Que.

Scotch Shorthorns—Eight extra good young bulls, from 10 to 15 months old; 20 choice cows and heifers, forward in calf or with calves at foot. Prices reasonable. Inspection invited. Farms close to Burlington Junction, G. T. R.

W. G. PETTIT & SONS, Freeman, Ont.



Maple Leaf Shorthorns and Hampshire Hogs

Offering for sale Shorthorn bulls and heifers and young Hampshire pigs.

PORTER BROS., APPLEBY P.O., BURLINGTON STA. 'Phone.

SUNNY SLOPE SHORTHORNS

I breed Scotch Shorthorns exclusively. I have some choice young females safe in calf and some good young bulls for sale at prices you can pay. Long-distance phone.

A. EDWARD MEYER, BOX 378, GUELPH, ONT.

ELMDALE SHORTHORNS AND SHROPSHIRE

We are offering some choice heifers in calf to that king of sires, Prince Gloster; also one extra nice young bull. High-class Shropshires of both sexes, from imported stock. One yearling Clyde stallion, a show proposition, and some extra nice ponies.

Oshawa station, G. T. R.

THOS BAKER & SONS, Solina P. O.

GOSSIP.

MONKLAND YORKSHIRES AND SHORTHORNS.

A representative of "The Farmer's Advocate" recently visited the Monkland Stock Farm at Fergus, Ont., the property of James Wilson & Sons. As is well known, this is one of the largest Yorkshire-hog breeding establishments in Canada. Continuously on this farm there are in breeding from 75 to 150 sows, and these of the most approved farm type, so that the increase is a very large one, but so high is the reputation of the Monkland Yorkshires and so great the demand from all over Canada, and a number of the States, that the increase, great as it is, is ordered ahead as fast as they are of shipping age. At the time of our visit there were in the neighborhood of 200 youngsters getting their living at the nipples of their dams. These will soon be of salable age, and all will be for sale, while of sows getting along to breeding age, and others bred, there are some extra choice ones still on hand, and a limited number of boars of breeding age.

Although it has never before been mentioned in these columns, there is on the farm an extra nice herd of Scotch Shorthorn cattle, imported and home-bred, modern in type, high-class in quality, most fashionably bred, and all in the pink of condition. Of these for sale are two young bulls, one a red, 24 months of age, sired by a son of the champion, Mildred's Royal. This is a big, thick bull, with grand lines and back; a right good one. The other is a yearling roan, by Imp. Pride of Scotland. This is a thick, suppy young bull. They are a most desirable pair for anyone looking for a first-class bull, at a moderate cost.

W. RIVERS' HOLSTEINS.

There are few herds of Holsteins in Canada of any considerable size in which every female of milking age in the herd that has freshened is in the Record of Merit, with an official seven-day butter record, but such is the high standard of the herd belonging to Walburn Rivers, of Falden, Ont., a few miles from either Woodstock or Ingersoll. At the head of this great herd is the splendidly-backed bull, Prince Aaggie Mechthilde, a son of Prince De Kol Posch, whose dam, Lady Aaggie De Kol, has an official record of 606 lbs. 13 ounces of milk, and 27 lbs. butter in seven days, and won sweepstakes at Guelph dairy test in 1908 and 1909. The dam of Prince Aaggie Mechthilde is Ianthe Jewell Mechthilde 3rd, winner of second prize at the Guelph dairy test last year, and her dam, Ianthe Jewell Mechthilde, has a seven-day record of 27 lbs. His three nearest dams have records that average 25 lbs. each. Among the many high-class record cows of the herd are such good ones as Princess Calamity Clay, seven-day record at four years, 20 lbs.; Countess Daisy Clay, three-year-old record, 15 lbs., and 60 lbs. milk in one day, seven months after calving; Princess Calamity Posch, two-year-old record, 50 lbs. milk in one day, and 12 lbs. butter in seven days; Daisy De Kol Wayne, record at two years, 10 lbs. butter in seven days, six months after calving; Princess Calamity Wayne, record 18 lbs. butter as a four-year-old; Duchess Wayne Calamity, 14 805 lbs. butter as a two-year-old; Lady Wayne Posch De Kol, 13.70 lbs. butter as a two-year-old, and 12 others from 13½ lbs. for two-year-olds, to 15 lbs. for three-year-olds. This is a most remarkable showing for so many two- and three-year-old heifers, all going to prove the wonderful producing strain of Holsteins that go to make up this splendid herd. For sale are a yearling bull, out of Daisy De Kol Wayne, and sired by King Posch De Kol, whose dam, Queen De Kol 3rd, has a seven-day record of 21 lbs. Another yearling bull out of Imena Albina's Wayne, with a record of 17.34 lbs., and got by the same sire as above. Still another yearling is out of Countess Daisy Clay, and by the same sire. Then, for sale, are five bull calves, all out of official-record dams. All these young bulls have official backing on both sides, and are most desirable coming herd-leaders. The females to be spared are all sold except one heifer calf, out of Queen Abbe-kirk Wayne 2nd, with a two-year-old seven-day record of 10 lbs. The farm is connected with long-distance phone from Ingersoll.

Lump Jaw

The first remedy to cure Lump Jaw was

Fleming's Lump Jaw Cure

and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket

Veterinary Adviser

Most complete veterinary book ever printed to be given away. Durably bound, indexed and illustrated. Write us for a free copy. FLEMING BROS., Chemists, 75 Church St., Toronto, Ontario

Shorthorns and Cotswolds.

