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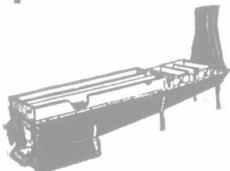
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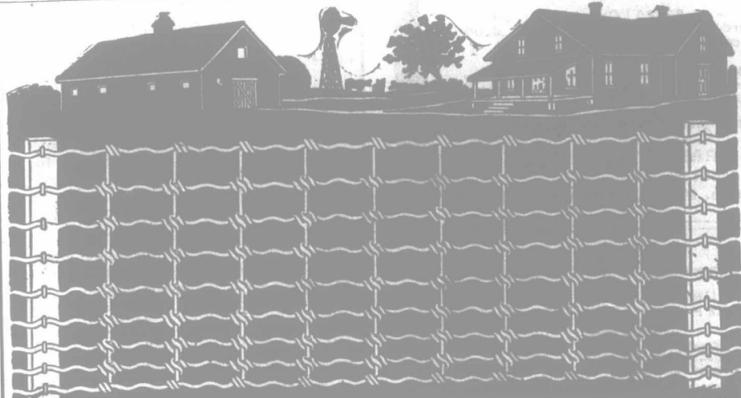
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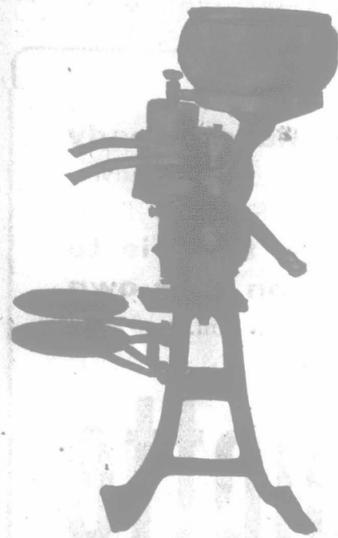
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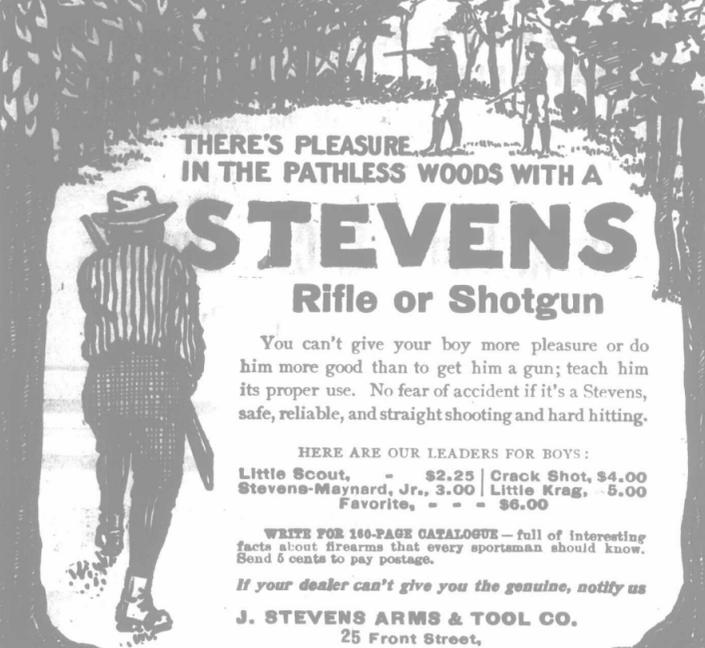
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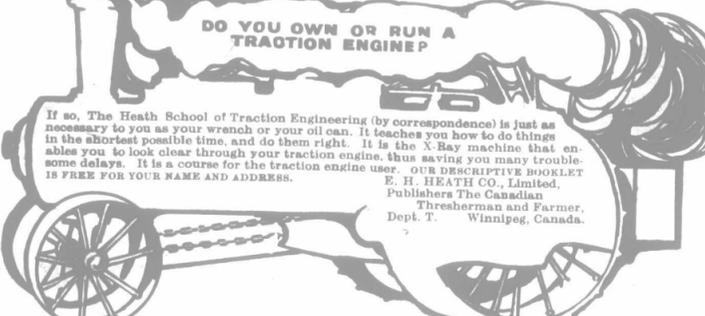
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Best Results are Obtained from Advertising in The Farmer's Advocate

QUESTIONS AND ANSWERS.
Miscellaneous.

COCKERELS FIGHTING.

What can be done to stop cockerels from fighting? H.

Ans.—At this time of the year it is hard, sometimes impossible, to keep cockerels that are penned together from fighting. Sometimes, after they have had a good fight or two, and know who is boss, they will stop. If, however, your cockerels persist in fighting, it will be necessary to part them. At least, take out those that are making the trouble. They will soon be required for mating up in the pens, and it might be necessary for you to mate them up a little earlier on account of the action of the cockerels. F. C. ELFORD.

OIL CAKE FOR BREEDING EWES.

As I have no roots this winter, I wish to know whether oil cake would be good as a substitute with good clover hay, and whole oats and bran. If so, how, and in what quantities should it be fed? A. B.

Ans.—With good clover hay, and a moderate ration of oats and bran, breeding ewes have no need of either roots or oil cake, and, indeed, we should say are better without either, in so far as the lambs they are carrying are concerned. Roots are desirable after lambing, and a small quantity of oil cake, coarse ground, say 1/4 a pound each daily, in 2 feeds, mixed with oats and bran, will be found helpful in secreting milk and keeping up the strength of the ewes when nursing their lambs.

NAMING A FARM.

I am a constant reader of "The Farmer's Advocate," and have noticed the idea of having the farmer's name placed on his road gate recommended highly. I think the idea a very good one, especially for strangers. Would you kindly suggest a few suitable names for a rolling farm? A READER.

Ans.—In naming your farm, why not use a composite, with one of the following as a component: "Grange," signifying a farm; "Park"; "Hall," a large building; "Manor," a large building with land attached; "Lodge," a smaller house; "Crest" or "Brae," to signify the rolling character of the land; "Ken," a view; "Men," old Celtic for "place"; or "Ern," old Saxon for "a building." With any of these might be combined a family name, or some word especially indicative of the character of the neighboring landscape; e. g., "Elmwood Grange"; "Brookside Lodge," if a brook be near; "Kenmuir"; "Brae-side Manor"; "Heathcrest"; "Tara-brae"; "High-holm"; "Waverley"; "Ernclyffe." Many such combinations will suggest themselves if you set to work to study them out.

LEAKING FROM CHIMNEYS AND PIPES.

I saw in "The Farmer's Advocate" of January 2nd a question on stovepipe dripping soot. To prevent that trouble take the second or third length of pipe above the stove to the tinsmith, and get him to cut a hole in it 2 x 3, with a slide so you can open or close as you wish. That lets the air in with the smoke and steam. We have ours open about two inches all the time, and have no trouble with liquid soot. J. L. T.

Note.—Scientifically considered the method suggested must prove beneficial, for the air drawn into the pipe through this opening being dry, compared with that passing through from the fire, will have a drying effect on the pipes and chimney. That this effect is sufficient to constitute a perfect remedy appears to be established by the experiences of your two correspondents. I think it would take only slightly more fuel to heat a house with this device in use than without it, for a small amount of the warmed air will be removed through the pipe, cold air coming in through the cracks and crevices round the windows and doors. On the other hand it will afford a considerable amount of ventilation, which is an important consideration; so that economically I think there is no objection to the device.

W. H. DAY.

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Fence**

Holds Cattle Prisoners

Your fiercest bull, your most strenuous rooting-sow, your smallest and most cunning little piggy, will "stay put" where you want them when you place the new London Woven Fence on guard.

The strongest woven fence on the market is the London. The same extra high grade of steel, with the same



enormous surplus strength and extraordinary elasticity, as has made London Coiled Wire the talk of the country. Wires and locks all No. 9. Heaviest kind of galvanizing. A vastly improved lock—holds wires as solidly as if in grip of a vise.

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The Farmer's Advocate

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"Persevere and Succeed."

Established 1866

Vol. XLIII.

REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1876.
LONDON, ONTARIO, JANUARY 30, 1908.

No. 801.

EDITORIAL.

HORSEMEN'S EXPERIENCE - COMPETITION AWARDS.

The value of an agricultural journal depends to a great extent upon its readers—the men on the farms, who, bringing their thousands of minds to bear, from day to day, upon their own peculiar problems, evolve improved practices, overcome difficulties, and then contribute of their experience for the benefit of fellow readers similarly circumstanced. "The Farmer's Advocate" has always made a strong point of actual, every-day experience, and to this fact, more, perhaps, than to any other, may be ascribed its steady advance in the favor of Canadian farmers.

The most encouraging feature is that we never call upon our subscribers in vain. A request for experience seldom fails to bring to our desk a good grist of helpful correspondence. The latest example of this is the "Horsemen's Experience Competition," announced in our issue of December 5th, 1907. The close of the entries, on January 15th, found twenty communications in hand, from which we can promise our horse-column readers a weekly treat during the next two or three months. The three prizewinning articles and the best of the others will be published, one each week. For those articles other than the winning ones, regular contribution rates will be allowed, as used. Criticism of the articles is invited, as well as further contributions on any and all horse topics.

The task of judging these essays and awarding the prizes was assigned to our esteemed and reliable correspondent, "Whip," who has considered them very carefully, awarded prizes to three, and commended seven others. Following are the results:

First Prize.—John P. Nunan, Brant Co., Ont.

Second Prize.—Charles Dunlop, Carleton Co., Ont.

Third Prize.—Walter R. Broadfoot, Huron Co., Ont.

Commended in order of mention: W. Ormiston, Ontario Co., Ont.; Alex. Innes, Huron Co., Ont.; John B. McGerrigle, Chateauguay Co., Quebec; Andrew Scott, Montreal, Que.; Archie Bell, Huntingdon, Que.; Jas. H. Johnston, Lambton Co., Ont.; R. C. McGowan, Huron Co., Ont.

In the Horse Department of this issue will be found the first-prize essay. It was well written, requiring practically no editing, and, as the judge remarks, "It illustrates the danger of cross or careless breeding, and also the good results obtained by intelligent mating. The results he gives are not extrayagant, and, while probably none have given improbable figures, I think this gentleman has given actual facts."

GETTING AT THE FACTS.

Facts are facts. It is the truth we are always after. If the muslin-curtain system of ventilation is inadequate or unsatisfactory, we want to know it. If less satisfactory than its champions have claimed, we want to know that. If it is insufficient or unsatisfactory by itself, perhaps it can be adapted to advantageous use in conjunction with our existing methods, say the King or the Rutherford systems. It is to determine such points as these that Mr. J. H. Grisdale, Agriculturist of the Central Experimental Farm, Ottawa, has undertaken the series of experiments, a preliminary report of which appears elsewhere in this issue. It is very gratifying that Mr. Grisdale has undertaken this work, because he is a professional agriculturist who enjoys a large measure of public confidence, and whose papers,

no one set of experiments will be regarded as conclusive, a good deal of attention will be paid to those conducted under his supervision. Thus far, his observations indicate that muslin curtains on the windows are not as thorough or convenient a system of ventilation as the convection systems already in use; that the ventilation, and consequently the temperature, depends to a considerable extent upon the velocity of the wind; that considerable watchfulness is necessary to insure a fair degree of success; that the stable is darkened, and that the curtains become fouled. On the other hand, in favor of the curtains, he finds they are cheap, and very much better than no ventilation at all. We understand it is now intended to experiment with this in conjunction with other systems, using the curtains as inlets for fresh air, with interior flues for outlets. By so doing, and by having only a part of the window space covered with curtain, having glass in the remaining area to let in light, much better results may be expected.

In any case, it is not improbable that the muslin-curtain system, or some modification, will be found worthy of recommendation to those not prepared to go in for anything more expensive. There are many Canadian stables with practically no ventilation at all. Some farmers do not even know what the word means. A wide-awake dairyman told us recently of such an instance. He was talking to a former neighbor, and criticising his stable, which was dark and absolutely unventilated. "You need ventilation," said his informant. "Y-es," responded the owner, uncertainly, "I am going to put a wall under it this winter, and then it will be elevated."

No wonder we have tubercular herds.

FLESH, FEATHERS OR HAIR?

Considerable has been heard of recent years about the "vitality" of Holstein milk and its peculiar virtue for infants by reason of that mysterious inherent quality. It will not be construed as a knock at this grand old dairy breed if we express a prevailing scepticism as to whether there is anything more in the claim than that Holstein milk is not overrich in fat, and consequently better adapted to weak stomachs and to the demand of growing bodies than the secretion of the Channel Island breeds. Milk is a food, not a force, and the idea that milk of certain origin contains a specific or particular elixir is rather a big dose to swallow in our present stage of dairy research.

But it has remained for our esteemed friend and correspondent, Mr. Robert Miller, to go the Holstein breeders one better, by advancing the novel theory that, as Shorthorn milk, fed to successive generations of calves, has produced flesh, bright, pink skins; soft, silky hair; thriftiness, plumpness, beauty and strength; therefore, might we not expect this kind of milk to produce better complexions in our children than that of the skinny, bare-boned cows, which rear skinny, bare-boned calves? Would milk that makes a blue or yellow skin in a calf be as apt to produce the tint wanted in human beings as milk produced by cows that have been bred for clear skins for a hundred years? Here is a nut for the dairymen to crack, and, while they take turns at it, the editors will lean back and rest their busy pencils for a while.

Just one thought we may throw out. Why is it that, with a goose and a horse grazing in the same pasture, one will produce feathers, and the other hair? Why is it that a Jersey cow nearly always gives milk high in butter-fat, no matter how she is fed? Why does the Ayrshire cow's milk contain such small butter-fat globules?

Would the handling quality of Shorthorn cattle deteriorate if the calves were reared on Holstein or Ayrshire milk? Are there not cows of the dairy breeds with the mellowest of skins and hair? Does it matter much what cow gives the milk, so long as it is reasonably free from injurious bacteria? How long would it take to impress Saxon complexions on the negro race by feeding the pickaninnies on Shorthorn milk? Does not individuality, established by hereditary tendency, determine the use that will be made by each digestive and assimilative system, of milk, grass or beef?

BRAN AT FOUR DOLLARS A TON.

