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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

PERSEVERE AND SUCCEED

FOUNDED 1876

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

PUBLISHED AT LONDON, ONTARIO. JANUARY 14, 1904. WINNIPEG, MANITOBA. No. 590

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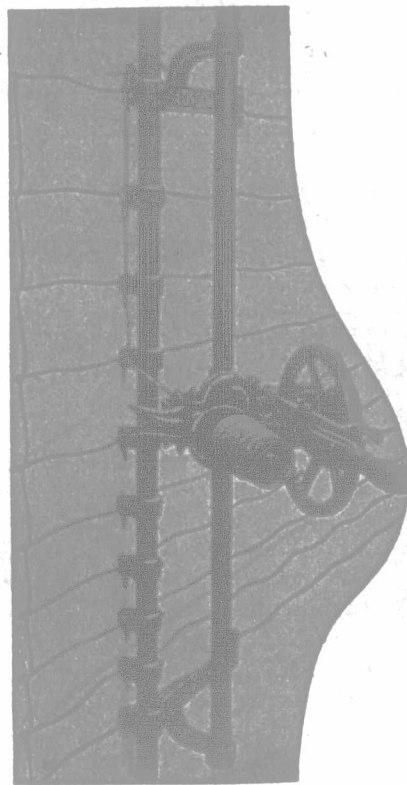
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**Farmer's Advocate**  
and Home Magazine.

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No. 590

EDITORIAL.

**Resolutions for 1904.**

The beginning of a new year is a favorite time with many for forming new and good resolutions. These are in order at any season, and never more so than at the present; and provided an honest effort be made to carry them into practice, good resolutions are helpful in all the relations of life—in building up character, in subduing selfishness, in respecting the rights of others, and in cultivating the spirit of goodwill to all men—characteristics which tend to the well-being of the citizen, and to success in any legitimate undertaking. The farmer, in relation to his business, does well to take stock at this time; to arrive at an intelligent understanding of his financial position, and to lay plans for improvements in his methods and management.

It may safely be said that the best of farmers do not farm as well as they know how, while many do not know how to farm as well as they would like. So there is room for all to improve. There are a good many little leaks in management, which if stopped would make a very considerable difference in the financial returns of the year. Economy in the use of time is an important factor in farming—doing the right thing at the right time as nearly as possible, and doing the most important thing first. The Germans have a saying, "Never do the second thing first," which is worth thinking about. "Do what your hands find to do, and do it well," is another useful injunction. To fall into a slipshod way of doing things, or to work without regard to system or regularity, is an unfortunate habit, and well accounts for lack of success in any line of business. Feeding farm stock, especially fattening animals, or milking cows regularly at the same minute, as nearly as possible, makes a wide difference in the profitable gain of weight of flesh or milk. Milking the cows at exactly the same time each morning and evening, and by the same person, accounts for a large increase in the product of milk and butter over the careless methods of many who imagine that the milk being there it makes little difference whether the milking be delayed an hour or two or done an hour or two earlier than the usual time.

"Stripping" the cows thoroughly has been proven by experiments a very profitable practice, the last of the milk being by far the richest in butter-fat. It pays well to study the question of economical feeding, and to put one's acquired knowledge on that point into practice. High-priced foods, or such as would sell for a high price, are too often squandered by feeding them heavily to stock, when cheaper foods mixed with them would make the high-priced article go much further, making more economical gains in meat or milk.

In fattening cattle, experiments have shown conclusively that a light grain ration in the early stages of feeding are much more profitable than a heavy feeding of rich foods, which are more profitably fed in the finishing period, and that a longer feeding term may thus be made more profitable than a short feeding course. Experience has also satisfied most feeders of cattle, either for beef or dairy purposes, that well-ma-

tured corn silage is an economical and profitable food, owing to the very large tonnage per acre it is possible to grow, and the succulent and palatable nature of the food, as well as its substantial feeding value. Wherever corn can be successfully grown nearly to maturity, it will be wise to make provision for building a silo and growing this crop.

A cheaply and easily-grown crop, and a valuable forage crop for the pasturing—in late summer and autumn—of sheep, hogs and young cattle, is rape. Provision may well be made for a small field or two of this crop, where such stock is kept.

The importance of improving the quality and character of the live stock kept on the farm is becoming more and more a live subject, and farmers do well to grade their stock up to a better class by the use of pure-bred sires of the best type and by weeding out such animals as are not making satisfactory returns for the food they consume. A set of spring scales costs but little, and if kept in the stable and used to ascertain exactly what each cow is producing in pounds of milk, samples of the milk being tested occasionally for butter-fat, will clearly indicate which cows are making money for their owner and which are robbers, or barely paying for their board. The cost of production in all lines of farm work, it goes without saying, largely determines the profit or loss in the transaction, as it does in any process of manufacture, and the aim should be to reduce the cost to a minimum; and this is not to be secured by skimping, but by doing everything well, and in the matter of feeding farm stock, by feeding generously, for in this, as in many other things, the proverb proves true, that "There is that scattereth and yet increases, and there is that withholdeth more than is meet, and it tendeth to poverty."

Liberal treatment of the land, as well as of the live stock, will be found to pay best in the long run. Skimping the cultivation in the preparation of the seed-bed is almost certain to lower the quantity and quality of the harvest yield, and over-cropping without rest and restoration of the fertility of the land will have the same ill-effect on the crop returns. Carelessness or indifference in the matter of providing clean, sound seed, also tends more than most people are willing to believe to lower the standard of quality and bulk of the crop.

These are but a few out of many points that might be mentioned on which there is room for improvement in the practice of many farmers, as will be freely admitted, and they are presented in a spirit of well-wishing, rather than of fault-finding, in the hope of stimulating to the resolve to improve in these and other features of the work of the farm, making of even the mistakes and failures of the past stepping-stones to better management in the year upon which we have entered.

In the intervals between hauling wood and hay and doing chores, a by no means uninteresting and a profitable way of occupying the farmer's time would be to take a look over the harness, fix up little stitches that can be done at home, and arrange the more serious repairs to be sent to the harness-maker on the first trip to town.

**Improvement of Fairs.**

As the season for holding the annual meetings of Agricultural Societies and Fair Associations is approaching, the members of such societies will do well to consider what can be done to make the fairs more attractive, popular and useful. With all our boasted progress in many lines of farmers' organizations, we fear it cannot be claimed that in management and practical helpfulness to the class of the community in whose interest they were instituted, the average township or county show has made any appreciable advancement over the fairs of thirty years ago. Indeed, we believe it is safe to say that no other institution in connection with agriculture in this country has made so little improvement during that time as the fairs system. The cause of this state of things, we believe, is largely the indifference of the people. The annual meetings of Agricultural Societies, as a rule, are very sparsely attended, showing that the people generally take little interest in the work of the society, while of the few who do attend a considerable proportion are often of the class that like office better than work, and are more ornamental than useful, their re-election from year to year being easily effected where there is so much indifference on the part of the membership. There are, we freely admit, many honorable exceptions where public-spirited men give generously of their time and means to advance the interest of the society. What is needed is a revival of interest on the part of farmers in general in the work of the Agricultural Societies and of the fairs, which in the past have exerted a useful influence in stimulating competition and improvement in character of live stock in the country, and in many other lines of agricultural production; and the revival must commence in the annual meetings, in the election of progressive, public-spirited men as officers and directors, who will devote a reasonable amount of time to the study and introduction of useful and improved features into the fairs. That this can be done with gratifying success has been proven in late years by the record of a few of the county fairs in Ontario; notably that of Norfolk County, where, through the businesslike and intelligent efforts of a live secretary and manager, and a sympathetic and capable board of directors, a purely agricultural show has been successfully conducted financially, as well as socially, economically, and in the best interest of the farming community. What has been done in one county may be done in another by the use of the same methods, and we counsel fair boards throughout the country to enquire into and adopt up-to-date methods of management, and so to raise the standard of our shows as to make them what they were intended to be, and what they may be, really useful and helpful institutions in the country, instead of being, as too many are, mere horse-racing events, and sources of amusement of anything but an elevating character, and a lamentable misappropriation of the funds placed at the disposal of the directorate.

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JOHN WELD, MANAGER.

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### The Dominion Exhibition for Winnipeg.

The announcement that a Dominion Exhibition will be held in Winnipeg during the present year comes as a surprise to most people, owing to the general opinion that a show sufficiently comprehensive in character to illustrate the possibilities of this country could not be prepared for before 1905. As pointed out at the institution of the campaign for a Dominion Fair in the April "Farmer's Advocate," there are great advantages to be had by successfully conducting an exhibition of this kind in the West, and while there is reason for gratification over the decision of the Federal Government in granting \$50,000 in support of the proposition, in the short time at the disposal of the Exhibition Board, it becomes the duty of every Canadian, and every Westerner in particular, to bend every energy in the direction of making the exhibition this year a greater success than ever, and as fully representative of Canada as is possible. The Dominion grant will be applied to the erection of new buildings, including a large manufacturers' building; the augmentation of the prize money; payment of freights on shipments, and advertising the Exhibition, especially in connection with the propaganda of the Immigration Department for attracting immigrants to the West.

The Canadian Manufacturers' Association is giving the Exhibition its hearty and active support, and is directing its efforts to making the exhibition of manufactured goods as complete as possible, by impressing upon its members the importance of sending their exhibits to Winnipeg. This was very clearly impressed upon the manufacturers during their Western tour last autumn.

Gold cannot be minted from the mint, unless gold be sent there. If we keep good stock we will, by good feeding, send forth good beef into the market.

### Are the Lumbermen's Methods of Manufacturing Up-to-date.

Interest is added to your editorial on the "Lumber Combine Inquiry" by the report of a recent meeting of the B. C. millmen and loggers, held at Nelson, B.C., at which mills with a total annual output of 600,000,000 feet were represented. Amongst other business and resolutions passed at this meeting was one to memorialize the Dominion Government to prevent the incoming of American rough lumber by placing a duty on it. The intention to milk the agricultural cow is not at all disguised, and might be allowed to pass only that the live-stock industry of the whole Northwest, as well as settlement, by increasing the price of lumber to farmers, would be hindered.

Freight rates have probably hit the Coast lumbermen, as have such rates the farmers, yet before allowing that the lumbermen are being ruined and driven off the markets, as they say they are, it might be well to look into the matter and find out the reasons for such a state of things. The labor problem is said to hamper the Coast lumberman. Perhaps it has; he certainly uses a lot of the cheaper grades (Japs and Chinese) of labor.

As the statement has been made, and not controverted by the millmen, that Canadian rough lumber is being ousted from the Northwest markets by the U. S. product—which quite frequently was bought in the log in Canada, towed to the U. S. mills and there manufactured, then freighted back to the Canadian market—it becomes of more than ordinary interest to readers of the "Advocate" who are about to build, and even has some interest to those lucky fellows who only need to study the question as one in economics, their farms being already well built.

One statement may be made, and that is that owing to the brisk demand for lumber on the prairies (and the prospective profit to be obtained by manufacturing lumber for that market!), many new mills have been started, both at the Coast and inland, yet prices for lumber on the prairie have not fallen. As is quite frequently the case in other lines of business, some have started with little capital, and doubtless some with little knowledge of the trade. In that trade (lumber), as in others, there are big and little operators, and it is easy to see that under the plea of fostering the weaker ones, by making a minimum price for all mills to sell at, and by limiting or keeping out competition of the U. S. mills, the stronger mills become still stronger. To this minimum price the smaller men must agree or be frozen out, by being undersold, and therein lies the combination.

Such a combination may be held to be defensible from an economic standpoint, if all the methods of economizing in the manufacture of lumber have been exhausted. A little insight into the prices paid for the raw material by the millmen will aid in arriving at a fair understanding of the matter by the farmer.

A business man informed me that he had sold under contract five million feet of first-class logs, for which he was to get \$5.50 per thousand at the camp, and he remarked, "A higher price than I could get to-day, but I contracted early in the season, before the mills were well supplied!"

The millmen paid the stumpage fee to the Provincial Government of fifty cents per thousand, which, together with the cost of towage to the mill, would bring the price of the logs to nearly \$7.00 per thousand, which after being manufactured is placed on the market as rough lumber at \$13.00 a thousand. Querying the same person re the profit thus made, he said, "\$13.00 is too high a price for rough lumber"! Scaling (measuring of the logs) was mentioned, and as this is a chronic grievance of loggers, I state his answer, "The lumber companies like to get 1,500 feet for 1,000!"

Agitation has been made for the scaling to be done by Government scalers. Giving a man Government employment won't make him honest, if he was dishonest before! Curious then to know where the fault really lies between loggers, millmen and the open market for rough lumber, I hinted that further information would be acceptable, and this gentleman informed me that "the reason, in his mind, that the U. S. lumberman beat the Canadian millman, was because his plant was more up-to-date, and the lumber was handled

fewer times"! He sententiously remarked, "Every time a board is handled adds to its cost," a similar reason one often hears advanced for stook thrashing. This man stated that he had been in mills south of the boundary line that had only a half to two-thirds of the number of men to be found in many Canadian mills of an equal capacity.

Thinking that it might be well to have further information, I queried another person, interested in a lumber company, about prices paid by his company for logs, and prices obtained for the manufactured article, and whether such prices were paying ones. The price paid for fir logs at his mill, fairly good stuff, although not the best, was \$5.00 per thousand feet, and for 16-foot cedar bolts at the mill, A1 stuff, clear of knots, \$10 a thousand feet. All the mill run of the cedar was put on the cars at \$18.00 per thousand, without being kiln dried; the fir lumber (rough) was sold at the price made by the Millmen's Association, viz., \$13.00 a thousand, and he is well satisfied that his investment was a paying one at such prices. He being an interested party, I did not think it fair to ask his opinion re putting a duty on rough lumber.

An economic question such as this, should be out of the domain of politics; if so, the farmer will not suffer, while the millmen can increase their profits, without closing up the numerous planing, sash and door factories in the prairie towns, by the adoption of more up-to-date methods. It is hardly fair to ask the farming community to stand the cost of experimenting as to the best methods of manufacturing—many farmers (unwisely so) gasp at paying for experimental farms!

"NOMAD."

### Domestic Servants on the Farm.

The question of hired help on the farm is one which, according to paragraphs appearing from time to time in the daily press, is always just on the eve of solution. The announcement is made that communities have been discovered—it may be in the "thickly populated glens" of the west coast of Scotland; in the fastnesses of the mountains of Wales, or surrounding a heretofore undiscovered Irish bog—in every case the intelligence is offered as a solution of the problem of the scarcity of domestic servants in Canada. It is pointed out that these populations are composed of a great predominance of girls; that these girls are all about the right age to make good servants, and that nothing but the lack of transportation keeps them from emigrating to Canada, or some such place, where they are dying to find the very occupation we have to offer them. Sometimes the paragraph goes the length of saying that the Immigration Department has made arrangements to bring drafts of those highly desirable immigrants out to the country, and a regular piecemeal immigration is looked forward to by those in the unfortunate position of requiring help.

The facts are that the scarcity of girls to do domestic work on the farms is just as keenly felt in Great Britain as it is here, and every girl who can be induced to engage in that occupation is being picked up readily. True, the inducements of superior social status offered by Canada has succeeded in bringing many girls to our farms, but only a short time elapses when some lonely bachelor on matrimony bent, comes and brings the neighbor's treasure to his own fireside, and the last state of the house she has left is worse than the first. While this condition exists, the life of the farmer's wife is far from being one of ease or comfort. Women have ever been known to endure hardships with more fortitude and less complaint than men, and hence it is that so little is heard of their difficulties and discomforts in the farmhouse. It is a circumstance in the social aspect of our farm life, however, not only that is to be deplored, but which everyone connected with rural industries should strive to remedy. In the meantime, it is useless to look for a remedy in the way of a sufficient supply of servant girls. The number wanted is far too great to get supplied all at once, or in the immediate future, either by immigration or any other means; and it would be equally useless to hold meetings and pass resolutions on the subject as men do when they have a grievance, or imagine they have one. The only available remedy in sight lies with the individual, and each individual can do his share in making the life of the wearied housewife more comfortable. Little acts done at meal times and little self-denials during the day by every individual amount to a great aggregate in the day's work of the house, and a give-and-take spirit, with kind words and no grumblings, will work wonders in the arrangement of the household, and in the spirit of tranquility which such will be found to induce.

**HORSES.**

**Stallioners' Lien Act.**

To the Editor "Farmer's Advocate":

Now that there are enormous sums of money spent in the purchase of pure-bred stallions throughout Ontario, and breeding is proceeding satisfactorily to the owners of pure-bred stallions, and also to the farming community in general, the present is a fitting time for the various horse-breeding associations to see that the stallion owners have proper security for the payment of service fees by the Government passing a Lien Act. There is scarcely an owner of a stallion in Ontario who could not record losses, the service fees never being paid by individuals who call themselves men, especially at election time. This class of man, having found of late years that the pure-bred stallion is the most profitable to sire his colts, is as eager to breed to the good stallion as the gentleman who will pay on the very day the money becomes due. The owner of a stallion, when the season opens, probably goes with his horse into a strange neighborhood. Before he leaves it, about 1st July, his horse has served the mares of a number of worthies. When collecting time the following winter arrives, and he goes and meets those same worthies, and talks about payment, he thinks he is talking to another party altogether. The agreeable, unctuous smoothness has vanished, no satisfaction can be got; a second or third appeal shows the wolf in sheep's clothing. He tells you to sue for it, as you can get the money quicker than he can by that method. You sue it, and that costs you more money, and you discover when you try to enforce the judgment given you, that chattel mortgages, lien notes, etc., etc., control all his earthly goods. The stallion owner is forthwith a sadder and wiser man. This process will be repeated ad infinitum, until the crying need of the times becomes a law, viz., a Lien Act, to include both mare and foal. This will simply ensure to the stallion owner what rightfully belongs to him, and nothing more, for as soon as the fees are paid everything is free. A Lien Act will have no effect whatever on mares belonging to gentlemen who are glad to pay for a good animal. An Act of the kind will effect instant changes, and the pseudo-gentleman will become the genuine gentleman, as far as the stallion owner is concerned. How long are owners of stallions going to put up with the present arrangements? They are truly a long-suffering party. If a vote were taken of all the stallion-owners in Ontario, they would say "Aye" for the Lien Act. If a vote were also taken of all the honorable breeders who would favor the Lien Act, "Aye" would be their answer, as possibly at no very great distance in the past they have suffered some loss in other ways from the men whom the Lien Act is designed to partially convert into gentlemen. The Lien Act, by all means, ought to be passed to come into operation this coming spring. The stallion-owners will give their heartfelt thanks to any Government which puts it upon the statute book. The Lien Act ought to have precedence over chattel mortgages, lien notes, or any debt whatsoever, as far as the foal is concerned, and many will say both mare and foal. The Act, in its operation, ought to be as simple as possible.

HORSE-BREEDER.

**Where the Horse Suffers.**

The practice of feeding horses on "hitch-post hay" while in town is far too common in this country. A short period of such treatment will not hurt a horse if he be covered with a thick, warm blanket, but it is cruelty without excuse to leave horses hitched to a post in cold weather for any length of time, while the owner may be enjoying the hospitality of a friend or discussing in hot debate with a neighbor in the comfortable warmth of the store the salvation of the country by some munificent scheme he has conceived.

**Special Clubbing Rate.**

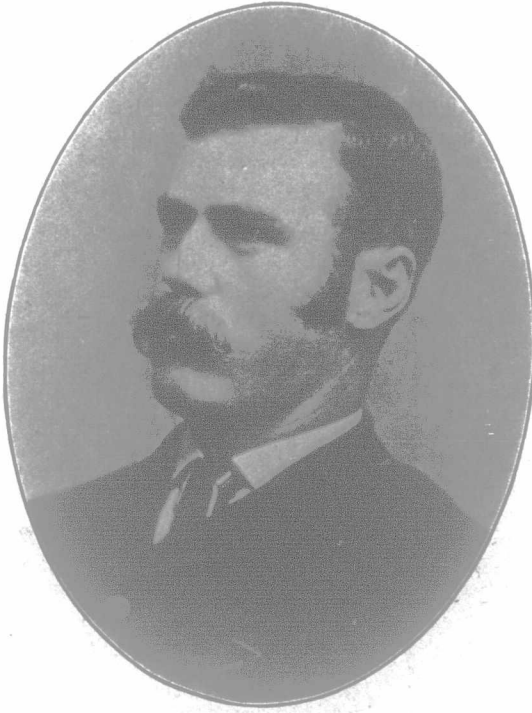
In order to greatly increase our subscription list, we make the following liberal club rate: One renewal and one new subscriber, \$2.50; one renewal and two new subscribers, \$3.25. Regular subscription price, \$1.50 per year (52 numbers). Show prospective subscribers a copy of the weekly. Every farmer should have it. Address, "Farmer's Advocate," London, Ont.

The generic character, says Count Lehndorf, in his "Horse-breeding Recollections," especially must be unmistakably expressed in either sex. I dislike mares resembling in shape and manners stallions, as much as I dislike entire horses of which minute inspection is necessary to convince one that these are not mares or geldings. The more quality the mare possesses, the more marked must be the expression of her sex. The charm of femininity, if I may say so, ought to pervade her whole appearance.

**Clydesdale Folklore.**

In addressing a meeting of horse breeders, Alexander Galbraith, of Janesville, Wis., said: "Within my own recollection a distinct evolution in the tastes of breeders and demands of the market is clearly noticeable, and to no breed of horses does this apply with greater force than to the British draft breeds of Clydesdales and Shires. I can well remember, when a small boy on the farm, a rather noted Clydesdale mare which my father owned. She was named 'Old Jess,' and was sired by the celebrated 'Broomfield Champion' (95). This mare was the dam of many fine colts, one of which, 'Johnnie Cope' (416), won the

with the typical Clydesdale mare of to-day, we find the difference very marked indeed. The weight of bone and frame has very materially decreased. The quality and action have correspondingly increased. The dams of such horses as McGregor, or Baron's Pride, were but small mares compared with 'Old Jess,' or even with 'Kier Peggy,' the dam of the famous 'Darnley.' I well remember seeing 'Keir Peggy' win first prize at the Highland show in 1864, and I saw the same mare twenty-two years afterwards, and I still think her one of the grandest animals the breed has ever produced. She had considerable scale, a fair amount of quality, was very symmetrically formed, with good action, but the most remarkable thing about this mare, and which has been a hard problem for Clydesdale breeders ever since, was that by far and away the best colt she ever produced, and she produced ten in all, was sired by an undersized and rather inferior stallion. This stallion's name was 'Conqueror' (199), owned by Mr. Moffat, of Shirva, and I well remember when the horse was hired at the Glasgow Spring Show of 1871, by the Dumblane, Doune and Callander Farmers' Club, to travel their district for small terms, the wisecracks laughed at the incompetency of the committee for choosing such a horse. Sir William Sterling Maxwell's estate of Keir being in the district, the manager thought he might perform a generous act by sending one of their mares to the district horse, and I understand the reason why 'Keir Peggy' was the one chosen was because she had failed to get with foal to any of their own stud horses, and they had several of considerable note. At any rate, the result was that 'Keir Peggy' got with foal by this obscure horse, and in due time produced the world-famed 'Darnley,' probably the greatest Clydesdale of the nineteenth century. It seems the irony of fate that such a wonderful product should be brought about in this haphazard manner. The mare was afterwards bred to many excellent horses, but never produced anything at all equal to "Darnley," either for individuality or breeding qualities, although two of them were good enough to win at the Highland show.



Fred. S. Black, Amherst, N. S.

Winner of the \$50 special prize donated by the Dominion Agriculture Breeders' Association, for best pure-bred cow of any breed at Maritime Winter Fair.

Highland Society's first prize at Glasgow forty-four years ago, and that season sired the celebrated black horse 'Campsie' (119), the winner of many premiums in Scotland, and one of the earliest horses owned by the well-known David Riddell. The old mare 'Jess,' to which I refer, differed in every material point from the typical show Clydesdale mare of the present day; in fact, she resembles far more closely a characteristic Shire mare. She was large, approaching if not seventeen hands high, very powerfully made all over, with immensely heavy bone, not of the flattest or cleanest kind, but such as would appear to good advantage when measured with a tape-line. She had wonderfully heavy feather in keeping with



Stanley A. Logan, of Logan Bros.,

Amherst Point, N. S., breeders of Holstein cattle, Shropshire sheep, Yorkshire and Berkshire swine, winner of the \$500000, donated by M. S. Brown & Co., for best collection of pure-bred sheep at Maritime Winter Fair.

her immensely heavy frame—in other words, rather coarse, hard, wiry hair. She had never been worked on the farm, although she lived to be over twenty years old. She had, I suppose, a mind far above ordinary farm work, as she was considered and looked up to as a model mother of stallions. Contrasting that animal

**STOCK.**

**Feeding Calves for Beef.**

There are a great number of calves, the offspring of the general-purpose grade Shorthorns which are commonly found on farms, that are raised on skim milk, and are used for the production of beef. It is easy, by good feeding, to produce excellent animals in this way, but, as anyone who has bought steers for feeding can testify, great numbers of these cattle are utterly spoiled by bad methods of feeding during the time they are calves, and are so stunted that no amount of good feeding at a later period can make really good cattle of them. It is of the utmost importance that the calf which is intended for beef should have a good start, and should form, while yet a calf, those habits of growth, thriftiness and good constitution which are the necessary characteristics of the good beef animal. To accomplish this end, good and careful feeding is a necessity.

In the milk food of the calf raised for beef a little generosity will prove the best economy. Those who take the calf at once from its mother and put it on skim milk at the end of a week or ten days, may save a little cream, but they run the risk of so injuring the delicate digestive organs of the young animal as to permanently retard its growth. It is a much safer practice to allow the young calf to remain with its mother for a day or two, so that she may nurse it and give it a good start; then to remove it, and give it warm new milk, in moderate feeds, twice a day for four or five weeks. It is a great mistake to feed even new milk from a pail in excessive quantities. Four or five quarts twice daily will be found an ample feed, and to feed more is to run the risk of upsetting the youngster's digestive organs, even while all new milk is being fed.

At the end of four or five weeks the calf is stronger, and a gradual change may be made from new to skim milk, taking ten days or two weeks to make the change, and being careful to have the skim milk as nearly as possible at the ordinary temperature of new milk. At the same time, some equivalent for the cream taken from the milk should be added. Starch, of course, fills much the same place as a food that fat does. It is not well, however, to use starchy foods as an equivalent for the butter-fat of the milk. The digestion of starch is effected through the action of the saliva of the mouth, and where starchy foods are fed in milk, they almost entirely escape this action, pass on to the stomach undigested, and cause trouble; hence, the fashion of feeding the meal of the ordinary grains in the milk, either raw or cooked, is not good, and is liable to lead to digestive troubles, and perhaps to scouring. The best substitute for the cream taken from the milk is, by all odds, flaxseed,

either whole or ground, boiled into a thick gruel. Flaxseed contains a very large proportion of fat and protein, and a very small amount of starch, hence it may be fed safely in milk, as the action of the saliva is not so much needed in its digestion. Fed in small quantities at first, and afterwards increased until two cupfuls of the gruel are fed in the milk, it not only forms a good cream equivalent, but has an important action in preventing constipation and promoting that general appearance of thrift and well-being which is characteristic of the well-doer among beef cattle. The flaxseed should be continued until the calf is eating grain very freely. It is well to continue to feed milk as long as we can; at least, till the calf is six or seven months old.

As soon as possible, while the calf is yet on new milk, the calf should be taught to eat. For this purpose, a little good clover hay is very valuable. Whole oats are very soon relished, and the calf may safely be allowed all he will eat. It is very important, however, to see that no food is left in the manger. We should be careful to feed no more than will be eaten up at one feed, and if any is left, it should be cleaned out of the manger before another feed is given. In the winter a little pulped roots, or even silage, may be given with advantage. In the summer, we believe it is well to give the calves the run of a small paddock of grass, provided with a shelter from the sun during the heat of the day. Calves so treated do not present the sleek, smooth appearance of those which are kept constantly in the stable, but they develop a better constitution and do better afterwards when turned out on the grass as yearlings to shift for themselves. D.

### The Chicago Judging Contest.

The results of the Spoor Trophy judging competition at the Chicago International Exhibition were made known on December 31st, nearly five weeks after the judging took place. Iowa College secures the bronze bull for the third time. Ohio stands second and Kansas third. The Ontario College authorities elected to withhold their team from this year's competition, the public being left to gather that they were not satisfied with the methods of conducting the competition, and judging from the delay incident upon making the awards, it would appear that their contentions were not wholly groundless. If there have been unbusinesslike methods in connection with the management of this competition, it is to be hoped the action of Ontario in withholding her team and the delay in announcing the results will have the effect of eliminating every possibility of suspicion of questionable practices, and of arranging the details of the competition so that the awards may be made in the most straightforward and expeditious manner.

So far as the Ontario stock-judging students are concerned the position taken by their college authorities was most unfortunate. In withholding their team the authorities at the Ontario College evidently intended their action to be considered as a protest against the methods of managing the competition, but it must be admitted that the sacrifice they called upon the students to make was far out of proportion to the good to be accomplished. International competitions are rare opportunities in a student's life, and should be utilized to the aggrandizement of his native country, and to the strengthening of his own personal position. Such an opportunity was either neglected by the students or denied them by the authorities. As individuals their loss will be borne personally, as Canadians their action hardly tallies with the characteristic Canadian determination to do their best at every opportunity for competition, and to accept the verdict uncomplainingly, whether it be just or unjust.

### Stock-raising Declining in Scotland.

It cannot fail to strike Canadians in a disappointing sense to learn that the returns recently issued by the British Board of Agriculture show a serious diminution in the number of cattle and sheep in Scotland during the last few years. A writer to one of the Scottish agricultural journals deplored the conditions which give up the Highland hills and moors, so suitable to the raising of sheep and Highland cattle, to the preserving of deer and game for millionaires to shoot.

A different view of the above situation is given by a writer to one of the British sporting journals—a Highland laird—who thus delivers himself: "There can be no reason why the Board of Agriculture should not take an interest in preserving game, a matter which, from the economical standpoint, is of much greater importance than, for example, the prevention of scab in sheep." He goes on to lament the fate of the "mountain sheep," which are driven from the moors by the "ill-considered, iniquitous stench" of sheep dip. What Scotland wants, and what Scottish tenants and farmers should insist upon getting, is an Act providing compulsory attendance of the Scottish lairds at an agricultural college for a course of training.

### Live Stock Sales in England in 1903.

From a specially-prepared compilation of the leading English stud stock sales during the past year, our correspondent has written the following summary, making mention as far as possible of the principal sales in each breed:

**SHIRE HORSES**, on account of the widespread interest displayed in them from the highest to the lowest in the land, naturally take precedence. Compared with the preceding year, we find that the averages realized are not so high, but in more than one instance the top prices of the several sexes have been higher. The best sale average of the year was that secured by Messrs. J. & J. Shaw, £165 14s. for 27 head; this was closely followed by Mr. J. Wainwright's £152 1s. 2d. for 33 head. Turning to the individual prices, it is found that £868 5s. was the top sale price for a mature stallion in 1903, Mr. J. Wainwright being the vendor. Another from this stud made £682 10s. Two at Messrs. J. & J. Shaw's realized £640 10s. 10d. and £336, and one at the Shire horse sale at the Agricultural Hall, London, made £241. The three-year-old stallions were in request, one at the Agricultural Hall sale making £541 10s., the top price of the age during the year; others sold at £420 (C. Keevil's), £283 (Sir A. Henderson's), £325 10s. (J. & J. Shaw's), and £231 (J. Wainwright's). At the Agricultural Hall sale in the spring the top price for two-year-old stallions was secured, £399, the next best price being £378 at Mr. J. Whitehurst's sale, and £304 at Messrs. Shaw's. Mr. J. Wainwright made top price for yearling stallions, £325 10s., and Lord Llangatock that for colt foals, £210. Lady Wantage easily led the way in respect to the prices for brood mares and four-year-old fillies, at £462 for the former and £525 for the latter; two others of the first-named age made £315 and one of the last named. Lady Wantage, in three-year-olds, also made the best price, £535 10s. Lord Llangatock was the next, with £399 10s. Mr. W. Jackson took the lead in the two-year-olds, an age that sold remarkably well, his top price being £420, Sir A. Henderson's £398 coming in a good second, whilst Lord Llangatock secured £315 for another; His Lordship making the best price for filly foals, namely, £168, and also for yearling fillies, £336.

**HACKNEY** sales have not been so numerous as in some former years, and, further, it is becoming more and more difficult to separate these sales from those of the ponies. The best price made for stallions during the year, as published in the agricultural press, is £183 15s. For three-year-olds the top price secured at the sale held by the Messrs. Mitchell was £131 15s. The two-year-old stallions made from £89 5s. and the yearlings at from £126, this price being made of one at Sir Gilbert Greenall's sale. Brood mares sold at good values. Amongst the best prices of the year are £199 10s., £176 10s., £141 15s., and £117 12s., made at the respective sales held by Messrs. Mitchell, W. Foster, James Clappison, and A. Wilson. The £173 5s., made by Mr. Clappison, was the best price for the three-year-old fillies, and £110 5s., realized by Mr. W. Foster, the best price for a two-year-old filly.

**FOR HARNESS HORSES** (singles) prices have been quite good; one being sold at the Wrexham spring sale for £420; another, Mr. A. Morton's, making £378; another, at Sir G. Greenall's, making £241 10s.

**FOR HUNTERS** the demand was a good one all through, Sir H. F. de Trafford making the top price, namely, £1,100 for one and £1,050 for a second, the average for the twenty-three being £287 3s. Lord Lonsdale made up to £472 for one, and averaged £217 7s. 8d. for fourteen.

**CLYDESDALE** sales were not many, the best prices noticed during the past year being: For two-year-old stallions, £94 10s.; for mares and fillies, £336, £145 10s., £170, and £168. The late R. Frederick, Lord Arthur Cecil, and Mr. H. Webster were the principal vendors during the year.

**SUFFOLK** sales were not very numerous, £260 being the best price for stallions, this being secured at the sale held at the Royal Show, the animal being purchased for Australia, together with another one of the same age and sex, at £152 5s. Two-year-old stallions made up to £65 2s.; brood mares to £78 15s.; three-year-old fillies to £84, and two-year-olds up to £47 5s. There was a capital demand for both colt and filly foals, the former making up to £68 5s., and the latter to £33 12s.

### CATTLE SALES.

**SHORTHORNS**.—Amongst these, first and foremost, comes the Shorthorn, at home or wherever it goes, either as a beef or milk producer. It is a breed of cattle second to none for general purposes. The sale record of the past year is a notable one, more particularly for the high individual prices realized, some of the more important of which are referred to below. The best average of the year in England was that recorded at H. M. the King's sale at Windsor, when a very notable selection of cattle were offered. The

sale averaged £82 2s. 6d., the best of the year, though Earl Manvers ran it very close with his average of £81 2s. 7d. for sixty-one head. Mr. W. Bell's sale takes the next place in the sale average list, with £68 3s. for fifty-four head; then follows the well-known annual sale at Riby, Mr. H. Dudding's, at which sixty-two head made the fine average of £54 11s. 8d. The best prices realized at the auctions, for the several ages mentioned below are as follows: Bulls—£840 for Royal Duke, at the King's sale; £530 5s. for one at Mr. W. Bell's, whose fifteen bulls averaged £127 2s. 5d.; £367 10s. at Earl Manvers' sale; whilst £315 was reached three times, twice at the Birmingham spring sale and at Mr. Ecroyd's sale; one at Mr. Dudding's made £239 5s.; one at Birmingham £231; another at Perth made £273, and one at Mr. A. Hiscock's £183 15s. The most notable sales for bull calves were those held in Scotland in conjunction with Messrs. W. S. Marr and W. Duthie, the former gentleman making an average of £211 19s. 4d. for eight, with a top price of £630, and the latter an average of £144 2s. 9d. for twenty-two, with the top price of £493 10s. Several other calves realized over the century, amongst them one at Captain Hume Graham's, £141 15s.; one at Mr. McIntosh's £110 5s., and one at Mr. John Wilson's, £105.

**ABERDEEN-ANGUS**.—The large and widespread interest in Aberdeen-Angus cattle is clearly shown by the wide area over which the sales of this breed have during the past year extended, namely, from Perth in the north of Scotland to Tedfold in the south of Sussex. At the whole of the sales high prices for the best specimens have been the rule. The averages realized are quite in keeping with the three typical ones given, namely, Mr. John Grant's, at Advie Mains, £46 8s. 5d. for sixteen; G. R. Siach's, at Rasebrea, £38 14s. 8d. for forty-seven, and Mr. C. W. Shroeter's, at Tedfold, Sussex, £36 18s. 9d. for sixty-six head. The top price for bulls was made at the Perth spring sale, £504; another making £115 10s. at the Birmingham sale. Mr. G. R. Siach made the best price for bull calves, £73 10s. No less than five cows realized over the century: Mr. Siach's £199 16s.; Mr. C. W. Shroeter's £157 10s.; a similar price for one at Perth, where another made £115 10s., and £110 5s. at the Earl of Longford's. The best prices for two-year-old heifers were £147 at Mr. Siach's; one of Mr. Wilson's making £105 1s., and another at Perth spring sale £100 16s. The yearling heifer record price for the year was secured at Perth spring sale, £148 1s., and £47 5s. was the top figure for heifer calves.

**HEREFORD** sales this year have been made notable by the grand result secured at the dispersion sale of the well-known herd owned by Mr. R. Green, where sixty head made the notable average of £54 10s. 2d.; the best prices being: Bull calves, £273 10s.; cows, £315; the average for twenty-eight of this age being £83 17s., and for yearling heifer, £472 10s., fifteen of this age making an average of £65 14s. 6d. The two-year-olds sold from £110 10s., and the heifer calves from £37 16s.

**GALLOWAYS** have not had a large number of sales, but at those which have been held the demand has been very good indeed. The following include the best prices of the year: Bulls, £53 11s. at Castle Douglass, and cows from £40, Mr. J. Jefferson's.

### SHEEP.

All through the year the hopes of flock-owners have been in the ascendant, and prices have kept getting higher and higher, the best prices of the season being those made at the latter sales.