Heifers 2 years old, 1 year old and calves; 2 young bulls 6 months old, bred from dairy-bred Shorthorns. Right good ones, and right easy prices. Ram and ewe lambs of high-class quality, type and covering.

C. E. BONNYCASTLE,
Campbellford, Ontario, P. O. and Station

Glengow Shorthorns

Have on hand four young bulls from 10 to 13 months old; also a number of choice heifers. For particulars write:

Wm. Smith, Columbus, Ont.

Maple Grange Shorthorns

Royal Bruce, imp., a Bruce Mayflower, is the sire of all my young things. Nonpareils, Clarets, Myrtles and Lavinias. Heifers up to 2 years of age, of show-ring type. Several young bulls, thick, even and mellow.

R. J. DOYLE, Owen Sound, Ont.

Sunnyside Shorthorns

With 45 head to select from, of Scotch-bred Shorthorns, we can meet the requirements of anyone looking for choice females of any age, or a herd-header fit to be called such. Write us your wants.

Estate of Late JAS. GIBB, Brooksdale, Ont.
W. E. GIBB, Manager.

"What makes the trust magnate look so worried?"

"He has just read that the Canadian farmer is very prosperous, and he feels that he must have overlooked something."

IT IS NEWS WORTH GIVING TO THE WORLD

How Ravages of Kidney Disease are Checked in Quebec.

Mrs. Julien Painchaud, for seven years a sufferer, finds quick relief and complete cure in Dodd's Kidney Pills.

Whitworth, Temiscouata Co., Que., Nov. 21.—(Special.)—With the coming of winter, the ravages of Kidney Disease are again felt in this Province, and the fact that a sure cure is vouchsafed for in this village is news worth giving to the world. Mrs. Julien Painchaud is the person cured, and she states without hesitation that she found her cure in Dodd's Kidney Pills.

"For seven years my heart and kidneys bothered me," Mrs. Painchaud states. "I was always tired and nervous. I could not sleep. My limbs were heavy, and I had a dragging sensation across the loins. My eyes had dark circles under them, and were puffed and swollen. I was so ill I could hardly drag myself around to do my household work."

"A neighbor advised me to try Dodd's Kidney Pills, and I found relief in the first box. Six boxes made me perfectly well."

"If you have any two of Mrs. Painchaud's symptoms, your kidneys are diseased. Cure them, and guard against serious, if not fatal results, by using Dodd's Kidney Pills."

I Cured My Rupture

I Will Show You How To Cure Yours FREE!

I was helpless and bed-ridden for years from a double rupture. No truss could hold. Doctors said I would die if not operated on. I fooled them all and cured myself by a simple discovery. I will send the cure free by mail if you write for it. It cured me and has since cured thousands. It will cure you.

Fill out the coupon below and mail it to me today

Free Rupture-Cure Coupon

CAPT. W. A. COLLINGS,
Box 653 Waterford, N. Y.
Dear Sir:—Please send me free of all cost your New Discovery for the Cure of Rupture.

Name.....
Address.....

IS YOUR SKIN ON FIRE?

Does it seem to you that you can't stand another minute of that awful, burning itch?
That it MUST be cooled?
That you MUST have relief?
Get a mixture of Oil of Wintergreen, Thymol, and other soothing ingredients as compounded only in D. D. D. Prescription.
The very first drops STOP that awful burning instantly!
The first drops soothe and heal!
The first drops give you a feeling of comfort that you have not enjoyed for months, or perhaps years.
Take our word on it.
Get a \$1.00 or a trial bottle to-day.
Write the D. D. D. Laboratories, Dept. A, 49 Colborne St., Toronto, and they will send you a trial bottle free.
For sale by all druggists.

BRAMPTON Jerseys

CANADA'S GREATEST JERSEY HERD
We are offering for sale one 2-year-old bull and four yearlings, fit for service; also six bull calves; females of all ages. Come and see them or write.
B. H. BULL & SON BRAMPTON, ONT.

WOODBINE FARM HOLSTEINS
Offers a number of fine bulls and bull calves, sired by Sir Creamella, who is a direct descendant in two different lines of the great cow, Duchess Ormsby, 24.44 lbs. butter in 7 days, dam of five daughters with records that average 20 lbs. of butter in 7 days, the greatest producing family of the breed. Write for prices. Telephone connection. Shipping stations: Ayr, C. P. R.; Paris, G. T. R.
A. KENNEDY, AYR, ONTARIO.

Fairmount Holsteins
Must sell 35 head before fall, as I have sold one of my farms. Head headed by Aaggie Grace Cornucopia Lad, whose dams for four generations have records that average 21.30 pounds.
C. R. GIES, Heidelberg P. O., St. Jacob's Sta., Ont.

Ridgedale Holsteins—I have left three bull calves that will be priced right for quick sale; their dams are heavy producers, and their sire was bred right.
R. W. WALKER, Utica, Ont. Phone connection.

Glenwood Stock Farm—Holsteins and Yorkshires.
Holsteins all sold out. Have a few young Yorkshire sows, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock.
Thos. B. Carlaw & Son, Warkworth P. O., Ont. Campbellford Station.