Eleven or twelve years' experience in growing alfalfa has converted that well-known dairy stalwart, Henry Glendinning, into an ardent alfalfa enthusiast, and, after keeping his own counsel till a year ago, so as to be perfectly sure of his ground, he has come out boldly as a platform advocate. At the Eastern and Western Dairymen's Conventions he delivered two telling addresses, mainly on the culture of this crop and its great value in economical milk production. His itemized statement of the cost of producing alfalfa hay will be found on page 85 of our issue of January 16th. It shows how, according to actual observation, he can produce and harvest, on an 8-acre field, an average crop of 5 to 6 tons per acre in three cuttings, for \$2.00 per ton, allowing \$4 per acre rent for the land, and 20 cents per ton of hay for contingencies. Mr. Glendinning privately assured us he was sorry the figures were so low. It is hard for people to believe them. For the past two winters his cows have been fed on corn silage, straw, mangels and alfalfa hay, with no grain except the corn in the silage; and we have reported the instances he quoted in his speeches, showing that they are milking very well indeed on this ration. At an estimated cost of 2 cents per feed, the alfalfa hay furnishes the protein for which he would have to pay 19 cents if purchased in the form of bran. Corn silage being a carbonaceous feed, and deficient in that essential element, protein, requires a feed like bran, oil meal, alfalfa or clover hay to supplement or "balance" it up. Oil meal contains about 28 per cent. protein, bran 12.2 per cent., well-cured alfalfa hay 11 per cent., and clover hay in the neighborhood of 6 per cent., and the protein in the alfalfa is almost as digestible as that in the bran. With the latter by-product at \$22 to \$24 per ton, and alfalfa hay capable of being produced at \$2.00 per ton, it requires no mathematician to demonstrate that many farmers are missing a golden opportunity. If further testimony is wanted, it is furnished by the experience of many dairymen besides Mr. Glendinning, who are getting excellent results on a ration consisting chiefly of silage and alfalfa hay.

It may be thought that Mr. Glendinning's estimate of the cost of production is too low. Perhaps the margin of 20 cents per ton for contingencies is open to criticism, and this is invited. His itemized estimate of the cost of harvesting, under his conditions, cannot well be assailed, and the soil-improving virtue of alfalfa renders unnecessary any material allowance for extraction of fertility. Mr. Glendinning applies only three loads of manure per acre once in three years. (By the way, he has had marked results from the application of wood ashes.) We are of opinion, however, that, in view of the frequent failure in securing a catch, danger of occasional winter-killing, and risk in harvesting the first crop, a considerable margin should be allowed on these scores, although it is but fair to note that many

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE
DOMINION.

PUBLISHED WEEKLY BY
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JOHN WELD, MANAGER.

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

LONDON (ENGLAND) OFFICE:

W. W. CHAPMAN, Agent, Mowbray House, Norfolk Street,
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1. THE FARMER'S ADVOCATE AND HOME MAGAZINE

is published every Thursday.
It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most practical, reliable and profitable information for farmers, dairymen, gardeners, stockmen and home-makers, of any publication in Canada.

2. TERMS OF SUBSCRIPTION.—In Canada, England, Ireland and Scotland, \$1.50 per year, in advance; \$2.00 per year when not paid in advance. United States, \$2.50 per year; all other countries 12s.; in advance.

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12. WE INVITE FARMERS to write us on any agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch printed matter. Criticisms of Articles, Suggestions How to Improve THE FARMER'S ADVOCATE AND HOME MAGAZINE, Descriptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation, are each and all welcome. Contributions sent us must not be furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

13. ALL COMMUNICATIONS in reference to any matter connected with this paper should be addressed as below, and not to any individual connected with the paper.

Address—THE FARMER'S ADVOCATE, or
THE WILLIAM WELD COMPANY (LIMITED),
LONDON, CANADA.

of these chances are preventable. Mr. Glendinning enumerates the three chief causes of failure in growing alfalfa as lack of inoculation, lack of drainage, and, above all, pasturing, especially in the fall. As we learn more of alfalfa culture, the risks will be greatly reduced.

But, double the estimate; put the cost of raising and harvesting at \$4.00 per ton, and we still have the relative cost of protein in alfalfa hay and brand standing as 1:5. This being the case, granting that oil meal is a more economical source of protein than bran; and that, in lieu of alfalfa, clover might be used, yet, when we consider that alfalfa is a perennial, producing liberally year after year without reseeding, 50 to 100 per cent. better crops than clover, of much better hay; granting these facts, and remembering that alfalfa is especially suited to clay hillside that are unprofitable to till, can we longer afford to neglect this wonderful crop?

Mr. Glendinning is not the only dairymen who finds well-cured alfalfa, corn silage and roots a splendid ration for milk production. Many correspondents have written in similar vein, and we know by experience they are right. While most feeders might prefer to add a little grain, very satisfactory and highly-profitable yields of milk can be obtained with the above combination. Mr. Glendinning considers it the most economical he can use.

WISHES FOR STILL GREATER SUCCESS.

I received the knife in first-class order, and prize it very much, thinking it is worth anyone's time to try and get one new subscriber for "The Farmer's Advocate." Hope you will have more success in 1908 than in any of the past years. Thanking you for the knife, and also thanking you for the excellent Christmas Number, I remain your subscriber,
W. J. B.
York Co., Ont.

AN ABSTRUSE SUBJECT MADE PLAIN.

It is not reflecting upon any other feature of our 1907 Christmas Number to state that the article which aroused most interest was that of Prof. W. H. Day, on "Electrical Development in Ontario." So well did this author succeed in elucidating the subject that the ordinary lay reader was given an intelligent insight into the abstruse science of electrical development, and many who have all their lives been connected with electrical works have obtained a much clearer understanding than they ever had before. For instance, an experienced stenographer in a large civic lighting plant writes, praising the Christmas Number, and commenting as follows re Prof. Day's article: "It interested me immensely. Of course, I am hearing about it every day, but he explains the electrical terms so plainly that it is easy to understand. I have heard of volts and ohms and amperes ever since I went into the office, but I never got a really clear idea of what they meant before reading this article." The article, "Ideal of Womanhood," in Home Magazine, Christmas Number, is also highly commended.

CHRISTMAS EDITION EXHAUSTED.

Owing to the great call for our Christmas Number, we will be unable to furnish it to any more new subscribers. Although we published several thousand extras, our supply is already exhausted. For a short time we will be able, however, to start new subscriptions from the beginning of 1908, as we have a few hundred copies on hand of each number back to that date. With the continued assistance of our subscribers, we purpose publishing, in the regular issues of 1908, a paper even superior to that of the past twelve months, and new subscribers may be assured of ample value for their money.

THE WRONG TIME TO STOP.

Among the flood of new subscriptions pouring in, which have already exhausted all the extra Christmas Numbers we had printed, there is an occasional letter like this: "I regret to have to ask you to discontinue my paper. Crops were short, and money is so scarce that we shall have to do without it this year. We like it very much, and hope to renew another year." The writer of such a letter evidently regards his agricultural paper as a sort of luxury, to be indulged in when times are good, but foregone when they are close. It seems to us a wrong view to take.

An agricultural journal, while it may be, to some extent, a luxury, is also a necessity of vital importance, and never more valuable than when the need for economy is most pressing. At the trifling expense of less than three cents per week, it furnishes the help, the stimulus, that will best enable you to overcome difficulties, utilize feeds and resources to the best advantage, practice the most intelligent economy, and make the most out of a lean year. We do not pretend to say that reading alone maketh a successful farmer. Some men will do better without reading than others with it. A great deal depends upon the man. Some, who are skillful at adapting ideas introduced by their enterprising neighbors, succeed fairly well without ever subscribing to an agricultural journal at all, and flatter themselves that they owe nothing to professors and editors, whereas there may be scarcely a feature of their farm practice that has not been influenced indirectly by expert investigation and journalistic stimulus, filtered to them through their reading neighbors. Let no farmer delude himself with the impression that he owes nothing to the agricultural press. Every one owes a great deal.

But, while every man in the community benefits by one man's reading, yet, to receive the prompt-

est, most effective, and greatest benefit, it is necessary that each man be a subscriber, and, as a rule, the best farm practice is found in those sections where the most high-class agricultural literature is taken. Second-hand knowledge, and especially second-hand enthusiasm, are not nearly as good as first-hand. The man who has succeeded by borrowing his neighbors' ideas would have succeeded earlier and better by acquiring and developing some of his own. For the highest success in agriculture, it is of the greatest importance to have the regular visits of a first-class, up-to-date, practical agricultural periodical, to keep one posted, alert, open-minded, informed concerning new developments and discoveries, and, above all, to receive the experiences of men in the same box as himself. If hard up, put off buying the buggy, wear the old suit of clothes another year, stop the newspaper even, practice any such economy you can, but, for your own sake, do not do yourself the injustice of stopping your agricultural reading. It is penny-wise and pound-foolish every time. We are glad to see that only a small proportion of our subscribers are doing so, but this word is especially addressed to these few.

THE LEAVEN WORKING IN THE EAST.

The short course recently completed at the Agricultural College, Truro, N. S., furnishes one more page of evidence that in this young institution, manned, as it is, by an enthusiastic, hard-working and capable staff, the chief hope of Maritime agriculture is centered. There were in attendance one hundred and forty students, and, by enrolling the intermittent attendants, the number could have been brought up to one hundred and ninety. Of the one hundred and forty men regularly enrolled, sixteen were from Prince Edward Island, nineteen from New Brunswick, one from Newfoundland, and the remainder from the various counties of Nova Scotia. Keen interest was sustained to the very end, the students from Prince Edward Island, New Brunswick and Newfoundland joining in addresses on the closing day, stating their appreciation of the good work done at the College, and thanking the Government of Nova Scotia for allowing them to attend. The Nova Scotian Government is only too pleased to have these men come, if only, as an evidence of appreciation, leading Nova Scotians themselves to better appreciate the good work of the institution. The College staff are naturally gratified, and have further reason for congratulation in the fact that thirty-five other students are taking the regular two-year courses, as compared with fifteen two years ago.

The most hopeful feature of the short-course work was that most of the students were young men, between the ages of twenty and thirty. Considering the chronic lethargy manifested in Maritime agricultural circles of recent years, prior to the advent of the College—a lethargy so marked that a young man in an agricultural gathering was almost conspicuous by his presence—the new life, new enthusiasm and new interest that is being awakened among the younger generation is a signal tribute to the success of those who are promoting the New Agriculture down by the Atlantic coast. The Maritime Provinces have long been liberally supplied with colleges and other educational institutions which, unfortunately, have been of too purely academical tendency and ideals; and so far from fitting their graduates for efficient service to their native Provinces, they have weaned too many from the farm and the industries the country afforded, inclining them, rather, toward professional and other lines of activity in the neighboring Republic. The Agricultural College is counteracting this influence, fitting the people for efficient citizenship, helping to hold the enterprising youth within the Provinces, and laying the basis for a stable, progressive and prosperous agriculture, without which no agricultural people can hope to flourish materially physically, or intellectually. The agricultural college benefits not only the farmer, but the community, the Province, the nation as a whole.

As I miss "The Farmer's Advocate" very much, and cannot do without it, please find enclosed \$1.50, to add my name to your subscription list again.
J. W.

WESTERN LETTER.

The other day I casually asked a friend who came to Manitoba with the second Wolseley expedition, if he ever saw a better winter, and, by way of reply, he began to recall some of the nice weather they had in '74. This gives an idea of the mildness and steadiness of the past three months. No better weather could be conceived for stock. We have had no extremes, and the average has been most enjoyable. It has done wonders for the country. Feed was scarce enough in many places, and the short crop had made many new settlers despondent; but the Western sunshine is a wonderful mental tonic, and people are even now discussing seeding, and the prospects for an early spring, with rapid growth.

The Western farmer has been accused of ignoring everything in the summer but his crop, but he turns in winter to public questions with a vengeance. The Manitoba Grain-growers' Association wants the Government to provide storage elevators throughout the Province, and so give the farmer independence of the elevator owners, who now are making good profits by taking wheat from farmers' wagons and transferring it to cars when they arrive. The idea is a new one, and, as it promises economy in handling grain, may be expected to stick.

The report of the Royal Grain Commission is not enthusiastically received. This is probably because it is those who are inclined to radicalism who generally display most enthusiasm, and the report of the Commission does not embody any very radical recommendations. The Commission has done much good, for, as a result of its inquiry, which was freely published and widely read, the public has a much better grasp of the conditions in the trade.

Saskatchewan is doing some good work this winter. Seed fairs are being held all over the Province, the Dominion Seed Branch and the local Government co-operating. Mr. McFayden makes a splendid official in charge of the work for the Dominion. Farmers were never more interested in good seed, clean farming and grass-growing, all of which augurs well for the great grain Province.

Some good work is also being done in Alberta. The Department of Agriculture and the railway companies are running Farmers' Institute trains, and all the experts in the Province are on the programmes.

The Western stock-breeders are watching the fraternity in the East. It is not yet clear to us up here why the Clydesdale Horse Association failed to make an appropriation to the prize-list of the Manitoba Spring Stallion Show. Last year the show got \$100.00 from the Association, and certainly deserved as much this year. And, while on Clydesdale matters, why is it that none of our Western men are asked to judge at some of the Ontario shows? We have Clydesdale judges up here that are capable enough, and we are always courteous in engaging the services of Easterners to judge up here. Ontario Clydesdale men are overlooking a chance to fraternize, and incidentally extend business.

Our Shorthorn breeders in Manitoba will watch with more than ordinary interest the proceedings of the annual meeting, whenever it may be (no one out here has yet been notified of the date). Your breeders down East are promised an intricate problem as a result of the precedent they established last year, when they divided the grant to Manitoba between Winnipeg and Brandon Exhibitions. This year an effort is being made to have all the Manitoba grant allotted to Brandon, but it is hardly conceivable that the annual meeting will ignore the services Winnipeg exhibitions have rendered the breed, and offend a large number of breeders in the central and eastern parts of the Province. Upon the basis of entries and money awards, Winnipeg Exhibition can show a claim to as large a grant as Toronto, and these are considerations that should weigh with the members of the Shorthorn Association at the annual meeting. "BACKSETTER."

UP-TO-DATE METHODS AND GENERAL INTEREST

In renewing my subscription to "The Farmer's Advocate and Home Magazine," I take pleasure in expressing my appreciation of your up-to-date methods and general interest in the farming industry. Wishing you every success in your several departments. WM. R. LONEY.
Carleton Co., Ont.

I beg to acknowledge receipt of premium knife for securing one new subscriber to your valuable paper. It is a very fine knife, and I feel that I am well repaid for my trouble. "The Farmer's Advocate" is a welcome visitor to our home, and is read by old and young. Wishing it a prosperous year. JOSEPH JOHNSTON.
Wellington Co., Ont.

HORSES.

HORSEMEN'S EXPERIENCE COMPETITION: FIRST-PRIZE ESSAY.