A brief review of the more important results disclosed in connection with the principal English breeds are given below:

**LEICESTERS**, which have in the past had so very much to do with the improvement of the present breeds of English sheep, are not at the present time so much in demand as some of those breeds which owe a good share of their present success to it. However, the sales, judging from the reports before us, have been remunerative to their breeders, the best average for rams being £10 3s., and the top price for the same was £18 18s.

**COTSWOLDS** are not at the present time very popular at home, but still in some counties, particularly in Norfolk, there is a large demand for them for crossing purposes, Mr. D. Brown being the leading ram seller, or, rather, "Letter," in that part of the country, for he never sells, but always "Lets" his sheep for the season, after which they return to him again. One hundred ram lambs "let" at his sale made an average of £7 6s., and his rams, which made up to £18 7s. 6d., averaged £11 11s. for seventy. The best price of the year was, however, made by Mr. W. Houlton, whose flock has come well ahead during the past few years; this was £26 5s.

**THE LINCOLNS** have again secured the honor of being the breed that has produced the top price ram of the year; this sheep being the unbeaten yearling ram, sold at Mr. H. Dudding's sale to go to the Argentine at £231; Mr. Tom Casswell selling one at Lincoln at £71 8s.; and

Messrs. R. & W. Wright and J. E. Casswell sold one each at the same sale at £65 1s. 5d. The best averages for yearling rams during the year were those made by Messrs. S. E. Dean & Sons at Lincoln sale, £35 1s. 4d.; Mr. J. E. Casswell at the same fixture, £38 7s.; Mr. Tom Casswell at the same place, £27 8s. 9d.; and Mr. H. Dudding at his annual home sale, when thirty-seven rams were sold for an average of £27.

THE OXFORD DOWN breeders have had a good year, the demand for their sheep, both for home and Scotland, as well as for export, being very good indeed. Mr. J. T. Hobbs made the best ram average of the year, namely, £15 7s.; Mr. A. Brassey's being the next best, £12 18s. 3d.; then came Messrs. Millican and Middleton, at Kelso, £12 14s. The top price for yearling rams was secured at the Oxford Fair by Mr. J. Wortley, £63; Mr. J. T. Hobbs making £60 at his annual sale, and Messrs. Treadwell £58 16s. at theirs.

THE SHROPSHIREs have not been so remarkable for high prices this season as they were in 1902, the best price for rams during the year being £105 at Mr. A. Tanner's sale. Other notable prices made include £94 10s. at Messrs. Evans', and £78 15s. at the late W. F. Inge's.

THE HAMPSHIREs have had a most notable season. Probably never before have prices been so high nor the demand so good as it was for this breed all through the season. Space will not allow of full details being given. This can, however, be obtained from Chapman's record in the Farmer and Stock-breeders' Annual, published in London, England, where there are recorded upwards of 1,200 separate sale results. The Earl of Carnarvon dispersed his widely-known flock, and the result was that the 485 sheep made an average of £6 17s. 10d. This is, indeed, a remarkable average, particularly when it be remembered that it included no less than 182 lambs. Then we have that record sale and "letting" of Mr. James Flowers' ram lambs. Here one hundred lambs, nine of which were let for the season, made an average of £21 4s. 6d. each; the let lambs ranging in price from £141 15s. each, and averaging £59 8s. This same breeder also sold at this sale 100 draft ewes, which realized the high figure of £7 2s. 6d. each, making the aggregate total of the sale £2,833.

THE SOUTHDOWNS have not sold so readily as in some former years. The best prices made during the past season include those made at the dispersal sale of the late Col. McCalmont. At this fixture the best prices for yearling rams, £48 6s.; for stud rams, £43 1s.; for ram lambs, £78 15s.; for flock ewes, £15 15s.; for yearling ewes, £10 15s., and for ewe lambs £3 6s., were realized.

THE SUFFOLKS have been in request for home demand. The top price here for yearling rams was £99 15s., whilst the ram lambs which were in request realized as follows: £49 7s., Mr. D. A. Green; £45 2s., H. E. Smith; £43 1s., S. R. Sherwood; £38 17s., J. W. Eagle; and £37 16s., T. Traylen.

THE KENT OR ROMNEY MARSH sheep have been in large demand; in fact, it is many years since either the home or the export demand has been so brisk in connection with this breed. The averages realized by the leading flocks have been from 15 to 25 per cent. higher than in the preceding year.

For the minor breeds of the country the demand has been equally good. Amongst the more notable prices in connection with these may be mentioned £19 19s. for a ewe lamb of the Border Leicester breed; £123 for a Black-faced Mountain ram; £115 for a Cheviot ram, and £42 for a Kerry Hill ram.

W. W. C.

### Feeding Sheep in B. C.

To the Editor "Farmer's Advocate":  
In your issue of December 1st your correspondent, "Nomad," has got far astray in his facts; he has taken too much on hearsay. It is a good many years since sheep made more than six cents per pound here. At that time the railways were not so extended. There was a boom on this Coast soon after Vancouver was burnt, and sheep were worth seven cents in the spring. Since 1894 they have never been worth more than from five and a half to six cents. I have been feeding sheep for the last twenty years. In 1894 I contracted to feed over 400 at one and a half cents, weighed out above what they weighed in. One lot, with only about one-third Merino blood in them, did well; another, of full blood Merinos, did not gain a pound in weight.

As oats are worth from \$20 a ton for soft to \$25 for dry, and hay \$14 per ton, no one can feed for one and a half cents per pound and make a profit; in fact, he would not make above two-thirds of the value of his feed at six cents per pound. The time has not come here yet to get the balance out of the manure.

Another danger from purchasing sheep to feed is the scab. Years ago, when I bought sheep for feeding only, I often got the scab, but with a few bottles of tobacco water I could check it un-

til they went to the butcher. A few years ago, 1,800 sheep were bought for a large farm, scab broke out, and did no good; the scab was only got rid of when the last sheep was sold. It is very unsafe to get any sheep from Eastern Washington or Oregon, if anyone has a small flock of his own. The board fences harbor and help to spread the disease. If he purchase from a clean flock, the railways, as a rule, neither clean nor whitewash a car, and the disease is spread in this way.

British Columbia.

DELTA.

### Hogs in Canada.

A writer in the American Swine-breeders' Journal has the following to say of Canadian hog-raising:

"We mapped out a trip through the rural districts of Ontario, Canada, to see the hogs, the meat markets and the packing-houses of that country, so that I might know for myself if what I had heard is true as to the kind of hogs and the character of pork used there and that shipped away.

"We visited a number of breeders and travelled four or five hundred miles through that part of the country where they raise the most hogs, and saw something like two thousand head of swine on the farms. Of these herds eight were Berkshires, one Duroc-Jersey, seven or eight red pigs, and the others were all large Yorkshires. I saw several that weighed 700 or 800 pounds, and one weighed 850 pounds. I saw the meat at the packing-houses and in the market.

"It is unlike any I ever saw here. The sides are interlain with streaks of lean and of equal width, extending from back to belly, thus making the finest bacon in the world. Our native breeds can not be fed or treated so as to make any bacon even to resemble it in structure or character. The ham and shoulder is marbled throughout with lean and fat. I never saw anything like it. I was eating dinner with a farmer and breeder, and I admired the looks and taste of the meat, thinking it was pressed fowl, and it was so delicious and so unlike any that I ever saw that I asked the lady what it was, and she replied it was only a roasted pork shoulder. Just imagine my surprise, for I thought any poor fool would know roast pork. I carried some of it home, and fooled several. My family ate it for venison, and each one remarked that they didn't know venison was like pressed fowl in taste and appearance. It is more like pressed chicken than like our native pork."

### FARM.

#### The Season's Yield at Agassiz, B. C.

The advantages to the newcomer to the lands of the Coast Province in having the records of an Experimental Farm to consult cannot be overestimated; in fact, the old-timer can consult with interest and profit to himself the results of trials with new and old varieties of grains, roots and fruits. The results from this farm are very good, when one takes into consideration the character of the soil, which in its natural state, with big outcroppings of gravel, is as poor as can be imagined. The soil here calls for the practice of an up-to-date agriculture, in which clover, live stock, and the use of manure by top-dressing, and the use of slag, have prominent places.

A perusal of the yields and remarks on the grains will be valuable to the farmers in any part of B.C. The early publication of such allows him to get seed in time for the 1904 seeding. As has often been mentioned in the "Advocate," when discussing editorially the work of the experimental farms, the abandonment of the testing of so many varieties year after year would be an advantage. In the list of yields for 1903, a large number of the poorer-producing varieties have been omitted, yet the reports issued year after year show that such comparatively valueless croppers have not been dropped. In the matter of fruit trees, several varieties have shown that they are worthless from the market standpoint, owing to the ease with which they fall a prey to the attacks of parasitic and fungoid pests, in spite of spraying and other attempts to suppress such pests. Yet there seems to be no cessation in the tests with such varieties. The work of the farm would be far more valuable than it is now, if to such varieties were meted out the punishment accorded to unfruitful trees in Holy Writ, and in the place of them an orchard planted with varieties whose worth is based on their commercial and pest-resisting values. Grains weigh well at this farm, as far as can be judged by the hand. If a standard weigher for estimating weight per bushel, such as is to be found at every country elevator on the prairie, were provided, the reports issued by the superintendent would be still more valuable. The past season was peculiar, inasmuch as owing to the lack of

sunshine, and frequent showers at the beginning of the ripening period, the earlier-maturing varieties were held back, while later varieties, not as far advanced, were enabled to catch up during the cloudy, damp weather, thus bringing the different varieties in almost at the same time.

Improvements in the way of clearing are being steadily made, such involving a lot of heavy work. Some stumps were seen, the roots from which extended over half an acre; all must be gotten out before the plow can do satisfactory work. The orchards on the ledges are demonstrating that these semi-inaccessible areas can be put to profitable use.

### Our London Letter.

Since my last letter the Smithfield Club Show, the great agricultural event of the year, has taken place, and can only be described as an unqualified success. The exhibits, taken as a whole, were so near perfection that it required a very nice discrimination to satisfactorily award the prizes.

As usual during the Smithfield Club show week, the Central Chamber of Agriculture and the Farmers' Club held their annual dinner, at which all the leading men in this particular branch of industry were present. The Earl of Warwick was in the chair, and among those present were Lord Onslow, Mr. H. Chaplin, and Major Craigie. In the course of a speech the Minister for Agriculture took occasion to observe that he thought that the legislation which excluded foreign and colonial cattle from our live markets had "encouraged" the home breeds. As the majority of those present at the dinner were breeders, the noble lord's sentiments were applauded. Lord Onslow, judging from his speech here and his promise to the Scotch graziers and farmers three weeks ago, has no settled convictions in the matter at all, and trims his views to suit his audience.

Sir Richard Cartwright's speech in opening the Federal campaign at Toronto has created quite a stir in tariff reform circles on this side, and is being extensively quoted on political platforms and in the press throughout the kingdom. Coming as it does from a man who has held such strong Cobdenite views in the past, it is bound to be of great assistance to Mr. Chamberlain in promoting his preferential scheme of tariffs.

Canada and Canadian matters have been very much to the fore this week. On Monday Lord Brassey delivered an address on Canada at a special meeting of the London Chamber of Commerce, and among many good things he said: "I am glad we took occasion to emphasize the need of a fast steamer service between England and Canada. This project is of such paramount importance that it seems incredible there should be any long delay in establishing it." Lord Brassey also pointed out how dependent upon each other Canada and Great Britain were, more particularly with regard to agricultural produce. His words were: "The sum of agricultural success in Canada was the purchasing power of the motherland."

The reports from all parts of the United Kingdom bearing upon the crops for 1903 all tell the same dismal tale. Owing to the abnormally wet season the grain crop is not an average one, and in many places it has simply been carted into the yards to be used as manure. The root crops have been a failure, and winter keep is very scarce. The only redeeming feature of the year has been the abundance of grass. The outlook for the farmer is anything but promising, as the acreage of wheat sown is far short of last season, and the present prices of wheat, wool and cattle are most ruinous.

Since Mr. Seddon's precious scheme for the opening of shops to retail New Zealand lamb and mutton has receded into the background, the idea has been taken up by "The British-New Zealand Meat and Produce Co., Ltd.," and very shortly operations will be commenced in London and the larger provincial towns. The capital of the company is £150,000, and from the prospectus I gather it is formed for the purpose "of supplying direct to the consumer N. Z. meat, butter, cheese and other descriptions of produce as may be deemed advisable."

MARKETS.—At Deptford foreign cattle market on Thursday the quality of the animals on offer was rather above the average, but with few exceptions were not so good as buyers would have liked for the Christmas trade. The extra good quality bullocks met a ready demand at 12½c. to 13½c., while the tops of other bunches cannot be quoted at more than 12½c., and out of the total number (1721) shown 343 head were held back, salesmen not caring to let them go, on the off chance of the weather hardening up. There were also 540 sheep and 267 lambs on the market, but these were the every-day class, and the best pens of the former may have made a bare 12c., while the lambs are quoted 15c.

The butter market during the past two weeks calls for no special remark, the business done

being only moderate. Inquiry for Canadian butter is rather small, the finest qualities being officially listed at 19½ to 20½c.

Bacon, too, has been steady at values current a fortnight ago. As usual, the principal enquiry is for smallest and leanest descriptions. The majority of buyers evidently took full advantage of the recent slump to lay in stock sufficient to carry them over the holiday season. Prices for the very best Canadian bacon are 10½c. to 10 1-3c.

The general quietness pervading the cheese market has had the effect of weakening prices somewhat. There is, however, still a demand for fine Canadian cheese at 10½c. to 10¾c., but in view of the large stock on hand buyers are not disposed to do much at these rates. The best fall makes are being held for 11c.

Canadian long-cut (green) hams are in fair demand at 13½c. for best, and seconds 12c.

The poultry trade, as was to be expected, is now very brisk. Turkeys are scarce, and very dear. For select Normandy breeds as much as 36c. is being paid per pound. Geese are not in much favor at 12c. per pound. A. J. SCOTT, Dec. 19th, 1903.

**The Potato Crop.**

To the Editor "Farmer's Advocate":

Sir,—Being especially interested in potato culture, I was pleased to see your article on "The Potato Crop Failure," in a late issue of the "Advocate." My opportunities for observation regarding the condition of the crop enables me to not only endorse, but, if possible, to emphasize what you say, viz., "The potato-growing industry has come to a stage where something must be done to prevent the rot, if a crop is to be insured in seasons that are not the most favorable." I should like to supplement this by adding that the condition of the potato, as we find it to-day, demands that not only "something must be done to prevent the rot," but that doing something to cause the rot must be prevented. After careful study, and summing up the cause and effect, as shown by careful tests made in various localities and under different conditions and varieties of soil, seed and season, I have been forced to the conclusion that the poison we have been applying for upwards of thirty years is very largely the direct cause of the blight, rot, and weakened vitality of our potatoes.

This view of the matter has been confirmed by the statements of many thoughtful farmers who have the same opinion. It is with much regret, therefore, that I notice the ending of your article above referred to, as if it is followed the good it might do will be neutralized by the damage by the poison which is mentioned in such a way that it seems to take it as an indisputable fact that Paris green must be used. Fortunately, this is not the case, and it is so much so, that no person can grow perfect potatoes who uses Paris green on the plants. This point can be and has been demonstrated beyond the possibility of doubt. It is a fact that cannot be denied or disproven, that potatoes treated with Paris green carefully, do not live as long by ten days to three weeks as they would if not poisoned. No potato that is damaged by any cause to this extent can produce as many or as good quality of tubers.

Toronto Co., Ont. C. M. RICHARDSON.

**"Kno Bug" Analyzed.**

To the Editor "Farmer's Advocate":

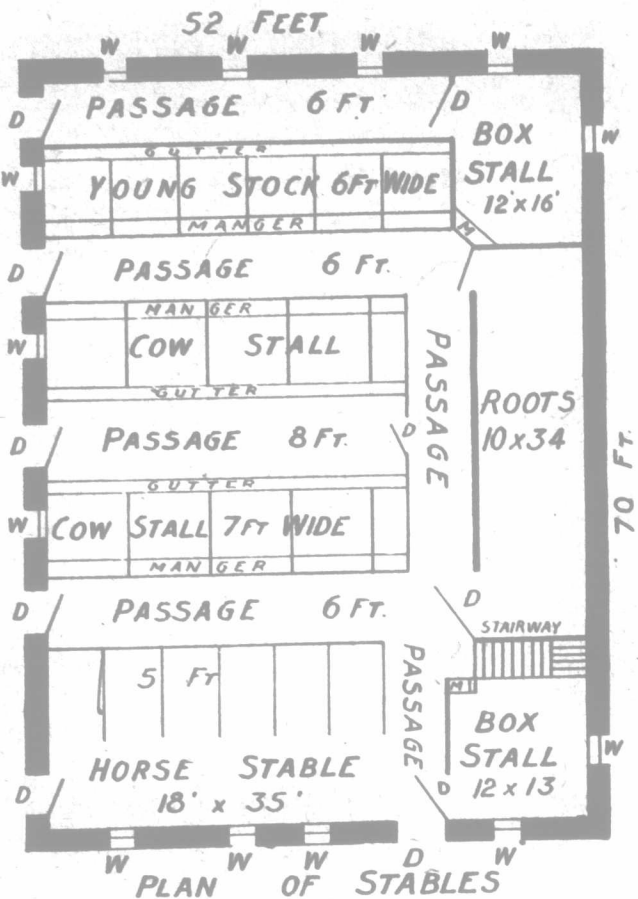
Sir,—Since the meeting of the Experimental Union at Guelph, I have had another sample of the insecticide Kno Bug, which I know to be perfectly accurate, analyzed. This one contains arsenic equivalent to 2.49 per cent. of Paris green. Therefore, Kno Bug selling at six cents per pound, the Paris green in it would cost \$2.41 per pound. This, of course, is not allowing value for the potassium nitrate which it contains, or for the gypsum which makes up a greater part of the mixture. The Paris green is, however, the only substance in it which will kill bugs. The potassium nitrate will feed the plant, but will have to go into the soil before it will do that. I am sorry that I did not have these results in time to allow them to be published along with the others in the issue of the "Farmer's Advocate" just received. R. HARCOURT, Ontario Agricultural College. Chemist.

**Special Clubbing Rate.**

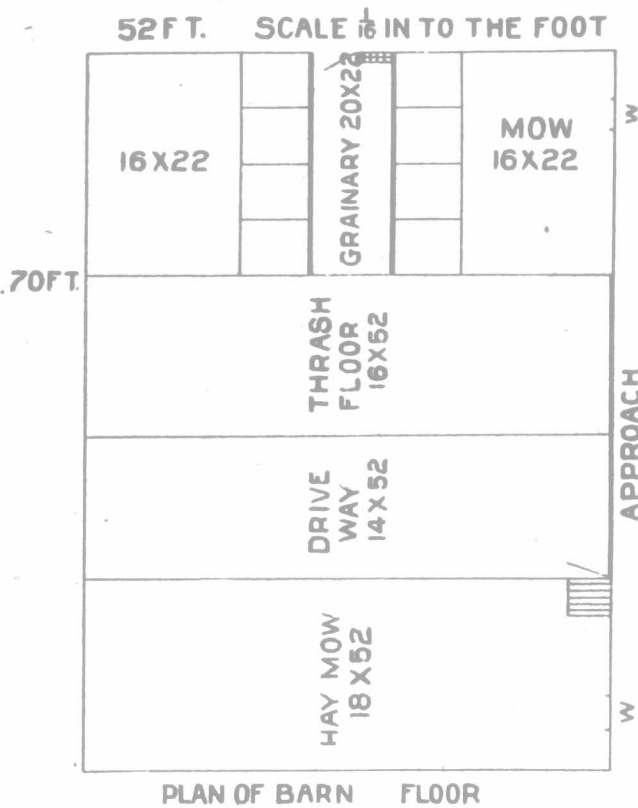
In order to greatly increase our subscription list, we make the following liberal club rate: One renewal and one new subscriber, \$2.50; one renewal and two new subscribers, \$3.25. Regular subscription price, \$1.50 per year (52 numbers). Free prospective subscribers a copy of the weekly "Farmer's Advocate" should have it. Address, "Farmer's Advocate," London, Ont.

**Barn Plans.**

One of our subscribers, Mr. Thos. Johnson, Perth Co., Ont., commenting upon the stable plan published in the December 1st issue, says, "The general plan is too narrow and too long, the



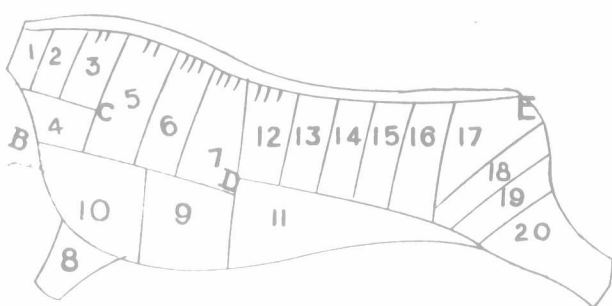
boxes too small, and the stalls too narrow," and has supplied us with the accompanying plan, which he considers a model. In many respects this plan answers well, but to be thoroughly modern would require a feed-room, silo, more room for loose cattle and in the manure alley. Doubtless this plan could be modified to provide for these suggested amendments. Evidently we have not yet obtained a perfect stable plan.



**Cutting up Beef.**

Would you kindly give in your next issue a cut, both of a front quarter and hind quarter of beef, marked off for a twenty-share beef ring? Waterloo Co., Ont. N. S.

Ans.—The accompanying chart is arranged to give each customer a roast and a boiling piece, and is eminently satisfactory wherever used for a twenty-share ring.



**A Year with Sugar Beets.**

That the sugar-beet industry is continuing to attract an ever-increasing degree of interest on the part of the agricultural world in general was rather strikingly evinced by the flattering numbers who, at the summons of the Ontario Sugar Co., wended their way Berlinward to the beet-growers' convention held there during the fourth week of November, when the process of manufacture was to be seen in operation.

The addresses were many, and to the point, discussion of the subject being entered upon not only by practical agriculturists from every part of the Province, but also by others whose names, as efficient promoters of the agricultural interests of the country, are household words among the progressive farmers of the Dominion. Among these may be mentioned Mr. C. C. James, Deputy-Minister of Agriculture; Dr. James Mills, of the Ontario Agricultural College; Prof. Harcourt, also of the O.A.C.; Mr. Geo. C. Creelman, Toronto; and Mr. Simpson Rennie, Toronto.

Mr. S. J. Williams, managing director of the Ontario Sugar Co., gave an interesting account of the rise and progress of the Sugar Company's venture at Berlin. No spot in Ontario, he said, was more favorable for the establishment of a sugar-beet factory than Waterloo. The capacity of the factory which had been established there amounts to 60,000 tons, which amount, however, has not yet been supplied wholly by the farmers of Waterloo. The securing of this quantity of beets means the annual payment of \$300,000 to beet-growers; hence, if Waterloo farmers want this sum to remain in the county they may obtain it by raising sugar beets for the factory. It had been objected by some that the company was not paying enough for beets, and the fact pointed out that in Michigan the factories pay at the rate of \$4.50 per ton for twelve-per-cent. beets. To this he would make answer that the price for beets in Ontario is regulated by the Government, to safeguard the farmers' interests. Last year the Government compelled the payment of \$4.00 per ton, whether the beets tested up to the twelve per cent. standard or not. The second and third years the growers are to receive 33 1-3 cents for every point over 12 per cent. in sugar that their beets may test. The greatest reason why the Ontario Co. could not pay \$4.50 per ton for 12 per cent. beets as in Michigan, is that the price of sugar is always higher there than in Canada. If Canadian factorymen could get the American price for sugar, they would gladly pay the higher prices. However, he was not discouraged. Many of the best farmers had renewed their contracts. There was a man in the audience who had 24 acres of wheat on which he realized \$300. He also had 10 acres of beets, for which he received \$546. Mr. Williams could point out hundreds of similar instances.

Mr. Simpson Rennie gave some very practical observations. He called attention to the fact that some soils are not suited to the raising of sugar beets—among these being a new soil with only one crop before the beets. He considered that more money might be made from an acre of beets than from a similar area of oats, barley, or wheat. Allowing 12 tons per acre (which is below the average yield), at \$5.00 a ton, the amount which the beets here are yielding by percentage, the grower gets \$60 an acre; supposing the cost to be even \$30 per acre, he still has \$30 profit. Each of Mr. Rennie's two sons this year grew an acre and a half of beets. One cleared \$87 after paying for seed and freight, and the other \$124.90.

Prof. Harcourt dwelt more especially on the chemical and botanical side of the question. He had tested, privately, a sample of both cane and beet sugar, and had found their constituents to be identical; hence, there could be no possible truth in the assertion sometimes made, that the cane sugar is stronger or sweeter than the beet sugar. An important consideration, however, is that the best possible cultivation should be given to sugar beets. The beet, as we have it, is the result of 100 years of nurture, and unless given the very best treatment, it will go back. It has been proven that heavy manuring just before putting in the beets results in a heavy yield of big beets of low sugar percentage. A test of this showed 18 tons to the acre, beets testing 15.07 in sugar. Beside it was a sample on land on which the manure had been longer in the ground; and these tested 17.05 and yielded 16 tons to the acre.

Mr. Wm. McQuillan, of Dunnville, advised growers not to try too large an acreage. Two acres well done are better than four half done.

Mr. C. C. James, Deputy-Minister of Agriculture, stated his conviction that the growing of sugar beets will pay the farmer. The success of Canada depends more upon the development of its agricultural resources than upon any other branch, and the raising of beets is an opportunity lying at the very feet of the farmers. Farmers should give support and co-operation to every movement that will tend to raise the standard of agricultural resources. Mr. James especially called the attention of the farmers to the fact



that beet-growing is not hard on the land. The fact should be realized that the sugar beet derives its chief nutrition from the air, is, in fact, crystallized air. When the farmer sells it he is not selling a particle of the soil strength, only the air products. Sugar-beet growing is one of the branches of higher-grade farming.

**Our Old Chop Box and the New One.**

By D. Lawrence.

We had an old-fashioned chop-box in the barn with a sloping top, like a writing desk (Fig. 1), holding from 18 to 20 bags of chop. It was very awkward to get the chop from the bottom. We had it under our floor grinder, which was set on the barn floor, but we had to put up and take down a spout every time we ground any grain, and even with the spout or pipe sometimes a considerable portion of the fine chop would blow away. We built a new one, something like Fig. 2, of 2x4 studding, lined with square matched one-inch spruce, with the dressed side in, so that the chop would slide down easier. The new box is a very great improvement. Being up close to the barn floor, there is no opportunity for waste by fine chop blowing away, because we grind by wind-power, and there is always some draft; then by the chop going in at the top we are always using the chop that was ground first. We do not have to stoop down and lean over the edge of the box to get the last of the chop out; we utilize the space under the barn floor that was not of any service in the case of the old box, and we can now store away a much larger quantity of chop in the same floor space. It will hold

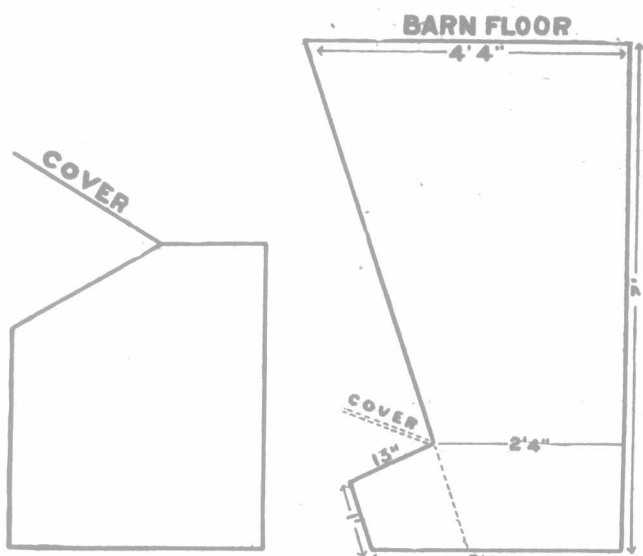


Fig. 1.

Fig. 2.

about 50 bags instead of 20, the maximum capacity of the old box. We built a partition in the box, so that we have a smaller compartment for bran, the larger one being for oat chop. We cut a small door in the floor over the small compartment, so that we can empty the bran from the barn floor. We built the bottom of our box about eight inches from the floor of stable, so that the cat could get in in order to have an interview with any rats or mice that might presume to operate there; it might be an improvement to make the bottom at least 12 or 15 inches from the floor. The improvement is worth much more to us than all the cost, and we want others to reap the benefit of our experience; if you improve upon our plan and make something still better, we ask of you to write it up and send it to the greatest agricultural journal in the world—the "Farmer's Advocate."

[Note.—The "Farmer's Advocate" will be pleased to receive from its readers concise descriptions, with sketches in pen and ink or pencil, from which cuts can be made to illustrate any handy contrivance for use about the farm, preferably those actually tested and found valuable by the writer. Suitable remuneration will be made for those found acceptable.—Editor.]

**Special Clubbing Rate.**

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When success causes "swelled head," then success in the history of that "patient" is at an end. He who thinks he has nothing more to learn will learn nothing more.

**A Modern Farmhouse.**

The accompanying plans are for a farmhouse suitable for a farm of one hundred acres, the cost of erecting the structure to be within \$2,000.

In building with a limited amount of capital to expend, one of the main considerations to be borne in mind is to make the building of no greater dimensions than is really necessary, in order that something of an overplus may be left to spend on the interior fittings, etc., as these details are so powerful in making a home really comfortable. So often we find a house of large, showy exterior, in which there are rooms practically unused, and at the same time there is a lack of finish and a scarcity of small conveniences

give a far more artistic effect outside, but at the same time cuts into the space inside the house, and unless planned on a large scale, gives small rooms, which can only be overcome by considerable extra outlay.

The plans here shown aim at striking the happy medium. The outlines of the house are fairly broken, and at the same time the space taken up is used as far as possible to aid the general scheme of the plan. The effect would be solid and substantial, as over-ornamentation, such as elaborate turned-work on the porch and balcony, has been purposely left out.

The foundation and cellar walls are of cement, one foot thick. The size of the cellar is 22 ft. by 20 ft., which would not necessitate its being under the sitting-room and dining-room, which would be found an advantage if roots were stored. The openings to the cellar windows will also be cemented on the sides, a thickness of four inches being ample. These openings should be of a size to allow of the easy getting in and out of an ordinary crate, and they should be provided with wooden shutters, which can be let down in the event of continued stormy weather.

The structure of the house is the usual framed pattern, consisting of 2x4 scantlings, weather boarded, felt papered, and clap-boarded on the outside. It is presumed that lumber can be obtained at a reasonable figure, but the plans can as well be used for roughcast or cement, should the building be done in a district where lumber is high in price.

The shingled roof is one-third pitch, which, although somewhat steep, will be found advisable, as such a roof is more lasting than a flatter one.

The hall is brought forward eight feet, which gives more room to the apartments in the rear of the house, and also gives pleasant prominence to the entrance, and at the same time provides for a balcony opening from the upper floor.

The drawing-room, entered from the hall, joins the dining-room by an opening five feet wide, which can be closed on occasion by rolling-doors, or simply by curtains hung within the opening. If rolling-doors are used, care should be taken that the grooves in which they work are completely boxed in from the main partitioning, or an unpleasant draft will be caused.

The kitchen is provided with a back hall, which would be a suitable place for a pump over a cistern of rain-water. It would be well, too, to fit this back hall with a seat or bench, as a suggestive place to change farm boots before coming into the house. The bath-room, also opening from the kitchen, is purposely placed on the ground floor, as in a house of this cost it can be more easily fitted with water supply, and being adjacent to the kitchen-stove, hot water can easily be obtained, and the room will also be warmed from the same source.

The plan of the upper floor speaks for itself. Three of the bedrooms are provided with good closet-room, and a linen-press opens from the passageway. The glass door and windows opening onto the balcony light the passage, and also provide good ventilation to the surrounding rooms.

For interior finish it is suggested that hardwood be used for all the floors, and pine for the doors, window mouldings, etc. The hardwood floors, when oiled and polished, amply repay the extra cost, as rugs come far cheaper than carpets, and the saving of labor in cleaning, together with the more hygienic condition generally, are considerable items. The pine fittings for the rest of the house are capable of great variation by colored stains and paint, and will by these means produce far more harmonious results in conjunction with wall papers and kalsomine than hardwood with its more restricted shade of brown.

The bay-window in the drawing-room would be a suitable place to fit a low seat, running round the three sides of it.

The dining-room walls should be wainscoted about three feet high, as the constant moving of chairs which must take place in this room is very likely to injure the walls. A wooden wainscot also gives an air of comfort and solidity to such a room when it is painted in accordance with the general scheme of decoration.

The kitchen should also be wainscoted in a like manner.

For exterior finish the roof is stained a deep red, and the gables painted the same shade; also the small gable of the porch and the projecting roof of the bay-window. The main body of the house is painted a deep buff color, with dull green trimmings to the windows, etc.

The small windows each side of the entrance door, and the door to the balcony, are glazed with colored "shell" or "cathedral" glass, as also are the upper panes of the bay-window in the sitting-room.

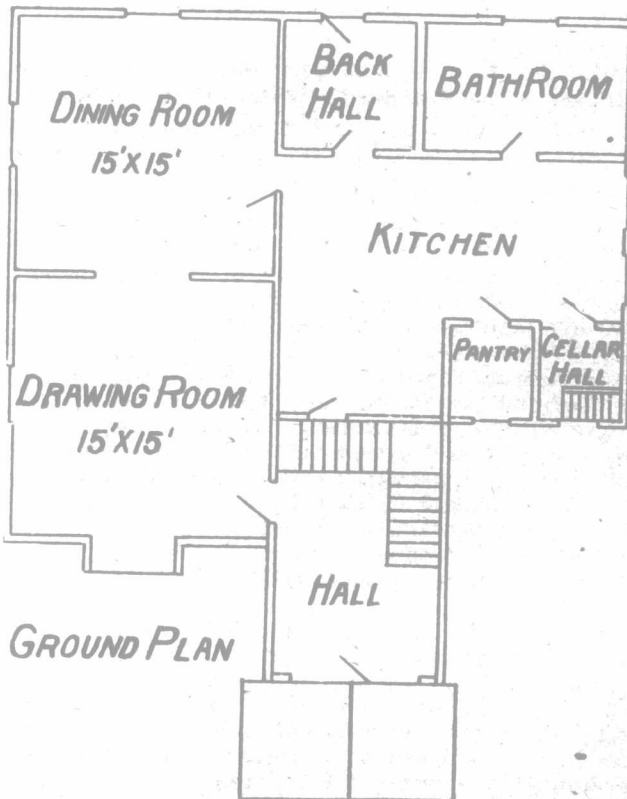
The finished house will be found to be roomy, well ventilated, and convenient. The outside effect will be artistic and substantial, when set off by well-planted trees, a lawn and flower garden. The inside will be capable of decorative treatment that will be beautiful, and at the same time "homelike," in every good sense of the word.

Lincoln Co., Ont.

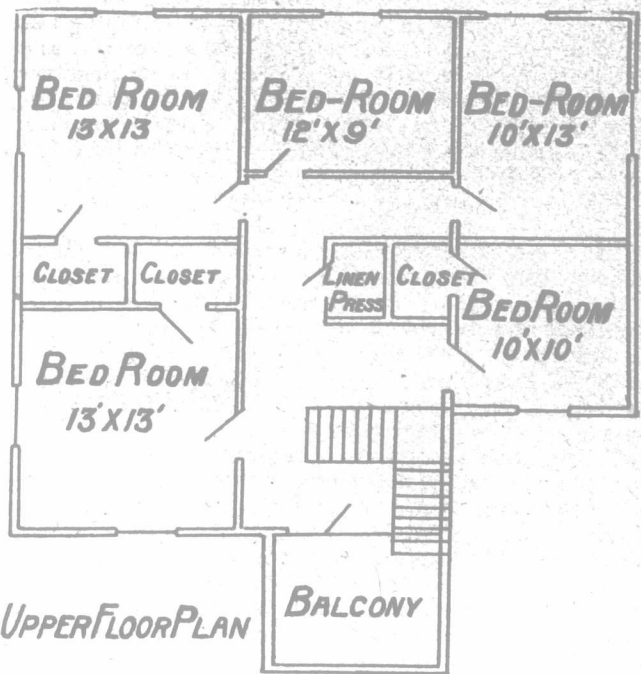
A. E. GLEED.



FRONT ELEVATION.



GROUND PLAN



UPPER FLOOR PLAN

about the everyday rooms. The same amount of expenditure on a more compact building, with good appointments, would have given better effect, and at the same time been more economical when furnishing and replacing the wearing parts. The question, too, of labor in cleaning also makes it imperative that there be no more house-room than is really necessary. With a plain rectangle as a plan, we get the greatest interior space at a minimum cost, but, unfortunately, this almost means an ugly exterior. The broken outlines of angle walls, rounded corners and crossing gables

### The Canadian Farmer and Preferential Trade.

Would preferential trade within the British Empire be beneficial to the Canadian farmer? Here is a scheme which is among the possibilities of the near future, and it behooves the farmers of Canada to look well to their interests, so that if they be asked to express an opinion on the question, or mark their ballots for or against the proposal, they may do so intelligently.

In the first place, what is preferential trade? It is merely the lowering of the duties or taxes upon imports by any country in favor of the products of any other country. Thus, on Canadian wheat going to the United States for consumption, a duty of almost fifty per cent. of its value is levied. The result is that very little wheat is disposed of in that way. Now, under a preferential tariff, part or all of this duty would be remitted, while at the same time wheat from other countries would continue to pay the fifty per cent. tax. In other words, Canadian wheat would have a preferred position in the United States market.

Now, apply this to the British Empire. Great Britain, for economic reasons, has for the past fifty years allowed foodstuffs to be placed upon her markets almost free from duty. Foodstuffs from Canada, United States, Russia and Argentina met upon equal terms. But with preferential trade all this would be changed, and a tax would be levied on products coming from countries outside the Empire, while those from the colonies would still be admitted free.