DON'T Buy a HOLSTEIN BULL till you get my prices on choice goods from eight months down, from best producing strain. Fairview Stock Farm. **FRED ABBOTT, Harrietsville, Ont.**

High Grove Jerseys No Better Blood in Canada. Present offering: Two choice young bulls about fourteen months old. Will be sold right, before going into winter. **ARTHUR H. TUFIS, P. O. BOX III, TWED, ONTARIO.**

A Rare Chance to Secure a Great Sire. To avoid inbreeding I must sell my son of Tidy Abbecker's record, 27.28 lbs. butter. He is 10 years old. Easy to handle, sure, and as good a worker as a yearling. Or I will exchange for one of equal merit and breeding. **H. Bolbert, Cassel, Ontario.**

For sale, at bargain prices, 10 choice registered **Holstein Heifers** in call to **Gracie Calamity Ormsby, W. A. BRYANT, CAIRNGORM P. O., ONTARIO**

What good is an asbestos curtain, says?
It keeps the show from being roasted

GOSSIP

FERTILIZERS ON ENGLISH MEADOWS

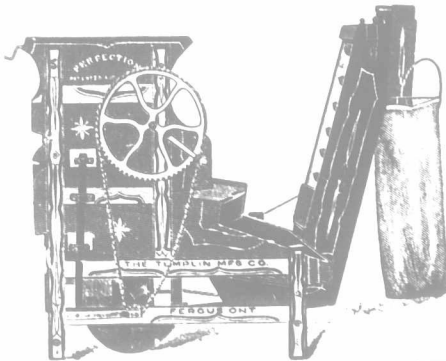
This is the ninth season of the grass-manuring experiments, conducted by Ernest Park, at Kington, reports our English correspondent. Portions of two fields of naturally-poor quality are left unmanured. These yielded 11 cwt. and 15 cwt., respectively, of hay per acre this season. In one of the fields, the remaining portion was manured with 3 cwt. of superphosphate, and 1 1/2 cwt. of nitrate of soda per acre. The yield of hay from this portion was at the rate of 43 cwt. per acre. The other field being deficient in lime, the remaining portion was treated with 5 cwt. of basic slag, and 1 1/2 cwt. of nitrate of soda. The yield of hay was 44 cwt. per acre.

This increase of almost 14 tons per acre was secured at a cost of under 30 shillings (\$7.50). Both fields are grazed every year, and the aftermath is grazed off by stock. Mr. Park describes the herbage on the manured portions as luxuriant, consisting of good grasses mixed with clover, while the herbage of the unmanured portions is thin, wiry and abounding in weeds.

DISPERSION OF THE MEADOWVALE SHORTHORN HERD

After a lifetime spent in the breeding of Shorthorn cattle, age, which is no respecter of persons, coupled with failing health, is the cause that has led S. J. Pearson, of Meadowvale, Ont., to decide on the dispersion of the large herd of Scotch and Scotch-topped Shorthorns. The firm now known as S. J. Pearson, Son & Co., have therefore decided that on Wednesday, December 14th, 1910, at the farm, one mile from Meadowvale Station, and two miles from Streetsville Junction, both on the C. P. R., 20 miles west of Toronto, the entire herd will be sold, without the slightest reserve. There are 45 head all told, of the Nonpareil, Mina, Jilt and Marchioness families, and a number of that grand old milking tribe, the Lady Brants, at the head of which is that remarkably well-fleshed bull, Royal Diamond 2nd =58469=, begotten in quarantine, by the Marr Roan Lady bull, Royal Diamond (imp.), dam Imp. Mina of Kinellar 7th, by the Cruickshank Lavender bull, Lucky Archer, by Scottish Archer. He is a solid red, six years old, immensely deep-fleshed right to the hocks, one of the great sires of the day, as his get to be sold will prove. He is right in every particular, a high-class stock bull for a high-class herd. Among other bulls to be sold is a roan yearling son of Royal Diamond 2nd, a Nonpareil, whose grandam, Nonpareil 60th, also to be sold, is a 60-lb-a-day cow, whose milk has tested 5 1/2 per cent. of butter-fat, and his dam is a 50-lb-a-day cow. This is probably one of the most desirable young bulls in Canada for anyone looking for a bull bred on high milk-producing lines. Then, there are two others, both May calves, and both reds, got by the same sire, one a Nonpareil of the same family as the above bull, the other a Lady Brant, and his dam is also a good milker. Parties wanting bulls bred so richly as these on dairy lines, should make a point to attend the sale. The females are up to the average of the good herds of the country, many of the younger ones the get of the Jilt-bred bull, Royal Scot =49843=, a son of Imp. Scottish Pride, and out of the Jilt Imp. Rosie 3rd. Others are sired by Imp. Scotland's Fame, Imp. British Statesman, and a number of the younger things about one year old, the get of the Miss Ramsden-bred bull, Royal Luxury =65622=, a son of Royal Diamond 2nd, and out of Gloucester 9th (imp.), by Luxury. Royal Luxury was a marvelously-fleshed bull, and had he lived, would, without doubt, have proven one of the most noted sires this country has produced, as his get are put up on show lines, every one. In next week's issue, fuller particulars of the females will be given. Look up the advertisement, and send for a catalogue.