J. P. Nunan, Brant Co., Ont.

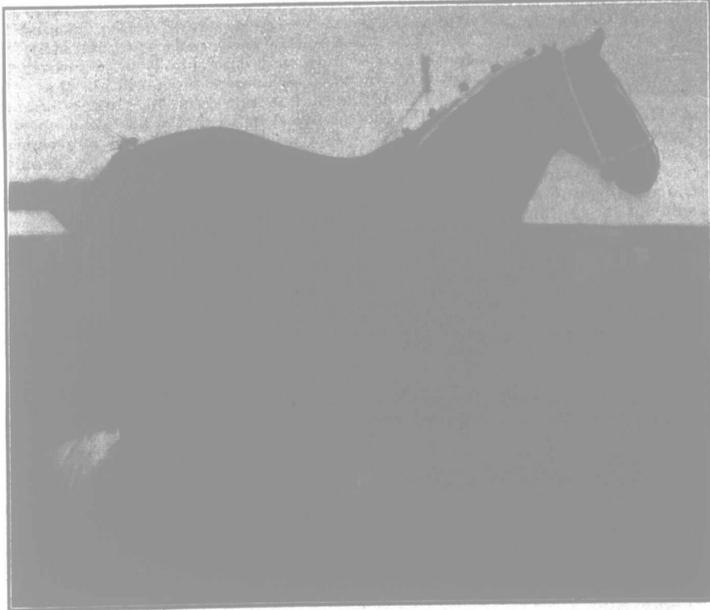
BREEDING.

Our experience in breeding horses began about thirty-five years ago, and has consisted of raising from one to four, and averaging about two colts per year—this as one branch of a very mixed system of farming on a hundred-and-fifty-acre farm, the mares doing their share of the work thereon.

The start was made with a pair of half-bred Percheron mares, sixteen hands high, weighing about fourteen cwt., and sound. We have the same stock to-day. For some years we used sires of the same breed and type, until the colts had three top crosses of the breed. This gave us a very uniform lot of gray and black colts, weighing from 1,350 to 1,500 pounds. I remember three years in which we raised ten of these colts—that would make five teams matched in height, weight, color, and, what is better, and harder to get, disposition. But not being in a position to keep many horses, we sold them young, and so missed the profit we might have had in selling them as matched teams.

Then, for some years, a suitable Percheron not being available, we used Clydes as sires, and from this cross we got some grand individuals and some poor ones. They lacked uniformity, weighing from 1,300 to 1,650 pounds, and stood from 15 to 17 hands high. This indifferent result was through no fault of the sires, remember, but because we were breeding out of line and mixing types—a bad error in breeding heavy horses.

We used Coach and Carriage sires a few times, with about the same result, with this difference, that our misfits, being lacking in weight, were not



Bardon Marion.

Shire mare; foaled in 1904. Champion mare, Royal Show, 1907.

worth near the money that heavier horses were, even though lacking in quality. This is the great advantage to the ordinary farmer in breeding heavy horses, for, even if slightly blemished, they are always worth a fair price for the work there is in them. We also bred two of these mares to a Suffolk Punch, with good results, I suppose on account of the types being more alike, but we did not continue it long enough to be sure.

We had a nice carriage mare once that had navicular lameness, and we raised three nice carriage colts from her. This was a mistake, as two of them developed the same trouble, and the third we sold to a dealer, and she went to Boston as one of a nine-hundred-dollar pair. I hope the man who got them was rich enough to replace her without feeling the outlay. Mare or horse with this trouble should never be bred, for, while it may not be exactly hereditary, the weakness is there, and the least thing acts as an exciting cause.

During the time covered by this experience, we have sold our young stock at about the following prices: Yearlings, \$80; two-year-olds, \$120, and others from this up to \$200.

We have certainly found it a very profitable branch of mixed farming, as the colts can earn their living after two and one-half years old, and be the better for it; and the brood mares are the better for earning theirs, if you are careful with them when pregnant. Avoid much backing up

and plunging through snowdrifts, and don't let them drink too much ice-water. We never had but once case of abortion, and that was from this cause, the mare being warm at the time. I remember two years in which we raised eight colts from four mares, and did all the work on our hundred and fifty acres with these same mares and one other work horse. Of course, you have to do a little managing, such as having your plowing all done in the fall, your manure out in winter, etc.

We like our colts to come early—the earlier, the better; we always had better success with them than late ones, and this has been the experience of most breeders of my acquaintance. One would be inclined to think it would be better if the mares had a run on grass before foaling, but our experience has been the reverse. We lost four colts by their not being able to pass the dark stuff contained in the bowels at birth, and they were all late ones. I may add that now we always use a syringe to help the colt get rid of this, whether he really needs it or not; we think it better. We have lost four colts with joint-evil, and three of them were late colts, also. I wish I knew how to guard against this trouble, but I don't. Treating the navel cord may help, but in one of these cases I treated the cord when I cut it, and carefully afterwards, but the colt died of the trouble when three weeks old.

We have always tried to be present when our mares foaled, but must say we have had very good success when the mares were unattended, although we would have lost one valuable young mare if we had not been there. The colt was a malformation, and required a veterinary and his instruments; but this was the only serious trouble we ever had at foaling time. I may say that we have always called a veterinarian when anything serious was wrong, and found it paid. All the cases I have mentioned have had such treatment.

When working the mares, the colts are better shut in a loose box than following around the field. Darken the box when the flies are bad; keep hay and water where they can take it at will, and, as soon as they will eat them, feed a little bran and whole oats. In a few cases, where the mares were working hard, and their milk low, we have given them cow's milk, with good results; they soon learn to drink even skim milk, just like a calf.

The first winter is the critical time in a colt's life. I suppose there are many things good to feed them, but we have never found anything to beat good clover hay, with a little bran and oats, and water often. If you feed timothy hay, you must feed more bran to balance, but, whatever roughage you feed, be sure it is good, for the colt's stomach is very small, and will not hold enough poor stuff to properly nourish the growing body.

Some of the things we have learned from our experience are the following:

If you want a good safe brood mare, breed her young, and don't expect to raise a good horse from a broken-down and worn-out mare, as she cannot transmit what she has not got—that is, the stamina and vigor necessary for a good horse.

Try to stick to the type you have, unless it is bad, and you want to change it altogether; then, buy a good sound mare or two and start fresh; it is surer and cheaper.

In choosing a sire, even if you know there is a better horse in the neighborhood, still stick to your type.

Don't quarrel with your neighbor about the merits of the different breeds. You might as well run down a man's wife as his favorite breed of horses. Any of the heavy breeds are good enough, provided you aim at the best type of that breed; but if you like one better, that is the one for you to breed.

I have been much interested in reading the articles in "The Farmer's Advocate" and elsewhere on the subject of improving the type of horses; also the report of the Government Commission to the same end, but it would seem to me that too much attention is given to the sire, and not enough to the mare. If the type of heavy horses in Ontario, or parts of it, at least, has not improved as it should, we, as farmers, are largely to blame ourselves. When we want a

brood sow, we pick the best out of twenty or thirty, and send the rest to the butcher, and see how soon we get the bacon hog; we do the same every year with our ewe lambs, and the effect is evident wherever Ontario sheep meet others. We do the same with our heifers, and the cow-testing association tells how the yield of butter-fat is jumping up. But if we have a pair of good heavy young mares, and a buyer comes along and offers us \$400 for them, away they go, to spend their lives drawing a dray in some city, and we go on breeding from some blemished or broken-down mother worth about \$50. It is a very common thing to hear a farmer say, when buying a work horse, "I would give a little more for a mare, for, then, if anything happens ner and she can't work, I can breed her."

Take the neighborhood in which I am writing, and for the last forty years there have been two and three real good heavy stallions travelling and doing a good business here every year, horses that cost their owners, in many cases, from \$2,000 to \$3,000, all imported, and last summer I asked the owner of one how many mares he was getting, and he said about a hundred. I asked how many of them were mares from which a man should expect a good draft colt. He considered carefully, and said, about ten. Think of it, after forty years, one in ten, and I have seen going away from the station by the carload the best type of young mares, going because they sold well; the culls were kept at home. This is killing the goose that lays the golden egg. If a farmer has two fillies, one worth \$250, the other worth \$75, and a buyer comes along, eight times out of ten he will sell the good one and keep the other; and nine times out of ten he will breed her and raise some more just like her, and then blame the sire and the man who has risked a couple of thousand dollars, often all he has, to place a good horse at his disposal.

BREEDING DRAFT HORSES.

The editor of the Scottish Farmer, who is also editor of the Clydesdale Studbook of Great Britain and Ireland, comments as follows on the letter of a correspondent of the London Times, published in "The Farmer's Advocate" of January 23rd:

Under the title, "American Horses," a correspondent of The Times advocates the creation of a new breed of British horses by breeding Clydesdales and Shires indiscriminately, and making the animals that are eligible for the one studbook be eligible for the other. The scheme is simplicity itself, but why its advocate should entitle his article "American Horses," is a puzzle. The probability is that the writer is an amateur—one who never bred a horse of any kind in his life—and has formed his opinions regarding horses at second hand. He has also heard of the movement inaugurated by American College Farms to breed gray Clydesdales or Clydesdale crosses, on the off-chance of being able to secure some share of the demand for gray geldings which is supposed to exist in the States. Our own opinion is that there is, in reality, no such demand. The Americans know that they can only get gray or black Percherons, and they take them, not because of color, but in spite of color. An American teamster, as a rule, prefers the Percheron, because he wants what we would call a "gip," or larger-sized van horse. He also wants for spectacular purposes (vide Armour's team, which visited us last summer) big gray geldings. He knows that the best way to get such is to cross the Percheron or Percheron-grade gray mare with a Shire stallion, and he gets what he wants. As he judges a draft horse's merits as he would judge a bullock—by pounds avoirdupois, he gets what he wants in the result of this cross, without the Clydesdale's vigorous spirit and impatience of Yankee humbug. The American farmer has not the remotest intention of blending the Shire and the Clydesdale. That would not give him what he wants. It would give him a horse with "feathered" limbs, and he does not want that for his badly-paved streets and country "roads," which are only prairie tracks. He blends the Shire and the Percheron, because that gives him a big-bodied, clean-limbed "gip" horse. He may, on occasion, make the cross the Clydesdale and the Percheron, but that may not give him as many pounds avoirdupois as the other, and he prefers the bullock measurement. The Times' correspondent, to put it mildly, simply talks nonsense, not knowing what he speaks nor whereof he affirms concerning American horses.

When he comes to write about the British horses, he is, if possible, further astray. If we are right as to the identity of the writer, he has rarely, if ever, been at a Shire or a Clydesdale stallion show. No one who has been would ever dream of blending the two breeds in the indiscriminate fashion advocated by him. Whatever a breeder might do who wanted to produce big geldings for dray purposes, no one who knows what a horse should be like would ever suppose he could breed the Scotsman's horses by crossing indiscriminately the animals now registered under their separate categories of Clydesdales and Shires. You

can sometimes find, in a large class of Shire females, an odd mare that a Scotsman would like to own; and you could also find in a large class of Clydesdale stallions a bad beast, to which a Shire judge would award a prize; but no Clydesdale judge who knew the A B C of his business would ever imagine that he could do anything but ruin his horses by adopting the policy of the correspondent of The Times. Good Shires are good horses, and the Shire Horse Society has vastly improved the breed by its vigorous veterinary inspection at the London Show. Clydesdale shows should be conducted in the same way, and there should be, as at London, a dual classification for aged stallions—those up to and including 16.2, and those over that height. This would do much to improve the breed, and it is to be hoped the new conditions for the Cawdor Cup and the conditions of the Brydon Challenge Shield may conduce to this end.

Prof. F. R. Marshall, of the Animal Husbandry Department of the Ohio Agricultural College, pays the following tribute to the noblest of beasts: "It is almost impossible to imagine that people could live without horses. Certainly, living in a horseless world would be a sorry experience in contrast to our present enjoyment of comforts and conveniences. In the United States there are about one-quarter as many horses as people. Three-fourths of these horses are on the farms, although there are in the country a great many colts that are to be sold to go to the cities. To the horses that do the work on the farms, we are indebted for the production of most of what we eat. If we live in the city, even though we do not keep horses of our own, we are dependent upon those of the groceryman and the coal dealer to bring us the necessities of life."

The attention of those interested in Percheron horses is called to the fact that the winner of the first prize in our "Horsemen's Experience Competition" is a breeder of high-grade Percherons. While the prize was not awarded him because of this fact, but entirely regardless of it, still the fact that he has won this honor is a convincing answer to the occasional complaint that "A Percheron horse has no show in your columns." The Percheron breed has exactly as fair a show as any other. If its claims are not so aggressively advanced, the breeders themselves must shoulder the responsibility.

LIVE STOCK.

FEEDING VALUE OF FROSTED WHEAT AND OATS

RESULTS OF ANALYSES AT THE O.A.C.

Owing to the scarcity of grain, and the consequent high prices that prevail, the farmers of this Province are more than usually interested in the feeding value of the frosted wheat and oats of the Prairie Provinces. It is probable that these frosted grains will vary widely in composition, for it would be unreasonable to expect that all the fields of grain would be touched with frost at the same stage of maturity. Consequently, no one sample of these grains could be representative of the output of the country. The samples we analyzed were secured through the kindness of Mr. C. B. Watt, Secretary of the Dominion Millers' Association, from the elevators at Goderich; and, as they were from cargo lots, they will more nearly represent the average quality of these grains than would be the case if they were forwarded from any particular district, or if they had been taken from a single carload.

The results of our analyses are given in the following table, and along with them, for purposes of comparison, the average composition of well-matured grain:

COMPOSITION OF FROSTED AND NORMAL WHEAT AND OATS.

	Moisture	Protein	Fat	Fibre	Soluble Carbohydrates	Ash
Frosted Wheat.....	11.80	12.87	1.73	2.88	69.21	1.51
Normal Wheat.....	10.40	12.50	2.20	1.80	71.20	1.90
Frosted Oats.....	7.51	9.51	3.84	13.99	62.71	2.44
Normal Oats.....	11.00	11.80	5.00	9.50	59.70	3.00

When consumed, the protein of the grain is used to form the tissues and fluids of the body, such as muscle, blood, bone, and brain; to repair their waste; and, if eaten in excess of the daily requirements, may be stored in the body as fat, and drawn on as required for future consumption. The fat of the food is a source of energy, and, if used in excess, may form fat on the body. Starch and sugar form the larger part of the soluble carbohydrates, and are, generally speaking, the cheapest source of heat and energy in the body. The cellulose, or crude fibre, is the coarse, woody part of the grain, and is found in largest quantities in the hull. Consequently, oats contain more of the crude fibre than wheat. This substance is comparatively indigestible, and, further,

it, for various reasons, decreases the digestibility of the whole food.

It will be noticed that the frosted and normal wheat are very similar in composition, the main difference being that there is a little more crude fibre and a little less fat and soluble carbohydrates in the frosted wheat. All of these factors detract from its food value. As it is not at all likely that the frost has destroyed the nutritive value of any of the constituents of the wheat, it would seem correct to assume that the frosted wheat is of only slightly less value for feeding purposes than the normal wheat.

In the case of the two samples of oats, there is a wide difference in the composition, and, consequently, in their food value. It is impossible to state this difference in dollars and cents, but it is extremely doubtful if the frosted oats can be profitably used when Ontario oats are selling at the present price. With the wheat, the difference in composition is so slight that it is probable that the farmer can safely pay within a few cents per bushel as much for the feed or frosted wheat as for the wheat which was grown in Ontario.