How would this treatment affect the farmers of Canada? They, in conjunction with their brother farmers in other colonies, would capture a market which is now open to the world. The selling price of any article is regulated by the supply and the demand. If the supply is limited and the demand is great the price will be high. Suppose Britain imposed an average tax of 10% on foodstuffs from outside the Empire, the colonial farmer would then have such a decided advantage in the British market that he could hold it without difficulty. If the prices of foodstuffs in Britain remained the same as now the foreign farmer would receive the present price, less the duty, which would so reduce his profits that he would be forced out of the race. But the demand in Britain would be the same; it is a constant quantity. Therefore, as the foreign supply lessened, the colonial supply must either increase or prices will be raised. In either case, the Canadian farmer would gain. Until the price of foodstuffs was raised to the present level, plus the duty, the colonials could easily hold the market, and afterwards would still have the 10% duty more profit than their competitors.

Now, is the market worth capturing? Take, for example, butter, a representative Canadian product. In 1902 Canada exported to Britain about 32 million pounds of butter. The total amount imported into Britain that year was in round numbers 445 million pounds, so that Canada sent about 7.19 per cent. of the whole. The other colonies sent about 6%, and foreign countries provided the remainder. Under a preferential tariff almost the whole of this immense trade would fall to Canada.

The Canadian bacon trade is a good example of the effects of the British market. A few years ago bacon was almost unsalable in Canada, and the possibility of disposing of live hogs at \$7.00 per cwt. was never mentioned. Yet, to-day this price is not considered beyond reach. What caused the change? The Canadians captured the British market. The lesson should not pass unheeded.

But there is another side to the question. If Britain gives the colonies a market for foodstuffs, they must throw open their markets to British factories. What effect would this have upon Canadian industry? Some one portion of the world is better situated than any other place for the manufacture of a certain article. What made Britain the factory of the world? Britain was better situated than any other country to become such. What makes Manitoba the wheat field of the world? Manitoba has more favorable conditions than any other country. So, if conditions in Britain are such that certain articles can be manufactured there cheaper and better than here, our factories will suffer. Take the woollen trade: Undoubtedly, with cheaper labor, etc., Britain must capture the woollen trade, but will the Canadian farmer suffer? The demand for woollen goods is constant, and it is not affected by one woollen mill being closed. The supply is affected, and another mill will be built in a more suitable locality. The demand for wool in a raw state is equally great during the change, and if the farmer is now paying a tax, either by getting a smaller price for raw wool or paying a high price for the manufactured article because of poorly located factories, he will benefit by the change. True economy is secured by a judicial handling of all the factors in an enterprise, and in the end true economy benefits the great mass of the people more by placing woollen goods on the market

under the best conditions than false economy by locating a woollen mill where a few will profit.

But, on the other hand, the Canadian manufacturers of woollen articles would welcome the preferential tariff, because it would give them a better market.

Apparently, the Canadian farmer need have no fear of preferential trade.

Dufferin Co., Ont. JOHN S. BRJNDIGE.

### Not for Joseph.

To the Editor "Farmer's Advocate":

Sir,—An editorial, entitled "The Preferential Propaganda," in your Dec. 1st issue, calls for comment, and I crave your indulgence in replying. In the first place, it may be pointed out that the Southern Standard, in describing New Zealand as a producing country, wrongly implies that England (or some other country which buys from N. Z.) is not a producing country. The meaning intended, or which should be intended, is that N. Zealand is a producer of a certain class of articles, while England is a producer of a certain other class of articles, and that, consequently, a trade, or interchange of commodities, is possible between them. So, when the Standard speaks of the "Vast producing areas of Canada, etc.," it is thinking of food products; but the producer of clothing or tools is no less a producer than one who grows wheat, and he should not be put in the obnoxious category of non-producers, of whom there are, it must be admitted, everywhere too many.

With so much promised, it may be taken for granted, in the Standard's words, that "it is difficult to see how a system of reciprocity is going to injure any class of the Empire's subjects." Reciprocal trade is a measure of free trade, and so far facilitates the proper interchange of commodities. But the trouble with the Imperial Preferential Tariff plan is that it proposes to encourage trade between members of an Empire scattered and separated geographically, commercially, racially, and in almost every way except the accidental political one, at the expense of discouraging trade between countries connected geographically, commercially, racially, and in almost every way except the accidental political one. Any proposition to encourage trade within the Empire should be heartily endorsed, but when there is implied a discouragement of trade without the Empire, some of which is of vastly more importance than Imperial trade, then we should cry halt.

Therefore, in my judgment, Mr. Chamberlain's heroism dwindles to something very paltry and insignificant, as, indeed, one would expect who knew anything of his history. He may be stirring the heart of England, but it is not the heart of sober England. Claptrap sandwich men parading the streets of Birmingham, and all that sort of thing, does not indicate anything but a sort of economic squall, due, perhaps, in part to the laudable generosity of those countries which dump their goods in England; which dumping has contributed much towards England's riches, and which the people who don't think for themselves are being persuaded to reject. I fear that the robe of heroism has considerably cheapened when Mr. Chamberlain's fiscal splurge entitles him to be so clothed.

You say, too, that "Preferential treatment by Britain of Colonial agricultural products would be a great boon to the Canadian farmer." Perhaps. But such treatment necessitates Britain's shutting her doors to the rest of the world, and perhaps the British food consumer would object to paying us more for our butter, beef and bacon than he can buy them for elsewhere. Perhaps, even his "patriotism" or love for the Empire will not go as far down as his pocket. Canadian manufacturers, also, might be unwilling to concede the reciprocal advantages and have Canada thrown open to British cloth, tools, etc. Their loudly-voiced expressions of loyalty to the mother country might not touch them so deeply as to render them generous, or even fair, towards the British manufacturer. We must give if we expect to get a preference, and most people ignore the giving and clamor for the getting.

You say, finally, that the Canadian farmer is doing marvellously well, and in your leading editorial speak of the cheapening in the cost of transportation as removing one of the farmers' problems. In view of the facts brought to light at the recent meeting of the Fruit-growers' Association, it would seem that the transportation problem is yet a live one, which must be solved before the farmer can justly be said to be doing marvellously well. He is doing as well as he can under the burdens which he has to bear, and he should look sharp lest Mr. Chamberlain's scheme add another to his already overtaxed strength.

Brant Co., Ont. W. C. GOOD.

### Careless Writers.

Last year we called our readers' attention to the many complaints from those who advertise with us, that during the year they get many thousands of letters which are deficient in address. Either the state is left off, or no town or county is given, and many letters are without a name signed to them, or if it is signed it is done with such haste and carelessness as to be unintelligible. It should be remembered that it is far easier to read a poorly-written letter than it is to decipher the name; consequently, the utmost care should be taken to write the name slowly and carefully, without any flourishes. Flourishes are actually an abomination. Another source of annoyance and delay in making returns is the carelessness or lack of knowledge on the part of the shippers sending goods to market, in not putting the shipper's address as well as the firm you ship to on the bundle or box. Besides this, the shipper should send the original or duplicate receipt, and letters of advice describing the shipment; and be sure to stamp the envelope. Some neglect this, and some put on only a one-cent stamp. Such letters go to the dead-letter office. In conversation with the Northwestern Hide and Fur Co., of Minneapolis, Minnesota, recently, they informed us that they had several hundred statements of hides, furs, etc., awaiting claimants for want of proper address. If any of our readers are among this list of shippers, write them at once. They do not want goods for nothing, neither does any other honest firm.

### Post-Graduate Course for Farmers' Sons.

By David Lawrence.

Doctors and trained nurses take post-graduate courses and believe that they derive great benefit therefrom, and why should not farmers' sons?

Let us discuss the matter. Very many of our farmers' sons are brought up on the home farm, and are kept so busy all the year round that they scarcely ever get off the farm to see what other farmers are doing; much less do they get any opportunity to study up the methods of any one but those in their immediate neighborhood; and the best of farmers are apt to get into ruts. I have known many young men, brought up exclusively at home, who would have been very much benefited in every way by a change for a year or two, and they would have returned to the old home very much improved by the change.

But to be practical: How are we to manage to get this post-graduate course for our sons? The Agricultural College at Guelph is always pretty crowded, and then it costs money for the course of instruction received, and, besides, there is perhaps more of the theoretical and less of the practical part than many of the matter-of-fact fathers of the farmers' sons would desire. This is no fault of the management of the College, for there are such large numbers of the students that it is an utter impossibility to set them all at work, excepting, perhaps, for only a very short portion of the time.

My plan is something like this: Let the farmer's son hire out for a year with the most advanced agriculturist he can find who makes a financial success of his operations; at, say, from 50 to 100 miles from his own home, so that there would likely be a change in the methods pursued on the farm. Let him work faithfully for his employer and study his methods, and think out the reasons why this or that is done so; keep a diary of every day's work, making a memorandum of everything that he thought to be of special interest. If he does this faithfully and well, and makes the most of the opportunities at his disposal, I venture to say that our young man will return home with his range of mental vision very much broadened and enlarged, and his worth as a practical farmer very much enhanced. He should not remain less than one year on a farm, but perhaps it might be well to take a second year with another good farmer in another county, so that he could get a still wider experience.

Do I hear the father say, "How can I spare my boy? Hired help is very hard to get, and sometimes not very good when you do get it." Well, I believe that it will pay us to make a sacrifice in this direction. I speak as a father now, for being fully convinced of the benefits to be derived from the plan I am outlining, I am intending to arrange for such a post-graduate course for my own boy. But could we not manage to exchange boys, or, rather, young men, for a year? For instance, a farmer's son in the neighborhood of Guelph might hire out with a farmer in the County of Middlesex, and the son of the latter might hire out with the farmer near Guelph who was minus a boy. So that my plan would resolve itself into a change of boys for a year. Of course, each would be regularly hired at so much a year, and would be expected to give faithful service and good value for the money paid. Another question might arise: How are these farmers who wish to exchange sons for a year to be brought into communication with one

another? Why, what is a more natural sequence than that the "Farmer's Advocate," which is beyond all doubt the best and greatest agricultural journal, should open up a column for this very purpose, and make a small charge for a short advertisement that would bring the two parties together, who could then exchange references as to their Christian character and moral worth, which features should always have a first place on the programme.

**DAIRY.**

**Slow-churning Cream.**

Would like some information concerning my cream. At times I have to churn for hours, although the cream is previously heated over the stove to 70 or 75 degrees. Cows are fed mangolds and straw. Would the fact that cows are far advanced in lactation make any difference? The milk is set in pans and kept in the pantry.

Durham Co., Ont.

SUBSCRIBER.

Ans.—The difficulty in churning may be due to one or more of the following causes:

- 1st—The cream may be too thick.
- 2nd—The feed these cows receive is not the best for rapid separation of cream and milk.
- 3rd—The cows are far advanced in lactation.
- 4th—The cream may be kept too long.
- 5th—The churn may be filled too full.
- 6th—The cream may not be ripe enough.

In the first place, we would by all means feed the cows some grain with their roots and straw, and, if at all possible, hay also would be given.

Coming to the question of the treatment of the cream: It is quite probable in this case that it is kept too long, and is not sufficiently ripened. When one examines the difference between sweet cream and sour or ripe cream, it is found that the change in the flavor and consistency is due to the growth or development of bacteria, and the particular flavor of any one sample is due to the extent to which any particular species of bacteria have developed, for in cream there may be bacteria of many different varieties. For instance, cream that is kept for some time in a cool place will, in all probability, develop a stale flavor; or cream kept a few days in a cool place, then warmed up to 65° or 70° F., will develop a characteristic ripe or sour flavor, the difference being due to the development of different varieties of bacteria in the two different cases. As the development of the stale flavor hinders the development of the more desirable ripe flavor, it is at once evident that conditions favoring the latter should be secured. To this end the cream should be skimmed when sweet and kept in a large crock. To this cream should be added a little clean-flavored sour milk as a starter, in order to encourage the growth of the ripening bacteria. After three or four days the cream should be warmed up to about 60° F., by setting the crock in a basin of hot water and stirring thoroughly. In some cases it would be well to add a little more of the starter at this point. This warming up encourages the rapid growth of bacteria, thus bringing about ripening. When the right degree of sourness has been reached, which only can be determined by experience, the cream may then be cooled down to churning temperature and churned about twenty-four hours after being first warmed up. Never neglect to stir the cream in the crock each time a fresh supply is added to it, as the stirring will produce a uniformity of flavor. As a general rule, the starter added will thin the cream down enough, and if churned frequently the churn is not so liable to be too full at any one time. It should not make any particular difference whether the milk is kept in the pantry or cellar, provided both are clean and sweet, and free from odors. The length of time the cows have been in milk, no doubt has considerable to do with the difficulty in this case. Along in the fall and early winter the milk becomes more viscous, owing to dry feed and long lactation, and the globules of butter-fat becomes harder, these two conditions making it difficult to separate the fat from the milk. Feeding succulent food will generally remedy this. Ripening the cream in a short time also helps, but in extreme cases it may be necessary to thin the cream with warm water or brine. Care should be taken, however, not to make the cream too thin, or conditions will not be improved.

**Clubbing Rate.**

In order to greatly increase our subscription list, we make the following liberal club rate: One renewal and one new subscriber, \$2.50; one renewal and two new subscribers, \$3.25. Regular subscription price, \$1.50 per year (52 numbers). Show prospective subscribers a copy of the weekly. Every farmer should have it. Address, "Farmer's Advocate," London, Ont.

**The Dairy Cow.**

By Mrs. Minnie Eshelman at the University Farmers' Institute at Long Beach, Cal.

Scientific dairying, as to the feeding of the cow and the handling of her product, has been the outgrowth of the specialized work of the dairy school experts. While the creamery man, with his manner of paying as little as possible for what the cows produce, has made the dairyman take out his pencil and learn to figure exactly what the cows do earn, so he has by calculating brought the keeping of the cows down to a business basis.

The beef strain is very hard to breed away from; even in the fifth and sixth generations of cows it often crops out when cows are fed for

rough, disfiguring hump. The tail should be long and slender, and set high enough to carry out the high line of the pelvic arch. She should be thick through in front of the line to give ample room for heart and lungs, with large and well-developed milk veins, with a skin soft and full of oil. The head and neck should be fine and feminine, the breast without brisket or dewlap; the eye clear, prominent and full of gentle intelligence, while the under jaw should be strong and rather short.

The Udder.—The teats should be well placed, and of convenient size and shape, neither too large nor too small, and far enough apart to be easily milked dry. The two small rudimentary teats behind the four regular ones are a good indication for milk continuance in a cow. The Swiss say that they indicate a cow will transmit her quality as a milker to her offspring.

The elaboration of the milk by the cow is a physiological mystery, about which little is definitely known. The alliance between blood supply and the milk shows, however, to have a copious supply of milk, there must be a correspondingly generous supply of blood. The blood flows from the heart to the udder, and passes into the milk veins, and back through the milk wells, near the fore legs into the body, returning again to the heart and lungs. The milk veins show by their size and engorged condition the amount of blood they carry. The milk wells should be large enough to admit easily the second finger of a man's hand.

The front part of a cow's udder is often less well developed than the rear portion. Here is a loss in milk greater than is commonly recognized. Some years ago Professor Plumb found in thirteen cows deficient in the fore part of their udders, that the hind teats gave fifty-seven per cent. more milk than the front ones.

Old Cows.—As to how long a cow should be retained in the herd each must decide for himself; but I am satisfied that many people sacrifice their cows by selling too soon, as they are afraid the cow will become too old for the butcher. I have kept many cows until they were worthless for beef, and thought that it paid rather than to lose a year or two of good milk. The mature cow has outgrown the likelihood of milk fever and garget, and has shown she possesses good lungs and a good digestion, and that her disposition is good. We have had cows eighteen years old that made 350 pounds of butter in a year. By the records of 486 cows kept for seven years, the age of greatest profit in a cow's life is from six and a half to fourteen years old. The Holland Government tested a large number of cows to find at what period of cow's life the milk contained the greatest amount of butter-fat. The period was fixed at from the seventh to the eighth year, and that in a healthy,

well-fed cow the milk capacity increased up to the twelfth year, the flow remained stationary until the fifteenth year, when it usually decreased until the cow became farrow.

Sires.—The selection of a pure-bred sire to head a grade herd is wise. This sire should be a good individual, strong in his race type, with a backbone as rugged as the ridge of a continent, without brisket or dewlap; a distinctly masculine head, with a good mellow skin. He should show rudimentary teats and dairy form in his rear conformation. It is important, though often overlooked, that the dam of this sire should have a perfectly-formed udder—for form of the udder is strongly transmittable, and each breed has a type of its own.

The sire should have a lively sense of his own importance, and not be willing to be imposed on by rough handling. He should fight if cornered, for the gentle bull rarely imparts grit to the offspring, and endurance seems to be founded in temper. Listless, flabby people are amiable; so is a listless, inert bull. The very word bully should indicate his character; he should be ready to bluster and fuss at any infringements of the rights of his harem. It is better for the head of a grade herd to be a strong, typical in-



**Snap-shot of a Bunch of Shropshire Lambs.**

Winners at the Maritime Winter Fair, Amherst, 1903. Property of Logan Bros., Amherst Point, N. S.

heavy milk production. Many a good grade cow has slipped off into beef when five or six years old, causing a loss—for it does not pay to fatten a beef on dairy rations. When we consider a good cow should produce 350 pounds of butter, worth, say, twenty-five cents a pound, or \$87.50 in a year, it is indeed killing the goose that lays the golden egg to sell her for cow beef at \$30 to \$40. You see, we do not believe in the general-purpose cow, though it may seem presumptuous, for she has prominent advocates, but then, "seeing is believing," and we have never seen one.

Dairy Points.—Now, in selecting a cow for dairy use, one of the principal points is the stomach; it should be large and somewhat pendant—never set flush with the backbone, but always leaving a ridge. The stomach should suggest that the digestion is ample, and that the consumption of food can be pushed heavily and yet a margin of reserve force remain, for the drain from the heavy milk flow should be urgent, and



**Famous Pride (Imp.) (83459).**

Winner of second prize in senior yearling Shorthorn class, Toronto, 1903. Calved December 20th, 1901. Property of Goodfellow Bros., Macville, Ont.

her appetite constant if she is to continue in profitable milking for the entire year.

Draw an imaginary line directly across the cow's body in front of her udder. First of all, notice if ample breeding power is indicated by the width of her pelvis. The hips should be high, the thighs wide and encuring well; a strong, rugged backbone, with a distinct rise at the rear, so as to make the animal taller at the rump than at the shoulder. This rise should be gradual, and in improved breeds is rarely a

dividual than one whose dam is a phenomenal, record-breaking cow. There are many fine bulls sacrificed to the idea that nature will permit sudden great elevations of quality. Now, quality must be backed by the physical health of the animal; so, if we push quality before conformation, or correct form has been built up strongly, we are apt to lose health. Milk production is a heavy strain, and the animal must not only be physically educated herself to stand it, but must have inherited the acquired constitution from her dams.

Each sire used in breeding the herd should be more refined in type than his predecessor. We believe in each generation having fresh blood introduced, and do not believe in incestuous inbreeding.

### Dosing for Milk Fever.

American special-purpose dairy papers, and some general-purpose journals, continue to publish antiquated formulas for the cure of milk fever in cows, under which thousands of the best annually go down to death, while enlightened Canadian veterinarians and dairymen are saving the lives of over 95 per cent. of cases by the simple process of injecting pure oxygen into the udder through the teats, and without any dosing with salts or other medicines, one firm of veterinarians having saved 47 cases out of 48 by this means, the only troublesome cases having been those which had been dosed before the up-to-date doctor was called in. Another veterinarian reports a magical recovery in every case except those previously dosed, a few of which have succumbed to pneumonia, the result of medicine given having entered the trachea, owing to the inability of the cows to swallow. Even in these cases, the administering of the oxygen brought the cows out of their state of coma, and would doubtless, have saved their lives but for the dosing.

When dairymen and cow-keepers generally learn to adopt nature's course of letting the calf suck for the first three or four days after it is born, or being careful to milk the cow only partially for that period, there will be a mighty falling off in the number of cases of milk fever, and if the few cases that then occur are treated with the oxygen remedy the losses will be practically nil, but it takes some people a long time to learn, and the oxygen cure is so simple that it doesn't appeal with force to those who are fond of physic. It is well, however, that so many have so far advanced as to rule out of the list of cattle complaints what used to be termed hollow-horn, the orthodox treatment for which was boring a gimblet hole in the horn, splitting the tail, and filling both orifices with salt and pepper. The practice of dehorning has knocked one branch of this business endwise. Let us hope the tails may not have to go as a sacrifice to ignorance or superstition. But whatever you do, dear reader, don't dose the cow for milk fever, for the good ones that have been killed by that process would make a hecatomb higher than the Himalayas.

### Watch Your Skim Milk.

At this time of the year, when the milk comes in cold, there is need of care in heating the milk for separating. It is true some separators will skim closer than others with cold milk, yet they will all do better work when it is warmer. The extra loss of 0.05% of fat in the skim milk seems very small in itself, and yet it means five pounds of fat on 10,000 pounds; but in some creameries it may be found twice that, simply because the milk is not properly heated.

It behooves the buttermaker to watch this part of his work as closely as he does the cream ripening, but it behooves the owners—be they individual or co-operative—to enable him to do this without slighting other work. In order to do this a proper heater—indeed, a pasteurizing heater, of sufficient size—should first of all be provided so that the buttermaker need not stand with his eye on the thermometer and his hand on the steam valve all the time to get a uniform temperature. But even a good heater is not all that an up-to-date creamery should have; there should also be one of the automatic heat regulators, which now seem to be accepted across the water as being satisfactory—that is, they will hold the milk within two to four degrees of the desired temperature. We thus notice that the Casse regulator is fully endorsed by Swedish and Danish authorities. Why haven't our experiment stations investigated the matter? Meanwhile, pending obtaining perfection, we hope the buttermakers will not forget to watch the temperature of the milk frequently, and test their skim milk often.—[American Creamery and Produce Review.]

### Diluting Cream.

In discussing the dilution of heavy cream, a writer in the New York Produce Review and American Creamery, says:

"I should prefer skim milk to either whole milk or water for thinning a heavy cream. The water supply at most creameries is an unknown quantity. A complete chemical analysis might determine whether it was sufficiently pure, and the possible sources of contamination are usually so numerous that it would be rather risky to use it when either whole or skim milk could be obtained, as, though perhaps pure to-day, it might not be a few weeks or months later.

"I prefer skim to whole milk or water, for these reasons—in addition to my reasons for not using water as given above—the process of separation has removed a large amount of objectionable matter that is present in whole milk, and it is, in my opinion, much easier to detect faults in skim milk. Again, although milk is largely composed of water, and although, perhaps, a chemical analysis will show no difference between such water and that drawn from a well, still it seems to me that there is a difference not susceptible of analysis, but which, nevertheless, is potent in its influence, and that influence is for the good of the ultimate product—whether it be butter, cheese, or cream."

## APIARY.

### Ontario Beekeepers' Association.

The twenty-fourth annual meeting of the Ontario Beekeepers' Association was held in Trenton, Ont., Dec. 1st, 2nd, 3rd, 1903. The president, Mr. W. A. Chrysler, occupied the chair. Besides the usual papers, question drawers and discussions on management, addresses of interest were given by C. C. James, Deputy-Minister of Agriculture; Prof. F. T. Shutt, Chemist, and John Fixter, Apiarist, Experimental Farm, Ottawa.

In his opening address, the President unkindly reminded the members that they were a year older than at last convention. He hoped that the discussions would tend largely to the matter of marketing honey. He also urged careful attention to the foul brood disease, that, if possible, it might be stamped out. According to the Ontario Government statistics, we have in Ontario this year 207,936 colonies of bees, an increase over 1902 of about 5,400.

In a paper on Ontario apiaries, Mr. B. O. Lott advised beekeepers to study their locality as to the proper time and place to move. He gave instructions for preparing hives for moving. On top and underneath the hive are fastened frames covered with wire-cloth screen; these replace the cover and bottom board. The combs are secured from shifting sidewise, and care is taken, when hives are loaded, to have them lengthwise in car, or crosswise of wagon. The discussion brought out different ways of fastening frames. If the top bars are even with the top of the hive and the bee-space underneath the frames, no special fastening is needed, provided they are self-spacing. The pressure of super or cover will hold them firm. A permanent portico, to which the bees can be confined by a screen, was recommended by Mr. R. F. Holtermann.

### QUESTION DRAWERS.

The first was opened by Mr. Morley Pettit:

1. In hiving swarms on starters, pollen is kept out of sections by using a comb with the starters to catch the pollen; also use a queen excluder.

2. To separate propolis from beeswax, allow the mass when melted to cool very slowly, and it will settle out of the wax.

3. As to size of hive, Mr. Pettit advised the 10 or 12 frame Langstroth, with 24 L. frames super capacity. Queens that cannot fill a hive of this size should be replaced by better ones. Messrs. J. B. Hall, R. F. Holtermann, C. W. Post and others endorsed this view. A large hive can easily be contracted with division boards, a small one cannot be enlarged except by doubling up, when the tendency is for the lower brood chamber to be deserted. Others opposed the use of so large a hive, and the matter was left to every man to settle for himself.

4. Bees will carry eggs from one comb to another, but probably not into the super. Drone brood there is the result of laying workers.

5. It is more profitable to have extracting combs built on full sheets foundation. When established in combs the extra secretion of wax can be saved by uncaping deeply, and allowing bees to build out the cells again.

6. Mr. H. G. Sibbald—Too much honey has been put into barrels this year.

Mr. C. W. Post, Trenton, opened the second question drawer. When asked:

1. About bee escapes, he advised their use for removing comb honey, but not extracting supers. The honey gets too cold for the extractor.

2. To prevent swarming, give plenty of supers and wire-screen bottom boards. Messrs. Dickenson, Pettit, Hall, Holtermann, and others, said this did not prevent swarming for them. With an intermittent honey flow it might be all right, but where one source yields till the next begins it is no use.

3. Hive swarms on starters for comb honey, but for extracted honey put full sheets of foundation or drawn combs in brood-chamber.

4. In running for extracted honey use the regular Langstroth depth of frame, 9 1-8 in.

Mr. Morley Pettit read a paper on "Forced or Shaken Swarming." The swarming problem, he said, is perhaps the greatest one in connection with expansive beekeeping. One yard can be watched for natural swarms from morning till night, but that is poor economy. We must study short cuts. He retards swarming as long as possible, then practices shaken swarming, a method which has been described in these columns before.

Experiments conducted at the Experimental Farm, Ottawa, were reported by Mr. John Fixter. He spoke highly of sanfoin clover as a honey plant, and also for hay and pasture. He also described a method of wiring frames with vertical wires.

Prof. F. T. Shutt, Chemist, Experimental as to probable prices, and had also drafted a set Farm, Ottawa, described a continuation of the experiments he has been conducting, re proper storage of honey. His results confirm the usual teaching to keep honey in a dry place. Experiments in making honey vinegar will be more fully reported next year.

### MARKETING HONEY AND THE FOUL BROOD ACT.

Mr. H. G. Sibbald, Chairman of the Honey Exchange Committee appointed last year, gave his report. Owing to lack of confidence of beekeepers the Exchange had not handled honey, but had collected crop reports and advised members of grading rules for honey. Mr. Morley Pettit stated that the committee had done good work, but in order to handle honey a stock company was necessary. The possibilities of the British market were discussed at some length. A committee was appointed to collect crop reports, also to approach the Dept. of Agriculture at Ottawa, with a view to establishing a market in England, with power to arrange for a system of grading by special Act of Parliament. At the suggestion of Prof. C. C. James, a transportation committee of Messrs. B. O. Lott and Wm. Couse was appointed to meet the R. R. Commission at Ottawa, with reference to better rates on bees and honey.

The report of Foul Brood Inspector, Wm. McEvoy, elicited much discussion and criticism. A committee appointed to revise the Act recommended that organized districts be given power to appoint sub-inspectors. This recommendation was adopted by the convention.

The election of officers resulted as follows: President, J. W. Sparling, Bowmanville; 1st Vice-Pres., H. G. Sibbald, Claude; 2nd Vice-Pres., R. H. Smith, St. Thomas; Secretary, Wm. Couse, Streetsville.

Directors—District No. 1, W. J. Brown, Chard; 2, J. K. Darling, Almonte; 3, M. B. Holmes, Athens; 4, C. W. Post, Trenton; 5, J. W. Sparling, Bowmanville; 6, H. G. Sibbald, Claude; 7, Geo. Wood, Wesley; 8, Jas. Armstrong, Cheap-side; 9, R. H. Smith, St. Thomas; 10, G. A. Deadman, Brussels; 11, J. F. Miller, London; 12, Samuel Wood, Nottawa; O.A.C., Prof. F. C. Harrison, Guelph.

Inspector of Apiaries, Wm. McEvoy, Woodburn; Asst. Inspector of Apiaries, F. A. Gemmel, London. Auditors, Messrs. Nolan and Byer. To Revise Report, Messrs. Sibbald and Pettit. Next place of meeting, Toronto.

### Special Clubbing Rate.

In order to greatly increase our subscription list, we make the following liberal club rate: One renewal and one new subscriber, \$2.50; one renewal and two new subscribers, \$3.25. Regular subscription price, \$1.50 per year (52 numbers). Show prospective subscribers a copy of the weekly. Every farmer should have it. Address, "Farmer's Advocate," London, Ont.

Clean the cream separator every time it is used. No matter what type of separator be in use it requires cleaning with hot and cold water every time it is used. Some agents claim for the machine they handle that their particular separator requires little or no cleaning. Some separators are more easily cleaned than others, but every one of them requires to be cleaned every time it is operated.

POULTRY.

Scratchings.

Six square feet to a bird is good measure in the house.

It is unwise to force the hen to roost under a leaky roof or in a draft, and—it is expensive.

Of the grain feeds, oats is the best balanced grain for the production of eggs, but for heavy egg production meat food must accompany them.

Old newspapers have their uses. Tack them around the sleeping quarters of your birds. It prevents drafts and helps them to keep comfortable and warm.

Don't overcrowd. This results in many diseases, impaired vitality and stunted birds; an unsightly, unprofitable flock, a disgusted breeder, and another sweet singer added to the voluminous chorus, "There is no money in hens."

There is always a good market and ready sale for dressed ducks, or live ducks too, for that matter. They are as easily raised as chickens, and are worth more than chickens on the market. A pond is a great help, but not absolutely necessary; still, they must have plenty of water to drink.

It is a fact that instead of the egg market being over-supplied, the supply seems to grow less from year to year. Nearly all the eggs consumed in the city at present are either cold storage or pickled eggs. That being the case, farmers will make no mistake in laying their plans for the future, to provide a winter harvest of eggs as well as a fall harvest of wheat. Eggs at 40 cents per dozen, that can be produced at 5 cents per dozen, leave something for labor and a lot more for profit.

Encourage Exercise.

Only one class of poultry should be prevented from taking exercise, and that is the fattening class. From now until spring, when the birds will again have liberty, some provision should be made to allow them to work off their surplus energy. It does not take a hen many minutes to perform her daily work of laying an egg, and during the rest of her waking hours she must be kept busy. Brain work is out of her line, therefore she must have bodily exercise. The room for such exercise cannot be too light, although it may be made too warm. Where possible, light should be admitted on three sides of the room, and if the temperature is kept above freezing, the birds will not suffer discomfort, provided they have work to do. On most farms the best materials for scratching beds are cut straw, chaff, and cut clover hay. A few inches of these materials on the floor is the delight of the hen's heart. In it she will scratch and cackle all day, and so find conditions as nearly natural as it is possible to get them in our winter months. Large quantities of expensive grains need not be thrown into the litter, for birds will scratch a long time in search of a kernel. The object of feeding grain in the litter is principally to induce work rather than to satisfy hunger, consequently light feeding should be the order. Some poultrymen prefer cut clover to chaff or cut straw, for the reason that much of the clover is eaten by the birds, who, by the way, are in need of just such food. Whether it be for feed or exercise, the litter should not be neglected if the health of the flock is to be maintained, and unless it is the egg supply cannot be very large, nor the best results obtained for settings next spring. Such a litter might be renewed about every three weeks, so that it may always be kept clean and dry, for dampness is death to any flock.

Increasing the Egg Production in Poultry

Let there be no mistake in our meaning. The increased production is at the expense of the duration of the product. To illustrate our meaning: In every chick that is hatched the ovary contains the genesis of every egg the bird could produce during its life, varying from 70 in some strains to 200 and more in others. The bird may take four, five or more years to produce all these eggs in a natural way. But the hen's way is not the keeper's way. We want the eggs in a hurry; so high condiments are used, and the production temporarily increased, but the supply is the sooner exhausted. The most productive period of any bird is during the first year of its life. It should then be fed the stimulating foods, and upon showing signs of exhaustion, be placed in the fattening pen and killed. Most of the "poultry species" and "feeds" will accomplish this, or the

following may be used: Two parts Cayenne pepper, four parts mixed spice, and six parts ground ginger. Mix well, and add a spoonful of coffee to each one-half pound of the mixture. A table-spoonful to twenty fowls, mixed in their mash three times a week, will be abundance.

Poultry Raising.

To the Editor "Farmer's Advocate":  
Dear Sir,—I wish to start in the poultry-raising business. I am a young married man, own a house on about four acres of ground, and have \$400.00 cash. Neither my wife nor myself know much about poultry-raising, other than keeping a few birds on a farm. How would you recommend me to start, and which is the best breed of birds to keep? Thanking you in anticipation, I am, Yours truly, SUBSCRIBER.

Ans.—If you have a steady job, stick to it, and hold on to those dollars too for a little time. To make a living from poultry, one must "study how," "learn how," and "know how." "Poultry Craft," post free, \$2.00, can be had from this office, and is all its name implies. We will give you a few pointers, however.

The location should be on well-drained ground, and be fairly protected by trees. The houses should be tightly built, facing the south, with a shade of east in—i.e., facing the S. E. by S.—divided into pens, each pen being provided with a good run. Place windows in the south side of the house, and not too much glass.

The birds are a matter of personal choice, but should be limited if wanted for eggs only, if for eggs and meat, or if for large meat only. For a paying poultry ranch, I would suggest the American breeds or the Orpingtons.

Feeding is something gained only by experience and study. They will live on a grain and grit diet, with water, but give you no living, nor a part of one.

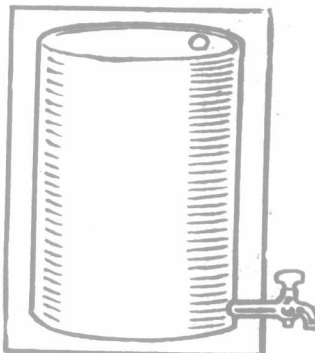
A parting word of advice: Stick to your job, and start in a small way—a dozen or twenty hens. Set eggs either with hens or incubators, and raise a nice flock of pure-bred birds. The first year build a house to accommodate about 100 pullets, double it the second year, and the third year you should have the "know how" to manage a thousand. More depends upon the "man" and his persistency than upon the hen.

Watering Poultry in Winter.

A majority of the poultry-houses in this country are pretty cold places, and it is quite a task to supply the birds with water, so that they can have it before them all the time.

The device shown here will do this work most satisfactorily. Get a can holding five gallons, with a tap at or near the bottom. Place this can in a box, and fill the space at the bottom and around the sides with sawdust, cut hay, fine chaff, or any other protection from cold; fill with hot water; cover in the top with a few thicknesses of old flannel, topped with a board, and turn the tap. A basin must be placed under the tap, and the tap must only be allowed to drip. By watching it for a little the first day or so, one can gauge the speed the drops of water should be allowed to flow. The can must be emptied every night and filled in the morning, the quantity depending upon the size of the flock to be supplied.

[Note.—From poultrymen, the "Farmer's Advocate" would be pleased to receive concise descriptions, with sketches—pen and ink or pencil—from which cuts can be made to illustrate handy contrivances, preferably those actually tested and found serviceable by the writer. Plans of good poultry-houses, suitable for farmers and poultrymen, are also acceptable.—Editor.]



Poultry-watering Device.

A correspondent quoting from Bulletin No. 127, of the Ontario Agricultural College, re fattening chickens, criticises the crates, and suggests improvements, and further on advises that feed be given them in a sloppy condition, i.e., to the consistency of ordinary gruel. Our friend did not notice this applies to food used in a cramming machine, and is specially made sloppy that it may pass through the pipe of the cramming machine into the bird's crop.

In feeding soft feed from the trough, it should be of such a consistency that the bird can peck a mouth (or beak) full and pass it down. Dampened, not wet, nor sloppy, will be found the best fattening ration, producing the firmest flesh on the most equally attractive carcass.

Winnipeg, Man.

POULTRYMAN.

Toronto Poultry Show.

The tenth annual exhibition of the Toronto Poultry and Pet Stock Association was held in St. Andrew's Hall, Toronto, on December 29th, 30th, 31st, 1903, and January 1st, 1904. The exhibits, which numbered about 600, were better than those of the year previous. There were several exhibitors from outside places, including London, Hamilton, Welland, Perth, Kleinburg, Drumbo, etc. The exhibitor showing the largest number of birds of all classes was G. J. Lawrie, Kleinburg. The best represented classes were Light Brahmans, Langshans, Black Minorcas, White Wyandottes, White Rocks and Buff Orpingtons. An improvement noticed, as compared with last year, was a number of new coops, purchased by private subscription, which will be added to before another show comes off. There was a very fair show of pigeons.