A correspondent writes: "Why is a dishonest dairyman like the whale that swallowed Jonah? Because he takes a Prophet's word out of its water." It is true this joke was chanted



Perfection Seed and Grain Separator

The only mill manufactured that will not blow clover, timothy and weed seeds out with the chaff. Other mills are being discarded everywhere that they come into competition with the PERFECTION. Grain travels over 8 ft. of screen where the fan-blast strikes it. A child can turn it, though it has large capacity. The PERFECTION is the only mill made that has compound shake, end motion, galvanized deflectors and other advantages not found in other mills, and too numerous to mention here. See nearest agent, or write for circular "C," giving fuller particulars, to

THE TEMPLIN MFG. CO.
G. T. R. Fergus, Ont. C. P. R.

DEER SKINS

SHIP US YOUR COLLECTION THIS SEASON. WE ARE PAYING HIGH PRICES. WRITE US.
E. T. CARTER & CO.
84 Front St., East, Toronto, Ont.

Holstein - Friesians

FAIRVIEW FARM offers young bulls, sired by Pontiac Korndyke and Rag Apple Korndyke, without question the two greatest Korndyke bulls in the world, and out of cows with large A. R. O. records and testing 4% fat. Come and see them or write.
E. H. DOLLAR, Heuvelton, N. Y. Near Prescott.

Centre and Hill View Holsteins

We have added to head our herd a young bull from King Segis, world-record sire, and a 26-lb. 4-year-old dam. Have 2 bulls born in January from Bonheur Statesman. Their grandams have over 21 lbs. butter in 7 days. Also younger ones from good A. R. O. dams. These will be sold right, considering their backing.
P. D. Ede, Oxford Centre, Woodstock Stn. LONG-DISTANCE TELEPHONE.

HOLSTEINS AND YORKSHIRES

We own the champion two-year-old of the world for yearly production. We own the champion Canadian-bred three-year-old and champion cow in the Record of Merit. We own the sire and dam of champion of the world and the champion three-year-old. We are breeding 30 heifers to this great bull, which are for sale. Also bull calves from high-record cows, and one two-year-old bull, dam's record over 27 pounds butter in 7 days. Trains met by appointment.
D. C. FLATT & SON, Millgrove, Ont. Farm phone 2471, Hamilton.

Elmwood Holsteins Choicely-bred calves for April and May delivery. Sired by imported Ykema Sir Posch and Pontiac Sarcastic, a grandson of Sarcastic Lad. Registered. Delivered. Express paid. Safe delivery guaranteed.
B. D. GEORGE & SONS, PUTNAM, ONT.

Holstein Cattle—The most profitable dairy breed. Illustrated descriptive booklets free. **Holstein-Friesian Ass'n of America, F. L. HOUGHTON, Secy, Box 127, Brattleboro, Vt.**

RIVERSIDE HOLSTEINS
8 choice bulls 6 to 9 months old, sired by Sir Pieterje Posch DeBoer and Prince DeKol Posch; latter is the only son of champion cow, dairy test, Guelph, 1908 and 1909, and out of R. of M. dams.
J. W. Richardson, Haldimand Co., Aledonia, Ont. Long-distance phone.

Lakeview Holsteins!

Bull calf, born 13th January, 1910—half black; sired by Count Hengerveld Fayne De Kol, and from an 18-lb. cow. He is long, deep, and a beautiful handler. His second dam has a 17-lb. record, and his sire is a brother of De Kol Creamella, 10,017 lbs. milk in 100 days, and also a brother of Grace Fayne 2nd's Homestead, with 35.55 lbs. butter in 7 days. Also a few other calves by the same sire. Telephone.
E. F. OSLER, BRONF, ONT.

Homewood Holsteins will be at Guelph Winter Fair. We will be pleased to meet our customers. We will offer cows, heifers and bull calves from cows of high per cent. fat. Call on us.
M. L. HALEY, M. H. HALEY, Springford, Ont.

MAPLE HILL HOLSTEIN - FRIESIANS SPECIAL OFFERING:
Four-year-old cow, fresh last October; bred April 23rd to Choicest Canary, whose dam is the highest seven- and thirty-day record cow in Canada.
G. W. CLEMONS, St. George, Ont. Bell phone

High-class Holsteins and Tamworths

I am now offering a number of two and three year old heifers, with official records from 11 to 20 pounds butter in 7 days; also bull calves with rich backing. 71 month boars from 6 weeks to 1 year old—imp. sire and dam.
A. C. HALLMAN, BRESLAU, ONT.

The Maples Holstein Herd has still on hand for sale three sons of King Posch DeKol. All choice individuals and fit for service. All from Record-of-Merit dams. Seventeen females in the herd in call to King Posch DeKol, bred to freshen between September and February. Calves of either sex, from any of these, for sale at reasonable prices.
Walburn Rivers, Falden's, Ont.

CRAIGALEA AYRSHIRES have won more money the last four years than all competitors combined. They are heavy producers and high testers; records of production given. Stock of both sexes for sale of show-ring form.
H. C. HAMILL, BOX G, OVE P. O. ONT., Markham, G. T. R.; Locust Hill, C. P. R. Bell phone connection from Markham.



BURNSIDE AYRSHIRES!

Fresh importation just landed in quarantine of 60 head. I have the choicest lot of 12 young bulls I have ever imported. From the best herds in Scotland, such as Auchinbrair, Osborne, Netherhall, Bargench, Barr of Hobsland, Mitchell of Lochfergus. All fit for service. A number of cows, 3-year-olds, 2-year-olds, and 20 choice yearling heifers. All are for sale.
R. R. Ness, Howick, Que.