In comparing the value of frosted wheat with Ontario oats, we must bear in mind that oats are selling at 40 to 45 cents per bushel of 34 pounds, and that the feed wheat may be bought for 70 cents per bushel of 60 pounds. The ordinary rough foods of the farm are somewhat deficient in the proteid or flesh-forming materials, and feed wheat is richer in this constituent than oats; therefore, the same amount of money expended on feed wheat will not only give us greater weight of material, but also more pounds of protein, and much less of the indigestible crude fibre than oats. Consequently, at present prices, it would seem as though, under many conditions on Ontario farms, it would pay to sell the oats and buy feed wheat.

In conclusion, it may be pointed out that the wheat should be ground, otherwise a great deal of the material may escape digestion, and that the best results would be got by mixing it with other chopped grain or cut roughage.

R. HARCOURT.

Ontario Agricultural College.

MUSLIN - CURTAIN VENTILATION.

An experiment in muslin-curtain ventilation is under way at the Central Experimental Farm, Ottawa, and a preliminary report will be of interest to many of the readers of "The Farmer's Advocate."

The stable in which the experiment is being carried on is well built, well lighted, and well ventilated (otherwise than by muslin-curtain system); building about 100 x 25 feet, with a 10-foot ceiling. It is divided into six box stalls, and is at present occupied by 37 head of cattle (steers one and two years old). During the experiment with muslin-curtain ventilation, the inlets and outlets of the other system of ventilation are being kept closed.

On each side of the building are ten windows, each 2½ feet by 4 feet. These windows are six feet from the floor, and extend to within 18 inches from the ceiling. They are hinged at the bottom, and are, by means of chains, held at an angle of about 60 degrees with the floor, when open. It is evident, therefore, that the air that manages to go through the muslin meets but little further opposition in getting into the stable, the only effect of the windows standing at 60 degrees angle being to start any air currents upwards, rather than downward, and so cause a more perfect intermixture of the incoming air with that already in the stable.

The curtains cover the whole window area, being held in place on the frames outside by means of laths nailed over the margin of the cotton. The cotton used is of two grades: (1) The cheapest grade of gray cotton, costing 6 or 7 cents per yard; (2) cheese-cloth. On the east side are 5 cotton and 4 cheese-cloth curtains. On the west side are 4 cotton and 5 cheese-cloth curtains.

The experiment has been under way for a month or more, and has been most interesting. For instance, during a few warm days, when the thermometer showed about 40 degrees F. outside, and there was no breeze blowing, the inside thermometer showed 82 degrees, in spite of the fact that every curtained window (18 windows, 2½ x 4 feet) was open. As soon as the doors were opened, however, the temperature began to fall, and in a short time the thermometer showed only a few degrees more heat than the outside.

The following record of inside and outside temperatures, as well as record of temperatures in the main barn (where another system of ventilation was in operation), and a few notes on the wind, will be self-explanatory and instructive:

DECEMBER 23rd.				
	12 a.m.	2 p.m.	5 p.m.	10 p.m.
Open Air.....	26°	27°	30°	28°
Cow Stable.....	50°	52°	53°	52°
Steer Stable.....	52°	53°	57°	62°
Wind.....	Very Lgt.	V. L.	V. L.	Calm.

Remarks.—12 a.m., windows open both sides of stable; 2 p.m., ditto; 5 p.m., ditto; 10 p.m., ditto.

DECEMBER 24th.

	5 a.m.	9 a.m.	12 a.m.	3 p.m.	5 p.m.	11 p.m.
Open Air	26°	21°	21°	27°	25°	20°
Cow Stable	50°	50°	50°	51°	52°	50°
Steer Stable	46°	44°	42°	52°	50°	52°
Wind	Breeze. Light. Light. V. L. Light. Calm.					

Remarks.—5 a.m., windows open both sides of steer stable; 9 a.m., ditto; 12 a.m., ditto; 3 p.m., ditto; 5 p.m., ditto; 11 p.m., ditto.

DECEMBER 25th.

	5 a.m.	9 a.m.	12 a.m.	3 p.m.	5 p.m.	11 p.m.
Open Air	14°	14°	16°	18°	21°	15°
Cow Stable	48°	48°	48°	48°	48°	47°
Steer Stable	50°	55°	52°	50°	52°	56°
Wind	Calm. V. L. V. L. V. L. V. L. Calm.					

Remarks.—5 a.m., windows open both sides of steer stable; 9 a.m., ditto; 12 a.m., ditto; 3 p.m., ditto; 5 p.m., ditto; 11 p.m., ditto.

DECEMBER 26th.

	5 a.m.	9 a.m.	12 a.m.	3 p.m.	5 p.m.	11 p.m.
Open Air	18°	8°	13°	15°	8°	2°
Cow Stable	47°	47°	46°	50°	50°	47°
Steer Stable	36°	42°	46°	52°	58°	62°
Wind	Breeze. Light. Calm. Calm. Calm. Calm.					

Remarks.—5 a.m., closed one side of steer stable; 9 a.m., ditto; 12 a.m., ditto; 3 p.m., ditto; 5 p.m., opened up windows again; 11 p.m., steer stable full of fog and dripping wet.

DECEMBER 27th.

	5 a.m.	9 a.m.	12 a.m.	3 p.m.	5 p.m.	12 p.m.
Open Air	14°	20°	20°	28°	22°	33°
Cow Stable	47°	49°	50°	52°	52°	49°
Steer Stable	50°	48°	58°	50°	46°	58°
Wind	V. L. V. L. Calm. V. L. Light. Light.					

Remarks.—5 a.m., windows open as a commencement; 9 a.m., ditto; 12 a.m., ditto; 3 p.m., ditto; 5 p.m., windows open both sides of steer stable; 12 p.m., ditto.

DECEMBER 28th.

	5 a.m.	9 a.m.	12 a.m.
Open Air	32°	36°	34°
Cow Stable	53°	50°	51°
Steer Stable	44°	56°	58°
Wind	Breeze. V. L. V. L.		

Remarks.—5 a.m., windows open both sides of steer stable; 9 a.m., ditto; 12 a.m., ditto.

FOR 8 DAYS.

	Maximum.	Minimum.
Open Air	36°	2°
Cow Stable	53°	46°
Steer Stable	62°	36°

(Signed) C. S. WOOD, Herdsman.

The maximum and minimum columns of the above table are eloquent of the one great weakness of this system of ventilation. While the temperature where one system of ventilation was in operation varied only 8 degrees, in spite of a variation of 34 degrees outside, the temperature of the stable where the muslin-curtain ventilation was in operation varied 26 degrees, although every effort was made to maintain a uniform temperature by opening and closing curtained windows as necessary.

It might be objected that not "temperature," but "pure air," is the consideration. This is true, of course, but in a stable so well built as the one where the experiment is being conducted, to maintain a temperature of from 45 to 50 degrees F., with 35 or 40 head of cattle, means to ventilate quite adequately. When this temperature maintains inside, a person breathes quite comfortably, and has none of the sensations due to impure air, and so regrettably well known to most of us who are accustomed to visit stables in this country.

In favor of the system, it may be said:
1. That, with the exercise of much care, it is possible to ventilate by means of cotton or muslin over window or other opening; and that, of the two, cheese-cloth is to be preferred to gray cotton, since a smaller area will do the work, and do it better.

2. That it is cheaply installed, and much better than no ventilation.

The objections appear to be:
1. Very great watchfulness necessary to insure a fair measure of success.

2. Danger of too great a fall or rise of temperature in the night, due to rise or fall of wind.

3. Darkening of stable, due to presence of muslin on windows, which renders stable somewhat gloomy and damp.

4. The fouling of muslin on account of changing directions of air currents, which wet the curtains, permitting foul air to escape, and so the curtains soon get muddy in appearance and unsanitary in condition.
J. H. GRISDALE,
Central Exp. Farm, Ottawa. Agriculturist.

THE DUAL - PURPOSE SHORTHORN.

You have, in your editorial of January 9th, under "Considerations for Shorthorn Breeders," exactly hit off the present situation of the breed in the minds of the farmers, and the causes that contributed to bring it about. What are the changes that must be made?

First, we need to recast the ideas too generally extant of the type to which a Shorthorn cow should approximate, in order to be considered as a possible profitable yielder of milk. The hat-rack type has no place in Shorthorn, and is fast disappearing from the purely dairy breeds. We also need to disabuse the public mind of the opinion that the leggy, narrow-chested, light-barrelled Shorthorns may, as unfitted for the beef section, be dumped into the dual-purpose section.

I find I am in accord with Mr. Bruce, whose predilections are for the beef type, and who, in "Fifty Years Among Shorthorns," says: "It is held by many that a Shorthorn cow, to be a deep

stock industry of the country, might well receive attention. One cannot overlook several facts connected with this subject. Take, for instance; the case of the farmers in the counties of Westmoreland, Cumberland, in the Yorkshire dales in the North, and in several counties in the South-west of England, and it will be found that one can go from farm to farm, to see a class of large-framed, wide-chested, soft-backed cows, all deep milkers, and at the same time capable, or qualified, to breed store animals to please any cattle-feeding owner. Personally, I have a strong opinion that the development of the milking powers of a cow IS MORE A MATTER OF MANAGEMENT THAN IS GENERALLY SUPPOSED. Breeding from heifers at an early age, and milking them by hand does much towards development of their milking powers. The production of a class of Shorthorns with increased amount of flesh and less fat would seem to be a necessity on the part of breeders, if Shorthorns are to maintain their position as general-purpose cattle. Flesh and

milk may, and do, go together, whereas a tendency to run too much to fat means loss of milk. There could be nothing more encouraging to present-day breeders of Shorthorns than the belief, if it can be upheld, as I feel satisfied it can be, that the production of a class of cattle to suit the meat-consuming public can be carried on conjointly with improvement in the milking powers of their cows."

Second.—The management of heifer calves intended for the breeding herd must be changed, so that, in place of rotund masses of baby-beef, they will be grown, rather than matured; they will be better hand-raised, than allowed to suckle their dams.

Third.—As soon as these heifers reach the calving period, which should not be later than 2½ years, if properly grown, their calves should be hand-raised, and the dams milked for as long a period as possible, in order that they may get the habit, and the milking by hand should be continued for two or three succeeding lactations.

Fourth.—Milk records must be kept for the entire lactation period, and the unprofitable ones weeded out and sent to the

block. To quote further from Robert Bruce, that authority, referring to authentic tests, states that "a certificate of test is of more intrinsic value than a cash prize."

SOME MILK RECORDS.

While on the question of records, let me relate a few: I have before me the catalogue of an Old Country registered Shorthorn herd (not Tring). I find there a cow, "Lucy," average milk yield per annum for seven years, the length of time she has been in the herd, is 7,533½ pounds; "Darling," average per annum for six years, 6,881 pounds; "Clarissima," six-year average, 6,050½ pounds; "Oxford Ada" had given 9,730 pounds in 1907, and was then milking; "Lady Crystal Bates," 8,845½ pounds, with her third calf. Of the bulls used in the above herd, the dam of one gave 905 gallons in nine months, while the dam of another bull gave, in two consecutive lactation periods, 937½ and 817 gallons, respectively. Reference was made to the Tring herd of Shorthorns. In



Muslin-curtain Ventilation.

Exterior of steer barn at Central Experimental Farm, Ottawa, showing nine windows with curtains—five dark curtains (cheese-cloth), four light-colored curtains (cotton).



Muslin-curtain Ventilation.

Interior of steer barn at Central Experimental Farm, Ottawa. Windows are shown held in place by chains or laths, at an angle of about 60 degree with floor.

milker, must be of a particular shape; in fact, that she must be built on the lines of several of our dairy breeds, that for generations have been bred solely for milking purposes. The theory held by many is that, in selecting a deep-milking cow, one must look for an animal with a peculiar-shaped head, long between the eyes and muzzle, with a thin neck, narrow chest, rather bare loins, and with full, wide and deep hind quarters; in short, a wedge-shaped animal, narrowing forward from the hook bones. This may or may not be right, and there is no intention to dogmatize on the subject, although many cases could be quoted of cows with shapes to please the most fastidious advocates for wide chests and well-covered backs, holding milk records such as would have satisfied the most exacting dairy farmers. The object of discussing the subject is to point out that up to the present there is certainly a want of reliable information, and, on a question of such importance, it seems most desirable that such an important subject, bearing as it does on the live-

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the Live-stock Journal (Eng.) for November 15th, 1907, the record of that herd of reds, whites and roans is given, viz.: Forty-six cows averaged 6,787 pounds of milk for the year, as also of the following cows: "Darlington Cranford," average for seven years, 9,665 pounds; "Decentia 24th," average for five years, 7,852 pounds; "Moppy Gem 5th," average for seven years, 7,738 pounds; and "Red Rose," average for five years, 7,720 pounds. Further, if one will take the trouble to refer to advertisements of Old Country breeders, more particularly the Southern men, for the past five years, he will note the increasing number each year of those keeping milk records of their cows. These southern cattle one would expect to be freer of tuberculosis than the Scotch cattle, owing to the conditions under which they are kept, viz., more in the open air. This assumption is backed up by the comparative (when compared with Aberdeen-Angus and Shorthorns, Scotch herds in which Scotch cattle have been introduced) freedom from tuberculosis of the Hereford cattle.

One of Canada's leading Shorthorn breeders, Hon. John Dryden, when in conversation recently with a man interested in Shorthorns, stated that if a younger man, and about to start in the breeding of Shorthorns, he would give considerable attention to the development of the milking trait in the breed.

Let us come closer home. At the Central Experimental Farm, a pure-bred Shorthorn cow gave over 10,000 pounds in her second lactation period, and promises to beat it in her third. Her bull calf is a very passable one, and quite equal to ninety per cent. of those turned out from herds whose cows make no pretensions to milking.

We have, further, the records of cows, pure-bred Shorthorns, at the Iowa and other Experiment Stations, and the leading cow at the Wisconsin Experiment Station, with a yearly record of over 500 pounds butter, was a grade (15-16) Shorthorn. Apropos of this cow, it is worth noting that her record upset the equanimity of the dairy-type men, whose habitat is Wisconsin. One hied him to the original owner to trace the ancestry of this remarkable cow, in order that it might be proved that she had an ancestress or ancestor not a Shorthorn, to whom the credit might be allotted. Further, as illustrating how deceptive type may be, two of these ultra-dairy-type men were allowed to select and buy their ideal of the milking type, to become the Station property. They did so, and it is only fair to add that these two animals bore the names of their respective sponsors; and, while one did pretty well, the other fell to the bottom of the herd in yield.