In Light Brahmans, Geo. A. Tossy, Hamilton, and J. J. Pickard, Drumbo, were winners. In Dark Brahmans, G. J. Lawrie had it all to himself. He also won with Partridge Cochins. The winners in Langshans were Jno. H. Wright, Oakville; Slessor & Briggs, London, and Lawrie. White Leghorns were shown by W. J. Fullerton, Jno. Chambers and M. Parmenter, all of Toronto, and Brown by H. F. Becker, Waterloo; G. J. Lawrie; W. J. Playor, Galt, and Gofton & Daniel; Drumbo. In Spanish, Lawrie won everything, as did H. Danne, Toronto, in White Minorcas. In Black Minorcas, R. Durston, Toronto; G. J. Lawrie, and L. V. Zavitz, Toronto Junction, were victorious. C. J. Daniels, W. H. Bessey, Coleman; D. S. Cullen, Drumbo, and W. R. Kerr, East Toronto, furnished the winners in Buff Orpingtons, a breed that is becoming quite popular here, as in England. C. J. Daniels also showed the black variety of this breed. Jno. Chambers, G. J. Lawrie, and Robt. Jones were to the fore in Houdans. Games were very scantily represented; no one opposing Lawrie's entries in Black Reds and Indian Games, and this was also the case in Dorkings. C. J. Daniels, Gofton & Daniel, G. J. Lawrie and F. Travers, Toronto, in Golden Wyandottes; Lawrie, and Gofton & Daniel, in Silver; and Jno. S. Martin, Port Dover; Moebus & Son, Toronto, and Jno. S. Martin and W. E. Mackay, also of Toronto, in Whites, were the winners. Buffs were shown by T. F. McCabe, Moebus & Son, and Spry & Mick. The prizewinning Banded Rocks were owned by Wm. Oakley, Jno. Chambers, Robt. Thompson, Toronto, and C. A. Beal, Perth; Buffs by C. J. Daniels, C. Jefferies and C. Jamieson; and Whites by W. H. Bessey, J. Bedford, C. Jamieson, and G. J. Lawrie. There were no turkeys or geese shown, and Lawrie had the only three pens of ducks present—one each of Aylesbury, Rouen and Pekin—all good birds.

The special prizes were awarded as follows: Walker Cup, for best pair of birds shown, R. Durston, Toronto; John J. Main Challenge cup, for best Buff Leghorn cockerel, G. Berner, Toronto; Standard Silver Plate Company Cup, for best collection of Banded Rocks, and Robinson Cup, for best collection of Rocks, Wm. Oakley, Toronto; Hon. Geo. A. Cox Cup, for largest and best display of single-comb White Leghorns, W. J. Fullerton, Toronto; City of Toronto Cup, for best display of one-color Game Bantams, Oakwood Farm, Toronto; Reliable Poultry Journal Cup, for best White Wyandotte cock, hen, cockerel and pullet, John S. Martin, Port Dover; Sheppard Cup, for best Black Minorca, L. V. Zavitz, Toronto Junction; Earl of Minto Cup, for largest and best Light Brahmans, Geo. A. Tossy, Hamilton.

A Tame Flock.

A good poultryman keeps his hens tame enough to be easily controlled; but sometimes one has to take charge of a strange flock that has had very little care. I have, at different times, taken into my charge hens which the first time I opened the door, tried to go through the windows and knot-holes, dozens trying to get through a little hole in the corner that was hardly large enough for one. Other times a hen will steal away her nest and raise a clutch of chickens separate from the rest.

In taming such wild flocks, it is always best to advance to them through the regular doors or gates. If you can, frequently catch one of the hens, stroke her and feed her from your hand, and the whole of them will soon be quite tame. When you have a wild flock running at large, go out in the field in plain sight of them, throw down some feed, and call them—any sound will do, if you always use it—then go around, drive the birds where the feed is, and give a few calls as soon as they find it. Always feed in the same place, at the same time of day. You will not have to drive them more than a half dozen times till they will come to your call. I have never been forced to give up a flock yet, and have had the wildest to try on.

WALTER MOCRE.

### Utility in the Show-room.

Unfortunately, our show specimens run too much to shape and feather, and while we acknowledge that the shape must be preserved to characterize the breed, and feathers conform to their requirements to maintain the claim of the bird to a variety, there is a question if too much is not sacrificed to these qualities.

From a farmer's standpoint, we would like to see every exhibitor of a breeding pen compelled to show a sample of the finished product of his yards in the "dressed fowl" class, and a dozen of the eggs laid by the same birds, and thus enable the public to see something of what the product of the yards are.

Poultry shows should be instructive, and more along utility than fancy lines. It is something like telling fairy tales to say this pair of birds are "worth \$20.00, because their shape and feathers are so nearly perfection." The average farmer is not paying good money for fancy, but demonstrate this pair is worth \$20.00 because they will grow so much flesh on so much feed, or lay so many eggs in such a time, and you catch him in a part likely to interest him.

### The Value of Green Cut Bone.

It is strange the number of times we require to be told a truth before we believe it.

We have all heard of the man going around trying to sell a good \$5.00 bill for a silver dollar—none would buy. The offer was all right, and the V. would have been given in exchange for the I., but, though they were assured it was good, there was no sale. It is the same with "green cut bone." The first twenty times we are sceptical; the twenty-first we think there is something in it; the fiftieth time we have a good mind to try "ten" cents' worth, and by the time we have thought of it for the five hundredth time we decide "there must be something in it; I'll get a bone cutter."

Now, to try and demonstrate that there is something in it, here are a couple of comparative tables to think over.

It is an axiom of the poultry world that a hen is an egg machine, i. e., give her egg-making food and she will lay eggs.

Most fowls are fed grain foods rich in protein and poor in fats; few get "cut bone" rich in fat. Below is the analyses of eggs and fresh beef:

	Fresh	
	beef.	Eggs.
Water .....	64%	74.5%
Protein .....	14	12.5
Fat .....	21	12
Salts .....	1	1

Now, we must not run away with the impression that by fresh beef is meant only the sirloin cuts. "Fresh beef" includes the waste of the animal, and this analysis includes the bone as much as the steak.

Such being the case, why not give the hen a chance to show what she can do. Give her a balanced ration, in which the proportion is one part protein to four or five parts carbohydrates, but without the use of green bone, or a meat food of some description, it is not possible to secure this ratio.

### Prices of Stock.

The process of education goes along but slowly. As a matter of fact, there is no royal road to an education. We all have to learn by experience, if we decline to learn as we read. And this is as true in poultrydom as anywhere else.

To the south of us, where poultry is cultivated, and the products of which are greater than the beef and hog products combined, the value of a good bird is known.

The writer has recently seen some prices of pure-bred fowl of fairly good quality quoted. For instance, a Plymouth Rock pullet, good weight, pure white, and good comb, \$20.00; another pullet, a little better, and fit for the exhibition pen, \$50.00.

Another breeder, from Michigan, quoting price on a Buff Orpington cockerel, weight 9 lbs., good color, except just a trace of white in wing primaries, \$20.00. Pullet, good in head and shape, good in color, except a little black in tail, \$10.00. Birds for exhibition a matter of correspondence.

Offer these men three to five dollars for a "cull" bird, and they will write that this sort are usually sold plucked and dressed, ready for the oven.

We recall a young and ambitious amateur breeder purchasing some birds of a heavy egg-laying strain of Plymouth Rocks, at a pretty good price. The birds started laying, and kept on laying until they were waited and watched for some of them to stop laying, but they didn't; and about 200 eggs were accumulated. July arrived, and "Amateur" wrote the breeder, gently kicking. The breeder replied, "I thought that the birds

were bred to lay, and broodiness was nearly bred out of them; further, that birds of value were of more profit laying eggs worth \$2.00 to \$3.00 per dozen than setting on them, as any old hen worth 40 to 60 cents could do this work, and an incubator and brooder would do it better." Our friend then acknowledged that the grin was on him.

To get first-class stock for a specific purpose costs time, trouble and money, and when obtained, inexperience often spoils the work of the original breeder.

### The Incubator.

Incubators should soon begin to occupy attention, if chickens for the early market or in any considerable number are to be raised. The incubator and its complement, the brooder, are as necessary to the poultry raiser as is the cream separator to the buttermaker; without them operations must necessarily be very limited and risky; with them the operations may be indefinitely extended and brought very much more under the control of the operator. But if anyone is contemplating purchasing an incubator, let it be a good one.

## GARDEN AND ORCHARD.

### The Northwest Fruit Trade.

The fruit-growers of Ontario look forward to the development of a large trade in the Northwest for their products. With the rapid settlement of that vast country, and its unsuitable climatic conditions for the growing of orchard fruits, it is but reasonable to expect that a large part of our fruit should find a profitable market there. But the establishment of a large and profitable trade with that section of our country will not be all plain sailing. There are many difficulties to overcome. There is constant complaint of fruit from Ontario arriving in bad condition, while that of our competitors from the Western States and from British Columbia almost invariably arrives in first-class condition. Just here it would be interesting to know what, if any, advantages they possess in the way of transportation. It is freely admitted that they are ahead of us in the matter of packing and grading. An important factor in favor of fruit grown in the dry climate of the Southern Pacific Coast is that it will carry farther in good condition than that grown in Ontario—more especially the perishable fruits, such as plums, pears, peaches, and grapes. But Ontario has a very important factor in its favor that should more than offset this, viz., that the quality and flavor of Ontario fruit is conceded to be superior to that grown anywhere west of the Rocky Mountains. Therefore, the obstacles to be overcome are principally those of packing and transportation.

In the matter of packing, it seems certain that the barrel and the basket will have to be abandoned in favor of the box. For apples and pears the trade of the West prefers the box; it is handier than the barrel, and is particularly suited to the retail trade, as it is the size of package suited for family use, more especially in the case of early and fall apples. In the case of the latter, it gives thorough ventilation, and the fruit lands in better condition. The bushel box for apples and the half-bushel box for pears, as recommended by the committee of the Fruit-growers' Association at their last annual meeting at Leamington, it may be safely asserted will be the standard packages for the Western trade in the future. For the more tender fruits, the splint basket will have to give way to the shallow box. The basket is not strong enough to stand the pressure when piled up several tiers high in the car. The bottom tiers are pretty sure to come to grief. The stronger, shallow box will allow of better ventilation; will not crush with the weight, and will carry the fruit in better condition.

With respect to the grading and marking, the thorough enforcement of the Fruit Marks Act will, no doubt, keep matters right, so that purchasers will have every confidence in the quality of the article they buy. When we come to the question of transportation, we encounter the greatest problem in the whole situation. There is no satisfactory answer to the question, "Why should fruit be made subject to such a relatively higher rate than other products?" One of the first answers to that question would, no doubt, be that it is more perishable and requires quicker transit. But, except in the case of that shipped by express, we have little evidence that it gets it. The complaints as to fruit shipped by freight and spoiled through delay during the warm months, and large quantities frozen in the late fall from the same cause, "Delay in transit," all point the other way. The transportation companies make sure of the freight charges, by requiring them to be prepaid or guaranteed when there is danger of frost, and marking the freight bills at owner's risk. In addition to a reduction of rates

there will have to be something more definite as to the responsibility of carrying companies. If a company can leave cars of perishable freight side-tracked at junction points, and otherwise delayed until it is spoiled, it will not do to allow them to slip out of their responsibility by simply writing "Owner's risk" across the bill of lading, and still continue to charge unreasonably high rates for this class of freight, on the ground that it is perishable and requires quick transport.

It has often been said, and is no doubt true, that in order to get anything from a railway company, in the way of reduction of rates or improvement of service, you must be able to convince them that it will pay them to do it. Up to the present the Joint Traffic Association, representing the railways, has been the medium of communication between the railways and the public for the adjustment of grievances. We are shortly to have a Railway Commission, clothed with powers to adjust such grievances as are now shown to exist; and upon the strength and clearness with which the case is presented to them much will depend. The Manufacturers' Association were wise in their selection of a railway expert to represent them before the commission. It is absolutely necessary to know something of the ins and outs, the details of railway business. When the railway companies have anything to accomplish, they employ the best men they can get, and are always able to present a strong case. When matters of this sort come before the commission the railway people will be sure to make out the strongest case possible. The Fruit-growers' Association have appointed a strong committee on transportation—men experienced in shipping, and good business men—and they will be able to present a strong case, no doubt, but something more is needed; someone with an expert knowledge of railway business should be on that committee. A great deal is expected from them. The Fruit-growers look for the redress of their grievances in the success of the committee before the commission, and they will need to go well prepared, if they are to accomplish anything. They have wily opponents to deal with, but it must be remembered that we owe the railways nothing. They have received large grants in money and land; they have been bonused and subsidized to an enormous extent; they have been granted franchises worth millions of dollars, and we are asking nothing unreasonable. We ask that they shall not be allowed to hamper interprovincial trade by unjust exactions; that our goods shall be carried at a fair rate, that will leave something for the producer, instead of paying half the entire proceeds to carry the product to market; that our products shall not be destroyed in transit through negligence while we have no redress. We believe in the old adage, "Live and let live," and we object to be squeezed in order that these subsidized corporations may pay dividends on watered stock representing millions of dollars. We are nearing the dawn of a brighter day.

### British Market for Fruit Pulp.

The British people consume a great quantity of jam. Everyone who can afford it in that country eats jam. A great deal of the material for the manufacture of jam is imported in the form of fruit pulp. The fruit is pulped and preservatives are used to keep it from fermentation. In some parts of Canada this year large quantities of plums were never gathered, but allowed to rot and go to waste simply because they would not bring enough on the local markets to pay express and commission charges and cost of packages. At the same time, there were lots of people in our own country who would be glad to pay a good price for them, if they could get them, and in the Old Country there was a great scarcity of material for making jam. It is simply barbarous that this waste should occur under these circumstances; surely, the enterprise of our people will not allow this to continue.

A resolution was passed at the Fruit-growers' meeting at Leamington, in favor of removing the duties on sugar. Cheap sugar will develop the jam trade in our own country. England is able to buy fruit pulp, manufacture it into jam, and then sell the jam to the countries furnishing the fruit pulp from which the jam is made. They are able to do this because of cheap transportation rates and cheap sugar. There is room for the development of a large trade in our great Western domain in jam, canned and evaporated fruits, and the British market, in the meantime, should be thoroughly exploited for this class of our products.

### Special Clubbing Rate.

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**Popular There.**

The Ben Davis apple, according to the statistics gathered by the secretary of the American Apple-growers' Association, constitutes one-half of the reported crop of the whole country. Its actual percentage was 45. Other apples followed with these percentages: Jonathan, 10; Gano, 9; Grymes Golden, 2½; Winesap, 3; Missouri Pippin, 4; Ingram, 3; Roman Beauty, 1; York Imperial, 1½; Yellow Twig, 1½; Mammoth Black Twig, 1½, and all other varieties, not named, 17½.

**QUESTIONS AND ANSWERS.**

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

2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest, or which appear to be asked out of mere curiosity.

3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.

4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

**Veterinary.**

(Answered by our Veterinary Editor.)

**ELPHANTIASIS AND OTHER TROUBLES.**

1. Heavy mare has large leg from hoof to hip, and the hock is a little stiff, being four times its normal size. Occasionally there is a discharge. Five years ago she got rope burn, which caused scratches which were neglected.

2. Mare has something wrong with her stifle. Just below the joint there is a hard, bony lump. When standing, she rests the foot, and turns it so as to show the whole sole. Her left eye discharges matter after being in the wind. Her teeth need dressing; would this effect the eye? The man from whom I bought her says she got struck on it.

3. Does it require great veterinary skill to file a horse's teeth?  
W. H. H.  
Huron Co., Ont.

Ans.—1. This is a chronic condition, called elephantiasis, and as there are occasional eruptions it may develop into a condition known as grease. It is not probable treatment will be effective in a case of five years' standing. Treatment consists in purging with 9 drs. aloes and 2 drs. ginger; follow up with 1 dr. iodide of potash, night and morning. If her appetite fail, lessen the dose, but a large mare will usually stand dram doses. This will need to be continued for months, and you will find it expensive. Local applications do little good, but repeated blistering might help to reduce the size of the hock.

2. Nothing can be done for the bony growth on stifle except firing and blistering. She rests her foot and turns it as described because this eases pain. Her left eye suffers from repeated attacks of inflammation, and it is probable she will go blind from cataract sooner or later. The attacks cannot be prevented, but should be treated by placing mare in partially-darkened box stall, feeding lightly, giving a slight purgative, as 6 drs. aloes and 2 drs. ginger, bathing the eye well three times daily with warm water, putting a few drops of the following into it, viz.: Sulphate of atropia, 10 grs.; distilled water, 2 ozs. The condition of the teeth does not affect the eye.

3. No, but at the same time it requires the proper speculum and rasps, and sufficient skill (which is acquired only by practice) to use the files properly, and know just what to do and when to stop. Few but veterinarians have either the necessary instruments or the acquired skill to operate properly.

I would advise you to call your veterinarian in and allow him to examine these animals and advise. I have my doubts about the success of treatment in either case, and a veterinarian who makes a personal examination will tell you whether it will pay to go to any expense or trouble with them.

**SWITCHING COLT.**

An unbroken Clydesdale mare shows signs of switching. How can I prevent her developing this vice?  
D. W.  
Elgin Co., Ont.

Ans.—This is a vicious habit. It is congenital, and the vice is hard to cure. Docking and nicking, which can be done only by a veterinarian, will remove the power to switch, and is the better plan. An iron can be arranged on the crupper, to extend about six inches down the tail, and the tail buckled to the iron, or the tail may be tied down to the breeching. These, or other devices, will prove effective while applied, but as soon as the tail is allowed freedom the vice will very probably reappear.

**MUSCULAR CRAMP.**

After standing two hours, colt went lame for a few steps. Next morning he held foot close to body, and went lame for a few minutes.  
Simcoe Co., Ont.

**SUBSCRIBER.**

Ans.—Your colt suffered from cramp of the

flexor muscles. If not better by the time you see this, purge him with 8 drs. aloes and 2 drs. ginger; bathe the muscles with warm water and allow him to stand in a box stall for a few days.

**RAM WITH PARAPLEGIA.**

Ram, two years old, took what seemed to be rheumatism about six weeks ago. He would pant, grunt, and appear to suffer; got stiff, can walk only with difficulty, and sometimes lies flat. Has got thin in flesh. Gave him aconite and opening medicine. He has stopped panting and grunting, but is still stiff and has poor appetite.  
N. S.  
J. M. D.

Ans.—Your ram has paraplegia (partial paralysis), as the result of digestive derangements. The aconite you gave him was either of poor quality or given in very small doses. Aconite is a drug that should be used only by professional men, as its actions are very well marked, and if the heart be inclined to be weak, an ordinary dose of aconite of good quality will cause death. Give the ram a purgative of six ounces Epsom salts, dissolved in half pint warm water; follow up with 30 grains nux vomica, three times daily. Keep him dry and comfortable, and feed well.

**CHRONIC MAMMSTITIS AND INDURATION.**

Cow calved in April. Could not get any milk into the teats. She was dull and ate little. I bathed udder and purged cow with salts, and after a while she milked all right, but half the udder has been swollen ever since. Now, when drying her, the milk is stringy in all quarters, the affected side the worst.  
J. H.

Ans.—She has chronic inflammation of one half of the udder, with a hardening and enlargement. It is doubtful if she will ever make a satisfactory milker, but will, in all probability, be troubled with recurrent mammitis. If there be heat in the udder now, purge her and apply hot poultices until inflammatory action ceases, then rub the enlarged quarters once daily well with compound iodine ointment, and give 1 dr. iodide potassium, night and morning, for a few weeks. If her appetite fail, decrease the dose to 40 grs.

**GROOMING BROOD MARE, ETC.**

1. My neighbors tell me that grooming a pregnant mare causes the hair on the fetus to grow long and stand up straight. Is this so?

2. Five-months-old boar has been getting stiff for a month. I keep him on cement floor, with plank to sleep on, and feed on barley chop. Is he fit for service?  
R. H. C.  
Northumberland Co., Ont.

1. The idea is absurd. Careful grooming is beneficial to horses and mares at all times. It would not be wise to groom a pregnant mare roughly with a sharp-toothed currycomb; not that it would have any action on the coat of the fetus, but the irritation to the abdominal muscles caused by the sharp teeth might cause sufficient muscular contraction to cause abortion.

2. Purge with 4 ounces Epsom salt; allow regular exercise; cover the whole floor with plank. Give 20 grains nux vomica night and morning, and feed bran mixed with the barley meal, also give raw roots and milk.

**MISCELLANEOUS.**

1. What will bring a fat cow to her appetite when she refuses to eat her chop allowance?

2. Has a parrot-mouthed colt other difficulties than inability to do well on short pasture?

3. Should she be favored in the stable?

4. How much would the malformation reduce her value?

5. Are cattle liable to thoroughpin?

6. If so, would you treat as in horses?

7. Does a grayish deposit around the anus of colts indicate worms; if so, how would you treat?  
Oxford Co., Ont.  
W. M. D.

Ans.—1. Purge with 2 lbs. Epsom salts, and feed nothing but a little bran for 24 hours. Follow up with 1 dr. each sulphate of iron and gentian, three times daily, and feed little chop at first, gradually increasing the quantity as appetite returns.

2. Not unless there is also malformation of the molars, which is frequently the case.

3. In most cases, it is better to feed rolled oats, but if the molars are all right, she may be fed as other horses.

4. This depends upon the degree of the malformation, and whether the purchaser intends feeding in the stable all the time. In cases where the incisors only are at fault, probably 25 per cent. If the molars are also malformed, most people would not buy her at any price.

5. Yes.

6. If treated at all, yes.

7. Not necessarily, but in some cases this symptom is noticed. Give, for an average yearling, 30 grs. sulphate of iron and 30 grs. sulphate of copper, night and morning, for a week, and then purge with 5 drs. aloes and 2 drs. ginger.

**COLT WITH WEAK KNEES, ETC.**

1. Is the foam on separated milk injurious to a colt or calf?

2. Draft colt has not straightened up on his fore legs. He is over on his knees.  
Welland Co., Ont.  
M. W. S.

Ans.—1. No.

2. The probability of straightening depends upon

the extent of the weakness. Keep him in a box stall, and feed hay off the floor. Make a movable box for grain, and place on the floor, removing when he has eaten his meal. In fact, feed everything off the floor. Feed liberally on rolled oats and bran, and allow exercise outside during the day.

**Miscellaneous.**

**BARN PLANS.**

Would you please publish a suitable plan for a barn 40x60 feet, with an L 30x50 feet? The barn stands with the side of the L facing the house. Would like to have room to stable about twenty head of cattle, two box stalls, a root cellar, a place for implements, room to stable about five or six horses, a harness closet, and a carriage room. Would like to have the alleys for the cattle wide enough to drive through, if possible.  
Elgin Co., Ont.  
W. G. H.

Ans.—In the plan published in our December 1st issue, there are two box stalls 14x20 feet, and a feed room 15x26 feet. These three rooms might be eliminated, and the barn made twenty feet shorter; then by narrowing the passage at back of cattle in the end row, the total length could be reduced to 60 feet. This arrangement would bring the two threshing floors together, and would necessitate a new arrangement for the silo and feed room. The latter could be conveniently situated in the part set off for one of the boxes in the horse stable, including the passage from the stable to the feed room as it stands in that plan. The silo then could be placed just outside the feed room, beside the driveway, and the root-house would be located under both driveways, as indicated in the plan. Such a basement would make room for all the stock. The L 30x50 feet could then be used wholly for implement and harness rooms. The main reason why the plan submitted in the Dec. 1st issue is valuable, is because of its simplicity, and because it utilizes all available space to best advantage. A passage through the L leading into the barnyard would make a suitable and convenient means of reaching the stables. On one side of this passage could be located the carriage room, and on the other the implement shed.

**TOBACCO GROWING.**

Would like to have some information about the growing of tobacco for market; or could you put me in communication with some reliable farmer that has had experience in the growing of the same?  
Hastings Co., Ont.  
SUBSCRIBER.

Ans.—Essex County is generally supposed to be the only locality in Canada where tobacco can be grown profitably in considerable quantities. True, the French-Canadians grow tobacco for their own use, but not for commercial purposes. Essex County is the most southerly point in the Dominion, being in the same latitude as California, Southern France, and Italy, and besides has the advantage of being contiguous to a large body of water. Growers in Essex very much doubt the possibility of growing tobacco in Hastings County. The methods of growing the plant are much the same as those for growing tomatoes. The seed is sown in early spring in hotbeds or cold frames, and the plants thinned and otherwise carefully tended to until all danger of frost is past, when they are set out in well-prepared soil, about three feet apart each way. From this time on, until the stems have developed fifteen leaves, the land is kept clean by good cultivation. When the necessary number of leaves have developed, the head of the stalk is kept pinched back, and no flowers are allowed to set. The crop is cut before frosts in the fall, and carefully cured until early winter, when the stalks are split down the middle and hung in a dry barn to further cure. Only one variety is grown in Canada, and it is used for the manufacture of chewing tobacco. Tobacco companies would willingly furnish seed and all necessary information about the crop. About fifty cents worth of seed is sufficient to seed four or five acres. Some successful growers in Essex County are E. M. Bee, Leamington; Geo. Evans, Leamington; O. Duke, Olinda.

**APPLES FOR COWS.**

Please tell me, through the columns of the "Farmer's Advocate," if apples are of any value for milking cows? In what quantity should they be fed, and would it be better to pulp them?  
Wentworth Co., Ont.  
C. E. W.

Ans.—Apples, in moderate quantity, are of some value as feed for cows in milk, but the quantity should not exceed two gallons per day, in two feeds. There would be some advantage in pulping them if they were mixed with chaff or cut straw, as the more chewing and mixing with the saliva of the mouth, the more perfect will be the digestion; otherwise, the apples may as well be fed whole, as, generally, a cow will chew them pretty thoroughly before swallowing them, if tied in her stall and undisturbed by other cattle.

## SOUR OR ACID SOIL?

Please answer the following through your columns: (1) What is "sour" land; (2) what is "acid" land; and (3) the difference between the two? I understand from what I read, that strawberries do well and thrive in land too acid for almost any other crop. (4) How will raspberries and blackberries act in such land; (5) what is the best and cheapest corrective for such land; (6) how is lime treated and applied to land, and at what rate; (7) what action has it on the soil, and will an over-application injure plant life?

J. W. F.  
Yale and Cariboo, B.C.

Ans.—Acid and sour, as applied to land, are synonymous terms. To determine whether the soil is acid or not, take a strip of litmus paper and bring it in contact with the damp earth; if the blue color of the paper changes to red, the soil is too acid for plant growth. Soil should be just neutral; that is, neither acid nor yet alkali. The best remedy for acid soil is, after thorough drainage, lime. The amount of lime required to check the acidity will, naturally, depend upon the degree of sourness in the soil. Ordinarily, a coat spread on as thinly as possible would give immediate benefit. Take the burnt lime and pile it in small heaps, as manure is sometimes applied, and cover with the damp earth; in a few days it will become slacked, when it can be spread thinly over the surface and cultivated in. There is not much danger of an overdose. It might be tried in a small plot. Experiments conducted at Rhode Island go to show that blackberries, Snyder variety, thrive very well on acid soil; cranberries, also, are right at home on sour land. We have no knowledge of strawberries succeeding well on sour land. Much would depend upon the variety and the extent to which the plants were accustomed to the nature of the soil.

## STALLIONER'S FEES.

A owns a Shire stallion, B owns a carriage stallion, C owns a mare of the agricultural class, about ten or twelve years old, that has raised four colts. On June 21st, the mare was served by A's horse. On July 8th, the mare was again served by A's horse. The mare was then examined and found closed. A said to C "Your mare is either in foal or it is impossible to impregnate her. On July 11th, C's mare was covered by B's horse. The mare foaled on May 31st, and the colt resembles A's horse. Is A entitled to a stud fee; if so, can B also collect a stud fee?

Ans.—The mare was evidently pregnant to the first service, and it appears to us that A is clearly entitled to his fee. Many instances have come within our knowledge of pregnant mares accepting service for months after being in foal. Unless there was some special agreement, it would appear that B is also entitled to his advertised fee for a single service of his horse.

## REGISTERING STANDARD-BREDS—CONDITION POWDER

1. Can you give the standard for the registration of Standard-bred trotting and pacing horses?

2. Is there any objection to Thoroughbred blood in the registration of a horse as Standard-bred?

3. Can you give a good recipe for a condition powder for horses?

J. E.  
Wellington Co., Ont.

Ans.—The requirements for registering Standard-breds, trotting and pacing, were given in our June 15th issue, from which we republish the following:

The Trotting Standard.—When an animal meets these requirements, and is duly registered, it shall be accepted as a Standard-bred trotter:

1.—The progeny of a registered Standard trotting horse and a registered Standard trotting mare.

2.—A stallion sired by a registered Standard trotting horse, provided his dam and grandam were sired by registered Standard trotting horses, and he himself has a trotting record of 2.30, and is the sire of three trotters with records of 2.30, from different mares.

3.—A mare whose sire is a registered Standard trotting horse, and whose dam and grandam were sired by registered Standard trotting horses, provided she herself has a trotting record of 2.30, or is the dam of one trotter with a record of 2.30.

4.—A mare sired by a registered Standard trotting horse, provided she is the dam of two trotters with records of 2.30.

5.—A mare sired by a registered Standard trotting horse, provided her first, second and third dams are each sired by a registered Standard trotting horse.

The Pacing Standard.—When an animal meets these requirements, and is duly registered, it shall be accepted as a Standard-bred pacer:

1.—The progeny of a registered Standard pacing horse and a registered Standard pacing mare.

2.—A stallion sired by a registered Standard pacing horse, provided his dam and grandam were sired by registered Standard pacing horses, and he himself has a pacing record of 2.25, and is the sire of three pacers with records of 2.25, from different mares.

3.—A mare whose sire is a registered Standard pacing horse, and whose dam and grandam were sired by registered Standard pacing horses, provided she herself has a pacing record of 2.25, or is the dam of one pacer with a record of 2.25.

4.—A mare sired by a registered Standard pacing

horse, provided she is the dam of two pacers with records of 2.25.

5.—A mare sired by a registered Standard pacing horse, provided her first, second and third dams are each sired by a registered Standard pacing horse.

6.—The progeny of a registered Standard trotting horse out of a registered Standard pacing mare, or a registered Standard pacing horse out of a registered Standard trotting mare.

Registration fee, whether Standard or non-Standard \$2; to stockholders, \$1. Official certificate of registration, 50 cents. Transfers of ownership, 25 cents. The fees charged for registration of all animals over two years of age are double the regular fees (the age of animals to be computed from the first day of January in the year in which they were foaled).

For any additional information, apply to Frank E. Best, Registrar, Ellsworth Building, Chicago, Ill.

2. Thoroughbred blood of recent introduction would interfere with registration, but might improve the quality of the stock in which it was used. A study of the requirements above will decide individual cases.

3. While it is not a good plan to resort to chemically-prepared tonics in order to get horses into good mettle, still there are occasions when such may be quite beneficial. Such a tonic may consist of two ounces each of ferric sulphate, pulverized gentian, pulverized nux vomica, and nitrate of soda. Mix these, and give a teaspoonful night and morning in ground oats or bran. Also, give, two or three times per week, a feed of boiled oats. Feed in the regular grain food a little oil cake, as it aids digestion. Give plenty of exercise, and groom well.

## ONION-GROWING.

I have been trying onions for three years, and they grow very large but will not ripen. I have them on well manured black sand. Can you tell me why they will not ripen? They seem to grow too much stalk, and the roots grow about four inches in the ground. I planted them about 12 inches apart in rows, and hoed pretty well up to them. Does it make any difference to hill them up? What is the best time to sow black seed onions, and what soil is adapted to them? The first year my crop ripened fairly well, and I kept my seed from them. Does it make any difference on this point? How deep should the seed be planted?

Essex Co., Ont.

Ans.—Sand is not good land on which to grow onions. They require a rich, mellow surface soil, but a firm, well-drained subsoil. It is probable this land would grow too much vegetable matter of whatever crop were sown on it. If it were well drained, potatoes or other roots might do well on it. One reason why the crop did well the first year might be on account of the rainfall. The last two seasons have been remarkable for prolonging growth. On suitable soil black seed onions are sown as early in the spring as the land can be worked, and the Spanish varieties also, unless they are started in hot-beds. When this is done, the seed is sown early in March and the plants set out as soon as the land can be made ready. In cultivating, onions should never be hilled up, but the earth should rather be drawn away from them. When well grown, or about the last week in August, the plants should be pushed over with the back of the rake to encourage ripening. It is probable deep planting of the seed encouraged the growth of thick necks. From one-half to three-quarters of an inch is deep enough to sow the seed. The roots would not go four inches in the ground if the subsoil were firm enough. Home-grown seed should be as good as any.

## SULPHUR AS AN INSECTICIDE.

Will sulphur, fed to cattle, prevent lice from coming on them, or will it kill them after they are on? If so, how much should be given to them, and how often? Is there any risk of giving them too much?

Russel Co., Ont.

Ans.—The only value sulphur is to cattle is that a little of it improves their condition, and so makes the effects of lice less noticeable. The great reason so many stables are infested with lice is because they are built to harbor them, and are not thoroughly whitewashed every year. It should be a hard and fast rule that the stables be whitewashed each summer, and that the cattle receive an application of crude fish oil and turpentine—eight parts oil to one of turpentine—or some other good insecticide, when they are first put up in the fall, as lice soon increase when the cattle are brought into comfortable quarters. If sulphur is given, let it be mixed with salt, kept where the cattle can have access to it at will; then they will not take too much. If given freely with their food, the effect would be to unduly open the pores of the skin and render the animals liable to catch cold.

## CLOVER SEED PER ACRE.

How many pounds of red clover seed would it be necessary to sow to an acre? I want to take one crop off and then plow it under.

Lambton Co., Ont.

Ans.—Use only clean, new seed, and sow from twelve to fifteen pounds per acre, depending upon the fineness of the seed-bed.

## CROPS AND CULTIVATION.

A farmer has about 35 acres good arable land close by 200 acres of rocky pasture. The arable land is rough, and at present unfit for a binder. The soil is clay and clay loam, and produces excellent hay, grain, corn and root crops. He has first-class winter accommodation for cattle and sheep. Heretofore, he has threshed his grain crop, the greater part being sold or kept for seed. In winter all roughage is fed cut, with roots pulped. Towards spring hay is added to the feed. Straw and corn cut is the staple mixture during winter, but only a few animals eat the mixture up clean without roots. He thinks in future of cutting all his grain crop for hay, so that all his roughage may be more palatable. As he is doubtful about the wisdom of the move, he would like to know the experience of others on such a method of farming, and have the "Advocate's" opinion on the following points: Could sheep breeding (with early lambs) and winter dairying be properly and profitably carried on with such feed? What cereals or mixture of cereals would make hay of good feeding quality for the stock indicated, and for the farm team? Would it be an economical method as regards labor?

Ontario Co., Ont.

Ans.—On such a farm silage would be one of the most valuable fodders, as it would make the cut straw more palatable when mixed with it and allowed to stand a few hours before feeding, and would provide a means of storing the maximum amount of food which the farm would be capable of producing. Mixtures of grain crops, oats and barley are sometimes cut in the milk stage for fodder and cured as hay, making a very palatable and nutritious food, and might be profitably grown to a limited extent. We would not, however, advise treating all the crop in this manner, as some grain is almost indispensable. Winter dairying and sheep-raising should succeed well on such a farm, provided other conveniences and facilities are available. A mixture of cereals that yields a larger amount of grain than can be obtained from the land devoted equally to each is that of barley and oats; or if the crop is to be cut for fodder, a small portion of peas would make it still more valuable, especially for the sheep. It might be more economical to cut the cereals green, as they could then be fed without running through the straw-cutter.

## CARE OF A HEDGE.

Will you kindly advise me, through the columns of your valuable paper, what to do with my honey locust hedge? I purchased it about seven or eight years ago from the Stratford Hedge Fence Co., and they were to come back every year and replace all dead plants, and after it was large enough, to plash it; that is, cut the roots on one side and turn it over to an angle of 45 degrees. They came back for three years, and then quit, and have never been heard of since. Can I do the plashing myself? I think it was patented. Would it be as well to trim the hedge for plashing in March, as we have not much time in seeding?

Grey Co., Ont.

Ans.—It is just an open question whether it would not pay to remove the hedge altogether. Where labor is plentiful a few rods of hedge might be kept for ornamental purposes, but to set any length of it involves an immense amount of time and care in trimming and training. The majority of people would root this locust hedge out of the ground and be glad to get rid of it. If it is decided to retain it, any person can do the plashing. As it now stands, it will probably require a lot of pruning before anything else is done to it. First cut the whole growth back to about three or four feet in height, then, if it is thought best, which is not probable, it can be plashed. The job is not completed, however, with this operation, for each year the plants will require trimming. There should be no objection to pruning in March or any other month, when the wood is dormant. The honey locust is quite a hardy shrub, and will stand a lot of pruning, both in the top and root.

## LICE ON CATTLE.

I have twenty-six head of cattle which are covered with large blue or gray lice. I have used sheep dip and several other things, but can't get rid of them. One of my neighbors told me turpentine and raw linseed oil would kill them. What is the surest and cheapest way of treating the cattle, and the proper stuff to use?

Bruce Co., Ont.

Ans.—These must be a thick-skinned breed of vermin. Sheep dip usually proves effective. Grease or oil of any sort generally does for them by stopping their breathing. A mixture of coal oil and raw linseed oil should be a sure cure. Coal oil alone will blister and harden the skin and take off the hair. The quickest and most effective cure we know of is insect powder (pyrethrum) commonly used for killing house flies. Sifted on the cattle from a flour dredger, we have known it to make a clean sweep of big blue lice in a single night, not a solitary slinger being left to tell the story.



**HENHOUSE AND PIGGERY PLANS.**

1. What would you map out as an up-to-date arrangement for the inside of a warm henhouse, that is well lighted on the S., E. and W. sides; that is 18x18 in size, and that slopes in the roof from 18 feet to 8 feet? The door is on the N. side.

2. The door of a pigger for cleaning is on the N. side, the door for feeding on the S. There are windows on the E. and W. The dimensions of the pen are 18x19x12 high, with cement floor. How many hogs would that house accommodate? What would be an ideal arrangement for the inside? Would an upstairs sleeping place be advisable or not?

Lanark Co., Ont.

Ans.—1. In one end of this house we would arrange to have an open shed, in which the hens could scratch and exercise themselves. This room would be open on one side, either the south or east, if possible, and would have a curtain or sliding-door to close it up on very windy days. This is about the only radical change we would make in the house described, but it is certain that in connection with a warm house some such exercising place is necessary. As has often been said before, the perches should be near the floor, all on a level and large enough for the birds to stand on comfortably. Grit and dust-boxes should be installed, and the floor kept perfectly dry and clean.