Ayrshires and Yorkshires! We still have a few choice individuals of almost any age on hand in Ayrshires, and are always ready to price any. Other breeders in this section. Bull calves from Record of Performance cows. A few young Yorkshires on hand.
ALEX. HUME & CO., MENIE, ONT. Long-distance phone.

Ayrshires Bull calves, from 4 months to 9 months, from imported sire and Record of Performance dams. Records 50 to 63 pounds per day.
N. Dymont, R. R. No. 2, Hamilton, Ont.

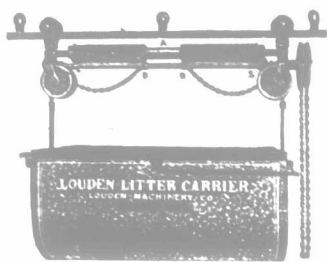
HILLCREST AYRSHIRES—Bred for production and large teats. Record of Performance work a specialty. Fifty head to select from. Prices right.
FRANK HARRIS, Mount Elgin, Ont.

Stonehouse Ayrshires all ages. Am now booking orders for bull calves
Hector Gordon, Howick, Quebec

Stockwood Ayrshires Imported and Canadian-bred. High producers and high testers. Females of all ages for sale; also several young bulls, from 8 to 13 months old. Imp. sires and out of imp. dams.
D. M. Watt, St. Louis Station, Quebec

WE DO NOT HAVE TO

run down other makes, or say our goods are as good as some other make. We lead the way in Heavy Tools, Feed and Litter Carriers, Cow Stalls and Stanchions, Barn-door Hangers, etc.



OTHERS FOLLOW

Send for our catalogue and prices. Louden Machinery Co., Guelph, Ontario

Worth Looking Into

When it becomes necessary to buy feed, it will be well to keep in mind the word

"CRESCENT"

"Crescent" is a mixed chop, with the Government analysis on every bag. One of the largest dairy herds in Ontario recently ordered a carload, and the order was placed after thoroughly testing its value as a dairy feed. Ask your dealer about it. If he does not know, write us. We can give you a close price on a carload.

THE CHISHOLM MILLING CO., LIMITED
"A" Jarvis Street, Toronto, Ont.

Springbank Oxfords A few choice ram lambs for flock headers left. Also Yorkshire sows. Easy prices. Satisfaction assured. **Wm. Barnett & Sons, Living Springs P. O., Ont.** Fergus, G. T. R. and C. P. R.

Highest Quality LEICESTERS We are offering 8 shearing rams, 25 ram lambs, 10 shearing ewes and 15 ewe lambs. Big in size, very heavy covered and choice quality. Flock headers and show stock a specialty. **C. & E. Wood, Freeman, Ont.**

Shropshires The right quality to breed from. Choice animals of both sexes for sale. Also White Wyandotte cockerels. **W. D. Monkman, Bond Head, Ontario.**

A teacher in a lower grade was instructing her pupils in the use of the hyphen. Among the examples given by the children was the word "bird-cage."
"That's right," encouragingly remarked the teacher. "Now, Paul, tell me why we put a hyphen in 'bird-cage'."
"It's for the bird to sit on," was the startling rejoinder of the youngster.

Caught a Cold Which Ended in a Severe Attack of Pneumonia.

Too much stress cannot be laid on the fact that when a person catches cold it must be attended to immediately, or serious results are liable to follow.

Bronchitis, Pneumonia and Consumption are all caused by neglecting to cure the simple cold.

Mrs. G. W. Bowman, Pattullo, Ont., writes:—"Three years ago I caught a cold which ended in a severe attack of Pneumonia. Since that time at the beginning of each winter I seem to catch cold very easily. I have been so hoarse I was unable to speak loud enough to be heard across the room. Last winter, however, a friend advised me to try Dr. Wood's Norway Pine Syrup, saying it had helped her. I bought a bottle and before it was half used I was completely cured. I also find it a good medicine for the children when they have colds."

Beware of the many imitations of Dr. Wood's Norway Pine Syrup.

Ask for "Dr. Wood's" and insist on getting what you ask for.

It is put up in a yellow wrapper; three pine trees the trade mark; the price, 25 cents. Manufactured only by The T. McBurn Co., Limited, Toronto, Ont.

GOSSIP.

A great deal of interest is developing in the first annual Toronto Fat-stock Show, to be held at the Union Stockyards, Toronto, on Monday and Tuesday, December 12th and 13th next, and indications are rosy for a large number of exhibits and visitors. A prominent feature of the show will be the auction sale of prizewinning cattle, sheep and hogs, for Christmas market.

His Majesty King George V. is demonstrating his keen personal concern in agriculture and live-stock breeding to an extent in no degree less than that shown by his illustrious predecessor. His Majesty has extended his patronage to nearly all the leading breed societies of Britain, including those interested in Shorthorns, Herefords, Jerseys, Kerry's, Devons, Hunters, Southdowns, and many other varieties of pure-bred stock.

JUDGING PROGRAMME.

International Live-stock Exposition, Nov. 26th to Dec. 3rd, 1910.

College Department.