Referring further to some records of grade Shorthorn cows of the dual-purpose character, I would call attention to the 16th annual report of the Wisconsin Experiment Station, in which will be found short histories of three cows. I quote from that report, using the words of Prof. Carlyle, who is noted as one of the best judges of dairy cows on the American continent, and who is, by early training and inclination, a special-purpose advocate:

"A glance at the yearly records of the cows, as given in the table, shows that Rose, a grade Shorthorn cow, is easily the greatest producer in the herd, and returns the greatest profit over cost of feed eaten for the year, though she was milked only 326 days out of the 365. The casual observer of the herd would never select this cow as being a great milk and butter producer, as she is of the Shorthorn type, and inclined to be beefy, yet she was the first cow purchased for the herd when they were selected. This is mentioned as illustrating the fact that a dairy cow must be very carefully and closely examined, if her dairy qualities are to be discovered by an examination. It must be admitted that the results of this year's work were a great surprise, for, while it was thought that the large and strong Shorthorn grades, representing the dual-purpose type, would return a fair profit on the feed consumed, it was not even surmised that they would equal their much more finely-organized and smaller sisters, the Jersey and Guernsey grades, in cheapness of butter production.

"This yearly record is given as a preliminary work, and is not to be considered as at all conclusive; and yet, when five such Shorthorn grade cows as are here reported can be picked up in a single day, as was the case with these, it would seem as if that class of cows must have a great deal of dairy value.

"Rose.—A grade Shorthorn cow, whose sires for four generations have been pure-bred Shorthorn bulls. A photograph of this cow indicates remarkable refinement of the head and neck, otherwise there is nothing particularly noteworthy about her general appearance, judging her from the standpoint of a dairy cow. Her udder is quite deficient in some respects, but she has a well-developed system of veins and milk 'wells.' She had been nursing three calves for over five months at the time of purchase, which is certainly not a very favorable preparation for the making of a large yearly record of milk and butter production. In 326 days' milking period out of the

year, she produced 10,163 pounds of milk, containing 433.82 pounds of butter-fat, the equivalent of 506.12 pounds of butter. The average amount of fat in her milk for the year was 4.2 per cent. The total feed consumed during the entire year cost \$35.06. The total value of the butter and skim milk, when valued at prices given on a preceding page, was \$114.92, leaving a profit over cost of feed of \$79.86. Her butter, produced at a cost of 6.9 cents, is cheaper than any cow in the herd.

"Duchess.—A grade Shorthorn cow, weighing when in fair flesh, over 1,550 pounds. Unfortunately, her former owner and breeder had no record of her ancestral breeding, beyond the fact that she was got by a pure-bred Shorthorn bull, out of a grade Shorthorn cow. This cow approaches very nearly an ideal dual-purpose type. She has great size and scale, takes on flesh rapidly and evenly when dry, and loses it still more rapidly when she freshens. She is a very persistent milker, it being necessary to limit her feed when drying her off, within six weeks of calving. She gave, during the year, 9,627.9 pounds of milk, containing 376.97 pounds of butter-fat, the equivalent of 439.83 pounds of butter. The average test for butter-fat for the year was 4.4 per cent. This cow ate, during the year, \$33.93 worth of feed, and her products were valued at \$101.00, leaving a profit of \$67.07. The average cost of each pound of butter produced during the year was 7.7 cents.

"Maud.—A grade Shorthorn cow, whose sires for three generations were pure-bred Shorthorn bulls. She is very long in body, but lacks considerably in depth. Her udder, when filled, is of almost perfect form, and the milk-vein development very good. This cow had been milking four and one-half months when purchased, and she was not due to calve until some time after her yearly record closed, which was not very favorable for a great milk and butter yield. Her milk production for the year was 7,789.3 pounds of milk, with a butter-fat content of 322.59 pounds, equivalent to 376.35 pounds of butter. The average amount of butter-fat in her milk was 4.2 per cent. Her butter was made at an average cost of 8.3 cents per pound, the products being worth \$85.78, the cost of feed being \$31.35, leaving a profit of \$54.43."

Of the cow "Rose" it may be said that she produced a steer which, shown as a two-year-old at Chicago International, took a very high standing in the grade Shorthorn steer class. In fact, if I remember rightly, he was placed first. Unfortunately, this cow died of milk fever, further opportunities of completing the third year's records being thus unavailable.

I am reliably informed that the results of these tests proved so disappointing to the special-purpose advocates, some of whom, by the way, had considerable political and other influence in the State of Wisconsin, that the test of the dual-purpose cows were discontinued.

Not much more than a year ago I was at a farmhouse, and, while conversing with the mistress of the house, I inquired as to the milking abilities of their Shorthorns (this is a herd that has had several wins at Toronto), whereupon she informed me, "We are better off now, do not need to milk the cows, so we let the calves do it"—an involuntary testimony as to the profitability of the Shorthorn cow as a milker. I knew this herd well. As a boy, when working amongst a herd of Shorthorn cows of varying capacity as milkers, I remember some three or four out of twenty were good milkers, and one—a remarkable one—a light roan, low-set, a bit sharp over the withers, but deep through the chest, and with a great barrel, never heavily fleshed, but would gain up when dry; who, at calving, gave three strainer-pails of milk a day for three weeks, and then two for a considerable length of time; and who, at a test, conducted with a crude boyish enthusiasm, gave 17½ pounds of butter in 7 days from the old shallow-pan method of setting milk. But, to refer to the roan cow, she produced several bulls. One was shown at Toronto in 1885; he was not good enough to win, but still was shown, and as a yearling weighed over 1,500 pounds. His mother had milk fever after one calving, and was one of the half dozen whose products helped keep the house in store necessities. We have followed too long the fetish of dairy form, and must, as has been said, recast our ideas of what a producing cow should look like.

To sum up the situation, the important points are to select your Shorthorns, handle them in a manner that milk may be produced; train up the heifers with an eye to a future as milkers; cull out the non-performers, and recast your ideas of what a milker and a milking Shorthorn should be like, and give the Shorthorn more encouragement in the show-ring. And, further, I must say that, to those who recognize the decadence (the term is used advisedly, as the breed in Canada has, for some time past, lost a valuable characteristic), for, as Mr. Bruce says, "The loss of milk in many herds is a direct one, but the mischief does not end with this. Our general experience is, wherever we find nurse cows needed to supply the calf

stock with milk, we may look in vain for old breeding cows." The powerful efforts of the leading agricultural journals on the North American continent, directed towards the rehabilitation of the breed, are at once an inspiration and a cause for thankfulness!

"HOMECROFT."

THE VIRTUES OF SHORTHORN MILK.

Editor "The Farmer's Advocate":

There is a great deal that is good in the article, "Considerations for Shorthorn Breeders," some is not so good, and some of it is misleading. The part that is misleading is the part that will weaken your power to impress that which is good on your readers. The part thus alluded to is that where you lead your readers to believe that Shorthorns are not as good milkers as they were some years ago. This is not my experience, and, I believe, not the experience of the great bulk of Shorthorn breeders.

Another point which you wish to impress on your readers apparently is, that it is necessary to allow Shorthorns, not under the present rules eligible for registration in our herdbooks, to be imported and recorded here, that the milking qualities of our Shorthorns may be improved. If it is necessary to improve those qualities by the importation of English Shorthorns, there are plenty of full-pedigreed cows, and heifers, too, that are just as good milkers as those with short pedigrees; so that it is not that rule that would hinder their importation to Canada.

There can be no opposition to recording the performances of cows up to a certain standard of milk or butter production, but I would not like to have it called the appendix to the Dominion Shorthorn Herdbook. There could be a section of the volumes where such record could be kept, the same as that now alloted to the recording of prizes won at shows assisted by the Association.

I agree with you as to the importance of improving the milking qualities of our Shorthorns. Perhaps I could not agree with you as to how this may be brought about to best advantage. I agree with you that it should be possible to have on record the performances of high-class milking cows of the Shorthorn, as well as of the other breeds. This record will never have such a good showing as a like record for a purely dairy breed, for milk is not the only consideration.

There is a reason why the milking propensities of the Shorthorn should be encouraged, and it has not been mentioned by you, nor by any other writer on the subject, so far as I know. The milk given by a Shorthorn cow to her offspring produces flesh; it produces a bright, pink skin; it produces soft, silky hair; it produces thriftiness and plumpness and beauty and strength. This is the result of being reared on that kind of milk for many generations. Would it be unnatural to expect that, when this milk is given to human beings, young or old, they would be influenced by it? Would the milk that would make a calf thrive be more likely to suit a baby than the milk that would make an unthrifty calf? A young calf has a delicate stomach, and a great portion of the milk that is being given to children of tender age by those able to buy the most expensive necessities and luxuries, would be rejected as not suitable for calf-rearing in a well-regulated establishment. Would milk that makes a blue or a yellow skin in a calf be as apt to produce the tint wanted in human beings as that milk produced by cows that have been bred for clear skins for a hundred years? Would the milk that cannot be digested by a calf be chosen offhand to give to babies, little or big? Would you choose the milk that is produced by skinny, bare-boned cows, and that will in its own kind produce skinny, bare-boned calves, if making a selection for the rearing of your children? We can find both kinds in Shorthorns; I know my choice.

ROBERT MILLER.

[Note.—The question of how well the average milking quality of the modern Shorthorn compares with the average of twenty-five or thirty years ago, may be very well left to the judgment of commercial farmers like Mr. McMillan and Mr. Drury. We must, however, take occasion to correct a misapprehension that Mr. Miller has received from our editorial. We do not favor the importation of non-pedigree English Shorthorns. What we do urge is that the Dominion Shorthorn Breeders' Association adopt a system of official testing, under which every breeder who wishes may have his pedigreed cows tested for yearly milk and butter-fat production, under the supervision of the Department of Agriculture, and then, if their yield of milk and butter-fat comes up to a prescribed minimum set by the Association, that the name and performance of such cow be published in a Record of Performance within the herdbook, call it an appendix or what you will. By such means, the breeder will be able to select intelligently for the development of his dual-purpose strain, the farmer will know where to buy dual-purpose bulls, and in time the dual-purpose function will be restored, and public confidence in

it re-established. Our idea is that, by a system of intelligent management, wise breeding and discriminating selection, with the aid of milk scales and Babcock test, the milking habit may be developed in the herds we already have, hastened, perhaps, by the infusion of a strain of deep-milking pedigree Shorthorn blood, wherever such may be found.—Editor.]

A PRINCE EDWARD ISLAND VIEW OF THE HOG QUESTION.

Editor "The Farmer's Advocate":

Prof. Day's letter, in the Dec. 5th issue of "The Farmer's Advocate," is full of facts and common sense. While agreeing with J. C. T., in his letter in the December 26th issue of your paper, that when one man does all the work on a hundred-acre farm, he cannot give the pigs the same attention they receive at the Experimental Farm, I must take exception to some of his statements. He says, "When farmers go into mixed farming, the skim milk they have around during the year the calves consume." If this is so, they must raise a lot of calves, or their cows are pretty expensive boarders. Again, he asks, "How many farmers have a proper place for hogs in winter, especially for suckers?" In my experience, they do not require a very expensive house; they will thrive if they are kept dry and the house is reasonably warm. Usually, a sow will have two litters a year. She may have one pig, or she may have a dozen, but the cost of keeping the sow is all the same, he says. Now, is not this equally true in all branches of stock-raising? In all there is a risk. A mare may have a good smart foal, or she may have a dead one; the latter costs as much as the former. Taking into consideration the service fee and all other expenses, a good brood sow will return more profit for the capital invested than the average brood mare. Perhaps it would be of interest to Ontario readers, just here, to give the ration usually fed to hogs by the P. E. Islander: Potatoes and turnips, boiled and mashed, with some crushed grain mixed in with them when they are being cut up, forms the bulk of the feed. Of course, all swill and skim milk obtainable is added. The writer has had fall pigs, fed in this manner, that dressed over two hundred pounds apiece when a little over five and a half months old. At present, a pen of bacon-type pigs, nearly four months old, are gaining over two pounds apiece a day. I think that the farmer who goes in for winter dairying and pork-raising will find that, in the long run, it pays better than selling the produce off the farm. I do not think it advisable to overstock in hogs, but rather to keep a few and feed them good, as it is the pig that is kept growing from birth that pays the profit.

Queen's Co., P. E. I. E. R. Y.

FEEDING FOR THE COMING LAMBS.

The first ten days of their life is the most critical period with young lambs. If lambs are dropped healthy and strong, it is usually an easy matter to get them properly started; but if they come weak and wobbly, lacking in strong bone, lacking muscular strength, and possessed of a feeble vitality, the poor shepherd has ahead of him days and nights of constant attention, with slight hope of eventually saving the lamb.

When the lambs are weak at birth, showing signs of ill-nourishment, it is often true, also, that the mothers are poor milkers, and this double combination too often proves the wrecking of the ordinary farmer's flock, disgusts him with sheep husbandry, and causes him to abandon sheep-raising entirely. A little study and forethought might avoid these misfortunes at lambing time, and induce many men to continue partnership with these gentle animals that year in and year out will readily prove a most profitable source of pleasure and labor.

What is the reason for weak lambs, low in vitality? While there is often a reason for this to be found in the rams or the ewes used, we are inclined too readily to let the blame be entirely laid to the ancestry. Even a casual observer upon this point must conclude that, under any sort of ordinary conditions, the rule is to produce strong, healthy offspring. The fault is not with the ancestry, but with the conditions which are imposed during pregnancy. The breeding ewes are not supplied with proper rations. They are fed straw, timothy hay, cornstalks, silage or roots; some supply a little shelled corn or barley. Of these foods, they receive a plenty, and upon these they not only maintain themselves, grow their fleece, but are expected to produce a pair of lambs. But they can never produce strong, healthy lambs on such feeds. Sheep can make very poor use of straw, timothy hay or cornstalks; they can live on these themselves, but they cannot build up a vigorous progeny. These feeds are not palatable to sheep; they do not enjoy them; furthermore, they are largely indigestible, and in the available nutrients in them there is a minimum of proteid or mineral matter—the very things that are essential for the formation of the fetus and for the stimulation of the vitality of the mother to ensure this foetal growth.

The addition of shelled corn to these undesirable roughages does not in the least better the ration, since

corn, of all feeds, is the lowest in mineral matter, and quite low in protein, while barley is but slightly better.

What must be done is apparent, then. Supply the breeding flock at this time of the year with palatable, nutritious foods, rich in protein and in mineral matter. For this purpose, clover hay or alfalfa hay are unexcelled roughages. The ewes should be given what they will clean up each day. To this, oats, bran and oil meal should be added. Corn, oats and bran may be mixed in equal parts, and of this the ewes should receive from $\frac{1}{2}$ of a pound to $1\frac{1}{2}$ pounds per day, increasing the quantity as the period of gestation advances. A little oil meal should be added at each feeding time.

Roots, while always palatable to sheep, may be fed freely only during the earlier stages of pregnancy; during the latter weeks they can be fed only lightly. The same is true of silage. The tendency of both these feeds is to produce large, watery, weak lambs.

Exercise is at all times essential. Where there is no snow on the ground, this is easily obtained by running the stock on pasture, but in stormy times it is not so easily obtained. There are few days, however, when the sheep may not be turned out, at least, in a small lot, where they get the fresh air, sunshine, and some exercise. Their pen should open to a woven-wire-fenced yard, where they may take exercise at will.