2. A pen of this kind should have windows on the south side. The troughs might be made of cement, and the partition between the feeding passage and pen made of No. 9 wire. A slope in the floor of about one inch from front to back of pen is advisable. Elevated sleeping beds are best, but they need not be more than two feet high, and should be solid upon the ground. Where these beds are open beneath the space below becomes very foul and unsanitary, unless great care is exercised in cleaning it out frequently.

**HYDRAULIC RAM.**

A stream crosses my farm 500 feet from the buildings. There are at least three barrels flowing past a point every minute, and the stream has a fall of at least six inches in every 200 feet, and its bed is about 50 feet lower than the ground on which the buildings are situated. I want to know if a hydraulic ram can be arranged on the stream so as to force the full of an inch or larger pipe of water to the buildings, and if so, if sharp angles in the pipe would hinder the flow? I would also like to know the principle on which a hydraulic ram works, how it is constructed, or where procured? Also, how the refuse in the water is prevented from entering and clogging up the pipe? Any additional information you may suggest will be acceptable.

Renfrew Co., Ont.

T. R.

Ans.—It would be necessary in this instance to secure a fall of at least three feet from the mouth of the supply pipe to the machine. The length of pipe laid to secure that amount of fall is not of much consequence, except that for any length above 25 feet the friction reduces the capacity of the supply without adding to the force of it. With a low head and a large supply of water, as in this instance, it would be best to install a large size of machine, say No. 6, which requires a 2½-inch supply pipe, and a 1½-inch discharge pipe. The ram may be placed in a pit, provided there is proper drainage to carry off the waste water. Sharp turns in either supply or discharge pipe should be avoided. If elbows are necessary, they should be made as large as possible.

The principle of the hydraulic ram is as follows: A machine is situated at a point below the supply of water, and the water is carried to the machine through the supply pipe. This pipe must be laid on a slope, not steeper than one to five or six. The water from the supply, at the start, wastes through an opening in the pipe, but almost immediately the rush of water through this opening raises into its seat a valve, which closes the opening. The sudden cut-off produces a great pressure through the whole length of pipe and through the machine attached. This pressure opens a valve at the bottom of the dome or bell-shaped attachment, which is the principal part of the machine. The water rushes through this valve into the dome, partly filling the latter. When pressure is reduced by this escape of the water, the valve in the waste-opening drops out of its seat, and allows the water again to waste. The closing of the waste valve and the opening of the dome valve occur alternately in rapid succession, and with each alternation more water is forced in the dome. The discharge pipe passes from the bottom of the dome, and as soon as the water covers the entrance of this pipe the air in the upper part of the dome is imprisoned and becomes compressed more and more with each stroke of the waste valve. The expansion of this compressed air in the dome forces the water up the discharge pipe to a height considerably greater than the original head. The impulsive pressure given to the water by the sudden closing of the waste valve opens the dome valve against a considerable pressure above it, which a steady pressure would not be able to do. The impul-

sive action is the secret in the working of the hydraulic ram. It will be seen that a considerable proportion of the available water is wasted in the action of the machine. The machine makes use of the energy of the water supplied to raise to a greater height a small part of the water. It will be seen, further, that the dome must contain air, which by its elasticity raises the water in the discharge pipe. Anything that causes the dome to be empty of air will stop the machine.

The proportion of water that a machine will raise depends upon the ratio of head to height of discharge. In the instance given a hydraulic ram, if the water is given a fall of three feet, should be able to discharge at a point 50 feet above it about 3½ gallons of water per minute.

The refuse in the water supplied would require to be prevented from entering the machine. We do not know how this could be done, except by a coarse filter at the mouth of the supply pipe. The hydraulic ram is manufactured by R. McDougall Co., Galt, Ontario.

J. B. REYNOLDS.

**A CREAMERY QUESTION**

Seeing a question in your December 1st issue from A. B., re pounds of butter-fat for pounds of butter, called my attention to my last year's monthly statement card, with which I have been dissatisfied. Enclosed find statement, and please state if it is correct:

Cr.—	Pounds of milk, 3,950; test, 3.4; pounds fat, 134.3; price, 19.71c.; gross amount,	\$26.47
Dr.—	Drawing, 3,950 pounds; price, 10c.; amount,	\$26.47
	Net payment	\$22.52
	Lambton Co., Ont.	R. S. T.



Chores in Assiniboia.

Ans.—The patrons of a creamery should first be clear on the difference between butter and butter-fat. Butter consists of all the fat in combination with other substances. Butter-fat is a single substance. 134.3 pounds of butter-fat is all that could be recovered from 3,950 pounds of milk that tested 3.4% fat, and if 19.71 cents was the price of butter-fat agreed upon between patron and maker, the statement was quite correct, 19.71 cents, however, is a very low figure for butter-fat at that particular date. On August 1st we quoted butter 16 to 18 cents from farmers' baskets in Toronto, and on this basis creamery butter should have been worth at least 19 to 20 cents per pound. If then creamery butter was worth from 19 to 20 cents, butter-fat should have been worth from 24 to 25 cents per pound. The using of the terms butter-fat and butter indiscriminately and conjunctively has given rise to no end of confusion and misunderstanding, and in many cases has afforded unscrupulous makers an opportunity to resort to dishonest methods of computation.

**Special Clubbing Rate.**

In order to greatly increase our subscription list, we make the following liberal club rate: One renewal and one new subscriber, \$2.50; one renewal and two new subscribers, \$3.25. Regular subscription price, \$1.50 per year (52 numbers). Show prospective subscribers a copy of the weekly. Every farmer should have it. Address, "Farmer's Advocate," London, Ont.

**EVENTS OF THE WORLD.**

Sir Sanford Fleming at Ottawa exchanged New Year's greetings with Premier Seldon, of New Zealand, over the Pacific cable.

The construction of a steamer 755 feet in length, or 30 feet longer than the Baltic, the largest ship in the world, is to begin immediately at Belfast, Ireland.

A new automobile train, which runs without rails, has been successfully tried in Paris, in the presence of an immense crowd. The train carried sixty passengers in five wagons, and several tons of ballast.

Last year 619,980 immigrants arrived at New York, as compared with 547,157 in 1902, an increase of 72,823. This is exclusive of the three last days of the year. This migration of largely illiterate people from Central Europe must affect the standard of American citizenship.

The Pan-American Railway Co., whose headquarters are at Guthrie, Okla., with capital stock of \$250,000,000, to build a line from Port Nelson, on Hudson's Bay, to Argentine Republic, was chartered on the 30th of December. The total length of the prospective road, which will pass through Winnipeg en route to the south, will be 10,000 miles.

The Rockefeller capitalists and Henry Clay Frick have assumed absolute control of the U. S. steel corporation, thus supplanting Morgan, Perkins, Carnegie and Schwab. The methods employed in the Standard Oil concern will be employed in the management of the steel trust, which is to be conducted on an entirely different basis to that of the past. The first move will be to lessen the salaries of the men who are drawing from \$12,000 to \$25,000 a year.

Dr. L. J. Lemieux, of Montreal, who returned recently from the Pasteur Hospital in Paris, makes this interesting announcement: "There cannot be any doubt but Dr. Marworek, of the Pasteur Institute at Paris, has found a positive cure for all tuberculous diseases. The treatment calls solely for the injection of serum discovered by Dr. Marworek; and during my stay at the Pasteur Hospital I witnessed twenty-five cures by the treatment." Patients will be treated according to the new method at an early date in Notre Dame Hospital, Montreal.

The provisions of the Preferential Tariff Bill, recently passed in New Zealand, give strong promise of bringing about lucrative trade relations between that country and Canada. The bill practically prohibits the importation of United States manufactures, and the New Zealanders are looking to Canada for many of the articles with which they have been hitherto supplied by Uncle Sam. Already letters have been received by the Canadian Manufacturers' Association, making enquiries for buggies, wagons, saddler's tools, agricultural machinery, boots and shoes, and many other articles. This promises to be one more open door through which profit may pour into Canada's coffers.

After examination of the B. C. coast, Lord Dunsford, Chief of the Canadian Militia, states that Canadians need have no apprehensiveness that Fort Simpson will ever, in the event of war, be rendered useless as a port by reason of guns directed from the two small islands lately ceded to the Americans. "The only power," he said, "which can shut up Port Simpson will be the power that commands all the sea approaches to it." This should effectually silence those who have been alarmed at the statement uttered by Senator Turner, of Washington, that the United States commanded the proposed terminus of the Grand Trunk Pacific.

The terms of agreement proposed to Russia by Japan have been at last made public. The chief propositions are: (1) That Japan and Russia shall respect the independence and territorial integrity of both the Chinese and Korean Empires. (2) That neither Japan nor Russia shall interfere with the commercial rights already acquired by these nations in China or Korea. (3) A mutual recognition of the special interest of Japan in Korea, and Russia in Manchuria. Northern Korea is really the immediate bone of contention in the disturbance. It is held by Russia that a portion of this area, owing to certain commercial considerations, should be neutral ground. Japan insists that Korea shall be treated as a unit. The propositions advanced by Japan are, however, regarded as very reasonable, and some hope is expressed that an amicable settlement may result. That King Edward is bringing pressure upon the Czar in favor of peace is looked upon as an auspicious sign. Nevertheless, preparations are still going on ceaselessly, and no one can tell what a day may bring forth.

Considerable attention has been directed to the Isthmus of Panama, now an independent republic. The "Panamans" have been dissatisfied with the Government at Bagota, and the failure of the Legislature to ratify the treaty with the United States, by which the latter country was to obtain possession of the canal

## NOTES AND NEWS.

and the right to go on with its construction—a consummation which would bring many advantages to the Panamans—was only the match to the kindling. On November 3rd, the secession of the Isthmians occurred, without bloodshed, being probably due to the fact that United States warships, with explicit directions to prevent the landing of Colombian troops in Panama, were stationed at the scene of action, near Colon. That the United States Government knew that the rebellion was coming is certain. That its connivance was of as questionable a character as Senator Hoar has affirmed, remains to be seen. At all events, the treaty concluded between the Panamans and the American Republic is eminently satisfactory to Uncle Sam's interests. The Republic of Panama was officially recognized by the British Government on the 25th of December.

The newspapers still exploit the wonders of radium, and men of science still stand astonished before it. Monsieur and Madame Curie themselves, perhaps, little knew of the world-disturber which they were launching in the announcement of their discovery of radium. First, it appeared simply as a wondrous element, shining with a pale, glowing light that never diminished, sending forth heat that never lessened, and emitting rays whose activity burned the skin and blinded the eyes, were not the utmost caution exercised. Edison began experiments with it, but, for the time, gave them up because of the danger of handling it. Astronomers had their direction turned to it, and were led to look to its presence in comets and the sun as a solution of the "pale luminosity," as Prof. Boyer calls it, of the one, and the age-continuing heat of the other. Medical men, too, began to look to it as a benefactor in surgery and medicine, and are making judicial experiments along these lines. As yet, the price of radium is far beyond that of rubies. A single pound of it, pure, is to-day worth \$60,000,000. This tremendous value is due to the fact that tons and tons of pitchblende are required for the extraction of each pound, that the process is tedious and intricate, and that, so far, the only source of this pitchblende has been a certain spot in Bohemia, from which exports are now forbidden by the Austrian Government. It is not likely that radium may command such a figure in the near future. Prof. Alexander H. Phillips, Professor of Mineralogy in Princeton University, has discovered a radium salt in carnotite taken from Utah. It is also stated that pitchblende whose marketable qualities may be developed has been found in several parts of the United States. For the past seventy years, a firm of analytical chemists in London, England, have been using quantities of pitchblende for the extraction of oxide of uranium, which, until lately, was used extensively in the coloring of expensive glassware. The refuse was carted away and used for street ballast. So that, as a matter of fact, the firm actually paid carters to dump away matter containing radium to-day worth over \$1,000 a grain. It has been estimated that a fortune of \$5,000,000 has been thus thrown away.

## A Chance for Well-doing.

Perhaps no organization in Ontario is accomplishing more for suffering humanity than is the Hospital for Sick Children, Toronto. In it, every disease or deformity which can make life a burden to any little one is treated, and the success with which these efforts have been attended is surely the best recommendation of the efficiency of the hospital. Last year alone, of 868 children who entered it, 493 were entirely cured and 247 improved. The hospital is not local, but Provincial. Every suffering child in Ontario, whether its parents are able to pay for its treatment or not, is entitled to its benefits. Yet, since so many have, of necessity, to be treated gratuitously, there is a continual need for more money. The hospital cannot get along without funds, and its managers will be most grateful for any contributions that may be sent in to help on its work. A dollar means but little to the majority of people, but it may mean a great deal to some poor child. Contributions may be sent to J. Ross Robertson, Chairman, or to Douglas Davidson, Secretary-Treasurer of the Hospital for Sick Children, College St., Toronto.

## Death of John Watson.

In the recent death of Mr. John Watson, of Ayr, Ont., Canada lost one of her oldest and worthiest citizens, and a pioneer in the manufacture of agricultural implements. He was born at Glasgow, Scotland, in 1820, and after learning moulding came to America, reaching Galt about 1845, finally locating at Ayr, where he established a large, widely known and successful enterprise. He was a man of commanding influence because of his probity, intelligence and strength of views, being well entitled to rank as one of the makers of industrial Canada. He leaves a family of three sons and two daughters. John George is postmaster of Ayr; William D. is at the head of the firm; Alfred is also associated with the business. James, the third son, died at college in the United States. Of the daughters, one is head of the Domestic Science Department at the Ontario Agricultural College, and the other is at home.

Parties of Finlanders are settling in the Lake St. John district, Northern Quebec.

A white deer was shot recently in Northern Ontario.

Building improvements in Calgary during 1903 are estimated at \$700,000.

A rich strike of gold has been found near Webbwood, B. C., on the line of the C. P. R. A discovery of rich ore has also been made in the Atlin shaft, Ymir.

The practicability of the navigation of Hudson's Bay and its adjoining straits by ocean vessels, to form an outlet for the northern part of the West, is now being investigated by an expedition sent out by the Dominion Government.

The Grand Trunk Pacific will be the "open sesame" to the great Peace River district.

On the general tide of prosperity in Canada, Newfoundland has come to the fore. Its lumber resources are being exploited, and pulp mills being built, and a new cold storage company is making arrangements for going into immediate business. "Winnipeggers," in the near future, may be privileged to eat "fresh" fish caught off Cape Race, as a change from "home caught."

Lumbering is booming in N. B. Donald Fraser & Sons, of Fredericton, have now over 2,000 men at work in the woods in the Tobique and other districts. Scott Brothers, also of Fredericton, are also pushing forward extensive operations in the timber districts.

On account of the boll-weevil, the cotton-raising industry of Texas seems doomed. It is held, however, that the State is suited for the raising of grain and cattle, as well as sugar-cane, tobacco and rice.

An edible mushroom weighing upwards of five pounds was found last season in the Forest of Fontainebleau, France. The wet season in France was very conducive to the growth of all sorts of fungi, also to snails, which are there used extensively for food, being called the "poor man's oyster." The finest of these edible snails are reared by Capuchin Monks in an especial snail-park.

The work of forestry is being rapidly pushed forward in the U. S. The total area in national forest reserve is now 63,000,000 acres.

Large quantities of eggs, put up in bottles in liquid form, whites and yolks separate, are exported from Germany. The greater quantities of these bottles go to New Zealand.

At the Ontario Beekeepers' Convention, Trenton, Ont., Prof. James said that there is an unlimited market for first-class honey, but that too little of the first-class article and too much second and third is offered for sale in Canada.

"You should have studied the time-table," said the gateman to the belated traveller, "then you wouldn't have missed your train."

"You talk like a \$1.98 phonograph," replied the angry left-over. "The train pulled out while I was trying to translate the time-table."

There are now 19,398 rural delivery routes in the United States. When shall we have one in Canada?

Principal Reichel, of University College, Wales, who came with the Moseley Educational Commission to Canada, says the Guelph Agricultural College is the best in America.

Wood shavings, which used to be thrown away, are now compressed into fuel, which burns slowly and produces a heat like coal. Sawdust, compressed into bricks with tar, is used as a "carbide" for making gas.

"She came up to the country  
But a week or so ago,  
This city maid who ne'er had seen  
The fields where wild flowers grow,  
And when she saw the cat-tails,  
She cried, "Oh, do look, quick!  
Who ever heard of sausages  
A-growing on a stick!"

Siberia, so long the land of mines and convicts, bids fair to come forward as an important dairying country. There are already about 2,000 butter manufacturing establishments in the country. Though not of A1 grade as yet, the quality improves every year.

In a recent lecture at the R. I. Agr. College, Mr. R. S. Handy, of Cataumet, Mass., in which vicinity cranberries are extensively raised, said that \$175 per acre should be the net profit from a cranberry bog in which conditions and care are favorable.

Five hundred boxes of B. C. apples, grown in the Kelowna district, and shipped to Scotland, have arrived in good condition. The Chilliwack Progress says: "As this is believed to be the first shipment as a commercial venture from this Province to the Old Country . . . the success of the experiment will very clearly demonstrate the enormous possibilities for fruit-growing for profit in B. C."

Fruits and vegetables are canned annually in the U. S. to the value of more than \$45,000,000.

A beet-sugar factory, which is to have an annual output of 11,000,000 lbs. of sugar, is being built in Turkestan, Russian Asia.

Statistics for the past year show the rapidity with which Manitoba and the Territories are being settled. During ten months of 1903 the homestead entries amounted to 29,764, as contrasted with 18,417 during the corresponding ten months of 1902. C. P. R. land sales in 1903, up to Nov. 30th, show a total of 1,684,600 acres; while, during the same period, 110 new post offices were recorded.

An interesting exhibit at the World's Fair, St. Louis, this year, will be that of a quantity of catalpa timber, grown from seed so as to be a source of profit in twenty years.

In November of 1903, the potato imports of Great Britain aggregated between one and two million cwt., valued at about £380,000. In 1901, the imports were only about 200,000 cwt., valued at £33,000. The difference is chiefly due to potato rot.

Mr. Fred Bodfish, King, Ont., upon two acres of sugar beets last season realized a profit of \$103.45.

All new schools in Switzerland have baths attached. Each child is compelled to "use soap" regularly.

The tallest building on earth is to be erected in New York soon. The height of the new building will be 615 feet, and its cost, including the site, \$10,000,000.

The C. P. R. people are preparing to develop the anthracite coal bed recently discovered near Banff. The seam of coal, which is said to be of excellent quality, is about ten miles long and from six to ten feet thick.

Numerous deposits of gold, silver and copper ores have been discovered at Chetecamp, Cape Breton. Dr. Gilpin, head of the Provincial Mines Department, says that from present indications the ledge of ore is among the largest in the world.

The Exhibition Executive, City Council, and Board of Trade, Winnipeg, are decidedly enthusiastic over the prospects of holding a Dominion Exhibition in Winnipeg next summer.

Two hundred students have been attending the short course in stock-judging at the O. A. C., Guelph, Hon. John Dryden, Mr. John Gosling, Kansas City, Mo., and Mr. A. W. Smith, Maple Lodge, Ont., assisting the professors.

Hon. John Dryden announces that the work of cheese-factory inspection and instruction will be extended and improved in 1904.

## South Perth, Ont.

The golden weather of autumn has been succeeded by continuous, but moderate, winter weather, with gradual snowfall, which has increased the depth of "the beautiful" to several feet on our roads, and made sleighing permanent. But while the farmer appreciates good sleighing, we think that few of them would object to a thorough melting of the snow if such would increase the depth of water in the wells. The scarcity of water is a serious matter with most farmers in this section at the present time, and artesian-well drillers are kept very busy. The sinking of these wells to the rock water seems the only permanent solution of the problem; but the remedy, like all permanent and valuable improvements, is a relatively costly one. In this district, except within a few hundred rods of the river, the depth of soil on the rock averages somewhere about a hundred feet, and the depth to suitable springs in the rock will usually average fifty to one hundred feet more, making a well which necessitates power pumps, and if (as should be) the water is forced into house and barn, the total cost may run up to four or five hundred dollars. But if the first cost seems great, the ultimate advantage is probably well worth the outlay. Abundance of pure water is almost certain to save several large doctor bills in the course of one's life, besides the great advantage to stabled stock always having before them abundance of pure water at suitable temperature, and last, but not least, the immense saving of labor in pumping. Labor takes time, and time is money.

Since the commutation of statute labor in the various townships, we have watched with interest the effect upon our roads, and if our observation is correct, we are bound to say that the ideal of the advocates of the new system has not yet been reached. We believe that for general traffic the surface has been greatly improved. A system of general repair rather than indiscriminate building up has been followed, producing less inconvenience from new gravel and a better apportionment of the material. The more liberal use of the grader has also greatly benefited in smoothing the surface and allowing opportunity for water to escape. But we cannot help an uneasy impression that this is largely being done at the expense of past labor. Good roads cannot be made without material, and plenty of it. There is a constant and heavy wearing, due largely to narrow tires, and this must be replaced by large quantities of material, and for this work the statute labor system was generally superior in getting a maximum amount of material with a minimum of cost to the taxpayer. Apparently, for fear of arousing hostility to the new system of direct taxation, many townships have been scrimping the supply of material, but cannot do so long with impunity. We think that if this objection were overcome, and the pathmaster's duties more clearly defined and enforced, we would much prefer the present system to the former. But under any system, never expect to see really good roads till the gravel is screened and wide tires adopted. J.H.B.

### Lincoln County Prospering.

The year of 1903 was one of plenty and prosperity throughout Lincoln County. Well-filled barns and granaries bespeak the success that has crowned the efforts of the farmer in Niagara Peninsula. The spring opened full, with little freezing and thawing, which is so disastrous to wheat and clover. Although the land worked somewhat hard, the spring crop was put in in very good shape. In 1902, the grass pea was a total failure, turning only about two and a half to three bushels per acre, and many farmers thought that 1903 might prove better. Consequently, quite a large acreage was sown, with but little better results. In some cases, an average yield was fourteen bushels per acre. Outside the grass pea, the crop yield was splendid. Oats turned out well, both in weight and quantity. The American Banner variety stands the test here about as well as any variety that has been tried. Spelt is becoming quite a popular crop, too. Its yield in some instances is enormous. It makes a grand chop when mixed with some other grain. Corn did not do much for the first month or so after planting, but when a start was made it grew rapidly, and a good yield was the result. A great deal of fodder and ensilage corn is sown here of late.

The silo is becoming quite a popular thing here, and more dairy cows are being kept. Good grade cows sell from \$35 to \$55 in price.

Hay, which was a heavy crop, sells from \$8.50 to \$10.00. Quite a large amount of hay will be fed this winter, as the farmer is beginning to see the benefit of raising more cattle, instead of teaming his hay to market, thereby impoverishing his farm.

The root crop was grand, except turnips. These the louse destroyed. Mangels, both red and yellow, sugar beets and carrots were the heaviest yield for years.

There was a serious drawback in the apple business here on account of the "barrel famine." Many apples went to waste. Fall plowing was very backward, and a great amount of spring plowing will necessarily have to be done, which does not prove as satisfactory as fall plowing by far.

There have been a great many hogs shipped to Toronto and other places during the past couple of years, as many as 550 leaving Smithville station in one day. Hog-raising, too, has been more profitable for farmers than selling their grain, as it benefits their farms to a considerable extent.

Taking in all, the season that is past has been one of plenty, and the spirit of the farmer is more cheerful than it was some years ago. By the taking of the "Farmer's Advocate" and learning its principles of improved farming, the tiller of the soil can look to 1904 to be even more grand and prosperous.

I. E. N.

### P. E. Island.

We have had close winter here for about two weeks, but there has been very little snow—just enough to get round on with sleighs. The first week in December a combination sale of pure-bred cattle, sheep and swine was held on the Exhibition Grounds, Charlottetown. There was quite a large number of animals offered by Island breeders, but the sale was not a success, very few changing hands. The day was stormy, and the sale was not largely attended. Quite a large number of Island farmers attended the Winter Fair at Amherst. Roper Bros. had two of their Guernsey cows in the milking test, and got one first prize. A. Boswell, the noted sheep breeder, was a very successful exhibitor of sheep, and J. W. Calbeck, our leading Yorkshire breeder, got the cream of the prizes in his line, as well as a silver tea service and a silver cup which were given as specials. The Winter Fair was a grand success. The attendance was all that could be expected. Many of the animals shown would compare well with those we have seen at Guelph. Our Maritime Winter Fair is here to stay, and will be a great means of educating our farmers and inducing them to raise the quality of their products. It was the writer's first visit to this exhibition, and the size of the building, the number of animals exhibited—about 250 in all, without poultry, of which there were over 700 birds—the immense lecture-room, seating about 2,000 people, and full every afternoon and evening, was a great surprise to him. The addresses by Prof. Mills, O. A. C., Hon. John Dryden, J. H. Grisdale, Duncan Anderson and Prof. Andrews, of Mount Allison University, were of very great interest. We were especially interested in the address of Hon. John Dryden on "Aesthetic Agriculture," and in Prof. Andrews' address on "The Functions of Air in Agriculture." We would like to see many more of our farmers at this show, as we believe it to be the agricultural show par excellence of the Maritime Provinces.

The hog market has been badly demoralized here of late. There has been such a rush of hogs that the packers have had things all their own way. Best quality live hogs are now only worth 4c. A large proportion of our hogs are slaughtered, and either packed here or shipped in carcass to St. John and Halifax. There is a large trade the last two months between here and Sydney and other Maritime ports in beef quarters. Shipments of smelts are large, and the price good. This latter business gives employment to farmers during the first of the winter, and is often quite profitable.

We look forward with interest to the weekly "Farmer's Advocate," and we predict for it a still larger field and greater usefulness than it has enjoyed previously. We know of no agricultural journal that has in the past been such a great factor in improve-

ment along agricultural lines. Wishing the "Advocate" every success, and its staff the compliments of the season.

W. S.

### The Voice of the People.

Jas. Currie, Prince East, P. E. I., says:—"I don't want to miss a copy of the 'Advocate,' for it is a great paper. I will try to get new subscribers."

Jas. Lindsay, Sr., Wellington Co., Ont.:—"I don't want to lose any of the numbers of the 'Advocate.' We are well pleased with it, and would not like to do without it. I wish you every success in your new venture."

E. W. Common, Fillmore, N. Y., U. S. A.:—"The 'Advocate' is one of the leaders of the day. I should have liked to have got you more subscribers, but it is impossible at present. Maybe, later on, I can help to get you a few more."

A. B. Clarke, King's Co., N. S.:—"I did not have any trouble in getting the new subscriber. He just said, 'Well, I used to take that paper, and I know what I am getting.'"

Geo. F. Bellamy, Durham Co., Ont.:—"I also congratulate you upon sending this wonderful and helpful paper as a weekly."

Robert Harvey, Maisonneuve, Que.:—"I have much pleasure in sending the name of a new subscriber, accepting your offer with thanks. I am looking forward to getting your paper every week, and would not be without it—even if it cost double the money for all the valuable information we get in it."



Hon. A. G. Blair.

Late Dominion Minister of Railways and Canals; recently appointed chairman of the Canadian Railway Commission.

H. I. Elliott, Richmond Co., Que.:—"I am sure the farmers and public will appreciate your efforts, which will make the 'Farmer's Advocate,' not only the leading farm journal in Canada, but on the continent. Wish you every success and the compliments of the season."

Geo. Mansfield, Carleton Co., Ont.:—"I still have the knife I received from you two years ago, and it is as good as ever yet. Wish you every success."

S. Smith, New Westminster, B. C.:—"We appreciate your enterprise in giving us a weekly instead of a semi-monthly paper."

Blake Mott, Leeds Co., Ont.:—"I will try to get you some more subscribers, and I wish to say the 'Farmer's Advocate' is the very best, and ought to be in every home."

S. G. Hogle, Lennox Co., Ont.:—"I am sending you one new subscription with my own, according to your offer. I can always recommend the 'Advocate' to every one who wants a first-class farm paper. It always seemed a long time between 'Advocates,' and I do not think there will be any too many if they come every week. I wish you success in your new venture, and all the compliments of the season."

Alex. Hunter, Wellington Co., Ont.:—"I have read your paper for a long time. I got it first in 1866. I am getting to be an old man now, but I made up my mind to keep it on. If you will send me some blank forms I think I can get you some new subscribers. I am a great bee man, so I only farm twenty-five acres; but my son farms, and I got him to send for the 'Farmer's Advocate,' too. I always speak a good word for the 'Farmer's Advocate.' Please send me some sample copies."

W. J. Owens, Carleton Co., N. B.:—"I consider the 'Advocate' the best farmer's paper in Canada or the United States. It ought to be taken by every farmer."

### The C. P. R. Irrigation Scheme.

Speaking recently of the C. P. R. irrigation project in Alberta, Superintendent of Irrigation, J. S. Dennis, stated that extensive engineering surveys have been completed, and they are now considering the actual work of canal construction.

The main canal will head in the Bow River, on the east side, about three miles below Calgary. This canal will carry two thousand cubic feet of water per second, but to convey a more graphic illustration of its size to the ordinary reader it may be stated that it will be sixty feet wide in the bottom, and will carry water to a depth of ten feet. The main canal is about twenty miles long, and is simply a transporting artery to bring the main body of water from the river to the most convenient point for distributing it throughout the area.

At its easterly end, the water is taken out in three secondary canals, which are located along the heights of land so as to enable the water carried therein to be easily distributed over the smaller areas which will be cultivated.

The secondary canals so far located comprise a length of about one hundred miles, and the total mileage of distributing canals will ultimately reach some four hundred miles in length. It is expected that about fifteen hundred thousand acres of land will be irrigated within the block of three million acres when the scheme is finally completed, the balance of the block being devoted to grazing and dairy farming.

It is not, of course, intended to proceed at once to construct the whole system of distributing canals, but simply to put in the main canal, and then build the secondary or distributing canals as the demand for land arises and development warrants, and it will probably take several years to complete the whole system, which, in its completed state, is expected to cost about four million dollars.

If this scheme is carried through, it will have the result of transforming a tract of country one hundred and fifty miles in length from east to west, by fifty miles from north to south, now only the home of a few scattered bands of cattle, into a densely populated and prosperous agricultural district, with the centers of trade and industries naturally resulting therefrom, and the company will be in a position to point with pride to one of the great undertakings of the West, whose ultimate object is to make happy homes for a large and prosperous agricultural population.

### Good Year in Lanark.

I am quite satisfied in the "Farmer's Advocate," without any premium. We have had a very successful season here. We sold a pair of Clyde fillies—one three, the other four years old—for \$800. Cattle sold well all through the autumn months—two-year-olds for \$30, \$35 and \$38; lambs, \$3.50 to \$3.75 per 100 lbs., live weight, and turkeys, 15c. per lb., dressed. Our wheat averaged twenty-six bushels to the acre; variety, Red Fife. I would like Western breeders, when advertising in the "Advocate," always to give their county. Here, in the East, we know all the counties in Ontario, yet there are a number of small towns we do not know, unless we look them up on the map. We find that seed grain from Ottawa or Guelph Experimental Farms yields well when other home-grown grains are almost a failure. The Ontario Government should pay the salaries of the instructors for cheese factories. We had a grand season in the cheese business—high prices all through, and number one cheese.

Wishing you a prosperous New Year for the "Advocate," I remain,  
JAMES G. KIDD.  
Lanark Co., Ont.

### World's Fair Monthly.

The World's Fair Pub. Co., of St. Louis, U. S. A., is issuing, monthly, a most elaborate bulletin, whose purpose is to set forth the multifarious attractions which are to make St. Louis the Mecca for sight-seers next summer. Judging from the December number, of which we are in receipt, we should say that the great fair of St. Louis promises to be in no way inferior to those of Paris and Chicago; in fact, its promoters propose to outdo all that ever has been in the exposition line.

### Railway Commission Chairman.

Hon. Andrew George Blair, K. C., who a few months ago resigned his position as Minister of Railways and Canals, owing to his disagreement with the Dominion Government in regard to the proposed construction of the Quebec-Moncton division of the Grand Trunk Pacific Railway, has now been appointed chairman of the Canadian Railway Commission, the act for which was passed at last session of Parliament. Hon. Mr. Blair was the author of the Bill, and piloted it through the House, and it is believed to be the best that has yet been devised in any country for the regulation of railways and rates in the interests of the people. Mr. Blair is of Scottish descent, being born on March 7th, 1844, at Fredericton, N. B. After practising law for twelve years, he entered Provincial politics in 1878, and was for many years Premier of New Brunswick. In 1896, he entered the Dominion Government under Premier Laurier as Minister of Railways and Canals, holding office till his recent resignation. It is understood his salary as chairman of the commission will be \$10,000 per year. Mr. Blair has the reputation of being a fighter, and can, if he will, be of great and vital service to the most important of Canadian industries—agriculture—and in the mutual development of trade between the west and the east.

**Duty on Horses.**

A deputation from the Canadian Horse-breeders' Association waited on the Dominion Government on January 8th, asking that, instead of the present twenty-per-cent. duty on horses coming into Canada, the tariff be raised to \$30 on horses of the value of \$150 and under, which is the U. S. rate; over \$150 in value, the U. S. rate is twenty-five per cent. ad valorem. A great deal of surplus U. S. scrub horse stock of low valuation is run into Canada and sold, to the detriment of Canadian horse interests. Pure-bred stock for breeding purposes enters free, but complaint is made that spurious pedigrees have been used for that purpose. The Government promised to consider the matter carefully.

**N. S. Farmers' Association.**

The annual convention of the Nova Scotia Farmers' Association will be held in Truro, on Tuesday, Wednesday and Thursday, February 2nd, 3rd and 4th, at which a large attendance of delegates from agricultural societies and county farmers' associations is expected. A cordial invitation is extended to all agriculturists and those interested in rural pursuits to be present. This promises to be the most profitable convention ever held by the Association. Besides general business, addresses will be given by prominent practical agriculturists, and the afternoon sessions will be held in the new live-stock pavilion, at the Provincial Farm, when demonstration lectures, with live animals as objects, will be given. Reduced railway rates will be given by asking at starting point for a one-way first-class ticket to Truro and a standard certificate, which, on being signed by the secretary at the convention, entitles the bearer to a return ticket free. Mr. Chas. R. B. Bryan is the secretary.

**MARKETS.**

**Chicago Live Stock Market.**

Chicago.—Cattle—Good to prime steers, \$5 to \$5.65; poor to medium, \$3.50 to \$4.90; stockers and feeders, \$2.35 to \$4.25; cows, \$2 to \$4.50.  
Hogs—Market steady; mixed and butchers', \$4.60 to \$4.95; good to choice heavy, \$4.85 to \$5; rough heavy, \$4.60 to \$4.80; light, \$4.50 to \$4.70.  
Sheep—Sheep and lambs steady; good to choice wethers, \$4.10 to \$4.50; fair to choice mixed, \$3.25 to \$4; native lambs, \$4 to \$6.30.

**Montreal Markets.**

Montreal.—About 1,100 head of cattle, 60 calves, 80 sheep and lambs, and 35 milch cows offered. Trade good, but prices of cattle considerably lower than last week, the decline being greatest in common stock, which constituted more than three-fourths of the offerings. Prime heaves, 4½c. to 5c. per lb.; pretty good, 4½c. to 4¾c., and common stock, 2½c. to 3¼c., and the lean canners at 1½c. to 2c. per lb. Most calves (young "bobs"), about \$3 each. Sheep, 3½c. to 3¾c., and lambs, 4½c. to 4¾c. per lb. Good lots of fat hogs, 5½c. per lb. Milch cows, slow sales, and prices lower than in autumn, a few going from \$25 to \$50 each.

**Buffalo Markets.**

East Buffalo.—Cattle—Steady, unchanged.  
Hogs—Heavy and mixed, \$5.30 to \$5.35.  
Sheep and Lambs—Lambs, \$5 to \$6.60; yearlings, \$4.75 to \$5.50; wethers, \$4.50 to \$4.75; ewes, \$4 to \$4.25; sheep, mixed, \$2.50 to \$4.25.

**British Cattle Market.**

London.—10c. to 12c. per lb. for American steers, dressed weight; Canadian steers, 9½c. to 11¼c. per lb.; refrigerator beef, 8c. per lb. Sheep, 11¼c. to 12¼c. per lb. Lambs, 13¼c., dressed weight.  
Liverpool.—American cattle, 5½d. to 5¼d.

Read Theo. Noel's full-page announcement regarding the remedy, "Vitæ-Ore," on back cover of this issue.

**Toronto Markets.**

War reports have been causing, and are likely to cause, slight variations in the price of wheat, but the monotony of the daily reports of the very serious condition of affairs in the East has had a tendency to allay the nervousness of the market. Oatmeal has at last responded to upward pressure, and is now quoted 30c. per bag higher. The cattle trade still continues slow, owing, dealers say, to dullness in the British market. The receipts of stock on the Toronto markets have not been large of late, and everything offered has been readily bought. The quality of fat cattle offered has, on the whole, been moderately good. Best butchers' are quick sellers. The situation in hog prices about Peterboro last week is explained by the activity of the local factory and the presence of Montreal buyers. More settled conditions now prevail. An advance of 10 cents over last week is quoted here. Slight advances in meats are reported from the British market.

Quotations on this market are:  
Exporters—Best loads, \$4.50 to \$4.75 per cwt.; medium, \$4.25 to \$4.50.