Saturday, November 26, 8 a. m.—Students' Judging Contest. Judging horses, cattle, sheep and swine.

Cattle Department.

Monday, November 28, 9 a. m.—Pure-bred and Grade Bullocks. College and Experiment Station Stock. Clay-Robinson Specials.

Note.—Steers entered for slaughter must be placed in charge of committee Monday evening, November 28. The hour for slaughter and for awarding prizes on dressed carcasses will be designated by committee in charge.

Tuesday, November 29, 9 a. m.—Shorthorn Breeding Classes. Red Polled Breeding Classes. Carloads Fat Cattle.

"Short-fed Special" Carloads. Wednesday, November 30, 9 a. m.—Hereford Breeding Classes. Shorthorn Breeding Classes, concluded.

Afternoon—Galloway Breeding Classes. Thursday, December 1, 9 a. m.—Aberdeen-Angus Breeding Classes. Hereford Breeding Classes, concluded. Galloway Breeding Classes, concluded.

Friday, December 2, 9 a. m.—Polled Durham Breeding Classes. Aberdeen-Angus Breeding Classes, concluded.

Sheep Department.

Monday, November 28, 9 a. m.—Pure-bred, Grade and Cross-bred Wethers. College Sheep. Clay-Robinson Specials.

Note.—Fat sheep entered for slaughter must be placed in charge of committee Monday evening, November 28. The hour for slaughter and for awarding prizes on dressed carcasses will be designated by committee in charge.

Tuesday, November 29, 9 a. m.—Hampshire Breeding Classes. Dorset Breeding Classes. Leicester Breeding Classes. Carloads Native and Range Sheep.

Wednesday, November 30, 9 a. m.—Shropshire Breeding Classes. Rambouillet Breeding Classes. Thursday, December 1, 9 a. m.—Oxford Breeding Classes. Cotswold Breeding Classes.

Afternoon—Southdown Breeding Classes. Lincoln Breeding Classes.

Swine Department.

Judging commences Monday, November 28, 9 a. m.

Horse Department.

Monday, November 28, 9 a. m.—Belgians.

Afternoon—Draft Geldings to halter—singles.

Tuesday, November 29, 9 a. m.—Percheron and French Draft Horses.

Afternoon—Draft Geldings in Harness—pairs. Wednesday, November 30, 9 a. m.—Clydesdales.

Afternoon—Draft Geldings in Harness—threes.

Thursday, December 1, 9 a. m.—Sires.

Afternoon—Draft Geldings in Harness—fours.

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Our Handy Wagon saves you hours every time you use it—so easy to load or unload. Saves your horses lots of pulling; can't overload it; made RIGHT; priced right, too.

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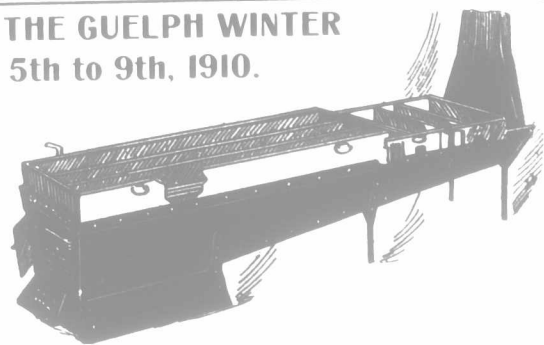
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I have big, thick and woolly rams and ewes, mostly lambs, but some yearlings, both

Shropshires and Cotswolds

Have also the best lot of young SHORTHORN BULLS have ever bred, sired by one of Whitehall Sultan's greatest sons. They will be sold worth the money. You should write soon. **ROBERT MILLER, Stouffville, Ont.**

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The Champion Flock. First Importation, 1881. Our present offering is a grand lot of ram lambs for flock headers, from our imported champion ram, and a number of them from imported ewes. Also a first-class imported yearling and a two-shear ram. Fifty superior yearling ewes, and a number of ewe lambs. We are also offering a few large Hampshire ram lambs from imp. sire and dam. Long-distance phone on the farm: Central, Guelph.

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The old standby for all who have stock liable to stray, or to dispute as to identification or ownership; for herd or flock records, or for general convenience. Send for free circular and sample. It may save you much trouble. Write to-day. **F. G. JAMES, Box 44, N. VILLE, ONTARIO.**

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Are ideal in type and quality. Present offering is a grand lot of ram lambs for flock headers, also a number of shearing ewes and ewe lambs, sired by imp. Hamptonian 22nd. Yorkshires of both sexes and all ages. Right good ones. Satisfaction assured.

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I am now offering a choice lot of yearling rams of my own breeding from imp. Minton ewes, also ram and ewe lambs of both breeds. A few rams and ewes fitted for showing.

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FAIRVIEW SHROPESHIRE RAMS We now offer a choice three-shear ram (second at Toronto), a few shearlings, and some extra choice ram lambs. All are sired by our champions. They are such as we can confidently recommend to breeders desiring to produce high-class Shropshires, as they are good individuals, and their breeding is of the very best. Prices moderate. Send for them and circular to: **J. & D. J. Campbell, Fairview Farm, Woodville, Ont.**

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Buena Vista Farm, Harriston, Ont.**

Hilton Stock Farm Holsteins and Tamworths. Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes; pairs, not akin. **R. O. MORROW & SON, Hilton, Ont.** Brighton Tel. & Sta.