If these precautions are followed from now until lambing time, there will be much less trouble at lambing time, more lambs will be saved, and more men will adhere to the sheep as a true friend in adversity, and a source of pleasure and profit at all times.

J. A. M.

A SPECIAL-PURPOSE BEEF BREED NOT PROFITABLE IN ONTARIO.

Editor "The Farmer's Advocate":

In your editorial columns of January 9th appear some timely and sound remarks on the oft-voiced question of the dual-purpose cow. This is at present a very important question with the farmers of Ontario, and on the position taken by breeders of pure-bred Shorthorn stock, very much depends. Hence, anything that will clear up and define our ideas on the subject should be generally welcomed. I am not engaged in the production of breeding stock, but in the commercial production of beef, and my standard for the cattle I keep is the standard of utility. Hence, I may be allowed a few words on the subject from that standpoint.

First, as to the necessity for a class of dual-purpose cattle in our country. Without this class of cattle, there are but two lines of cattle that may be produced here, the single-purpose beef animal and the dairy cow. For the production of the first class of animals profitably, a certain set of conditions is required, these being very cheap land and feed. Without this condition, it is practically impossible to figure a profit on a steer which has to pay for his mother's board the year she was engaged in producing him, as well as for his own during his lifetime. Those who have tried the experiment know that, under ordinary Ontario farm conditions, and at the price paid for first-class beef, a profit is practically impossible on this class of cattle. Of course, a fancy price, large enough to give a profit, may be paid for a very few animals of this class, but we must remember that this is not a commercial price in any sense, and that the market for this class of stock is, of necessity, very limited. The beef trade of this Province, if it is to exist at all, or to any extent, must be prepared to supply beef at prices which can compete successfully with other forms of meat production. That is, under present conditions, we must be able to supply a class of cattle which we can sell at from five to six

dollars per cwt., and leave a profit for ourselves. This, it is my firm belief, based on experience, cannot be done with the single-purpose beef animal in this Province. It may be done under ranching conditions, but not on the farms of Ontario.

Then we have the other alternative, dairying, pure and simple; and, in regard to the profits of this line of farming, I may say, although I have never followed it, that I believe the profits per acre for the land devoted to it are, perhaps, greater than those resulting from any other line of cattle farming. But it, too, has its objections, the greatest being the amount of labor involved. Under present-day conditions, it appears to be a necessity, if we would maintain the fertility of our farms, that we should feed practically everything we grow, and should find a market in our stables for all our coarse feed—hay, straw, roots and corn. To do this, we must, of necessity, keep a large number of cattle. In my own particular case, if I devoted myself to dairying, I would have to keep a herd of fifty dairy cows—a number which I could not possibly find the labor for. My case is only typical of that of thousands of Ontario farmers, who thus, in a very real sense, find themselves on the horns of a very serious dilemma, if there are only two types of cattle to choose from, the special beef and the special dairy.

But it is my firm belief that there is another class of cattle that meets the needs of the average Ontario farmer better than either of these classes—that is, the dual-purpose class, or, perhaps we had better call it the milking-beef class—cattle that have a good beef form, perhaps lacking some of the smoothness and early-finishing qualities of the special-beef animal, but having size, thriftiness and quality of flesh, and at the same time having milking qualities sufficient to enable the cows to pay their way at the milk pail, instead of having to mortgage the future profits of their calves. This class of cattle does exist. The old Shorthorn, mentioned in your editorial, fulfilled these conditions well, and there are many herds of profitable dual-purpose cows in the country to-day, Shorthorns or Shorthorn grades. In fact, there is practically no beef produced in the Province to-day, in a commercial way, at least, that is not the product of this class of cattle; and, moreover, if there is to be any Ontario beef trade in the future, it must depend on the development and perfecting of this class of cattle. It cannot exist otherwise.

As to the characteristics of this class of cattle, these are, in the main, from a beef standpoint, quality of flesh, arch of rib, and thriftiness. Quality of flesh first; and in this there is a great difference between different breeds. Ordinarily, the flesh of those breeds which have been for ages distinctly dairy breeds, is coarse of grain, stringy in texture, and lacking in flavor. Jerseys, Holsteins and Ayrshires possess flesh of this quality, though the Ayrshire, so far as I can gather, is the better of the three. So marked, indeed, is this lack of quality, that a steer, showing by the color of his hair that he has even the slightest trace of the blood of these breeds, is at once discounted by the buyer, no matter what his form may be. The Shorthorn alone, among cattle, combines milking qualities with quality of flesh. The second quality of the milking-beef is arch of rib, and here again the distinct dairy type falls short. The recognized dairy form has a rather long, flat rib, the bend of the rib being toward the lower end, rather than the upper, giving great capacity of barrel, but that peaked back which we all know as belonging to the dairy type.



Hampshire Down Lambs.

This must not exist in the dual-purpose cow. Here we want a well-arched rib, springing almost horizontally from the backbone, and of semicircular form, giving a rounded barrel. This is necessary in order that we may have a thick-fleshed back, and a large proportion of the best cuts in the carcass. How far this form operates against milk production, is a matter of controversy. My own opinion is that it has very little to do with it. The third quality is thriftiness—the ability to make good use of food, as necessary for milk as for beef production. From a milking standpoint, the dual-purpose cow must have a good udder, good milk veins, and, above all, good performance. My own experience is that it is quite possible to get cows of good beef form, capable of producing steers of excellent beef quality, which can profitably be finished at three years of age, at 1,400 to 1,500 pounds; and, at the same time, for these cows to give from \$45 to \$50 at the milk pail, besides feeding their calves on new milk, whole, until they are a month old.

It is true, as you say in your editorial, that the show-ring is, or has been, no place for this class of cattle. The fact that the highest excellence of form, whether from a beef or dairy standpoint, is not commonly found in this class of cattle, tells heavily against them, for the show-ring can take no account of general usefulness, or of anything other than appearance at the time of showing. To my mind, this has worked to the great injury of the Shorthorn breed. This breed attained its great popularity as a farmer's cow largely on account of its dual-purpose character. This character has largely disappeared from our leading herds because of a short-sighted devotion to show-ring standards. As a result, the Shorthorn has lost ground to the dairying breeds as the farmer's cow. If this ground is to be regained, it is necessary that Shorthorn breeders should pay some attention to milk production. This will involve some changes in the methods followed by our breeders at the present time. The nurse cow which relieves the mother of milk production, after a very short period of lactation, will have to disappear. Not only this, but cows used for the production of breeding stock will have to be milked in the manner of dairy cows, and every effort put forth to cultivate the habit of milk production. The Shorthorns are very susceptible to such training, and a great improvement may be expected from this course of action. Besides, your suggestion of a milking record for Shorthorn cows is an exceedingly good one, as it will enable the prospective purchaser to see at once what milking qualities he may expect to find in the stock before him—a much surer guide than any qualities of mere form can be. By taking these steps to encourage the milking qualities of the Shorthorn cattle, the breeders of this breed will confer a lasting benefit, not only on themselves, but on the farmers of this Province generally.

E. C. DRURY.
Simcoe Co., Ont.

KING EDWARD AS A FARMER.

The rich crop of prizes which the King's cattle and sheep have won at the Bingley Hall Show, Birmingham, is the latest demonstration of His Majesty's success as a farmer, of which he is so deservedly proud. When the King began breeding, nearly forty years ago, the Sandringham-farm lands were in an almost hopeless condition—barren, and barely capable of cultivation. Today, according to Rider Haggard, "It is a wonderful farm, for nowhere is so much high-bred stocks to be seen on the same area." But probably nowhere will you find such an array of plates and cups won at shows as that which Sandringham boasts. At a single exhibition, His Majesty once won no fewer than fourteen first prizes. In 1903 he captured five first prizes and cups, in addition to numerous seconds and thirds; in 1904 his prizes numbered twenty; in 1905 he won a champion plate, a challenge cup, and eighteen other prizes, including four firsts; while last year he won at the Smithfield Show, ten

firsts, nine "breed" cups and plates, six other prizes, and several "highly commends," and every prizewinner he has bred himself.—[Westminster Gazette.]

THE FARM.

LET US BEAUTIFY THE LAND.

Editor "The Farmer's Advocate":

We are always waiting for "The Farmer's Advocate" to come, as there is always something to interest us in our daily work. We would suggest that you keep forever hammering along the line of "forestry," and planting around farm homes generally. The greatest mistake I see our farmers making is cutting away the shelter that a kind Providence provided for us. While the care and maintenance of live stock is the most important of a farmer's work, his next duty is, or should be, to beautify the great heritage which has been given us, and, in doing so, "we can make our lives sublime, and, departing, leave behind us footprints on the sands of time." Wish you a prosperous New Year, W. F. J.

SETTING FENCE POSTS, AND OPENING DITCHES

Editor "The Farmer's Advocate":

As this is the season of the year when farmers have more or less time at their disposal, when they can receive and impart practical information, a few words from a subscriber may be of benefit to both writer and reader.

Relative to the matter of fencing, which is becoming of necessity, viewed from the standpoint of permanence, coupled with economy, an important one, I wish to ask have any of your readers resorted to the using of concrete, either in part or in toto, for fence posts, and with what results, relative to the cost of material, time, etc.? If none have tried the following plan, what is the opinion of the fencing public regarding it? Bore with an 8 or 9-inch auger a hole 3½ or 4 feet deep, which is below frost level; fill in bottom two feet of hole with small stone and concrete, then set in post (cedar or iron), 5½ or 6 feet long; if cedar, 4 or 5 inches thick; and if steel or iron, lighter material than that commonly used should do. Fill up hole with concrete, say 1 part cement to 6 or 8 of gravel, pounding well, and leaving it turned to shed water from post.

By having everything in readiness, with a team on a stone-boat, sufficient concrete can be drawn from mixing place to set a good many posts. I would like the opinion of some of your readers on this matter.

Many farmers build their own fences throughout. It has been found, when using other than woven wire, that, to first set end posts, of whatever material desired; then stretch bottom wire for a guide for lining; wire will not be found in the way for boring holes. Weight it down in the hollows. This insures a perfectly straight fence, without any extra trouble.

During the past fall I discovered a plan, which may or may not be new, but which I have found lessened the otherwise hard labor of digging a ditch fully 60 or 70 per cent. Plow two furrows each way. This will give a trench 6 inches deep, and 16 or 18 inches wide. By means of a chain, remove the eveners 3 or 4 feet from plow. This will allow the operator to guide the plow at will; also, the team to work at freedom. Place the furrow horse in the trench, and turn one furrow. Then shovel out. Reverse the team, keeping furrow horse in furrow, and turn score into trench just made; then shovel. These two furrows can be 5 or 6 inches deep, and about 15 inches wide. All the width that is required is to give the horse freedom to walk. Beyond that, is extra clay to throw out. The ditch is now about 12 inches deep. Two more furrows can be plowed, using shovel after each; this course can be narrowed to a foot or 13 inches wide. Ditch is now about 16 or 18 inches deep. Horse can still freely work to turn another furrow in bottom, which leaves the ditch practically ready for the tile scoop.

Point 1.—A good team can turn these stiff, clay furrows readily.

2. A man can shovel four or five times more clay than he can dig.

3.—A narrow plow is more desirable than a wide one.

4.—In soil free from gravel or stone, at least, this plan is a time and labor saver.

5.—When you have your next ditch to dig, get your horses, plow and shovel into action, and you will find your ditch completed, when you otherwise would only have nicely started.

6.—Subscribe for "The Farmer's Advocate"—the farmers' medium—and give us your views, and help make our calling the easiest, as well as the best and noblest, under the sun.

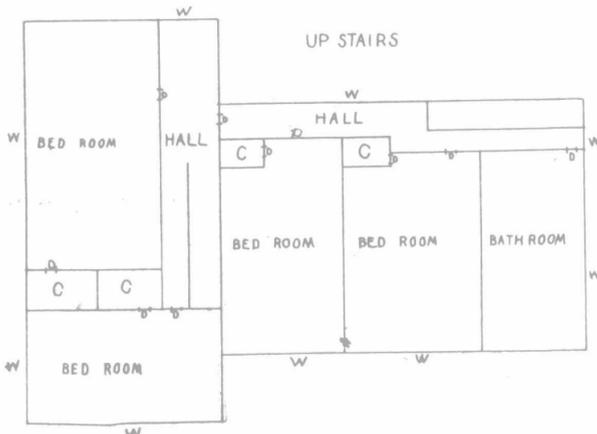
E. C. B.
Perth Co., Ont.

THE SLIPSHOD FARMER.

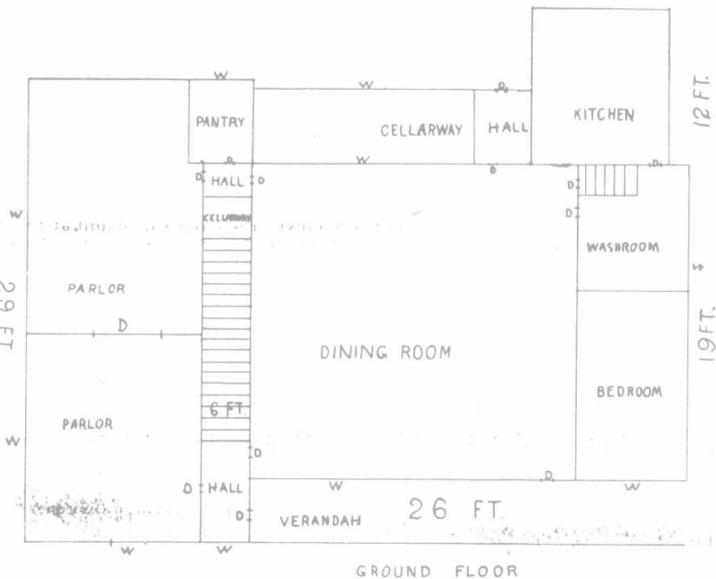
Editor "The Farmer's Advocate":

We are much pleased with the many splendid articles we read in "The Farmer's Advocate" every week on almost every subject in regard to the farm. There is an old saying that "a man is known by the company he keeps"; another, that "a farmer is known by his buildings and fences and the general neatness or untidiness, as the case may be."

This is the time of year when one would expect to see everything housed; the stock all in comfortable winter quarters, and the farm implements all in the shed for the winter. But, alas! in many cases this is not so. I know farmers who have lived on their farms all their lives, and if you visit their farms you would find the barnyard full of implements of every description. In some cases the plows are frozen in the ground just where they unhitched last fall. In some cases they run the best buggy under some old shed, where it makes an excellent roost for the hens and sparrows. Now, I think this is shipshod farming, and, if you talk with these men they will tell you there is no money in farming. I admit there is no money in that kind of farming. If you see their farms in summer-time you will see a row of thistles, burdocks and all kinds of weeds that have a mind to grow on every fence. Stone piles and old rails ornament the lane back to the woods. No wonder times are hard with them, and more especially for their wives, who have to chop wood with an old dull axe in June to get dinner, while their husbands chase the pigs out of the potatoes, or the cows out of the corn, swearing at the stock for not staying out when there was no fence to keep them out. Many of our townships have passed a by-law to prohibit stock of any kind from running on the highway, so Mr. Slipshod takes advantage and saves the expense of building his road fence. He also



Upstairs Plan of Mr. Bell's House.