**Diamond = 44695 =**

A Scotch bull of the Miss Ramsden family. Calved August 18th, '02. Weight, 1,195 lbs. at one year old. First in junior yearling class at Toronto, '03. Property of W. D. Platt. To be sold at the joint sale at Hamilton, Ontario, January 20th, '04

Bulls, \$4 to \$4.25.  
Cows, \$3.60 to \$4 per cwt.  
Butchers' Cattle—Choice picked lots, 1,100 to 1,175 lbs. each, equal in quality to the best exporters, \$4.30 to \$4.70; good, \$4 to \$4.25; fair to good, \$3.60 to \$3.85; common, \$3.15 to \$3.30; rough to inferior, \$2.25.  
Feeders—Steers of good quality, 1,050 to 1,150 lbs., \$3.50 to \$3.80 per cwt.  
Bulls—Bulls for the distillery byes, \$2.50 to \$3.  
Stockers—One-year to two-year-old steers, 400 to 700 lbs. each, \$2.75 to \$3 per cwt.; off-colors and of poor breeding quality, of same weights, \$2 to \$2.50 per cwt.  
Milch Cows—Milch cows and springers, \$35 to \$55.  
Calves—Calves, \$2 to \$10 each, or from \$4 to \$5.50 per cwt.  
Sheep—\$3.25 to \$3.75 per cwt. for ewes, and bucks, \$2.50 to \$3.  
Spring Lambs—\$4.40 to \$4.60 per cwt., and \$4.75 to \$5 for choice ewes and wethers for export.

Hogs—Best select bacon hogs, fed and watered, \$5.25; lights and fats, \$5; sows, \$3.50 to \$3.75; and stags, \$2 to \$2.50.

**PRODUCE.**

**Wholesale Prices.**

Flour—Manitoba, first patents, \$4.80 to \$4.90; Manitoba, second patents, \$4.50 to \$4.60; and \$4.40 to \$4.50 for strong bakers', bags included, on track at Toronto; ninety-per-cent. patents, in buyers' bags, east or middle freight, \$3 to \$3.05; Manitoba bran, sacked, \$18 per ton; shorts, sacked, \$20 per ton, at Toronto.  
Wheat—Red and white are worth 78c., middle freights; goose, 72c., middle; Manitoba No. 1 hard, 97c. to 98c., grinding in transit; No. 1 northern, 94c.  
Barley—No. 2, 42c.; No. 3X, 39c. to 40c.; and No. 3, 36c. for export.  
Oats—Oats are quoted at 27c. north, 28c. middle, 30c. east, for No. 1.  
Corn—Canadian, arriving in poor condition, at 42c. to 44c.; American, 55c., on track at Toronto.  
Peas—Peas, 61½c. bid, high freight.  
Rye—Quoted at about 52c. middle, and 52c. east.  
Buckwheat—Buckwheat, 47c., eastern freights.  
Oatmeal—\$4.10 in bags, and \$4.25 in barrels, car lots, on track, Toronto; broken lots, 30c. higher.  
Bran—City mills sell bran at \$16, and shorts at \$18, car lots, f. o. b. Toronto.

Hay, baled, car lots, ton .....\$9.00 to \$9.50  
Straw, baled, car lots, ton ..... 5.00 to 5.75  
Dressed hogs, car lots ..... 6.10 to 6.15  
Potatoes, car lots ..... 80 to 85  
Butter, dairy, lb. rolls ..... 17 to 18  
Butter, tubs, lb. .... 16 to 17  
Butter, creamery, lb. rolls ..... 22 to 28  
Butter, creamery, boxes ..... 20 to 22  
Butter, bakers', tub ..... 14 to 15  
Eggs, new-laid, doz ..... 20 to 22  
Turkeys, per lb. .... 10 to 12  
Geese, per lb. .... 10 to 11  
Ducks, per pair ..... 75 to 1.00  
Chickens, per pair ..... 60 to 1.00  
Honey, per lb. .... 8 to 9  
Cheese—Trade is quiet. The tone is firm. Cheese, large, per lb., 10½c. to 11½c.; cheese, twins, 11½c.

**SEEDS.**

Market is not booming, but prices continue fair. Red clover shows more activity than alsike. Prices are: Alsike, choice, \$5.50; lower grades, down to \$4; red clover, \$5.50 to \$6.25; timothy, \$1.50 to \$1.75.

**RETAIL PRICES, TORONTO STREET MARKET.**

Wheat, red, bush .....\$ 0.81½  
Wheat, white ..... 82  
Wheat, spring ..... 83½  
Wheat, goose ..... 74 to \$ 0.75½  
Barley ..... 43 to 46  
Beans ..... 1.35  
Peas ..... 55  
Rye ..... 54  
Oats ..... 32 to 32½  
Hay, timothy, per ton ..... 10.00 to 11.00  
Hay, clover, per ton ..... 6.00 to 8.00  
Straw, per ton ..... 9.00 to 10.00  
Dressed hogs, per cwt. .... 7.50 to 7.75  
Heavies ..... 7.00 to 7.25  
Potatoes, per bag ..... 70 to 77  
Turkeys, per lb. .... 15 to 16  
Geese, per lb. .... 11 to 12  
Ducks, per lb. .... 13  
Chickens, per pair ..... 75 to 1.50  
Chickens, very choice, per pair 1.75  
Eggs, new-laid, per doz ..... 40 to 45  
Apples, per bbl. .... 1.00 to 2.00

**Live-stock Shipments.**

Bickerdike & Co., Ltd., Montreal, compile the following statement of live stock shipped from the ports of St. John and Portland for week ending January 4th: Cattle, 2,082; sheep, 888.

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"Still one word, as a motto, we will write  
Upon the forehead of the newborn year,  
May it be ours till faith is lost in sight.  
May it be our strong hope to banish fear;  
That word is 'hope,' and may its cheering light,  
Through storm or sunshine, still be clear and bright."

**A FAIR BARBARIAN.**

BY FRANCES HODGSON BURNETT.

CHAPTER IV.—Continued.

"Don't you think it is nicer out here?" said Octavia.

"My dear," answered Miss Belinda. "Lady Theobald"—She was really quite shocked. "Ah!" interposed Octavia. "I only thought it was cooler."

She preceded them, without seeming to be at all conscious that she was taking the lead.

"You had better pick up your dress, Miss Octavia," said Lady Theobald rather acidly.

The girl glanced over her shoulder at the length of train sweeping the path, but she made no movement toward picking it up.

"It is too much trouble, and one has to duck down so," she said. "It is bad enough to have to keep doing it when one is on the street. Besides, they would never wear out if one took too much care of them."

When they went into the parlor, and sat down, Lady Theobald made excellent use of her time, and managed to hear again all that had tried and bewildered Miss Belinda. She had no hesitation in asking questions boldly; she considered it her privilege to do so, she had catechised Slowbridge for forty years, and meant to maintain her rights until Time played her the knave's trick of disabling her.

In half an hour she had heard about the silver-mines, the gold-diggers, and L'Argentville; she knew that Martin Bassett was a millionaire, if the news he had heard had not left him penniless; that he would return to England, and visit Slowbridge, as soon as his affairs were settled. The precarious condition of his finances did not seem to cause Octavia much concern. She had asked no questions when he went away, and seemed quite at ease regarding the future.

"People will always lend him money, and then he is lucky with it," she said.

She bore the catechising very well. Her replies were frequently rather trying to her interlocutor, but she never seemed troubled, or ashamed of anything she had to say; and she wore, from first to last, that inscrutably innocent and indifferent little air.

She did not even show confusion when Lady Theobald, on going away, made her farewell comment:—

"You are a very fortunate girl to own such jewels," she said, glancing critically at the diamonds in her ears; "but if you take my advice, my dear, you will put them away, and save them until you are a married woman. It is not customary, on this side of the water, for young girls to wear such things—particularly on ordinary occasions. People will think you are odd."

"It is not exactly customary in America," replied Octavia, with her undisturbed smile. "There are not many girls who have such things. Perhaps they would wear them if they had them. I don't care a very great deal about them, but I mean to wear them."

Lady Theobald went away in a dudgeon.

"You will have to exercise your authority, Belinda, and make her put them away," she said to Miss Bassett. "It is absurd—besides being atrocious."

"Make her!" faltered Miss Bassett.

"Yes, 'make her'—though I see you will have your hands full. I never heard such romancing stories in my life. It is just what one might expect from your brother Martin."

When Miss Bassett returned, Octavia was standing before the window, watching the carriage drive away, and playing absently with one of her earrings as she did so.

"What an old fright she is!" was her first guileless remark.

Miss Belinda quite bridled.

"My dear," she said, with dignity, "no one in Slowbridge would think of applying such a phrase to Lady Theobald."

Octavia turned around, and looked at her.

"But don't you think she is one?" she exclaimed. "Perhaps I oughtn't to have said it; but you know we haven't anything as bad as that, even out in Nevada—really!"

"My dear," said Miss Belinda, "different countries contain different people; and in Slowbridge we have our standards"—her best cap trembling a little with her repressed excitement.

But Octavia did not appear overwhelmed by the existence of the standards in question. She turned to the window again.

"Well, anyway," she said, "I think it was pretty cool in her to order me to take off my diamonds, and save them until I was married. How does she know whether I mean to be married, or not? I don't know that I care about it."

CHAPTER V.

Lucia.

In this manner Slowbridge received the shock which shook it to its foundations, and it was a shock from which it did not recover for some time. Before ten o'clock the next morning everybody knew of the arrival of Martin Bassett's daughter.

The very boarding-school (Miss Pilcher's select seminary for young ladies, "combining the comforts of a home," as the circular said, "with all the advantages of genteel education") was on fire with it, highly-colored versions of the stories told being circulated from the "first class" downward, even taking the form of an Indian Princess, tattooed blue, and with difficulty restrained from indulging in war-whoops,—which last feature so alarmed little Miss Bigbee, aged seven, that she retired in fear and trembling, and shed tears under the bedclothes; her terror and anguish being much increased by the stirring recitals of scalp-stories by pretty Miss Phipps, of the first class—a young person who possessed a vivid imagination, and delighted in romances of a tragic turn.

"I have not the slightest doubt," said Miss Phipps, "that when she is at home she lives in a wampum."

"What is a wampum?" inquired one of her admiring audience.

"A tent," replied Miss Phipps, with some impatience. "I should think any goose would know that. It is a kind of tent hung with scalps and—moccasins, and—jariats—and things of that sort."

"I don't believe that is the right name for it," put in Miss Smith, who was a pert member of the third class.

"Ah!" commented Miss Phipps, "that was Miss Smith who spoke, of course. We may always expect information from Miss Smith. I trust that I may be allowed to say that I think I have a brother"—

"He doesn't know much about it, if he calls a wigwam a wampum," interposed Miss Smith, with still greater pertness. "I have a brother who knows better than that, if I am only in the third class."

For a moment Miss Phipps appeared to be meditating. Perhaps she was a trifle discomfited; but she recovered herself after a brief pause, and returned to the charge.

"Well," she remarked, "perhaps it is a wigwam. Who cares if it is? And at any rate, whatever it is, I haven't the slightest doubt that she lives in one."

This comparatively tame version was, however, entirely discarded when the diamonds and silver-mines began to figure more largely in the reports. Certainly, pretty, overdressed, jewel-bedecked Octavia gave Slowbridge abundant cause for excitement.

After leaving her, Lady Theobald drove home to Oldclough Hall, rather out of humor. She had been rather out of humor for some time, having never quite recovered from her anger at the daring of that cheerful builder of mills, Mr. John Burmestone. Mr. Burmestone had been one innovation, and Octavia Bassett was another. She had not been able to manage Mr. Burmestone, and she was not at all sure that she had managed Octavia Bassett.

She entered the dining-room with an ominous frown on her forehead.

At the end of the table, opposite her own seat, was a vacant chair, and her frown deepened when she saw it.

"Where is Miss Gaston?" she demanded of the servant.

Before the man had time to reply, the door opened,

and a girl came in hurriedly, with a somewhat frightened air.

"I beg pardon, grandmamma dear," she said, going to her seat quickly. "I did not know you had come home."

"We have a dinner-hour," announced her ladyship, "and I do not disregard it."

"I am very sorry," faltered the culprit.

"That is enough, Lucia," interrupted Lady Theobald; and Lucia dropped her eyes, and began to eat her soup with nervous haste. In fact, she was glad to escape so easily.

She was a very pretty creature, with brown eyes, a soft white skin, and a slight figure with a reed-like grace. A great quantity of brown hair was twisted into an ugly coil on the top of her delicate little head, and she wore an ugly muslin gown of Miss Chickie's make.

For some time the meal progressed in dead silence; but at length Lucia ventured to raised her eyes.

"I have been walking in Slowbridge, grandmamma," she said, "and I met Mr. Burmestone, who told me that Miss Bassett has a visitor—a young lady from America."

Lady Theobald laid her knife and fork down deliberately.

"Mr. Burmestone?" she said. "Did I understand you to say that you stopped on the roadside to converse with Mr. Burmestone?"

Lucia colored up to her delicate eyebrows and above them.

"I was trying to reach a flower growing on the bank," she said, "and he was so kind as to stop to get it for me. I did not know he was near at first. And then he inquired how you were—and told me he had just heard about the young lady."

"Naturally!" remarked her ladyship sardonically. "It is as I anticipated it would be. We shall find Mr. Burmestone at our elbows upon all occasions. And he will not allow himself to be easily driven away. He is as determined as persons of his class usually are."

"Oh grandmamma!" protested Lucia, with innocent fervor. "I really do not think he is—like that at all. I could not help thinking he was very gentlemanly and kind. He is so much interested in your school, and so anxious that it should prosper."

"May I ask," inquired Lady Theobald, "how long a time this generous expression of his sentiments occupied? Was this the reason of your forgetting the dinner-hour?"

"We did not"—said Lucia guiltily: "it did not take many minutes. I—I do not think that made me late."

Lady Theobald dismissed this paltry excuse with one remark,—a remark made in the deep tones referred to once before.

"I should scarcely have expected," she observed, "that a granddaughter of mine would have spent half an hour conversing on the public road with the proprietor of Slowbridge Mills."

"Oh grandmamma!" exclaimed Lucia, the tears rising in her eyes: "it was not half an hour."

"I should scarcely have expected," replied her ladyship, "that a granddaughter of mine would have spent five minutes conversing on the public road with the proprietor of Slowbridge Mills."

To this assault there seemed to be no reply to make. Lady Theobald had her granddaughter under excellent control. Under her rigorous rule, the girl—whose mother had died at her birth—had been brought up. At nineteen she was simple, sensitive, shy. She had been permitted to have no companions, and the greatest excitements of her life had been the Slowbridge tea-parties. Of the late Sir Gilbert Theobald, the less said the better. He had spent very little of his married life at Oldclough Hall, and upon his death his widow had found herself possessed of a substantial, gloomy mansion, an exalted position in Slowbridge society, and a small marriage-settlement, upon which she might make all the efforts she chose to sustain her state. So Lucia wore her dresses a much longer time than any other Slowbridge young lady; she was obliged to mend her little gloves again and again; and her hats were retrimmed so often that even Slowbridge thought them old-fashioned. But she was too simple and sweet-natured to be much troubled, and indeed thought very little about the matter. She was only troubled when Lady Theobald scolded her, which was by no means infrequently. Perhaps the straits to

which, at times, her ladyship was put to maintain her dignity imbibed her somewhat.

"Lucia is neither a Theobald nor a Barold," she had been heard to say once, and she had said it with much rigor.

A subject of much conversation in private circles had been Lucia's future. It had been discussed in whispers since her seventeenth year, but no one had seemed to approach any solution of the difficulty. Upon the subject of her plans for her granddaughter, Lady Theobald had preserved stern silence. Once, and once only, she had allowed herself to be betrayed into the expression of a sentiment connected with the matter.

"If Miss Lucia marries"—a matron of reckless proclivities had remarked.

Lady Theobald turned upon her, slowly and majestically.

"If Miss Gaston marries," she repeated. "Does it seem likely that Miss Gaston will not marry?"

This settled the matter finally. Lucia was to be married when Lady Theobald thought fit. So far, however, she had not thought fit: indeed, there had been nobody for Lucia to marry,—nobody whom her grandmother would have allowed her to marry, at least. There were very few young men in Slowbridge; and the very few were scarcely eligible according to Lady Theobald's standard, and—if such a thing should be mentioned—to Lucia's, if she had known she had one, which she certainly did not.

(To be continued.)



The following paper on "Unseen Forces" was sent in by Mr. Lawrence, one of the "Advocate" readers. Feeling sure that you will be pleased with it, I have great pleasure in standing aside for once, asking you to give Mr. Lawrence's paper the attention it deserves. HOPE.

### The Unseen Forces Around Us.

When we plant or sow the seed in the spring, we expect that it will sprout and grow and develop, but do we understand the process of thus growing or developing? Can we tell how the plant is able to draw the nourishment it requires from the soil through its roots, or from the atmosphere through its leaves? I am afraid we understand these processes but very imperfectly; yet there is a very great force at work all summer long in the growth and maturity of the various plants on the farm, and it is so much of an everyday occurrence for us to look over the growing crops that we often forget to think with gratitude of the all-wise and beneficent Creator who created all this beautiful world for man's use and benefit, and who sends the rain and sunshine to make the crops grow for the sustenance of man and beast, and the wise Creator ordered that every grain should reproduce its own kind.

The wind is another great force which we cannot see. We are able often to see the effects of its workings, and to feel its power, but we cannot see the power itself. How truly the Great Teacher spoke when He said, "The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh or whither it goeth?" The wind has been made more or less servicable to man for a long period, but it is only in later years that this great force has been practically hatched up, as it were, for the benefit of the farmer. The old style of windmill was hard to manage, but the modern motors are almost perfectly under the control of man, and on very many farms the wind-motor is almost a necessity for pumping purposes and also for power required for other work.

Electricity is another great unseen force, created by the founder of the Universe. Some years ago I was conversing with a friend about some of Solomon's sayings, when I happened to remark that I was afraid that the wise man had made a slight mistake when he wrote that there was nothing new under the sun, for there were no electric telegraph, telephone or cars in his day, and we have all these now. "Ah, but," my friend replied, "there has been no new force or principle or power in the world; all were made by God when He created the world; the electrical current was just as powerful in Solomon's time as it is to-day, but man has only lately learned how to hitch up this great unseen force for his use and benefit." Man is

ever learning and improving, but God had just as much wisdom when He created the world as He has to-day. Of course, I do not understand much about electricity, but I was very much interested when, on one occasion, I happened to be on a business trip to a distant town, which was very hilly. I was returning on the street car from an outing in the park; the car was so crowded that not another person could get even standing room, but we rode up and down these hills just the same as if the road had been level; the electrical current was sufficiently powerful to, as it were, overcome all drawbacks and hindrances, and we were carried into town as easily and smoothly as if the road had been perfectly level. It would have been an impossibility to have hitched enough horses to that car to have drawn it up these hills at an even rate of speed.

But great and mysterious as these unseen forces of which we have been speaking undoubtedly are, there is a still greater and more mysterious force in operation all around us. When I was living in sin I was, as it were, impelled and driven on to evil by an unseen force which I could not resist, however hard I might try, but when I was led to realize how utterly helpless and impotent I really was, then I cried unto God in my distress, and He graciously heard my cry and showed me how to get connection with the electrical current of His grace, and after turning right about from following evil, I am carried along in His service by the mighty, irresistible power of His Holy Spirit, which enables me to overcome all obstacles. I have heard people say that they would never accept religion until they could understand it, yet these people will admit that they do not understand how the electrical current lights the city and moves the cars along the streets, yet these same parties make use of the light and power given out by electricity, although they understand little or nothing of its workings. Now, is not this refusal on their part to accept God's power to guide and lead them, because they do not understand it, a very foolish and suicidal act? All your load will not hinder or weaken God's power in the very least. Giving of power does not impoverish Him, nor does withholding make Him rich. So then, in His name, and as His ambassador, I ask of you to give up being impelled by the force of evil, but turn to God, seek His free pardoning mercy, and bring your lives into connection with the great unseen force of His Holy Spirit, which will enable you to overcome every temptation and will give you a peace and security obtainable in no other way.

"The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh, and whither it goeth; so is everyone that is born of the Spirit."

## HEALTH IN THE HOME.

By a Trained Nurse

### Colds and Their Treatment.

This is the season of coughs and colds, many of which, however, may be prevented. Those who keep fresh air in their houses, heat them evenly and not too much, who eat wholesome food, and are properly clothed, are not very much at the mercy of the weather. After washing with warm water and soap for cleanliness, a dip in a cold bath, or a rapid cold sponge is an excellent preparation for a cold day. There are some people for whom this is not advisable, but it is of great benefit to the majority. Frequent bathing and rubbing of the skin is a help to good circulation, and, consequently, a protection against cold. A hot bath should be followed by a cold sponge, unless taken to induce perspiration, or ordered by the doctor for some special reason, in which case he will give directions about it. If the house is kept as warm as 70° F., heavy flannels should not be worn indoors. Very little more than summer clothing is required in such a temperature.

### WRAP UP WARMLY WHEN GOING OUT.

When people are tired, or hungry, or nervous, they are apt to feel cold, and an extra wrap is then useful and comfortable, but half an hour after the meal, and a short rest, the chilliness and nervousness usually disappear, the wrap becomes unnecessary, and should be put off. This cannot be done with heavy underclothing, and is one reason for not wearing it. Indigestion and want of exercise have the same effect as hunger and fatigue as regards feeling cold, hence the importance of wholesome food and an active life. Farm life is necessarily active, but not always in the right way. The daily walk out of doors, in average weather, should not be neglected because of things to be done in the house. It is always more comfortable, and, in the long run, better policy to take time for the things that are necessary to good health. A healthy life, which consists chiefly in having the right amount each of pure air, pure water, good food, and sufficient clothing, together with plenty of work, and some interests apart from personal matters, is, in itself, a protection against all physical and many mental evils.

### HAVING A COLD.

This condition is made manifest to the individual by the discomfort consequent upon a general clogging of the pores of the skin and mucous membrane. Free perspiration, therefore, affords the quickest relief. A hard cold in the head may be broken up by steaming over a pitcher of boiling water, to which a little spirits of camphor may be added. Cover both head and pitcher with a towel, not to exclude air, but to make a sort of tent, and steam for five or ten minutes. When going to bed, soak the feet in mustard and water. Mix the mustard with cold water, and add the hot afterwards. Undress, then sit wrapped in blankets, with the feet in the tub, which should also be covered by the blankets, and keep them there for fifteen or twenty minutes, with the water as hot as possible, and well above the ankles. A cloth wrung out in very cold water should be bound around the head while taking the foot-bath, and it will help matters to drink cold water at the same time. This will probably cause perspiration. At the end of twenty minutes let the foot-bath be taken away, and rub dry all over with a clean towel before removing the blankets; quickly put on a fresh night garment, and get into bed. This is a good time for a glass of hot lemonade. One garment is enough to sleep in. If two are worn, they should be kept for use at night only. The room, of course, should be warm and well ventilated. If the patient feels too ill to sit up, a foot-bath can be given in bed, which proceeding will be described later.

A SORE THROAT OR HOARSENESS may be relieved by a cold compress at

night. This consists in wringing out one end of a towel in cold water, wrapping it around the neck, and then winding the rest of the towel over the wet part until it is entirely covered. Pin it securely, and leave it on until morning. It is also useful to gargle with quite warm salt and water, or, better still, baking soda and water—about a teaspoonful to half a tumbler.

For a cold on the chest, besides the foot-bath, put on a mustard paste. If there is pain in the chest, put the paste where the pain is. More than one paste can be used when there is a pain on both sides of the chest. Mix one spoonful of mustard and four of flour together with the white of an egg, and a little cold water if necessary. Plain water will do, but the white of egg prevents blistering—no small consideration. Lard will answer the same purpose. Spread the paste on a piece of old muslin, or an old handkerchief, larger than the paste is to be, and fold the excess of material over the back of it. When finished it should not be less than five inches square. Keep this on for about ten minutes, or until the skin is very red. It must not be allowed to blister. When the paste is taken off, dust the part with talcum powder, or ground starch, or burned flour, and cover with a piece of clean linen. Such cathartics as castor oil, Rochelle or Epsom salts and fluid extract of Cascara should always be in the house, and a dose given on general principles in case of a severe cold. A moderate dose of castor oil in the beginning of a cold is excellent. Salts should always be taken half an hour before food in the morning. It is better to take a moderate dose for two or three mornings than too large a dose at one time. Apart from this, drugs should not be used, unless prescribed by the physician. Nor should medicine prescribed for one member of the family be given to another without his permission. What is the best thing for one person may be quite the opposite for someone else, and what is good at one time may be the wrong thing for the same person at another time. The responsibility of giving drugs should not be assumed by any unauthorized person. If the measures herein mentioned do not give decided relief within twenty-four hours, the physician's presence is necessary. Send for him. If he is very far off, do not wait longer than sixteen or eighteen hours, and, until he comes, keep the sick person in bed, on a fluid diet.

### MILK IS THE BEST THING.

A tumbler nearly full every two hours is enough for a grown person. Many people who cannot take plain milk can take it diluted with water, either hot or cold. It is always safe for a sick person to drink as much cold water as he wishes, unless his stomach rejects it. If the water is not pure it should be boiled, and then it will do no harm.

If there is a cough, with expectoration, or a cold with a profuse discharge from the nose, clean rags, not handkerchiefs, should be used, and burned. Any rags that are clean will do, and should be saved for this purpose. When confined to bed, the sick person should be supplied with clean rags about four inches square. Each time it is necessary to expectorate, one of these should be used, then placed, carefully folded, in a covered basin—not a tin one, for that causes a nauseating odor. The rags thus collected should be burned as frequently as possible, and the basin itself cleaned thoroughly morning and night. Any member of a family having a cough or cold should be careful not to leave about a glass or cup that he has used where it may be used again by someone else before it has been washed. Care in these matters protects the rest of the family, and will be particularly gratifying to look back upon when it happens that what was supposed to be only a cold turns out to be pneumonia or a tubercular infection.

A. G. OWEN.

# The Children's Corner.

## Borrowing and Sorrowing.

By Elizabeth R. Burns.

He thought that his own was by far too small

To hold even half, to say nothing of all  
He wanted at Christmas; and so it seems, Ted

Just hung at the foot of his little bed  
A bicycle stocking, borrowed one day  
From a young man living three doors away.

To hang it himself the young man had a notion,  
But Christmas eve found him far out on the ocean.

More than astonished was old Santa Claus

To find how enormous the stocking was.  
"Why, how he has grown in a single year!

He was almost a baby last time I was here,

And now he's a man! Well, well!  
Every toy

Intended for him must go to some boy."

A bicycling man that went round in a ring;

A monkey that climbed up and down on a string;

The funniest set of Brownies; a top;

And books full of pictures. But I must stop,

I haven't the time to mention each one—  
A boy with all those could have lots of fun.

But Santa replaced them all in his pack,

And carried them off again on his back.

"It happens," he said, "that the other day

A young man who lives just three doors away

Was suddenly summoned across the sea,  
And I have his presents all here with me—

A gold-headed cane, some gloves, and a box

Of collars and cuffs, these hand-knitted socks,

And slippers embroidered in gold and blue,

A fine mustache cup, a silk tie or two,  
Some books about science, a shaving mug,

A good fountain pen, and a railway rug.  
I'll fill Teddie's stocking, how pleased he'll be!

"It's better than taking them back with me."

"Hurrah!" shouted Teddie, "the stocking's full!"

But oh, what a face for a boy to pull,  
And on Christmas morning too! And oh, fie!

It's surely a shame for a boy to cry.

"It's awfully mean to bring things like these!

Old Santa Claus did it, I know, to tease.

There isn't one thing that will suit a boy;

There's nothing that looks a bit like a toy;

And here's an old letter stuck in the toe:

"I never have seen such a boy to grow.  
And if you keep on at this rate, I fear,  
I'll find you a great-grandfather next year!

Your stocking won't need to be quite so big—  
I'll bring you some gold-bowed specs and a wig."

To the young man's home, just three doors away,

Ted carried the stocking that very day,  
And made up his mind that next Christmas eve

He'd hang his own stocking up, I believe;

For he doesn't like things that are miles too big,  
Nor does he want gold-bowed specs and a wig!

## The Doll's Bath.

Gretchen is a very lucky little girl, for three new dolls were hung on her little Christmas tree a few weeks ago. Hans, like the good brother that he is, finds time to help her to wash the very nicest one of the three, while the others stand in the watering-can until their turn comes.

Unfortunately, the lady Alexandra's clothes are not made to come off, and so she takes her bath without undressing. I am afraid she will look rather draggled and forlorn, like a hen in a thunderstorm, when she comes out. But Gretchen will love her as much as ever, and, after all, love is worth more than admiration—don't you think so? C. D.

Here are two letters received from prizewinners in our Christmas competition:

Broadview Farm, Pendennis, Man.,  
The Wm. Weld Co. : Dec. 10th, 1903  
I very thankfully received the prize you sent me.

I had not dared to hope to receive the prize, and even if I had, would not have expected to get anything so beautiful. I have not read any of Miss Yonge's works, but have heard that she is a good writer, so I hope to be still further pleased as well as benefited by the perusal of the book.



The Doll's Bath.

I am fond of writing stories, and would like to write for your paper.  
Sincerely yours,  
BERNICE VIDA COUSINS.

Dear Cousin Dorothy,—Thank you very much for the nice book received last night. I am much pleased with it. You say, in the "Farmer's Advocate," that no story is original except the one sent in by Bernice Cousins. This is a mistake. I read a great deal, and may have got some of my ideas in that way, but I did not copy a line of it. I like to write very much, and I am going to try in some other competitions. I remain,  
Yours sincerely,  
AMY C. PURDY.

I am glad you were pleased with your prizes—which were sent from the "Advocate" office, not from me—and I feel sure the other prizewinners were equally pleased. I am sorry your story was not acknowledged as original, Amy, but you did not mention the fact, and I naturally supposed that it was copied, as original stories were not asked for.

More than two months ago Grace Bennett suggested that we might

form a Children's Club. I shall be very glad to consider this question, now that the holiday season is over and we have room to discuss the subject. What kind of a club would you like to start? Can anybody make a suggestion as to rules and regulations? Any letters will reach me if addressed to the "Advocate" office, and I shall be glad of helpful suggestions from children large and small.  
COUSIN DOROTHY.

The poem at head of this department was sent in for our recent competition by Dena McLeod, aged 15.

Where there are school children in the family, good, rich soup should often be made for supper.

## Kind Appreciation.

Mrs. J. R. S., of Brule, N. S., writes, acknowledging prize received in guessing competition. She adds: "We all prize the good 'Advocate,' and wish it great success. I consider it good mission work to introduce it into homes, as the Sunday reading alone is so good and helpful. The Christmas number is grand, we are enjoying it so much."

We are very sorry that we had to leave out "The Children's Corner" in our last issue. It contained the Christmas story, sent in by Janet Waterman, "Li'le Pete's last Xmas." Our Home Dept. was shortened greatly to make room for advertisements which came in at the last moment.—[Editor Home Dept.]



## House Plants in Winter.

To begin with, it may be stated, as a general rule, that unless conditions are especially favorable, it is better to keep only a few plants during the winter. A few well-cared for, healthy and vigorous, are likely to give a great deal more pleasure, and be much less troublesome, than a host of weak, straggling ones.

Plants should never be crowded in a window. Practically, all of them need (as much light—and most of them as much sunshine—as they can possibly get, and how can they be supplied with these if pressed upon on all sides by surrounding foliage? A very good plan is to have window-shelves on strong brackets, one at the sill, one about two feet further up, and one above that again. Of course, the blind has to be run up to the top of the window, but who minds that when its place is taken by a living blind of green, interspersed with dainty blossoms? At any rate, light and sunshine are good for all the occupants of the house, as well as for the plants. It is impossible to have too much of either.

When shelves such as these are used, the tenderest plants may be placed on the upper shelf, where, of course, as heat rises, the temperature will suit them better, but it must be remembered that since evaporation is also greater up there, these plants will require water much more frequently than those on the lower shelves.

Having disposed of our plants, then, the great problem will be to keep them as nearly as possible at the same temperature. Cold air should not blow in upon them from about loose sashes. Where there are no storm-windows, and it is not necessary to open the window for purposes of ventilation, it is a good plan to paste narrow strips of paper or felt all over the cracks. The paper may be painted, with some tube paint and linseed oil, the exact shade of the woodwork, and will scarcely be noticeable. At night the blind should be drawn down next to the glass, and several thicknesses of newspapers added. When the cold is intense, and the house is not of the warmest, plants should be removed to a table as near the stove as pos-

sible, and covered with an inverted box which has been well papered inside with tar paper, or several plies of newspaper. . . . If plants should happen to get frozen, they should be removed into a cool, darkened room, or frost-proof cellar, and kept there for a few days. Above all things they should not be permitted to thaw out quickly. Sprinkling the leaves with cold water is often beneficial at such a time.

During the winter it will be necessary to apply fertilizers occasionally. Liquid manure is good for nearly all plants, and, if not too strong, is not likely to give much trouble on account of its odor. But if it be objected to, some good commercial fertilizer, which may be obtained from any seedsman, should be used. Begonias, it should be remembered, have an especial dislike to fertilizers of any description.

In watering, the nature of the plant should be studied. It stands to reason that bog-plants, such as the calla, umbrella plant, and some species of ferns, require a great deal of water, while those species whose nature it is to grow in rather arid districts—the cacti, for example—need comparatively little. As a general rule, all of the common varieties, with the exception of those mentioned above, and a few of their allies, should be watered only when the soil becomes dry. Then they should receive a thorough soaking with warm water. Many people find that very good results come from immersing plants in warm suds on wash day, the soapy water helping to keep the plants free from insect pests, as well as being a source of food for the roots. It should not be forgotten that the leaves should never be allowed to become covered with dust. Dust clogs the stomata, or little mouths, through which the plant breathes and obtains a part of its sustenance; hence, the leaves should be washed very often; or, still better, sprayed with a rubber sprinkler. Once a day is not too often for this operation.

It is, perhaps, scarcely necessary to mention that sun-loving plants should be given the sunniest situations. Of the common varieties, geraniums, roses, cacti, abutilon and heliotrope should be given the south windows; while asparagus, begonias, ferns, pelargoniums, velvet plants and leopard plants may be relegated to the north and east.

The care of house-plants does not take up so very much time, but never-ceasing vigilance is the price of the highest success with them.

FLORA FERNLEAF.  
"Farmer's Advocate" office, London, Ont.

The world is so full of a number of things!  
I am sure we should all be as happy as kings.

## INGLE NOOK CHATS

Dear Friends,—A popular aphorism is that "Great minds run alike." It would certainly seem so, judging from the matter of the first three letters which tumbled out from my "accumulation drawer" this morning. All three dealt with the arranging of the ideal home, a most pertinent and practical subject, especially at this season of the year, when the mind is, to a great extent, shut off from the fields, the woods, and the gardens, and confined to the house itself.

"A Farmer's Wife" (by the way, this pseudonym has been chosen by two of our correspondents) says:

"My Ideal of a farm home is a small, convenient kitchen, a large, airy dining-room with good hardwood floors of dark and light boards alternately at an angle of forty degrees. Have your wooden chairs here, and a good comfortable couch, also sideboard and extension table, which is so convenient at the threshing time; and a good-sized parlor, with a good Brussels or Wilton carpet and a suite of upholstered furniture, with not too much bric-a-brac, some nice cushions and pictures, and a musical instrument—a piano, if possible—for, as you know, some of our farmers' daughters and sons too make very good musicians. And who can enjoy a good comfortable room and music better than a farmer, who comes in tired and hot from his work in the fields and dons slippers and dressing-gown? I know of several such homes, and I find the boys with a home with a parlor their mother is not afraid to let them use do not go to the village tavern to spend their evenings and Sundays.

"In my opinion, the more you beautify the home, the more economy it is, for our boys stay with us, and I say 'hats off' to the boy who knows and appreciates a home like this."

### A Handy Kitchen.

Miss Mamie Merriam sends a plan of a kitchen which is very convenient, and in some respects unique. Across one end of this kitchen stretches a large sink, above which are, side by side, the spout of the cistern pump and the tap of a hard-water pipe. The hard water is conducted to the house by pipes leading from the well to a reservoir stationed at the corner of the kitchen; the water being raised from the well by means of windmill. Beneath the sink are the usual cupboards for pots, pans, etc. Across the opposite end of the room and down a portion of one side of it is built a long seat, closed in along the front by a sort of wainscoting, thus forming a long box. This box is divided into many compartments, each with a lid which may be opened upwards when required, and, at other times, closed down to form the seat portion of the contrivance. These "boxes" have become invaluable to the occupants of this home. Into them may be stowed boots, rubbers, carpet-balls—all of the various "things" which assemble so mysteriously in a farmhouse kitchen, and cannot, at all times, be conveniently relegated to the garret.

Last of all, we have an essay composed by Miss Gladys Pentland, the thirteen-year-old daughter of Mr. J. H. Pentland, of Nile, Ont. This essay, which is written in a somewhat fanciful style, although by a person of mature years, is so very creditable to Miss Gladys that, although much pressed for space, we cannot resist the temptation to give it in full:

### "An Ideal Farm."

"Some years ago, I grew tired of my city home and hurried life, and so I determined to live in the country. One glorious morning, I started out to hunt for my farm, and, O joy! I had hardly gone a mile, when one of the most beautiful farms I had ever seen was presented to my delighted gaze. Now, I had a very exact picture of what and where my farm ought to be, and, before I say more, I will tell you what that picture was. The farm was to be far enough from the city for its worries and annoyances never to touch me again, and near enough to enjoy its privileges and conveniences. This farm just suited me, so I determined to buy it.

As I said, it is about a mile from a city in the beautiful Province of Ontario, and, besides this, is on the main road; so my home will be conveniently near the city to there dispose of my farm produce, and yet away from the temptations and bustle and glare.

Chestnut Grove is a one-hundred-acre farm, and the soil is a sandy loam, well suited for grain or fruit growing. It has eighty rods frontage, and has level, well-drained land, and near the woods there is a hilly expanse, which makes excellent pasture. The fields are all well fenced and cultivated. They are about ten acres each, except the garden, which has an area of two acres, in which are planted the strawberries which supplied us all summer with their delicious fruit, and also the potatoes, onions, carrots, cucumbers and tomatoes. The lane runs right back to the 'bush field,' as we call it, which is the pasture ground of my farm.

The buildings, generally speaking, are large, commodious and compact. To the eye of an artist, perhaps, rambling buildings and tumble-down fences all moss grown are the most picturesque, but I think neatness is the greatest attribute to beauty.