NEWCASTLE Tamworths and Shorthorns For sale: Young sows, due Sept. and Oct., by imp. boar. Dams by Colwill's Choice, Canada's champion boar, 1901, 2, 3 and 5. Also choice pigs, both sexes. Two yearling Shorthorn bulls—Syme and Lavender families; 6 choice heifers and heifer calves. Prices right. Bell phone. **A. A. Colwill, Box 9, Newcastle, Ont.**

Willowdale Berkshires! Nothing to offer but suckers and three extra choice young sows, bred to farrow May and June. Be quick if you want one. **J. J. WILSON Importer and Breeder, Milton, P. O. and Station, C. P. R. and G. T. R.**

PINE GROVE YORKSHIRES At the late Guelph Winter Show we won more prizes than any two exhibitors, including all the firsts and sweepstakes for best dressed carcasses, both at Guelph and Ottawa Winter Fat-stock Shows of 1908-09. Young pigs for sale, mated not akin, all the progeny of imported stock of superior excellence. **Joseph Featherston & Son, Streetsville, Ont.**

DUROC-JERSEY SWINE AND LEICESTER SHEEP Chockily bred; either sex; various ages. Bell telephone Chatham. **Mac Campbell & Sons, Northwood, Ont.**

MORRISTON TAMWORTHS A grand lot of boars from 2 to 10 mos. Also young sows (dandies). Some just bred. Some in farrow to first-class boars from best herd in England. Prices right. **Chas. Currie, Morrison, Ont.**

Moikland Yorkshires With very nearly 100 sows in breeding, of modern type and high-class quality, our herd will stand comparison with any in Canada. We are always in a position to fill large or small orders with despatch. Long-distance phone. **JAMES WILSON & SONS, FERGUS, ONT.**

LARGE WHITE YORKSHIRES Have on hand at the present time a choice lot of boars ready for service, and a fine lot of young bred sows for the fall trade. Young pigs all ages. Pairs supplied not akin, from large imported stock. Write, or call on **H. J. DAVIS, WOODSTOCK, ONTARIO** Long-distance Bell phone. C. P. R. and G. T. R.

PINE GROVE BERKSHIRES! Sows bred and ready to breed. Nice things, three and four months old. **W. W. BROWNIDGE, Milton, C. P. R., Ashgrove, Ont., Georgetown, G. T. R.**

HILLVIEW YORKSHIRES High-class young stock of both sexes for sale, sired by Craigerook Duke, imp. —16085—out of large mature sows. It will pay you to get our prices. **G. T. R. and C. P. R. W. F. DISVEY, Greenwood, Ont.**

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As a roofing material for your home building, there is nothing more dignified in appearance, a roof constructed of them is just as fire-proof as one of slate, in fact more so because steel is also lightning proof. "GALT" Shingles cost little if any more than wood shingles and they last from two to five times as long without any attention whatever. The British Galvanized Steel from which they are made is wear-proof—can't burn, crack, curl up or rust. They last indefinitely. The patented construction of locks or seams is so tight as to exclude even light. You can't force water through "GALT" Shingles with a hose. Our new booklet "Roofing Economy" contains information that every progressive-minded property owner should have. It's free to interested people.



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Getting the full percentage of cream from milk depends as much upon the oil used to lubricate the separator as upon the separator itself. Gummy oil will cut the fine bearings of your machine, spoil its balance and waste good cream in the skim-milk pail.



STANDARD Hand Separator Oil

never gums, never rusts, never corrodes. It feeds freely into the closest bearings and insures the perfect lubrication that is essential to the free spinning of the bowl and the complete separation of cream from milk. It lessens the driving effort and lengthens the life of your separator.

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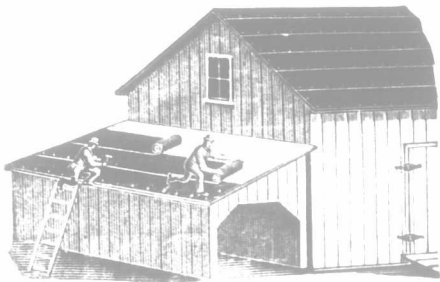
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GOSSIP.

"Kosher" cattle in America are dressed, eviscerated, that is, they have been slaughtered, inspected, cleansed, and labelled in accordance with Jewish rites, "kosher" being the Hebrew word for "clean." The throat is cut without stunning the animal, the vital organs are specially inspected, and the carcass washed and labelled under the supervision of a rabbi. If not used within three days, the carcass is re-washed, and must be washed each three days until the twelfth day after slaughter, when it is no longer "kosher." Only the fore quarters are used by orthodox Jews, and the principal grades of cattle used for "kosher" beef are medium to choice steers, cows, and heifers. This trade is confined almost entirely to large cities, especially New York and Chicago. Under the restrictions imposed by "kosher" rules, it is impracticable to ship this beef to Eastern cities from Chicago, and it is, therefore, a local trade, the Eastern supply being shipped on foot.