Ground-floor Plan of Mr. Bell's House.

By mistake of engravers a window was omitted in the south side of the back parlor. They have also represented the south side of the house by the top of the cut, whereas it should be the reverse.

MR. BELL'S FARMHOUSE.

The accompanying cuts represent the farmhouse of Mr. Wm. Bell, of Middlesex County, Ontario, built in 1903, at a cost of \$2,000, including furnace, but not his own work, the stone quarried on the farm, or the board of men working on contract. The dimensions of the main part of house are 20 x 29 feet, the other part 19 x 26 feet, and the kitchen 11 x 12 feet. The house is of white brick, with basement full size, of stone masonry. A windmill supplies water from well to barn, and house from elevated outside tank. Cattle in stalls are watered from individual cast-iron basins, galvanized. The heating, by hot air furnace, is satisfactory, wood only being used as fuel up to this time.

says that the pathmaster should cut the noxious weeds. The pathmaster says he has no authority to cut the weeds with statute labor, and so the weeds, in many cases, are not cut, and I know where there are miles of the public roads that are almost a solid patch of burs and weeds of various varieties. What is everybody's business is no one's. I am told that a certain inspector notified a neighbor to cut the burs on the road opposite his farm, and, at the same time, the burs were so thick opposite the inspector's farm that a rabbit could scarcely get through. I do not want a controversy with Mr. Shipshod, but would like to hear from some good farmer along those lines.

Lambton Co., Ont. SAMUEL MITCHELL.

BARN BUILDING.

Editor "The Farmer's Advocate":

The editorial, in your last issue, on barn building, is timely, and full of useful hints. The reference to the wisdom of starting early and getting forward with the preparations during the winter months is good advice, and might well be put into practice, to some extent, a year or two before the actual work of pulling down and building greater, thus avoiding the rush incident to the transformation when crowded into a few weeks in spring and early summer. Where stone or gravel is to be used for basement walls, the teaming may well be done during two or three winters in advance; and the same is true of sand, since these things will keep without waste. The location of the new building, as you have suggested, is worthy of more mature consideration than is generally given the subject. Anyone who has been at all observant in driving through the country can hardly fail to notice how little attention appears to have been given to the relative position of farm buildings, from the standpoint of convenience and comfort in passing from one to the other, and to tasteful arrangement for effect upon the landscape. This may at first thought appear to be merely a sentimental suggestion, but it is more than that, though sentiment is not to be despised, and may be advantageously combined with common sense even in so prosy a matter as that of building a barn. How often do we see a handsome and artistic farmhouse partially hidden from view from the highway by an unsightly set of outbuildings, located, if not in front of the dwelling, at least considerably nearer to the public road, shutting off the outlook, and hiding, it may be, a view of hill and valley and wooded landscape and brilliant sunsets which cheer and uplift the mind and heart, and are among the chiefest of the charms of country life. The mistake may have been made in choosing a site for the house, if it has been built later than the barns, and the choice may have been decided upon owing to the presence of ornamental trees, an orchard, or a well, and may not have been easy to better for other reasons; but, in most cases, probably too little thought was given to this phase of the question. As a rule, the proper place for the barn, provided a fairly high or well-drained location is available, is directly at the rear of the house, and at a distance of from 200 to 250 feet from it. Then, with a cement or gravel walk between the two, and a door in the end or side of barn next the house, one can pass from one to the other dry-shod, and without carrying dirt into the house. For economy of time and enjoyment of comfort, such an arrangement counts for a good deal in a lifetime, and is well worth careful consideration. Even if the lay of the land in the location for the barn indicated be not so well suited as one could wish as to drainage, that lack may, in many cases, be provided for by keeping the foundation wall and door frames high enough, and, by a little tile draining, and in some cases diverting the course of a surface ditch by the use of the plow and scraper. And the barnyard may be greatly improved by a covering of gravel, which may be hauled in winter or late in the fall, after plowing is ended by hard freezing. The writer recalls an experience in the improvement of a barnyard by this means, that was considered a fine investment of time and labor in the comfort secured, the gravel setting almost equal to cement-concrete. So much for forethought, which is often better than hind-thought. I may come again if space appears to be available.

OLD TIMER.

Bel Co., Ont.

LATH MODEL OF A PLANK-FRAME BARN.

Editor "The Farmer's Advocate":

I am enclosing two photos of a model of a plank-frame barn which I made. The model is made 4 feet wide, and of 3/8 by 1 1/2-inch lath, and to a scale of 1 1/2 inches to the foot. The center bents are a clear space from floor to peak. I have never built a plank-frame barn, as the people had not the confidence in them they ought to have. For this reason, I built the model, and I could not see that it showed any sign of giving with seven grown people standing on it. I think it would have held another man or two, but I could not get them on so as to show to a good advantage. This subject should be of great interest

to farmers, as building material is getting scarce, and, as the country is getting cleared, the wind is much harder on the buildings.

Lincoln Co., Ont. V. BARTLETT.

THE DAIRY.

A MODEL SITUATION FOR CARE OF MILK.

From an Address by Jas. R. Burgess, before the Western Ontario Dairymen's Convention, January, 1908.

The quality of the cheese made depends largely, almost entirely, on the quality of the milk delivered at our factories, at least at the majority of our factories in Western Ontario. The most improvement is required in the quality of the milk delivered.



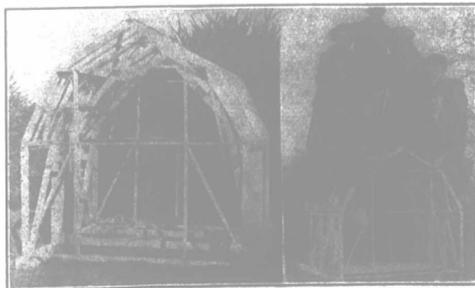
Home of Wm. Bell, Middlesex Co., Ont.

We find milk being cared for on the farm in a great many different ways. At some places there has been no provision made for cooling purposes, and the milk is put into the can, and gets no attention whatever.

Sometimes the cans and utensils are not clean, there is no strainer used, the milk is left near the barnyard, hogpens, or on the milk-stand by the roadside.

INEFFECTIVE COOLING.

Again we find the cans and utensils clean and bright, and the milk is supposed to be cooled by setting it in a tub containing, perhaps, half as much water as there is milk, and the water never changed. This, instead of improving the milk, improves the conditions for the growth of bacteria and bad flavors, because the water and the milk soon come to the same temperature, and the high temperature is retained for a longer time than it would be if no water were used. When water is scarce, the milk is sometimes left in the



Lath Model of Plank-frame Barn.

(Two views of same model.)

pails and stirred till cool, but it is impossible to get the temperatures below that of the surrounding air, and so makes it impossible to have the milk in the best condition in hot weather without the use of water or ice. There is no advantage in dipping and airing milk, oversteering it, but it is a disadvantage when the surrounding air is not pure.

Leaving the milk at high temperatures in places where surroundings are untidy and impure is the most common cause of milk being tainted and overripe.

Sometimes the milk is cooled by using creamery cans filled with ice and set in the can, but, when left, the milk farthest away from the ice would become warm more quickly than if it was surrounded by water or ice.

Milk is also cooled by setting in creamery cans

or pails in a tank of cold water, before putting it into the larger can. This method is all right where the milk supply is small, but where there is a large quantity of milk it would make too much work.

When a running stream of spring water is nearby, a good place for cooling milk can be arranged by having a box or tank placed in the stream, and a house built over it; this saves the labor of pumping, and there is always fresh, cool water around the milk.

There are different methods of cooling and caring for milk which give good results, but what every patron should have is the best, most convenient and practical way.

THE MODEL WAY.

In speaking of a model situation for taking care of milk, we must first consider the main points that govern the keeping qualities of milk.

The cows should be healthy, have free access to salt, plenty of pure water, and good pasture. Cleanliness where the milking is done is essential, also of the person milking.

The strainers, cans, pails, and all the utensils should be thoroughly clean and bright, free from rust and dirt in any shape.

As soon as the milking is done, the milk should be taken out of the stable or milking-yard to a place where the air is pure, strained and cooled as quickly as possible to a temperature of from 55 to 60 degrees, always using a thermometer to determine the temperature.

There should be plenty of pure cold water and ice available; by the use of ice, the cooling can be hastened, and the amount of water required lessened.

A milkhouse is required. It should be a good distance from the barnyard, or where the surroundings are impure, and should be kept clean and tidy. For the purpose of cooling the milk, there should be a tank, made of wood or cement, large and deep enough to allow the cans to be set in, and to hold enough water to come above where the milk stands in the cans, and a space of three or four inches around the sides. There should be an outlet pipe near the top to allow the water, as it becomes warm, to be carried away; also one at the bottom, to empty it occasionally. If a windmill is used for pumping, it is well to have a large supply tank, and piping to carry the water from it to the small tank. If there is no windmill, the milkhouse and tank should be near the well. A windlass is convenient for raising and lowering the cans out of and into the tank. It is convenient to have a car or truck, and a track laid from the tank to the milk-stand.

Sometimes the milkhouse is built close to the barn or stable, but, if it is away from impure surroundings, there is less danger of the milk being contaminated.

The cost of providing a tank and milkhouse, properly and conveniently constructed, on every patron's farm, would be small, compared with the amount of money that is lost during the warm weather by milk being overripe and tainted, causing an inferior quality of cheese to be made, besides taking more milk per pound of cheese.

A PROFITABLE DAIRY HERD.

Editor "The Farmer's Advocate":

Our cows are grade Holsteins. Fifteen years ago our first pure-bred sire was used, of the stock of J. W. Lee, Simcoe. The stock from him were of such marked improvement that we have since used another sire from the same herd. Part of our present herd are bred from a sire purchased of F. Stewart, Elfrida. Our best heifer calves have been raised for several years, and all have proven good milkers. For the season of 1907 we milked twenty-one cows, among them being four heifers, which keeps the average age of the cows at five years. The total milk yield for the seven months was 156,986 lbs. The receipts were \$1,375.98. The average per cow was 7,475 lbs. milk, and \$65.52. The total milk yield for the season was 189,352 lbs. The returns for the season were \$1,685.35 for the twenty-one cows.

Last winter the cows were fed alsike clover straw and oat straw, with a little grain during January and February. They were turned in the yard to the straw stack the days it was not stormy. The most of our cows freshened in March, after which they were fed well-cured green clover hay and four pounds grain, morning and evening.

The grain ration was maintained until the grass was large enough to sustain flesh. We always change

the cattle from one field to another regularly, because we believe they milk better every time they get a new field. They are stabled during milking. In fly season we keep the cows in some cool, shady place in the afternoons. Last autumn the cows were not stabled nights until early in November. The supplementary food used was corn fodder. About two acres of green corn were pastured; after that two feeds a day were scattered in the pasture fields, until the corn was cut. After cutting the corn, it was fed out of the shock in the same way, and about three pounds of grain per day. For two years we have kept individual records, and can say that it causes some great surprises when, at the end of the season, each cow's average is totalled.

Norfolk Co., Ont.

MASON BROS.

POULTRY.

AMERICAN POULTRY ASSOCIATION NEWS.

An important meeting of the Executive Board of the American Poultry Association was held at New York City, December 20th, 1907, in connection with the Madison Square Garden Show, at which two hundred and fifty-seven new members were enrolled, including sixty-eight poultry show associations.

The committee appointed to prepare proposed changes to the constitution submitted the following, which met with the approval of the Executive Board, and will be submitted to the members of the Association in due course for their approval:

That paragraph "E," Section 1, Article 3, on membership, be amended to read as follows:

(e) Branch—Any State or Province, or any district composed of any combination of adjoining States or Provinces, not exceeding six in number, may be organized into one branch association, subject to the constitution and by-laws and the rules and regulations of the American Poultry Association. The membership of branch associations shall be made up of life associate or society members of the American Poultry Association. Members of the general association shall be enrolled by its secretary-treasurer as members of the branch association in whose territory they reside. Each branch association, through its properly-accredited representative, who must be a member of the branch association, shall be entitled to one vote at meetings of the American Poultry Association for each five of its members who are not present at roll call. Life members of the general association retain, and may exercise, all privileges of individual membership.

That Section 2, Article 3, on membership, be amended to read as follows:

Sec. 2.—All applications for membership of classes a, b, c and d must be made in writing, be addressed to the secretary-treasurer of the American Poultry Association, bear the endorsement of two members of the Association, and receive a majority vote of the Executive Board, either by mail or in regular or special session. Should the vote on new members be by mail, the secretary-treasurer shall duly advise all members of the Executive Board, in form and manner required by said Board, and in the event that any member of the Executive Board objects to an applicant being admitted to membership, such application shall be acted upon by the Executive Board in regular or special session. No application shall be approved unless the prescribed membership fee has been paid. Should the applicant fail of approval, the fee shall be returned. An application for branch membership must state, over the signature of its secretary, the number and names of its members who are life members of the American Poultry Association.

A UTILITY STANDARD.

A recent bulletin by the Alberta Experimental Station says:

"Utility-type fowls should conform to the following standard: Standard weight, cock, 8½ to 10 pounds; hen, 6½ to 8 pounds; body, broad, blocky and of medium length; breast, carried well forward, full and broad, and of medium depth; breastbone, long, straight, not too deep and not pointed at the front; legs, short, stout, and set well apart, white or yellow in color, and without leg or toe feathers; head, medium in size; comb and wattles, small; constitution, strong, healthy and vigorous, as indicated by the depth and width of body. The color of the plumage is not an important factor in connection with commercial poultry-raising. In the interests of the breed chosen, however, every poultry breeder should give some consideration to the plumage so long as type is not interfered with. In any case, close-feathering is desirable."

Here is a standard, says an exchange, that should help every farmer to grade up his flock with little expenditure of money. It is surprising how few birds in a flock of mixed chickens will fill this standard. When one sits down to handle a flock of chickens, it is depressing to find few that fill his ideal of what a good chicken should be. The fancier is discouraged because he finds a small percentage of prizewinners from the best of matings; the farmer is discouraged because of the lack of uniformity of type. When he reaches the point where he wants uniformity of type, however, he becomes desirous of uniformity of color, and the gulf between scrub and pure-bred is crossed. The farmer whose birds come up to this standard has a good flock even if they are all the colors of the rainbow.

POULTRY NOTES.