The barn has a cement foundation, and has no sheds or outbuildings. It can accommodate comfortably twenty-five head of cattle, eight horses and thirteen hogs. The horse stable is in front, and my maned pets are always the first to greet my entrance, and are never disappointed in their expectations of what my pockets contain. And now my house, a large, roomy, brick building crowns a little eminence, and I ask you to come in with me and see me beside "my ain fireside." At the back is the kitchen, large and well lighted by three large windows, and warmed by a range for cooking. Next, the dining-room, and the folding-doors open into the parlor. Now, shall we go upstairs? The bedrooms are all here, and are made comfortably warm by the furnace, and conveniently supplied, like the kitchen, with hot and cold water taps. In front, at the foot of the house, are the flowerbeds, which so lately were a blaze of color and beauty, and made more gay by the contrast with the evergreens. From the house to the road are trees—evergreens, winter shrubs and chestnuts—which give my home its name, "Chestnut Grove." From the massive gate to the house there is a carriage drive, and beside it is the foot-path, framed in by a close-clipped cedar hedge.

The summer was a good one for us farmers, and the barn was filled to overflowing with the golden, ripened grain. Yes, farming is a profitable employment and a healthful one, and it will always be mine. And now, as I stand in the porch, the fresh cool air entices me into it. I go out under the evergreens, and see the falling leaves of the chestnuts

and maples, and a squirrel scampers away through the boughs. This is my home, and I am happy in it; but I awake with a shiver to the fact that the air is cold, and I leave the glorious outside for the comforts of my fire."

GLADYS B. PENTLAND.

Next week we shall begin to publish the prize essays written upon the subject, "How to enjoy the winter." The "Honor List" (outside of the prizewinners), which I promised to give to-day, is as follows: Class I., Mrs. Evans O'Connor, "Wabasso;" Mrs. B. H. W.; II., Miss A. L. McDiarmid, Annie Bailey, Mayme Rentel, Ada Sleep; III., F. G. Osborne, Verne Rowell, Dena McLeod.

Now for our next competition. The subject for this one will be, "The most amusing thing I ever heard of." Three prizes will be given as before, all equal. Class I., married people; II., unmarried people over 18; III., boys and girls under 18. The only restrictions are as follows: (1) Nothing vulgar will be considered at all. We want fun, but not vulgarity. However, we feel that no member of our circle could be capable of writing anything vulgar, so we have no fear upon that score. (2) Incidents or conversations written about must be original. They must never have been in print before. (3) They must be written in prose. (4) All letters must be received at this office on or before the last day of February.

Just once more, I want to ask what has become of our Quebec, British Columbia and Maritime Province people? I get letters from Manitoba, the Territories, Ontario and New Ontario—letters in plenty—but "sorra a one, at all, at all," came in from the others, hence I have been forced to the conclusion that all the Quebec, B. C. and Maritime Province folk are—yes—just—horribly—lazy! There, it's out at last—lazy—just lazy! But what a heap of meaning lies in that little word of four letters! Come, you people, redeem your good name, and win some of our prizes. Address all letters or essays to—

DAME DURDEN.

"Farmer's Advocate" office, London, Ont.

Yawning, when reasonably and methodically practised, is said by Herr Nogell to be an excellent thing for those who wish to strengthen their constitutions. He has made a study of it, and positively asserts that a series of heavy yawns is of more benefit than a bottle of the best tonic. To practise deep breathing is generally acknowledged to be an excellent thing for the lungs, forms splendid morning and evening exercise, and the most perfect chamber gymnastics for people generally, and especially for all those whose breathing is embarrassed. In future, therefore, if our friends yawn when we are discoursing to them, we may console ourselves with the thought that it is not because we are boring them, but that they are enthusiasts, and are practising their "chamber gymnastics" in the wrong place.

## UNRESERVED DISPERSION SALE.

Having sold my farm, I will sell by auction at my farm, five miles west of Norwood, on the C. P. R., January 27th, 1904, my entire herd of registered

### SCOTCH AND SCOTCH-TOPPED SHORTHORN CATTLE, Registered Yorkshire Swine, Horses and Farm Implements.

A choicely-bred Stamford bull, STAMFORD BOY = 35721 =, 3 years old, heads the herd. Females of favorite families and of extra milking qualities. Such bulls as Joy of Morning (imp.), Lord Derby (imp.), Crimson Prince, Matchless Duke and other good ones appear on the pedigree of some of the individuals. Sale commences promptly at 1 o'clock. The noon train, C. P. R., will stop at the farm about 12 o'clock, from the west, and stop, returning, about 5 in the evening. Visitors from the east will be met at Norwood by giving notice. Catalogues on application. Terms—Ten months' credit by furnishing approved paper, with interest at 5% per annum. Auctioneers: JAMES GARDINER, Peterboro'; GEORGE JACKSON, Port Perry.

ANDREW KNOX, South Dummer P. O., Ont.

## PAGE FENCES Wear Best

It is the fence that has stood the test of time—stands the heaviest strain—never sags—the standard the world over. Order through our local agent or direct from us.

THE PAGE WIRE FENCE CO. LIMITED Walkerville, Ont. Montreal, Que. St. John, N.E. Winnipeg, Man.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

### A Correction.

In some unaccountable way a mistake occurred in the printing of Mrs. J. R.'s first recipe in the Christmas number Ingle Nook: "2 tablespoonfuls of salt" should be "2 tablespoonfuls of flour; salt and pepper to taste."

DAME DURDEN.

How many tired but silent farmers' wives would not only be happier, but live longer, if they had a cozy, inexpensive resting room.

### TOBACCO AND LIQUOR HABITS.

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

Truly marvellous are the results from taking this remedy for the liquor habit. Is a safe and inexpensive home treatment; no hypodermic injections, no publicity, no loss of time from business, and a certainty of cure. Address or consult Dr. McTaggart, 75 Yonge St., Toronto.

### \$4.50 Ladies' Suits

We manufacture ladies' suits. Our specialty is a \$12 wool frieze suit. We sold over 1,000 of these suits this fall at \$12 each. We have 250 of these suits now on hand. We do not care to carry them over till next fall. We will sell them \$4.50 until gone for \$4.50 a suit; were \$12. The cloth is wool frieze, black, navy, myrtle green, seal brown, dark red, dark gray. Skirt is 7-fold, bound in velvet and stitched in silk. The coat is tight-fitting back, belted at waist, with long skirt on coat—the latest style. The coat is lined in good marten. The suits all this winter styles. The sizes are from a 14-year girl to a stout woman 44 bust. Any suit can be returned if not satisfactory, and money refunded. Send bust and waist measure—length from neck band to belt in back—sleeve length—under seam—also length front, side and back of skirt and around hips—perfect satisfaction guaranteed. Mention this paper.

SOUTHCOTT SUIT CO., London, Canada.

### All for 12 Cents.



In order to introduce Dr. Jenner's Germeide Inhaler and prove that it will radically cure Catarrh and Otorrhoeal Deafness, we will mail, postpaid, to any address, Dr. Jenner's

Inhaler, together with two bottles of medicine, for only 12 cents (stamps), on or before Jan. 15. We do this to make known the wonderful merits of this noble remedy. You inhale (see above cut) clouds of healing carbolated pine vapor, etc., into every air passage of the nose, throat and bronchial tubes, healing the membrane and curing the disease. Cures a cold in a day. Cures catarrh in a few weeks. For remedy on above liberal terms address Anglo-American Chemical Corporation, 32 Church St., Toronto, Can.



Fashion Notes.

A revolution of dress seems making ready to come upon us in the near future. The fashions of 1880 are coming-into vogue as fast as they can, and, instead of the tight, plain skirt and bishop sleeve, we will soon be familiarized with the full skirt, bell sleeve and linen under-sleeve. Already the skirts are showing the coming fulness. As yet, however, they are tucked or shirred for several inches at the top to give a tight-fitting effect about the hips. One skirt shown has a plain panel in front, widening toward the bottom. The rest of the skirt is tucked at the top, the tucks being let out to form the fashionable fulness below, and the back is finished with an inverted pleat. Many skirts of light-weight material are shown trimmed with ruffles at the bottom. It is doubtful, however, if the plain seven-gored skirt, whose general utility has recommended it so highly for the past few seasons, will be readily given up by those who care for comfort and convenience. Skirts are still made rather long, but the train is fast disappearing.

The favorite shirt-waists are made very simply. Many of them are tucked or pleated in front of the shoulders to give the flat effect across the chest which still is the mode, the pleats being let out to form the blouse effect below. Shirt-waists are trimmed simply with embroidery, or with strappings and buttons. Gold buttons are again in evidence. Indeed, this is a season of buttons, which are much used in trimming all costumes of the severer type. A new material which is very suitable for shirt-waists is called "vesting." As this launders beautifully, and is at the same time quite thick enough for winter wear, its popularity is ensured.

With other old fashions, the high girde is coming in. It should be made of some soft material, and arranged in soft folds, but should be fitted carefully to the figure and boned in place. As yet, the high girde is used almost exclusively with fancy gowns, not with shirt-waists.

Pastel tints are not much shown for mid-winter wear. At the present time there seems to be a decided preference for decided colors; and blue, green, brown and even crimson are worn. She who wishes to dress economically, however, will cling to the darker shades of which one never tires—navy blue, gray and black.

Never were collars prettier than at the present time. Indeed many simple shirt-waists need no other trimming to make them suitable even for evening wear. They may be made of lace and ribbon, or ribbon and small steel beads, or of lace applique arranged on the chiffon foundations, which may be bought ready to trim. Or they may be made of silk or velvet, fitted to the neck, fixed in place with featherbone, and trimmed with a long tab or tabs, of silk, edged with very narrow lace, in the front. These collars should be made with scrupulous neatness, and the fastening at the back should be "just right."

Perhaps the most sensible and popular dress that has appeared for many long years is the shirt-waist suit, which is becoming more popular every day. It consists of a shirt-waist trimmed with braid, or strapping and buttons, and a skirt of the same material, made to fit perfectly, and trimmed with braid or strapping to match the waist. Stitching may be used instead, on both, if preferred. A pretty collar and a nice girde are all that are needed to make this suit as attractive as need be. With it, a warm winter coat may be worn in cold weather, and on mild days a short, bloused Eton, with a peplum, or a Norfolk jacket, both of which will be worn this coming spring. AUNT LIN.

Cancer Cured by Anointing with Oil.

A combination of soothing and balmy oils has been discovered which readily cures all forms of cancer and tumor. It is safe and sure, and may be used at home without pain or disfigurement. Readers should write for free books to the originators, whose home office address is Dr. D. M. Bye Co., Drawer 505, Indianapolis, Ind.

For Singers and Speakers.

The New Remedy for Catarrh is Very Valuable.

A Grand Rapids gentleman who represents a prominent manufacturing concern and travels through central and southern Michigan, relates the following regarding the new catarrh cure. He says: "After suffering from catarrh of the head, throat and stomach for several years, I heard of Stuart's Catarrh Tablets quite accidentally, and, like everything else, I immediately bought a package, and was decidedly surprised at the immediate relief it afforded me, and still more to find a complete cure after several weeks' use."



"I have a little son who sings in a boys' choir in one of our prominent churches, and he is greatly troubled with hoarseness and throat weakness, and on my return home from a trip, I gave him a few of the tablets one Sunday morning when he had complained of hoarseness. He was delighted with their effect, removing all huskiness in a few minutes and making the voice clear and strong."

"As the tablets are very pleasant to the taste, I had no difficulty in persuading him to use them regularly. Our family physician told us they were an antiseptic preparation of undoubted merit, and that he himself had no hesitation in using and recommending Stuart's Catarrh Tablets for any form of catarrh."

"I have since met many public speakers and professional singers who use them constantly. A prominent Detroit lawyer told me that Stuart's Catarrh Tablets kept his throat in fine shape during the most trying weather, and that he had long since discarded the use of cheap lozenges and troches on the advice of his physician that they contained so much tolu, potash and opium as to render their use a danger to health."

Stuart's Catarrh Tablets are large, pleasant-tasting lozenges, composed of catarrhal antiseptics, like Red Gum, Blood Root, etc., and sold by druggists everywhere at 20 cents for full treatment.

They act upon the blood and mucous membrane, and their composition and remarkable success has won the approval of physicians, as well as thousands of sufferers from nasal catarrh, throat troubles and catarrh of stomach.

A little book on treatment of catarrh mailed free by addressing F. A. Stuart Co., Marshall, Mich.

Unsound Complexions

We make them clear and healthy, cure them of pimples, blotches, blackheads, discoloration, and all other blemishes. It's what we've been doing for twelve years. Write for particulars, enclosing 10c. for books and sample of cream. SUPERFLUOUS HAIR, moles, warts, birthmarks, etc., eradicated forever by electrolysis. Satisfaction guaranteed. Scalp diseases cured.

GRAHAM DERMATOLOGICAL INSTITUTE, Dept. F., 502 Church St., Toronto. Established 1892.

"A Boeckh Broom for a Clean Sweep."

All brooms look alike to the inexperienced, but the woman who has bought many brooms knows that

Boeckh's BAMBOO-HANDLED Brooms



Save carpets, save labor, save time and save money. Long experience has taught her to insist upon being supplied with Boeckh's Brooms; absolutely the best brooms made.

SOLD BY ALL RELIABLE GROCERS. NONE GENUINE WITHOUT THE NAME "BOECKH" ON HANDLE.

Joseph Rodgers & Sons Limited, SHEFFIELD, ENGLAND.

Please see that this EXACT MARK is on each blade. James Hutton & Co., Montreal, SOLE AGENTS IN CANADA.



The FROST & WOOD WINDSOR DISC

Durable Implement.

Made of steel and malleable iron, hard to break and harder to wear out, ensuring constant satisfaction to the purchaser.

Made in 8 STYLES, cutting 6 ft., 7 ft. and 8 ft. wide. Equipped for 2, 3 and 4 horses. Give your order now if you would make sure of getting one. First come, first served. Our Catalogue "F" tells all about it. Cut out this ad. and send it to our Head Office and receive in return the handsomest calendar of the season.

BRANCHES: Winnipeg, Man.; Toronto, Ont.; London, Ont.



Montreal, Que.; Quebec, Que.; St. John, N. B.; Truro, N. S.

HEAD OFFICE AND WORKS: SMITH'S FALLS, ONT.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

### AUCTION SALE.

An auction sale of pure-bred animals, male and female, in lieu of the sale formerly held under the direction of the Live Stock Association, will be held at Guelph on 16th March, 1904, under the auspices of the Guelph Fat Stock Club. Entries will be received until Jan. 30th, 1904. Full particulars later. Apply for further particulars to JNO. McCORKINDALE, Secretary, Guelph P. O.

### Catalogue Printing Our Specialty.

Many of the best Catalogues in Canada are produced by us. Latest type faces, designs, ornaments, and modern machinery. Best in America. Up-to-date covers designed by special artists without extra charge.

London Printing & Litho. Company, Ltd.,  
LONDON, ONTARIO

If you want to buy an axe send for booklet telling all about our axes.



DUNDAS AXE WORKS.  
Dundas, Ont.

### YOU COULD SAVE MONEY BY HAVING A COLD-STORAGE PLANT

We can teach you BY MAIL in a short course of lessons, which will cost very little, how to instal and manage your own cold-storage plant. You would be surprised how little such a plant would cost you. Why not have it ready for next summer and be able to hold your produce for the highest prices without any loss?

Write for information about our course in cold storage.

CANADIAN CORRESPONDENCE COLLEGE, Limited, Toronto, Canada.  
WALTER JAMES BROWN, B. S. A., Principal.

### Great French Roof Preservative

Gives to old or new shingles the appearance of slate, and renders them both waterproof and fireproof. Prevents the rusting of tin roofs and all outdoor metalwork, and lasts five years longer than ordinary roof paints. Cheap to make and easy to put on. Full instructions for making will be sent on receipt of one dollar.

DONALD A. ROSS, Blue Mountain, N. S.

### Rheumatism Cured.

Why do you suffer—Starr's Rheumatism Cure will relieve the worst cases of acute, chronic, or inflammatory rheumatism in 24 hours. Every bottle has a positive guarantee to cure. Hundreds of marvelous cures have been made in all parts of Canada. If your druggist cannot give you Starr's, send your name to us.

OSBORNE REMEDY CO., 175 Yonge St., Toronto, Ont.

I GUARANTEE A \$5.00 PACKAGE OF BARREN KOW CURE postpaid, to make any cow under 10 years old breed, or refund money. No trouble, no risk. Given in feed twice a day.

L. F. Selleck, Druggist. Morrisburg, Ont.

### \$9,000 Poultry Catalog

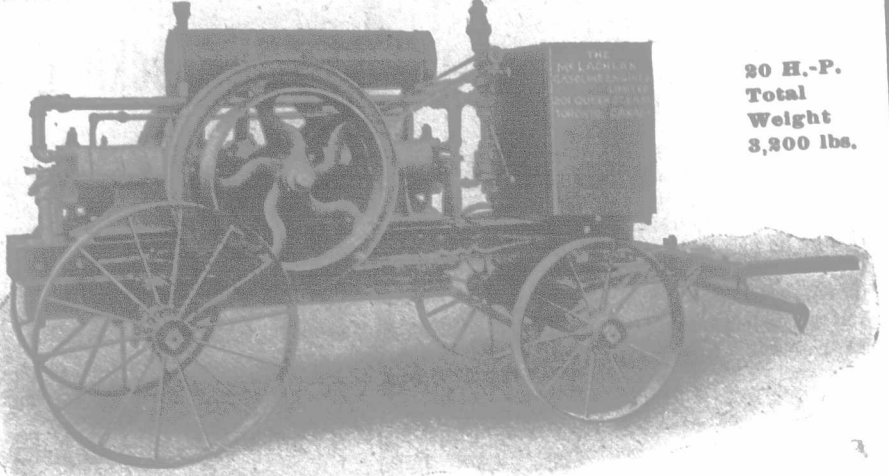
40 kinds Turkeys, Geese, Ducks, Chickens, fowls and eggs cheap. 100 grand pictures, 20 house plans. We make brood lay, cure disease, etc. Send 10 cts. for mailing catalogue.

Incubators 30 days free trial.  
J. R. Brabazon Jr. & Co., Box 112 Delavan, Wis.

### GOSSIP.

#### A DISPERSION SALE.

As announced in the advertisement on another page, Mr. Andrew Knox, South Dummer, Ont., having sold his farm, will sell at auction, on January 27th, at the farm, his entire herds of Scotch and Scotch-topped Shorthorn cattle and Yorkshire swine, also his horses and farm implements. The farm is five miles from Newwood on the C. P. R. Stamford Bay No. 2121, a richly-bred three-year-old bull, heads the herd, and many first-class registered bulls appear in the pedigree of the catalogue, which will be sent on application; also the females represent a number of favorite families.



30 H.-P.  
Total  
Weight  
3,800 lbs.

Patented and Pending. Our Gasoline Threshing Engine. Write for prices, etc. to  
The McLachlan Gasoline Engine Co., Ltd., 201 Queen St. E., Toronto,  
or to W. C. WILCOX & CO., Winnipeg, agents for Manitoba and Northwest.

### HELP WANTED! RELIABLE MEN IN EVERY LOCALITY IN CANADA and UNITED STATES

Salary or commission, \$840 a year and expenses, payable weekly, to introduce new discovery and represent us in their district, distributing large and small advertising matter. No experience, only honesty required. Write at once for instructions.

SALUS MEDICINE CO., LONDON, ONT.

## The Pioneer Limited

is the train of trains between Chicago, Milwaukee, St. Paul and Minneapolis. It runs daily via the

### Chicago, Milwaukee & St. Paul Railway

and is without an equal in excellence of equipment. If you contemplate a trip to the Northwest, it is worth your while to enquire for rates and descriptive booklets via this route.

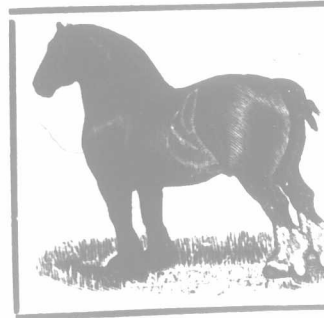
A. J. TAYLOR, 8 King St. East, TORONTO.  
Canadian Passenger Agent.



### CLIP YOUR HORSES' with 20th Century Clipper ONLY \$7.50

They feel better, look better, work better, and are less liable to catch cold. Don't let your horses stand in the barn all night with a heavy damp coat of hair on. It weakens them and they lose flesh. If clipped on, they dry out quickly, gain flesh and can be groomed in one fourth the time. Weighs only 15 lbs. Clipse a horse in 30 minutes. Send for Catalogue H & H.

CHICAGO FLEXIBLE SHAFT CO.,  
110 La Salle Ave. CHICAGO, ILL.

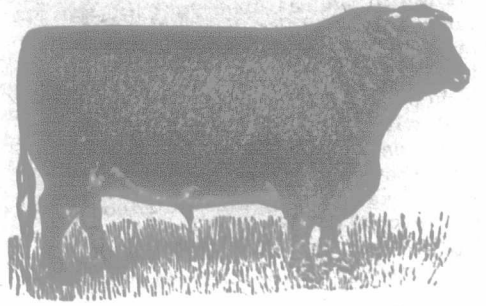


### International Importing Barn

J. B. HOGATE, Prop., SARNIA, ONT., IMPORTER OF  
CLYDESDALE, SHIRE AND HACKNEY STALLIONS  
Last importation Nov. 9th, 1903, consisting of stallions sired by Sir Everard, Hiawatha, Black Prince of Laughton, King of Kyle, Sir Thomas, Royal Carriek, Clan Chattan, Lord Lothian, Balmedie, P. Charming, Prince of Airies, and from noted dams. Several are tried horses. If you want first-class horses at right prices, terms to suit, write for particulars and come; I will pay one half railroad fare. Think I can save you money.

H. H. COLISTER, Travelling Salesman.

### CREDIT AUCTION SALE



35 HEAD SCOTCH AND SCOTCH-TOPPED SHORTHORNS  
Property of O. N. Blanchard, Appleby, Ont., on  
Thursday, January 21st, 1904.

Some prizewinners, a number sired by Marr, Duthie and Cruickshank bulls. Possibly more high-class sires have been used on this herd than any other in Canada. Farm 2 1/2 miles from Burlington Junction, 10 miles from Hamilton. Ten months credit, 5% discount for cash. 8 to 1 p. m. O. N. Blanchard, Prop., Appleby, Ont.; Auctioneer, T. Ingram, Guelph.

### SPECIAL OFFERING IN JERSEYS

for the next 60 days: heavy-milking strains. Write for particulars to  
W. W. EVERITT,  
Dunedin Park Farm. Chatham P.O. & Sta.

### RED RIBBON STUD

Largest Importers and Breeders of

### Shire Horses



in the Dominion, including first-prize winner at Royal Agricultural Show in England; and gold medal for best Shire stallion, gold medal for best Shire mare, donated by the Shire Horse Association, England; three silver medals for sweepstakes, eight 1st prizes, four 2nd prizes and one 3rd prize at Industrial Exhibition, Toronto, 1903. Stallions and mares all ages, home-bred and imported, always for sale. Over 50 to choose from.

MORRIS & WELLINGTON,  
Fonthill P. O., Welland County, Ont.

FOR SALE: Three imported Clydesdale stallions—Uamvar 2129, Vice-Admiral 3447, and Knight of Park 2921; also two registered Canadian-bred stallions, 2 years old. For further particulars address  
DAVIS & GRAHAM, Schomberg, Ont.

### Imported Clydesdales

My offering now consists of  
Three Imported Two-year-old Clydesdale Stallions

of choicest breeding, best quality and immense size. Inspection invited.

Geo. Stewart  
Howick, P. O.

### Clydesdales and Hackneys For Sale.

Four young Clydesdale and 2 Hackney stallions, all imported, representing the best blood in Great Britain. Prices right. Inspection invited.  
MOWAT & HARE,  
Shelburne, Ont.

Imported Clydesdales just landed. Five stallions—4 two-year-olds and one 3-year-old. The gets of Mains of Airies, Clan Chattan, etc. Prices right.  
ALEX. MCGREGOR, Epsom, Ont.  
4 miles east of Uxbridge station, on the G. T. R.

### FOR SALE—Seven Imported Clydesdale Fillies,

2-year-olds, sired by the prizewinning stallions, Ascott Corner, Handsome Prince, William the Conqueror, etc. All have been bred to stallions. For further particulars address:  
PATTERSON BROS., Millbrook, Ont.  
Millbrook on G. T. R. Cavanville, C. P. R.

THE KINDEGARTEN STUD FARM, GUELPH  
JAMES HURLEY, Proprietor.  
Breeder of Thoroughbred horses from noted sires and dams. All classes of horses for sale.

# OAKLAWN FARM

The Greatest Importing and Breeding Establishment in the World.



## Percherons, Belgians, French Coachers.

GREATEST COLLECTION EVER GOT TOGETHER NOW ON HAND.

Our 1903 importations include 30 first-prize winners from the leading European shows. At the International, Chicago, 1903, our horses won 40 prizes, 21 of which were firsts, including in Percherons, champion stallion, champion mare, champion American-bred stallion, best group of five stallions, best stallion and four mares. Although our horses are better, our prices are lower than can be obtained elsewhere in America. Catalogue on application.

**DUNHAM, FLETCHER & COLEMAN,** Wayne, Du Page Co., Illinois.

## Imp. Clydesdales and Shorthorns

MESSRS. SMITH & RICHARDSON, COLUMBUS, ONT.



Importers of Clydesdale horses and Shorthorn cattle, are now offering 10 imported stallions, including some of the renowned Baron's Pride, Prince Thomas, Royal Carrick and Mountain Sentinel; also 10 mares, 6 of them imported, and the balance from imported stock. Shorthorns, imported and home-bred, all ages. Stations:

Oshawa & Brooklin, G.T.R.; Myrtle, C.P.R. 40 miles east of Toronto.

Long-distance Telephone at residence; near Columbus. Telegraph, Brooklin.



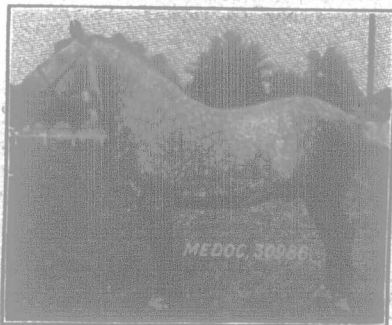
LARGEST STUD IN THE WORLD OF AMERICAN-BRED

## Percheron, Shire and Hackney Stallions and Mares

I breed, feed, and grow them with size, quality and action. Won over 80% of all first prizes and gold medals shown for at New York, Ohio, Indiana, Missouri, Iowa, Minnesota and Wisconsin State Fairs and International at Chicago for past four years, and am now selling stallions of equal value at \$500 to \$1,000 below my competitors. My stallions are young and fresh, 2 to 5 years old, and sold on a guarantee of 60%. Terms to suit the purchaser. Will pay half the R. R. fare to our barns to intending buyers.

CORRESPONDENCE AND A VISIT SOLICITED.

**LEW W. COCHRAN,** 607 West Main St., CRAWFORDSVILLE, IND.



## ALEX. GALBRAITH & SON,

JANESVILLE, WISCONSIN.

Have just received a most valuable importation of Clydesdales, Shires, Suffolks, Hackneys and German Coachers.



THE largest and best importation made by anyone in recent years. Leading prizewinners at the principal shows in Great Britain. No such stock to be got elsewhere at any price. Particulars on application. Branch establishments at Spokane, Wash., and Brandon, Man.

1,100 STALLIONS IMPORTED BY US IN LAST 22 YEARS.



## Varicocele Cured to Stay Oured in 5 Days

**Hydrocele** No Suffering or Pain. Guaranteed Cure. Money Refunded.

**VARICOCELE** Under my treatment this insidious disease rapidly disappears. Pain ceases almost instantly. The stagnant blood is driven from the dilated veins and all soreness vanishes and swelling subsides. Every indication of Varicocele vanishes and in its stead comes the pleasure of perfect health.

I cure to stay cured, Contagious Blood Poison, Kidney and Bladder Troubles, Nervous Debility, and allied troubles. My methods of treatment and cure are original with me and cannot be obtained elsewhere. I make no experiments. All cases I take I cure.

**Certainty of Cure** is what you want. I give a Legal Guarantee to cure you or refund your money. What I have done for others I can do for you. My charge for a permanent cure will be reasonable and no more than you will be willing to pay for benefits conferred. I CAN CURE YOU AT HOME.

**Correspondence Confidential** Write me your condition fully and you will receive in plain envelope a scientific and honest opinion of your case, FREE of Charge. My home treatment is successful. My books and lectures mailed FREE upon application.

**H. J. TILLOTSON, M. D., 255 Tillotson Building, 84 Dearborn Street, CHICAGO.**

### GOSSIP.

General "Phil" Sheridan was once asked at what incident he laughed the most.

"Well, I always laugh when I think of the Irishman and the army mule. I was riding down the line one day when I saw an Irishman mounted on a mule, which was kicking, and at last got its hoof caught in the stirrup, when I heard the Irishman say:

"Well, begorra, if you're goin' to get up on yourself, I'll get off!"

One of the best tributes to the single-judge system we have seen is the testimony of an English writer on the judging at the late Smithfield Show, at London, England, where single judges officiated. He says: "The show was opened on Monday morning, and the judging of 364 cattle, 199 pens of sheep and 82 pens of pigs was completed by three in the afternoon of the same day, every ribbon having been tied, even to the championships, and the winners could be inspected in their order as they stood in the arena, their entry numbers displayed corresponding with the catalogue."

### TRADE TOPICS.

**THE BEST RESULTS.**—People who hesitate to invest in a bottle of Absorbine, may take courage from the experience of others. Here is what one man says:

Hamilton, Ont., Canada, March 3, 1903.

W. F. Young, Springfield, Mass.: Dear Sir,—I purchased your Absorbine from a local dealer and am using it on my mare with the best results. The puffs are just about gone. Yours truly, THOMAS PTOLEMY.

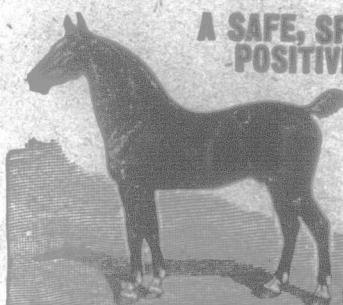
It is manufactured by W. F. Young, P. D. F., Springfield, Mass. The Canadian agents are Lyman Sons & Co., Montreal.

**IMPROVED MOLASSES CATTLE FOOD** is the name given to a new stock food, or rather a food newly introduced in this country by the Dresden Sugar Company, at Dresden, Ont., and advertised on another page in this issue. This food, which is sold at a price per ton about equal to that of bran at the present time, and would seem to be well worthy of a trial by stockmen. It consists of sugar-beet pulp, so pressed as to exclude surplus moisture, and run into drying kins or cylinders, where it is evaporated by being subjected to a high degree of heat, while being constantly agitated. During this process, the waste molasses from the sugar factory is mixed with the pulp, and the nutritive value increased to more than that of plain pulp. The finished article comes out in the form of flakes, perfectly dry, and somewhat resembling a coarse quality of tea, which keeps perfectly in any quantity, and is in suitable form for shipping safely any distance, and for mixing with any other sort of food, such as bran, meal, chaff or cut hay. It is claimed for this food, and apparently with good reason, that it is palatable, promotes digestion, helps to assimilate other food, saves a large proportion of ordinary grain ration, regulates the bowels, is fattening and increases the flow of milk. Testimonials from Michigan farmers and feeders, where the food has been used, are exceedingly favorable. A prominent stockman, who has used it, recommends four pounds of this as a good daily ration for a cow or steer, and a third of a pound for a sheep, mixed with ordinary foods. We take pleasure in directing the attention of stockmen to the advertisement of this food, and will be pleased to hear from those who give it a fair trial. Dried beet pulp, we believe, has for years been satisfactorily fed in Germany and other European countries; and in England, molasses is largely used by cattle feeders with the most gratifying results, and as in the Dresden food both these commodities are combined, its nutritive value as a food would seem to be well assured.

Horse Owners Should Use GOMBAULT'S

## Caustic Balsam

The Great French Veterinary Remedy. A SAFE, SPEEDY AND POSITIVE CURE.



Prepared exclusively by J. H. Gombault, ex-Veterinary Surgeon to the French Government Stud.

SUPERSEDES ALL CAUTERY OR FIRING

Impossible to produce any scar or bluish. The safest best blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blains from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable.

WE GUARANTEE that one tablespoonful of CAUSTIC BALSAM will produce more actual results than a whole bottle of any liniment or spavin cure mixture ever made.

Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS CO., Toronto, Can.

## BAWDEN & McDONELL

Exeter, Ont.

IMPORTERS OF

Clydesdale, Shire and Hackney Horses

Our new importation has arrived, and we have now about 50 stallions for sale, ages from 2 to 7 years; the best that could be purchased in Scotland and England.

## IT SAVES TROUBLE

and annoyance many times to have

## ABSORBINE

Handy in case of a bruise or strain. This remedy is rapid to cure, pleasant to use, and horse soon ready for work. No blister, no hair gone.

ABSORBINE

removes any soft bunch from animal or mankind. \$3.00 per bottle, delivered, or of regular dealers. W. F. Young, P. D. F., Springfield, Mass. LYMAN SONS & CO., Agents for Canada, MONTREAL.

## CLYDESDALES

AYRSHIRES and POULTRY.

H. Ness & Sons, Howick, Que.

Importers of Clyde, Percheron and Hackney stallions, Ayrshire cattle and poultry, have for sale 5 Clyde stallions, bred by Baron's Pride, Sir Everitt, and Royal Carrick, 1 Percheron, and 1 Hackney, winners. Ayrshires of both sexes, and poultry.

## CLYDESDALE MARES

Registered mares, from three years old and upwards, for sale.

NELSON WAGG.

Claremont station, C. P. R., 2 miles. Stouffville station, G. T. R., 4 miles.

## ROSEDALE STOCK FARM

J. H. Gardhouse, Prop. CLYDE AND SHIRE HORSES, SHORTHORN CATTLE, LEICESTER SHEEP.

Choice imported and home-bred stallions and mares, also young stock. Two prize-winning bull calves, and a few imported and Canadian-bred French cows and heifers, bred to the Imp. Mar. v. Bull. Chief Bull. Telegraph, Post Office and Telephone (at residence), Weston, Ont. G. T. R., C. P. R. Sta.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.





DR. J. L. SCOTT
The Discoverer and Compounder of
THE CONDENSED DIETETIC STOCK COMPOUND

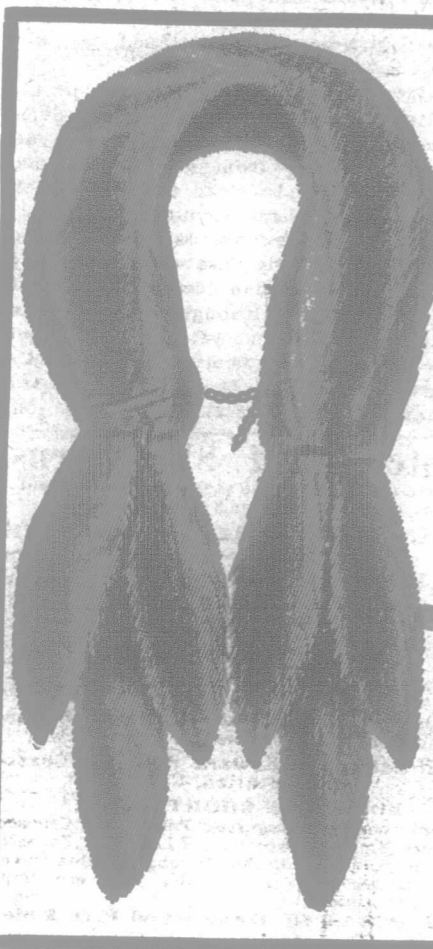
Formerly State Veterinary Surgeon of Wisconsin, U. S. A., and President of the State Veterinary Medical Association.

I take the liberty to place the facts of this discovery before all stockmen throughout Canada. This Dietetic Food, highly medicated, is the greatest flesh and blood food that has ever been compounded and placed before the public...

this Dietetic Food, I now place it before the world, unequalled, unrivalled and unexcelled as a flesh and blood food, and preventive of disease, for horses, cattle, sheep and swine.

TO WHOM IT MAY CONCERN: After using The Condensed Dietetic Stock Compound (prepared by Dr. J. L. Scott, of London, Ontario) during the past winter, I take much pleasure in recommending it as a valuable preparation for keeping stock in a healthy condition...

COMPOUNDED BY
DRS. SCOTT & TAMLIN,
LONDON, ONTARIO, CANADA.



FREE!
Ladies and Girls,
You Can Earn This

Handsome Fur Scarf
In a Few Minutes

SEND your name and address, and we will mail you post paid \$ large beautifully-colored Pictures 16 x 20 inches, named "The Angel's Whisper," "The Family Record," and "Simply to Thy Cross I Cling," to sell at 25c. each.

HANDSOME FUR SCARF

Over 40 inches long, 5 inches wide, made from selected full-furred skins with six fine full black tails, the very latest style. We know you will be more than pleased with it.

Aberdeen-Angus Bulls

For sale: One one-year-old, two bull calves, sired by Lord of Tweedhill. Will sell right, on Drumbo Station.

High Park Stock Farm Salloway Cattle.

4 choice young bulls and heifers, 6 months to 2 years old, for sale. Prices right. Come and see.

Shaw & Marston, P. O. Box 294, Brantford, Ont

THE MAPLES FARM HEREFORDS

Near Orangeville, Ont., on C. P. R. (Owen Sound branch).

Imported and pure-bred bulls and heifers for sale, from imported and pure-bred dams, and sired by imp. Spartacus, No. 109829, -1716-

W. G. PETTIT & SONS

FREEMAN, ONT., Importers and Breeders of

Scotch Shorthorns

110 head in the herd, 40 imported and 20 pure Scotch breeding cows. Present offering: 3 imported and 6 pure Scotch from imported sires...