J. A. WATT'S SHORTHORNS.

The famous herd of Scotch Shorthorns, the property of J. A. Watt, of Salem, Ont., in the many years they have held successful competition among the best under two flags, were never stronger in high-class type and quality than now. Massive in size, immensely thick in flesh, and with breeding the best known to the breed, the many choice young things, both bulls and heifers, are certainly the best lot ever before bred in one year in the herd. Nearly all are the get of that grand old stock and show bull, Imp. Jilt Victor, the Jilt-bred son of the famed Lord Methuen. Jilt Victor is breeding better every year. It was sure a lucky day for J. A. Watt when he placed this bull at the head of his herd. As lieutenant-in-service, Mr. Watt, a year ago, imported what he claims to be the best individual ever in service in the herd in the bull Kier Emblem (imp.) [79045], a roan son, by the renowned Proud Emblem, dam Spicy Claret, a Marr Clara, by the great show bull, Spicy King. He is an immensely thick, mellow bull, beef to the heels, and should prove a king among sires. To him are being bred the daughters of Jilt Victor, and the result should prove more than satisfactory. Many of the breeding matrons are daughters, granddaughters and great-granddaughters of those renowned bulls, Imp. Royal Sailor, Barmpton Hero, and Young Abbotburn, three of the greatest bulls Canada ever knew, and whose get bred in this herd have produced more prizewinners than any other herd existent in Canada. On blood lines, the herd represents such great tribes as the Matchless, Mildred, Stamford, Mina, Roan Lady, Lancaster, Crimson Flower and Bruce Fanny. The young bulls are an exceptionally choice lot, low-down, thick-fleshed, straight-lined and smooth, with particularly well-covered backs, nearly all of show calibre. One is a red yearling, by Jilt Victor, and out of an imported Mina-bred cow. His stable mate is a white ten-months-old Missie-bred son of Trout Creek Wonder. He is a half-brother to the \$3,000 heifer sold at T. Stanton's sale, at Aurora, Ill., last spring. In another box are three red ones about ten months old each, two of them sired by Jilt Victor, the other by Craigend, one a Mina, the other a Cruickshank Lovely, the other a Clementine. Another is a roan yearling Bruce Fanny, by the same sire, and with him is a white yearling, by Jilt Victor, and out of Mildred 8th, a daughter of Royal Sailor. This bull is a half-brother to the renowned Mildred's Royal. Another bull for sale is a roan four-year-old, sired by the Golden Drop bull, Springhurst, dam an English Lady-bred daughter of Royal Sailor. This is a most desirable bull for anyone wanting a herd-header. He is put up on proper lines, and would make it interesting for most of them in a show-ring. All these bulls are for sale, and nothing better can be bought. Mr. Watt is also offering for sale the imported Clydesdale stallion, Lord Banchory [8441], a brown three-year-old, sired by Netherlea, one of the best breeding sons of Baron's Pride, dam the noted show mare, Lorna Doone, by Bounding Boy. This is an extra choice young horse, up to a big size. He is exceptionally smooth, right nice quality of underpinning, and moves straight, close and true.

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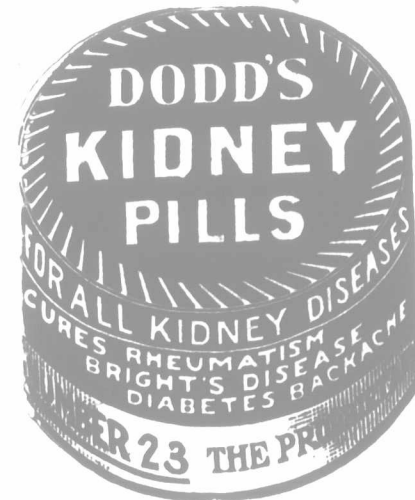
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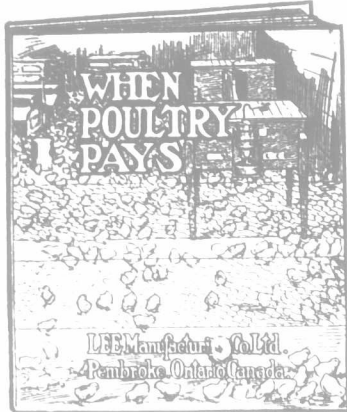
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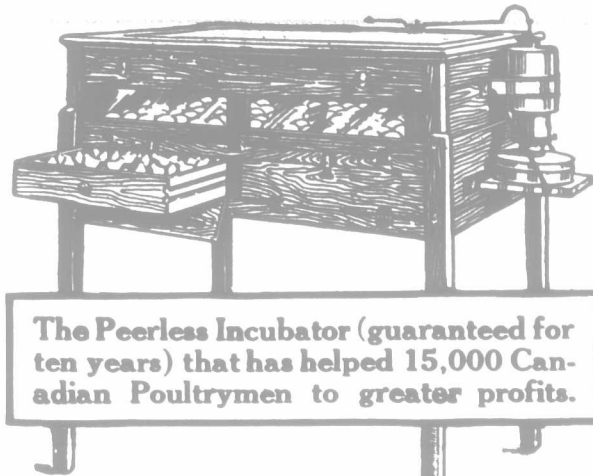
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they given up a big tract of land to their poultry yards. They have simply done what you, or any other capable person, can do—adopted our system, followed the plain, practical method it teaches, and used freely

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If you are a user of The Peerless Way, you are entitled to consult our poultry experts at any time without charge. The Peerless Way covers everything in poultry-raising that it is possible for any method to cover; but if, at any time, a point comes up that is peculiar to you alone, all you have to do is to write us. Our experts will consider your case individually and write you personally. This service is free to every member of the Peerless Family.

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