Burlington Jct. Sta. Telegraph & Telephone

THE SUNNYSIDE HEREFORDS

90 head in herd, headed by imp. Onward, by March On. For sale: 18 choice bulls, imported and home-bred, from 8 to 22 months old; 12 choice cows and heifers.

Interested to make room for new importation. Visitors welcome. O'NEIL BROS., Southgate, Ont., Lucan Sta., G.T.R.

HIGH-CLASS HEREFORDS

We have for sale the following choice young stock, which have been bred from imported stock. Intending buyers will do well to inspect the following: 13 young bulls, 25 young heifers, and 15 cows; also 20 Barred Plymouth Rock cockerels.

A. S. HUNTER, Durham, Ont.

Six Shorthorn Bulls

Fit for service: Also cows and heifers, imported and home-bred, of Scotch breeding, prizewinners. Moderate prices. DAVID MILNE & SON.

Ethel Station and P. O., Ont

Scotch Shorthorns Leicester Sheep - For

sale: Three young bulls by Christopher (imp.) 28859, and Tuscarora Chief 46733. No reasonable offer refused.

W. A. DOUGLASS, P. O., Tuscarora, Ont Station-Caledonia, Ont.

GOSSIP.

Messrs. W. B. Watt & Sons, Salem, Ont., report the following recent sales of Shorthorns: "To Messrs. James Bowes & Sons, Meaford, Ont., an extra good roan bull calf, by Imp. Scottish Peer, and out of a full-sister to the champion, Judge; to Mr. A. Ackerman, Palmerston, Ont., a fine red bull calf, by Scottish Peer, and out of a good Royal Sailor cow, and a nice pair of heifer calves to John Barclay, Guelph."

It is with pleasure that we would draw the attention of our readers to the advertisement of Mowat & Babe, Shelburne, Ont., importers of Clydesdale and Hackney stallions. For many years the members of this firm have been recognized as being among the foremost horsemen of Dufferin County, and scores of choice mares and geldings, got by their stallions, have been shipped from the country to the British market by horse-dealers.

A representative of this paper recently visited Shelburne and had the pleasure of going over their stock. Of the Clydesdales, they have Overdale, a typical representative of the breed from the ground up. His feet and legs are of the kind that made Clydesdales famous, and in action he has no superiors of his age in Canada.

In service, for the past year, County Squire [8541], six years old, by Kippendavie Stamp, has done good work. He is a big, thick horse of eighteen hundred pounds, with feet and legs of good quality, also moves well, and gives evidence of becoming a most useful sire.



MERCER'S SHORTHORNS

Comprise Missies, Stamfords, Floras, Claras, Princesses, Red Roses, Young Sterlings, Factions and Matchlesses. They number 60 head for sale. There are several choice heifers, 17 heifer calves, 3 bulls fit for service and 4 bull calves. A few older females.

Thos. Mercer, Markdale P. O. and Station.

WILLOW BANK STOCK FARM.

Established 1855.

SHORTHORNS AND LEICESTERS

A grand lot of young stock for sale, rich in the blood of Scotch Booth and Bates families. 12 micraucian of Dalmeny 45230 (imp.) at head of herd. We breed the best to the best Leicester sheep of rare breeding and quality.

JAS. DOUGLASS, Proprietor, P. O. and station, Caledonia, Ont.

VALLEY HOME STOCK FARM.

S. J. PEARSON, SON & CO., BRANTFORD, ONT.

Scotch Shorthorn Cattle and Berkshire Swine

FOR SALE: 6 young Scotch bulls, some from imported sires and dam; also young cows and heifers, and young Berkshire swine of both sexes. Come and see them, or write for particulars.

C.P.R. Station, Meadowvale Telegraph and P.O.

17 Shorthorn Bulls

3 imported bulls, 7 bulls from imp. sire and dam, 7 bulls from imp. sire and Scotch dams, 25 females, imp. and Canadian Scotch.

R. MITCHELL & SONS,

Wolton P. O., Burlington Jct. Sta.

SCOTCH SHORTHORNS

A baker's dozen of sappy bull calves, 8 to 12 months old, reds and roans, sired by the Princess Royal bull, imp. Prince of the Forest -40160- and out of high-class Scotch and Scotch-topped cows. Also ten thick-fleshed heifers, in calf to imp. Prince of the Forest, placed at head of herd at cost of \$650.

Come and see, or write for prices.

J. & W. O'BENNICKE, Chatham, Ont.

GEDARDALE FARM.

For sale, three young old to two years. All good standard red and fawn first-class stock. "Gloucesters" and "Lord George" stock. Also three cows in calf, and three heifers, from one to two years old, two of them in calf. "Trilby," "Beauty" and "Flora" dams. DR. T. S. SPROULE, Markdale, Ont., P. O. and Station.

SHORTHORN CATTLE AND COTSWOLD SHEEP

of good breeding and individuality. Young stock for sale at reasonable prices. Special - Two 6-months and two yearling bulls, Seven ram lambs.

CORRESPONDENCE SOLICITED. ADDRESS: J. E. DISNEY, GREENWOOD, ONT., "HILLVIEW FARM."

3 SHORTHORN BULLS 3

FOR SALE.

Two 2-year-olds, 1 bull calf, all of good breeding and from deep-milking strains. Prices right. Also heifers for sale.

W. B. ROBERTS, SPARTA, ONT.

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.



GOSSIP.

\$4,000 FOR A HOLSTEIN CALF. The nine-week-old bull calf of the noted Holstein cow, Sadie Vale Concordia, was purchased by Messrs Henry Stevens & Son, Lacona, N. Y., at the handsome price of \$4,000.

DRYDEN-MILLER.

The fraternity of Canadian stockmen will join with the "Farmer's Advocate" in tendering congratulations to Mr. William A. Dryden, of Brooklin, Ontario, only son of Hon. John Dryden, Minister of Agriculture, on the event of his marriage at Sittyton Lodge, Pickering Township, on December 30th, to Miss Margaret Miller, daughter of Mrs. William M. Miller, and granddaughter of John Miller, Esq., of "Thistle Ha," and of the late James Ironside Davidson, ex-M. P.

SPASM OF THE GLOTTIS.

FREQUENT inquiries have been made concerning a disease in pigs characterized by spasms or fits. The attacks almost always occur in winter, when the weather is severe. Animal shows no symptoms when coming from the sleeping pen until it attempts to take food, when it will be seized suddenly, will raise its nose and gasp for breath, soon fall over and struggle for a moment or two, when the seizures will abate, animal will get up and possibly appear all right.

Cause.—Occasionally the first attack will prove fatal, although this is not the rule. Attacks will recur every day, or it may happen every time the animal attempts to take cold food, especially swill. The attacks come on most frequently in pigs or hogs that have warm quarters, especially those that are allowed to burrow in manure piles or straw that becomes heated. When they come into the cold air, sudden change induces attacks, especially when taking cold drink.

Treatment.—Treatment that has given the best results is to avoid the conditions that produce the difficulty. Hogs should not be housed in too warm sheds, especially if fed in a cold place. Do not give access to the manure pile, where they will burrow into the heated, half decomposed straw or become piled up and overheated. It is also of great advantage to warm the feed, where this is practicable, and anti-spasmodics should also be employed, such as from ten drops to half dram doses of fluid extract of hyoscyamus, according to size of animal; or ten or fifteen grains of bromide of potash should be given three times a day.

The rugged health that tonic doses of Dr. Hess Stock Food induces will give a hog the vital power necessary to resist these attacks. This wonderful reconstructive is the result of a lifetime of study and experiment by Dr. Hess (M.D., D. V. S.)—graduate of both medical and veterinary colleges—whose methods and works are recognized everywhere as authoritative. Dr. Hess Stock Food is the scientific compound, sold on a written guarantee, 100 pounds, \$7.00; smaller quantities at a slight advance. Fed in small dose.

Day's Aromatic Stock Food



Saves feed by assisting stock to digest their food. A small dose in the usual food twice each day. It contains no drugs; purely aromatic. 3 LBS. 30C. 36 LBS. \$3.10. Ask your dealer or write us.

The Day's Stock Food Co., Station C, Toronto.

TROUT CREEK SHORTHORNS



Seven Imported Bulls for Sale. JAS. SMITH, Manager, Millgrove, Ont. W. D. FLATT, 378 Hess St. South, Hamilton, Ont.

SHORTHORNS FOR SALE. Four bulls, that challenge comparison, sired by the champion of champions, Spicy Marquis (imp.). This is a rare chance. Brave Ythan at head of herd. JAMES GIBB, Brookdale, Ont.

OAK LANE STOCK FARM Shorthorns Cotswolds Yorkshires and Barred Rock Fowls. Imported and Canadian-bred Shorthorns. Open to take orders for N.-W. trade. Write for prices. Satisfaction guaranteed. GOODFELLOW BROS., MAUVILLE, ONT.

JOHN DRYDEN & SON BREEDERS OF

CRUICKSHANK SHORTHORNS AND SHROPSHIRE SHEEP. Catalogue of twelve young bulls of choicest breeding and splendid quality sent on application. Your choice of 25 BEAUTIFUL YEARLING RAMS at reasonable prices. Also a FEW SELECT EWES. Station and Post Office, Brooklin, Ont.

R. & S. NICHOLSON Sylvan P. O. Parkhill Station, Ont.

Importers and breeders of SHORTHORNS. Have for sale: 13 IMPORTED HEIFERS, 20 HELPERS (choicest). Safe in calf to Imp. Spicy Count. Home-bred herd composed of Nonpareils, Minas, Clementinas, Oriokahank Lovelys, Shethin Rosemarys, A. M. Gordon's Estelles, Miss Symes, etc.

16 Shorthorn Bulls FOR SALE.

Bred in the herd that produced Topman and Moneyfuffel Lad; sweepstakes winners at Toronto, all ages competing; also Lord Stanley Junior, champion over all beef breeds, and heading three first-prize herds at World's Fair, Chicago. Yonge St. Trolley Cars from Union Station, Toronto, pass farm. J. & W. RUSSELL, RICHMOND HILL, ONTARIO.

TRADE TOPICS.

MISSING.—George Faulkner, 28 Victoria St., Toronto, Ont., writes: "My son, Lloyd, has not been heard of since he left Winnipeg last June to learn the cattle-raising business. He is only sixteen years old and of fair complexion, and stout build." Any notice of his whereabouts will be gladly received.

A REMARKABLE INCUBATOR OFFER.—On another page will be found the announcement of the M. Campbell Fanning Mill Co., Limited, of Chatham, Ont., and Detroit, Mich., setting forth their method of selling the Chatham incubators and brooders. Such a liberal plan of sale coming from a company whose financial strength is so unquestioned deserves the attention of poultry-raisers. That they are willing to make such a generous offer shows what confidence they have in their incubators and brooders. Write the M. Campbell Fanning Mill Co., Limited, and get full particulars of their offer; when doing so mention this paper.

HOPE, GRAVELEY & CO., of Vancouver, the managers of the Settlers' Association, report that the wet harvest on the coast of British Columbia was not nearly so bad as at first reported. Almost all the grain was threshed, and turned out much better than was expected; in fact, almost the only loss was incurred by those farmers whose crop was put in late, and who threshed from the stook instead of stacking. There was no loss whatever among farmers who threshed from the barn. The grain and hay crops were exceptionally heavy throughout the Lower Fraser Valley anything like a wet harvest is so very unusual that mege was made of it than its importance warranted. Timothy hay is now selling, baled, at \$14 per ton; and oats at \$28 per ton; potatoes, \$12 per ton. The winter is exceptionally mild, and everything, so far, points to an early spring. As this firm have a very long and wide experience in agricultural matters, intending settlers would do well to make their office the first point of call. In a later message from Chilliwack, it is stated that many varieties of spring flowers are out, and the temperature, when the message was sent, was 63° in the shade.

GOSSIP.

The thirteenth annual meeting of the Dorset Horn Sheep Breeders' Association of America will be held at the Monongahela House, Pittsburg, Pa., on Tuesday, January 12th, 1904, at ten o'clock, a. m.—M. A. Cooper, Sec'y.

Colwill Bros., Newcastle, Ont., breeders of Shorthorn cattle and Tamworth hogs, ordering change of advertisement, write: "We are now offering very choice young sows, due to farrow in March, bred to a splendid boar. Size, quality and type are contained in these. The Shorthorns, bulls and heifers, are the get of Brave Baron 23257, son of imported Indian Chief, that weighed 2,500 lbs. last September. Our Tamworths won at Toronto last fall five firsts, two seconds, six thirds, a sweepstakes and silver medal."

The credit auction sale advertised to take place on January 21st, of 35 registered Shorthorn cattle belonging to Mr. C. N. Blanchard, Appleby, Ont., affords an opportunity to secure useful animals of good milking and beefing strains that are soundly bred on approved lines. Scotch-bred bulls of an excellent class having been used in the herd for many years, fixing the type and ensuring robust constitution. The sale will be held on the day following the combination sale at Hamilton. The farm is only ten miles from Hamilton, and two and a half miles from Burlington Junction, which is only a short run on the Radial line from Hamilton, and is a station on the G. T. R., on both the Hamilton and North-western branch and on the Toronto and Hamilton division. The C. P. R. also runs between Toronto and Hamilton, but does not stop at Burlington. Passengers by this road should go through to Hamilton and take the Radial line back to Burlington.

Four Carriage horses are also included in the sale, sired by Imp. Terrington. Two of them having been first-prize winners at Toronto. These should be worth looking after.

Don't Chide the Children.



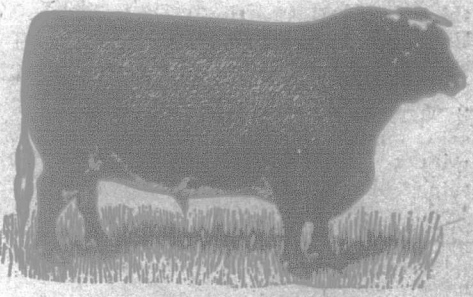
Don't scold the little ones if the bed is wet in the morning. It isn't the child's fault. It is suffering from a weakness of the kidneys and bladder, and weak kidneys need strengthening—that's all. You can't afford to risk delay. Neglect may entail a lifetime of suffering and misery.

DOAN'S KIDNEY PILLS

strengthen the kidneys and bladder, then all trouble is at an end.

Mrs. E. Kidner, a London, Ont., mother, living at 499 Gray St., says:

"My little daughter, six years old, has had weak kidneys since birth. Last February I got a box of Doan's Kidney Pills at Strong's drug store. Since taking them she has had no more kidney trouble of any kind. I gladly make this statement because of the benefit my child has received from this medicine."



23 High-class Shorthorn Bulls For Sale

Some imp. and some from imp. cows, and sired by imp. bulls. Also cows and heifers. New importation comes home Dec. 10th.

Arthur Johnston, Greenwood, Ont.



For sale at reasonable prices—Five imported bulls, nearly all roans. Twelve imported cows and heifers. Also a number of nice Canadian-bred bulls, cows and heifers, in calf or with calves at foot. H. J. DAVIS, Woodstock, Ont. C. P. R. and G. T. R.

T. DOUGLAS & SONS,

STRATHROY STATION & F. O. BREEDERS OF Shorthorns and Clydesdales. 33 Shorthorns to select from. Herd bulls (Imp.) Diamond Jubilee #28961 and Double Gold #27854. Young bulls, cows and heifers for sale at all times. Also one (imp.) stallion and two brood mares.

Spring Grove Stock Farm Shorthorn Cattle and Lincoln Sheep.

HERD prize and sweepstakes at Toronto Industrial Exhibition, three years in succession. Herd headed by the Bruce Mayflower bull, Prince Sunbeam, Imp. Present crop of calves sired by Imp. Wanderer's Last, sold for \$2,000. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply on

T. E. ROBSON, ILBERTON, ONT.

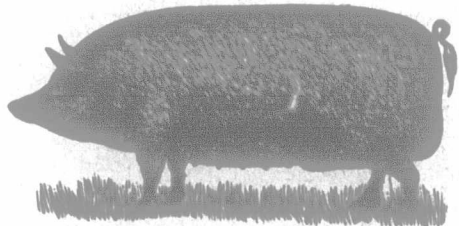
Imported Shorthorns Imp. Roadrunner heading the herd of imported and home-bred Shorthorns of best Scotch families, for sale, both sexes, at reasonable prices; also Oxford Down sheep. John McFarlane, Dutton, Ont., P. O. and Sta., Box 41.











One hundred Tamworth and Improved Chester White Spring Pigs of a true bacon type, our herd having won the best prizes offered at the leading exhibitions throughout Ontario and Quebec for the past ten years. Stock for exhibition purposes a specialty. We pay express charges between stations, and guarantee safe arrival of all stock shipped. Pairs furnished not akin. Write for prices.

**H. GEORGE & SONS, Crampton P. O., Ont.**

**Yorkshires, Collies and Poultry**

This month we are offering something extra in Yorkshire boars and sows, 6 weeks to 4 months. Will sell 10 yearling W. Wyandotte hens and two cocks, all fine stock. Choice pedigree collies.

**J. A. & A. B. Armstrong, Warkworth, Ont.**

**LARGE ENGLISH YORKSHIRES**

For sale: Imported sow, in farrow to imported boar; one imported boar, year old; boars 5 and 6 months, fit for service; sows ready to breed, from imported stock; young pigs, 3 weeks old. Write **JAS. A. RUSSELL, Precious Corners, Ont.**

**MAPLE GROVE HERD OF LARGE ENGLISH YORKSHIRES**

I have several young sows, bred to my Imp. boar, ready to ship. Also 3 or 4 nice young boars, 6, 10 and 12 months old, of my usual good breeding. My herd have won 29 1sts, 26 2nds and 2 diplomas at 6 county fairs this year, including diploma for best bacon boar and sow (all breeds competing). Write for my prices, as I have some first-class stock for sale.

**T. J. COLE, Box 188, Bowmanville, Ont.**

**IMPORTED AND HOME-BRED YORKSHIRES.**

Boars and sows ready to breed. Choice lot of imported in-dam young pigs. Sows in pig and being bred to imported show boars. Young Canadian-bred pigs supplied, not akin. Write

**H. J. DAVIS, Woodstock, Ont.**

**CHESTER WHITES**

We will furnish some first-class pigs, farrowed July 21st, at seven dollars each if taken soon. Pigs are the best we ever raised.

**J. F. PARSONS & SONS, Barnston, Que.**

**ENGLISH BERKSHIRES.**

Young boars at special prices; young sows, bred or ready to breed; also Shorthorn calves and Shropshire rams and ram lambs.

**JOHN RAOBY, Jr., - Lennoxville, Que.**

**PINE GROVE FARM HERD OF LARGE ENGLISH YORKSHIRES.**

The oldest-established registered herd in America. We have 12 imported boars and sows and 20 home-bred animals breeding, and have a limited number of young boars and sows for sale, suitable for this fall's breeding. Satisfaction guaranteed in all mail orders.

**Joseph Featherston & Son, Streetsville Station, G. P. O., and P. O. and Telegraph, Clarkson Station, G. T. E.**

**YORKSHIRES** Boars fit for service, at reduced prices. Sows in farrow and ready to breed, and young stock on hand. Write for prices.

**WM. HOWE, - North Bruce, Ont.**

**YORKSHIRES AND COTSWOLDS.**

Grand young boar and some excellent young sows, 5 months old, of right type. Also high-class Jersey cattle and young Cotswold ewes.

**WM. WILLIS & SON, Newmarket P. O. and Sta.**

**LARGE YORKSHIRES**

**GLENBURN HERD;** winners of gold medal 2 years in succession; averages 100 head. Sires at head of herd: Imp. Holywell Hewson and Oak Lodge Prior. A large number of sows for sale, due to farrow in March or April, also a few good young boars. Prices reasonable. **David Barr, Jr., Renfrew, Ont., Box 3.**

**Willow Lodge Berkshires.**

I will offer very cheap for the next thirty days, young boars and sows from 2 months old up to 7 months old, of extra quality and breeding, in order to make room for the litters now with sows. Can supply pairs not akin.

**WM. WILSON, Snelgrove, Ont.**

**YORKSHIRES**

For sale: Sows in pig to imported boar; sows 3 months old; boars imported and home-bred; at reduced prices for one month. Write **C. & J. CARRUTHERS, COBOURG, ONT.**

**FOR SALE: Yorkshires and Holsteins**

Best type and quality. Young stock constantly on hand. Prices right. **E. HONEY, on Brickley P. O., instead of Warkworth.**

**Chester Swine**

From Toronto and London prizewinners. Dorset sheep and lambs. Prices reasonable.

**R. H. HARDING, Mapleview Farm, on Thorndale, Ont.**

**AN INCUBATOR WITHOUT CASH**

**Until October, 1904**

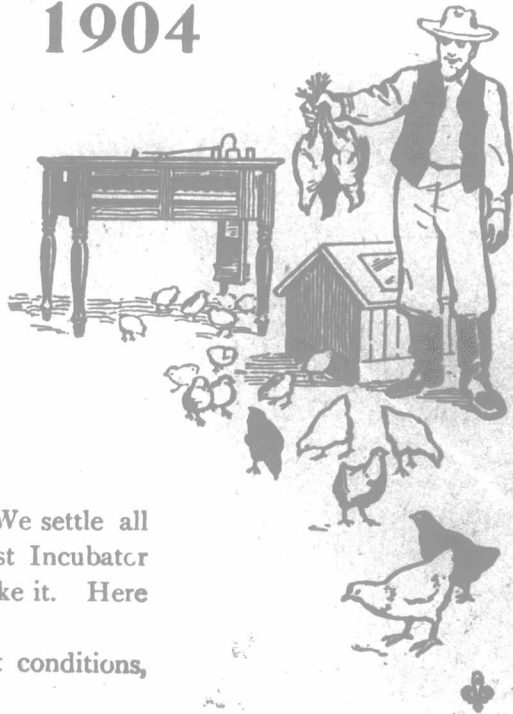
There is money in chickens—big money. The farmer who overlooks this branch of his business is neglecting one of the greatest profit-producing departments of his farm. For the amount of capital and labor invested the returns are enormous. But you must do it right.

You cannot make money in the poultry business without an incubator and brooder. You might as well depend on a cyclone to move your house and set it where you want it as depend on a hen to raise chickens for the market. Both are equally beyond your control.

Choosing the best incubator is the problem. With makers claiming so much for their machines you are left in a quandary. We settle all questions by the most liberal offer ever made. If we hadn't the best Incubator on the market and unquestioned financial strength we could not make it. Here is the offer:

We will give you a chance of raising poultry under the best conditions, without the outlay of one cent until October, 1904.

We will send you—freight prepaid by us—



**Chatham Incubator and Brooder**

and leave it with you until October, 1904, without any cash from you.

Give it a thorough test, make money out of it—the more you make the better pleased we shall be. When October, 1904, arrives you should have made sufficient profits to pay for this incubator several times over.

There is no string to this offer. It is open and free. We make it to show our supreme confidence in the Chatham Incubator and Brooder. We want everyone who desires to raise poultry for profit to accept it. We want you to fill out the coupon in the lower right-hand corner of this Ad. and mail it to us—or send us a postal card with your name and address. We will then give you full particulars. Write to-day.

Please find enclosed postal order for \$21. Please send me back my note. Your incubator that you sent me is O. K. I had 200 chickens from 213 eggs, and the 13 eggs that did not hatch were unfertile. Yours truly, **PAUL CARON, L'Islet, Que.**

Yours of June 17th at hand, and am much pleased with your generous business principles. Our last hatch came off on Saturday, and out of 155 eggs we set we have 69 strong, healthy chicks, making a total of 283 living chicks out of 339 eggs that were set. This proves without saying that the incubator is giving great satisfaction. Yours truly, **ROBERT C. BEECRAFT, Waterford, Ont.**

I take pleasure in writing to congratulate you for the M. Campbell Fanning Mill Company on the excellent incubator that your Company put on the market this year. As you are aware I purchased a No. 2, and after four hatches I can state that it is a first-class machine, and it pleases me more inasmuch that it is made in Canada by Canadians. Yours truly, **F. J. G. McARTHUR, Carleton, Man.**

We depend on every machine we put out to advertise itself in your neighborhood—we know it will prove such a good profit-producer for you that you will be pleased to tell your neighbors about it. Merit is the only quality that will do this. Because we know the Chatham Incubator and Brooder possesses this merit we are willing to sell it on these easy terms.

Remember, we do not ask you for one cent of cash until October, 1904. Don't delay. Send the coupon or postal card for particulars to-day.

**M. Campbell Fanning Mill Co. Limited**  
DEPT. 51 CHATHAM, ONT.

Manufacturers of Chatham Incubators and Brooders

Distributing Warehouses at Montreal, Que. Brandon, Man. Calgary, Alta. Vancouver, B.C. Halifax N.S.

Factories at Chatham, Ont., Detroit, Mich.

Also Manufacturers of the Famous Campbell Fanning Mills.

Mention this paper.



**CUT OFF THIS CORNER AND MAIL IT TODAY**

**M. CAMPBELL FANNING MILL CO. Limited**  
CHATHAM, ONT.  
DEPT. 51

Please send your descriptive Catalogue of the Chatham Incubator, together with all information about your special offer, whereby no cash will be paid until October, 1904.

Name .....

P. O. Address .....

Nearest Railway Station .....

Address all letters to Chatham, Ont.

**YORKSHIRES**

For sale: Sows in pig to imported boar; sows 3 months old; boars imported and home-bred; at reduced prices for one month. Write **C. & J. CARRUTHERS, COBOURG, ONT.**

**FOR SALE: Yorkshires and Holsteins**

Best type and quality. Young stock constantly on hand. Prices right. **E. HONEY, on Brickley P. O., instead of Warkworth.**

**Chester Swine**

From Toronto and London prizewinners. Dorset sheep and lambs. Prices reasonable.

**R. H. HARDING, Mapleview Farm, on Thorndale, Ont.**

**Mammoth Bronze Turkeys**

A choice lot of young birds sired by an imported tom, Chester White swine, good bacon type, either sex. Write for prices. **W. E. WRIGHT, Sunnyside Stock Farm, Glanworth P. O., Ont.**

**50 Grand Mammoth Bronze Turkeys**

Both sexes, bred from imported tom and hens.

**T. HARDY SHORE, Glanworth, Ont. O.**

**MAMMOTH BRONZE TURKEYS,** heavy birds, sired by imported toms, stock from the first-prize Pan-American winners in Buffalo in 1901. Pairs and trios mated not akin. **E. G. ROSE, Glanworth, Ont.**

**PEKIN DUCKS.** We offer for sale fine, heavy ducks at close prices. First-class in every way. Also Barred Rocks. Free circular.

**H. GEE & SONS, Selkirk, Ont.**

**FOR SALE OR EXCHANGE**

Toulouse and Embden geese, Pekin ducks, White Plymouth Rock, Barred Plymouth Rock and White Leghorn cockerels. Would exchange for Partridge Cochin pullets, Brown Leghorn cockerels or White Muscovy ducks. Also Yorkshire swine from the Pioneer Herd of the Province of Quebec, all ages and sexes. Nothing but No. 1 pigs shipped. Write for prices to **A. GILMORE & SONS, Athelstan, Que.**

**A. E. SHERRINGTON**

Importer and breeder of **BARRED ROCKS** exclusively. Breeding hens, pullets and cockerels for sale. Write for prices. **Box 100, Walkerton, Ont. O.**

**Wanted—A Young Man**

to assist herdsman, used to cattle. Must be of steady habits. Give references and all particulars. Address—**HERDSMAN, Borden Stock Farm, Tontit, Ill. O.**

**Wanted—A Herdsman**

who knows how to take care of Ayrshire cows, calves and Yorkshire pigs. Married preferred. Address—**PINE LANE FARM, Middletown, N. Y. O.**

In answering any advertisement on this page, kindly mention the FARMER'S ADVOCATE.

# YOU ARE TO BE THE JUDGE



## YOU ARE TO BE THE ONE

to say whether it is or isn't; whether you will or you won't; whether we are RIGHT or wrong. We leave it TO YOU entirely, for YOU to decide. The only evidence we want to submit is a dollar package of VITÆ-ORE, which package we want you to USE, and at our risk.

ALL we ask is a FAIR VERDICT. We say, if you are sick, that VITÆ-ORE WILL CURE YOU. We say that ONE PACKAGE will PROVE to you that it is the remedy for your case and condition. If it does not, YOU TO BE THE JUDGE, we want nothing from you.

READ

## Our Special Offer:

WE WILL SEND to every worthy sick and ailing person who writes, mentioning The Farmer's Advocate, a full-sized \$1 package of VITÆ-ORE by mail, POSTPAID, sufficient for one month's continuous treatment, to be paid for within one month's time after receipt, if the receiver can truthfully say that its use has done him or her more good than all the drugs and doses of quacks or good doctors or patent medicines he or she has ever used. Read this over again carefully, and understand that we ask our pay only when it has done you good, and not before. We take all the risk; you have nothing to lose. If it does not benefit you, you pay us nothing. We do not offer to send you a free sample to last three or four days, but we do offer to send you a regular \$1 package of the most successful curative medicine known to the civilized world, without one cent of risk to you. We offer to give you thirty days to try the medicine, thirty days to see results before you need pay us one cent, and you do not pay the one cent unless you do see the results. You are to be the judge! We know that when VITÆ-ORE has put you on the road to a cure you will be more than willing to pay. We are willing to take the risk.

**What Vitæ-Ore is:** Vitæ-Ore is a natural, hard, adamantite, rock-like substance—mineral—ORE—mined from the ground like gold and silver, in the neighborhood of a once powerful but now extinct mineral spring. It requires 20 years for oxidation by exposure to the air, when it slacks down like lime and is then of medicinal value. It contains free iron, free sulphur and free magnesium, three properties which are most essential for the retention of health in the human system, and one package—one ounce—of the ORE, when mixed with a quart of water, will equal in medicinal strength and curative value 800 gallons of the most powerful mineral water drunk fresh from its springs. It is a geological discovery, in which there is nothing added or taken from. It is the marvel of the century for curing

**Rheumatism, Bright's Disease, Blood Poisoning, Heart Trouble, Dropsy, Catarrh and Throat Affections, Liver, Kidney and Bladder Ailments, Stomach and Female Disorders, La Grippe, Malarial Fever, Nervous Prostration and General Debility,**

as thousands testify, and as no one, answering this writing for a package, will deny after using. Vitæ-Ore has cured more chronic, obstinate, pronounced incurable cases than any other known medicine and will reach such cases with a more rapid and powerful curative action than any medicine, combination of medicines or doctor's prescription which it is possible to procure.

VITÆ-ORE will do the same for you as it has for hundreds of readers of this paper, if you will give it a trial. Send for a \$1 package at our risk. You have nothing to lose but the stamp to answer this announcement. We want no one's money whom Vitæ-Ore cannot benefit. You are to be the judge! Can anything be more fair? What sensible person, no matter how prejudiced he or she may be, who desires a cure and is willing to pay for it, would hesitate to try Vitæ-Ore on this liberal offer? One package is usually sufficient to cure ordinary cases; two or three for chronic, obstinate cases. We mean just what we say in this announcement, and will do just as we agree. Write to-day for a package at our risk and expense, giving your age and ailments, and mention this paper, so we may know that you are entitled to this liberal offer.

This offer will challenge the attention and consideration and afterward the gratitude of every living person who desires better health or who suffers pains, ills and diseases which have defied the medical world and grown worse with age. We care not for your skepticism, but ask only your investigation, and at our expense, regardless of what ills you have, by sending to us for a package.

SENT BY MAIL—WE PAY POSTAGE!

## Permanent Cures

In making the claim a quarter of a century ago that Vitæ-Ore is the best thing in, on or out of the earth for sick, ailing or suffering people, we made it unreservedly

and unqualifiedly, without any stipulation or "saving clause," knowing from our experience and from the experience of the few who had already used it at that early date, that its virtues and curative properties would fully substantiate this claim; that it was the best, not only because it gave relief from pain and the effects of disease, but that it cured the disease, and cured it effectually and permanently, hence the reason for the lines we have so often used in our advertisements and literature: "Get cured and stay cured," and "Not only immediate relief, but a permanent cure." Too many preparations are put on the market and advertised to give relief, too few to cure, immediate relief, but a permanent cure.

The test of a medicine is not so much in the experience and immediate testimony from the use of one package or bottle, but in the experience of people written months or years after they have used that one package or bottle, and who testify that it cured them at that time, and that they have never had a recurrence of the malady. How many of the testimonials you see published in the papers of the land are such testimonials, how many who testify that they were and are permanently cured? Vitæ-Ore has thousands upon thousands of such experiences to its credit. It has been before the public for a quarter of a century. It is curing people by the thousands to-day, of all manner of diseases, who will still be cured at a date a quarter of a century hence. We have repeatedly received letters from people who wrote us testimonial letters years ago, now saying that they have had absolutely no return of the trouble or troubles. Vitæ-Ore strikes the disease at its root, entirely eradicates every vestige or trace, and the patient is cured to stay cured. Its cures are permanent, and for this reason it itself is a permanent remedy, one that has come to stay, that will grow in popularity and sell more rapidly from year to year, always curing with a permanent cure, always satisfying, always selling.

## YOU ARE TO BE THE JUDGE!

### Impure Blood

Almost everyone in this latitude is a sufferer from diseases caused by IMPURE BLOOD, the corner-stone of more ills than all other causes combined, and only here and there one recognizes that in his blood lurks the seeds of disease, ready to take root and manifest themselves at the first opportunity in some of the innumerable hideous ways so dreaded by everybody. Every neighborhood has its afflicted, many seemingly inextricable, with complaints that have gradually and almost imperceptibly made their appearance, growing a little worse with each change of the season until Chronic Ailments are well seated and developed in the system, such as Stomach, Liver and Bowel Troubles. Each takes one or more forms peculiar to such diseases, but all are due to Impure Blood, to the absence from the blood of some necessary vital force, or the presence of some foreign element, which impairs its powers to faithfully perform its duties to the system, causing a long list of complaints which yearly drag thousands to the grave.

To purify the blood, eradicate disease, build up the system, Vitæ-Ore is without a peer among remedial agents. No other remedy so constant can equal it as a powerful constitutional tonic, a blood vitæ-Ore, a restorer and regenerator. It contains, as its constitution it parts, all the elements needed by the blood, which are absorbed by the thousand of minute blood corpuscles, and taking their proper place in the circulation, and all foreign secretions which have been undermining the system. It supplies the wants of nature, is her able assistant and one recommended upon to do its work under all conditions.

Under its influence, the watery, impoverished blood becomes strong and vibrant, and through the veins imparts the color of health to the face, and strength and vigor to the system.

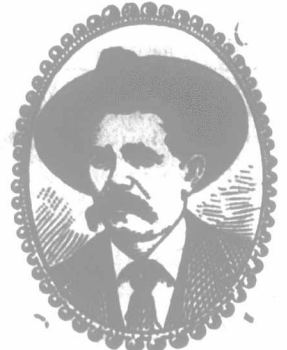
**W. H. NOEL, Geologist, F. A. Dept., YONGE ST., Toronto, Ont.**

## DESPAIRED OF LIVING.

A CHRONIC CASE OF STOMACH TROUBLE CURED IN QUICK TIME.

Read What an Edmonton Man Says of Vitæ-Ore.

Edmonton, Alta., N.-W. T. I had been troubled almost all my life with a Stomach Disorder, and tried hundreds of remedies—in fact, every one I heard of for that trouble—with no permanent relief. About three



years ago it developed so severely that I was compelled to give up work and almost despaired of living much longer; in truth, I did not think in my condition life was worth the living. Seeing Vitæ-Ore advertised in my paper on thirty days' trial I procured a package, and at the end of the month's treatment I had such relief that I bought two more packages. When I had finished the second package I had begun to gain in flesh, and when I had taken the third package I was strong and healthy, weighing more than I ever did before, and I am now enjoying a health and comfort that words cannot express. I think Vitæ-Ore is the best Stomach remedy that can be had, and to all afflicted with Stomach Troubles it cannot be too highly recommended. M. M. JOHNSTON.

## GAINED TEN POUNDS IN WEIGHT

Suffered for Five Years from General Debility: Two Years from Indigestion and Salt Rheum.

Clinton, Ont. I wish to tell what Vitæ-Ore has done for me, in the hope that it may help others to be cured as I have been. I had been suffering for five years with General Debility and Neuralgia in my head, and two years ago I began to be troubled with Indigestion and Salt Rheum, the latter appearing on my hands, and could hardly eat or sleep. Although I doctored with some good doctors, I received no benefit until I commenced using Vitæ-Ore, and before I used all of two packages I had gained ten pounds. Three packages of Vitæ-Ore have made me a new woman. MRS. MARY KROOT.

## Cured After Seven Years' Suffering

READ WHAT A QUEBEC MAN SAYS.

Lance Au Beaufils, Que. After suffering for about seven years with Rheumatism my attention was called to Vitæ-Ore, and as I had tried nearly everything else recommended to me I decided to give it a trial also. The result was far different from the other medicines and treatments I have used, as I am now cured of my trouble. Mine has certainly been a hard and obstinate case, which gives Vitæ-Ore all the more triumph for having accomplished what all others could not. ALFRED LENSFESTREY.

## RELIEF INSTANTANEOUS.

Cured in Remarkably Short Time of Catarrh of Throat and Serious Stomach Trouble.

Chesterfield, Ont. The Vitæ-Ore treatment has done wonders for my wife. She has been troubled for years with Catarrh of the Throat, and also Stomach Trouble, manifested by an accumulation of gas on the stomach after eating. The treatment in her case brought almost instantaneous results, and we both feel jubilant over it. JOHN RISK.

## IN PAIN NIGHT AND DAY.

Cured Like Magic With One Package.

Lancaster, Ont. For two years past I was in pain night and day through an attack of Rheumatism that seemed to be chronic, and could hardly move my arms or put on my coat without help. I am very glad to say that I am now entirely cured and have had no pain whatsoever for the last two months, which cure was brought about entirely by the Vitæ-Ore treatment. I used only one package of Vitæ-Ore but it worked like magic in my case. I thank God for what it has done for me, a thing which I believe it will accomplish for anyone suffering with this trouble. W. H. WEBBER.

By mentioning the advertisement in the FARMER'S ADVOCATE.