A Scotch poultry fancier says, in regard to profits from poultry on the farm: "I am sure it would pay any farmer to have a couple of hundred or so hens about the place. If he goes the right way about it, a hen should reap an annual profit of from 5s. to 7s. 6d. (\$1.25 to \$1.75). This I proved before I started the day-old-chick trade—when I devoted my attention during ten years entirely to producing eggs for market. Proper scope, proper housing, and proper feeding, are three main things to successful poultry production. Crowding into large flocks always results in failure. If they are to do well in large numbers, they should be put out in colony houses on the grass, from twenty-five to fifty hens in a house, and fifty to one hundred hens to the acre. The great thing in housing is ventilation, and, if all the openings are on one side, this can be obtained without causing drafts."

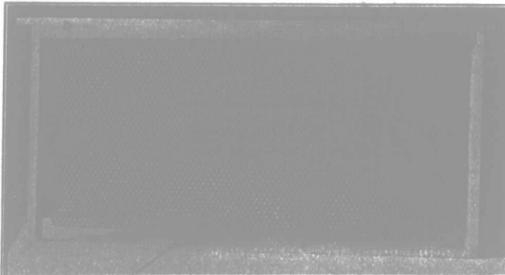
APIARY.

USING FULL SHEETS OF FOUNDATION.

There is a large, direct expense connected with the use of full sheets of comb foundation—somewhere around fifty cents per five—depending upon whether eight or ten frame hives are used, and whether one purchases foundation or sends wax to some manufacturer to have it worked into foundation for cash. But even if the first expense is large, I find it oftentimes pays, and pays well, to use full sheets of foundation.

There is only one case where I prefer to use starters of foundation to full sheets—when hiving first swarms that are to be run for comb honey. In such a case, were the swarms hived on full sheets of foundation, the bees would draw out the cells too fast for the queen to fill them with eggs, and some of the most salable honey would be stored in the brood-nest. But when giving swarm six frames filled with starters only, they will not draw out the cells faster than the queen can fill them with eggs, and all of the honey that is gathered must be stored above in the sections—that's why it is more profitable to use starters in this case.

Some drone-comb will be built when using starters only, but that can be removed the next spring, and replaced with worker-comb. When a swarm issues that is known to have a queen more than two years old, full sheets should be given, for an old falling queen will not



Wired Frame Filled with Full Sheet of Foundation.

fill the cells with eggs fast enough, and as soon as the bees get ahead of the queen they will build drone-comb for storing honey, as it is more easily built and is just as good to hold honey.

When using full sheets of foundation, the frames should always be wired. The most common method of wiring frames in use is what is known as horizontal wiring. The end bars should be ordered "pierced" of the manufacturers. Through these holes, after the frames have been nailed up, number thirty tinned wire is drawn tight enough to fully take up all slack. Each end of the wire is wound several times around a cut tack, which is then driven well into the end bar.

As the wire is wound on spools, it is much inclined to twist and kink. I have had a whole lot of wire become so tangled that I could not use it. To overcome this as much as possible, I fastened the spool so it would turn somewhat hard, and then pulled off the wire fifty feet or more in length. The pulling stretches the wire somewhat, so it is less inclined to curl and kink. The wire is wound onto a piece of board half of the required length of wire. After having tied the wire in several places with string, so it cannot tangle up, it is cut on one end of the board, which gives wires of the correct length for one frame.

The bees will build the cells over the wires when the sheet of foundation hangs against it, but it is much to be preferred to imbed the wire into the foundation.

The best tool I have used for imbedding is the wire imbedder—sold by bee-supply dealers. I also find that heating the imbedder moderately makes better work.

The wires will also be more secure if they are waxed. For that work I use a photographer's retouching brush; dipping it in melted wax and drawing it quickly along the wires. One wire only can be waxed, when the brush must be again dipped into the melted wax.

F. A. STROHSCHNEIN,
Wisconsin.

GARDEN & ORCHARD.

APPLE-TREE PRUNING.

T. W. Stirling, Kelowna, B. C., before the Northwest Fruit-growers' Association.

Any fruit-grower, on being pointed out an apple tree, can say at once whether it is well shaped or badly shaped. The general characteristic of such trees as would be called well shaped by an experienced fruit-grower are found to be somewhat as follows:

The main branches spring from the trunk at a good broad angle. They do not spring opposite to each other, but are distributed up and down the trunk. They are evenly placed around the tree, and do not interfere with each other. There is a definite center stem from which they spring, and which extends above the main side branches.

Such a tree is of the strongest possible frame. It will carry its proper load of fruit without propping. There is no fear of it being split down to the ground and ruined by an overweight of fruit, or by wet snow, or by any other cause. The greatest damage that would be likely to happen it will be the breaking of a bough, an injury which can easily be repaired and the loss replaced within a short time. If any branch is overlaid and breaks off, the injury to the trunk will be comparatively slight; there will be no splitting. Always, fresh shoots can be grown from the center to replace broken branches. After all, the main stem of the tree is the tree; keep that intact, and the tree is still there to grow any branches that are required.

To illustrate the advantages of this form, it is only necessary to think of another form which is very common; that is, the tree where the center has been cut out, and never replaced; where the branches all spring from the same point, as the fingers grow from the palm of the hand. Such a tree, when the day of trial comes, either from an overload of fruit or from a fall of wet snow—yes, and sometimes by reason of its own weight—will get tired and lie down, splitting right to the ground, so that there is nothing left from which a new tree can be grown.

Now, shaping a tree is not the whole art of pruning, and, by shaping a tree is meant that treatment of a tree in its earlier years which definitely determines its general form; a tree may be well shaped in this sense, yet, at the same time, woefully in need of cutting and clearing out; but this latter branch of the pruner's art cannot be dealt with adequately in a paper, and it is the first only which is the subject of this present effort.

The object of this paper, then, is to outline a method, and to state a few short rules, which, if followed, will insure every tree growing up in a correct form.

The rules are three in number, viz.:

1. Keep the leader.
2. Have but one leader.
3. Make the leader lead.

The explanation of these, and the method of carrying them out in practice, is as follows:

The tree is planted as a yearling whip, and cut back to about three feet, or a little less, from the ground, with the object of forcing buds into decided growth, so that there may be something to work on the next spring. The first real step towards shaping the tree is taken the spring after planting, preferably when the buds are just beginning to show green. It will be found then, if the tree has established itself, that some of the buds near the top, very generally three, have made a strong, upstanding growth, coming out from the stem at a very acute angle; lower down, more shoots will have grown from the stem at a greater angle than the leaders, and usually have not made such strong growth. It is from these latter that the first tier of branches may be chosen.

Leaders.—Of the one, two or three upright shoots near the top, select the best and most upright as the leader, and sacrifice the remainder. If they are retained with the idea that they will become satisfactory side branches, amenable to discipline, it will be found to be a mistake. They will not do so, but will for years be a source of bother, competing continually for supremacy. Cut them out, leaving but one leader.

Side Shoots.—From the other shoots lower down, select, if possible, three side branches. These must be evenly distributed around the tree in a horizontal direction. In a perpendicular direction, they must be well separated. The angle they make with the trunk should be large—nearly a right-angle. If there are not three shoots that satisfy these conditions, then leave only two, or one, that does; better one right than three wrong; plenty more shoots will grow during the current year to fill any vacancies.

But certain varieties of trees—for instance, the Northern Spy—have shoots which almost invariably spring from the stem at an acute angle. In such cases it cannot be expected that shoots will be found to satisfy the third condition mentioned above. It is as well, then, to use a spreader to cause the shoot to grow in the desired direction.

Cutting Back.—Having selected the shoots which are to remain, and removed the others, cutting them off close up to the stem, it is necessary to cut them back. It will be observed that the buds on the upper end of a wood shoot are better developed than those near to the base. The object in view is to give the leader the start and to have it kept ahead of the rest; therefore, do not cut it back too much. Cut it amongst these buds towards the upper end, perhaps one-third of the length down from the tip.

In regard to the side branches, perhaps amongst those retained one or two are weak, and one or two are strong, these latter, perhaps, nearly as strong as the leader. Put them in their right place right away. Cut them back to within three buds or so of the stem. The buds here will be very much backward, and, by the time they have been forced into growth, the leader will have shoots several inches in length, and there is no fear that the side branches will catch up.

Next Year.—The following year the process will be much the same. The leader will be treated practically as was the whole tree the year before. The lower tier of branches of last year will probably have made two or more shoots. Almost invariably one will be enough to leave, and that should be cut back towards the extremity, or about one-third from the tip. The next year will be time enough for these side branches to have side shoots.

Third Spring.—The next year will be a repetition of the first and second, except that there will be an additional tier of branches to prune. The treatment of this lower tier, this year, will be somewhat similar in principle to that of the leader the first year. The cutting of the preceding year will probably have resulted in two or three strong shoots growing from the end, and one or two weaker shoots growing further in on it. Of the strong shoots at the end, but one should be left, and that cut back as before, about one-third; of the others, one or two may be left, as there is room or not.

After this, if all has gone right, as it will have done with a normal, well-growing tree, handled as suggested, the tree may be considered to be formed, and it is usually unnecessary to continue cutting back the leading shoots. The leader will be firmly established, and the tree will tend to keep the form in which it has been trained. Subsequent shaping will simply consist of thinning out superfluous shoots and branches, keeping a balance between all side boughs.

The idea to keep in view is to give the leader the preference when cutting out; that is, if a shoot from the center is crowding a shoot from a side bough, it is the latter that must give away.

Should the shaping have been neglected in the earlier years, or should any injury have happened to the leading shoot, it is often found that one of the side branches has come ahead of the leader for supremacy. There are three things that may be done, and one of them must be done if a well-shaped tree is to result:

1. The side branch may be cut off.
2. The tree may be cut off immediately above the side branch, and thus the latter becomes the leader.

(Where the side branch has grown practically as large as the rest of the tree above it, one of these two things must be done.)

3. Check the side branch back by cutting it off immediately above one of its own side shoots. The stronger it is, the lower down it must be cut.

This latter will be best where such cutting is likely to be efficacious in putting the side branch in its place; it will, however, in any case, have to be watched the next season.

Always the side branches must be headed in this way if they show signs of coming ahead of the leader, until they are finally induced to take a subordinate position.

It will likely now be found that there are too many branches, and that they are crowding each other; no matter, if given a choice, and if any have to be sacrificed, their existence will not have been wasted; they will have assisted to thicken and strengthen the main stem.

It is not claimed that there is anything new in this paper; it is simply an attempt to state in clear and concise language a definite system, which, at any rate, has the merit of producing surely, and without waste of time, energy in plant growth, the results aimed at. The attempt seems to be justified, because this part of the orchardist's art has not often been stated, either clearly, concisely or completely, and it is very necessary to have clear and definite ideas on the subject.

With a clear mental picture of what is needed in regard to shaping a tree, the pruning of young trees is a rapid and sure operation. The tree is pruned and shaped mentally as the operator walks toward it. A few deft cuts with a sharp pair of shears, and it is done.

Lacking this clear idea, there is indecision and doubt; the indecision of the first year produces

the puzzle of the second year, which in the third year becomes an insoluble problem, or only one to be solved in sacrificing half or more of the tree, and thereby wasting the greater part of the energy of growth that the tree has put forth in the past.

[Note.—This is an excellent article on pruning, and I think it is well worthy of publication in "The Farmer's Advocate." As it is customary in the East, however, to plant two and three-year-old trees with the top already formed, a little additional information might be advisable. A two- or three-year-old tree, when received from the nurseryman, should have the heads well formed, although some of the branches will have to be removed. The best head consists of a central leader, with three or four side branches rising alternately from the trunk. When planted, the branches should be cut back at least one-half, and, if the trees are not well rooted, they should be cut back still more. In the colder parts of the country, however, it is advisable not to head back the leader very much after planting, as we have found in our experience that if the leader is headed back severely, the lower buds may not start that season, while they may on the side branches, the result being that the leader dies, and that undesirable form of tree mentioned by the writer of the article is the result, namely, the tree with a bad crotch, which causes the tree to break down later on. By leaving most of the leader intact, at least for the first season, until the tree begins to grow, there will not be danger of its dying. Even in the best districts, it is well not to head back the leader as much as the side branches. The rest of the information given in the article will be applicable to conditions in the East.—W. T. Macoun, Horticulturist, Central Experimental Farm.]

PROTECTING STORED VEGETABLES FROM FROST

Editor "The Farmer's Advocate":

I should be interested to know through your columns whether any of your readers have had experience with the protection of stored vegetables or fruit from frost by the use of large vessels (tubs, barrels or clothes boilers) of water. I have heard that this method of protection is often used successfully, but should like to have more particular information about specific instances—such information as: the size and exposure of the cellar or room, weather conditions, kinds of vegetables or fruits, quantity of water used, and whether hot or cold, material and shape of vessel used, and whether covered or not, etc. Instances in which protection was afforded, even when the water was freezing, would be of special interest.

Looking at the matter from a theoretical standpoint, I should say that the best protection would be afforded by the use of hot water in metal vessels. Covered clothes boilers would appear to me to meet the requirements very satisfactorily. Metal vessels would be preferable to wood, because they would more readily transmit the heat from the water to the air of the room. Covered vessels would be better than open ones because, in the latter, a considerable amount of the heat, otherwise available for heating the air, would be wasted in converting water into vapor. The water, even when freezing, would continue to give out heat, and might, if present in sufficient quantity, prevent the temperature of the air falling more than the few degrees below the freezing point of water, which most vegetables will stand without injury. J. T. S. Jacques Cartier Co., Que.

THE FARM BULLETIN.

"NON-EXPLOSIVE COMPOUND" FAKE.

Editor "The Farmer's Advocate":

Occasionally a faker goes his rounds in the country, and the latest fake in this locality is carried out as follows: A man calls at a home and shows a small parcel of stuff, which he calls by a high-sounding name, saying that when a small quantity is put in the oil in a lamp it renders it non-explosive, and asks for a lamp to show how it works. He removes the burner and puts a small pinch of the powder from his package into the lamp, and then very deliberately puts a match to the lower end of the wick, and puts the blazing wick down in the oil. Instead of an explosion, as one might expect, the blaze is at once extinguished. He repeats the operation three or four times to convince you that it will not explode, and then proceeds to sell the package for the small sum of twenty-five cents, claiming that you will have a brighter light, etc., as well as rendering the lamp absolutely proof against accident by explosion. As a matter of fact, there would have been no explosion in the absence of the "non-explosive compound," for the blaze, instead of igniting the oil, is smothered by it, as any one can prove for himself by testing, using an open vessel by way of precaution. Such an article is almost sure to appeal to a person of nervous temperament, and will find ready sale. If you have space in your splendid paper for this short letter it may have the effect of spoiling the game, for, undoubtedly, the stuff is worthless, at least for the purpose named. WM. DUNCAN. Simcoe Co., Ont.

SOUND THE CANDIDATES ON THE AUTO QUESTION.

Editor "The Farmer's Advocate":

We see a great deal written and are being told lots about how to make good roads and how to use split-log drags, etc., etc., but since the advent of that curse on the road, the automobile, there is precious little encouragement for farmers to use split-log or any other kind of drag. The farmers of this fair County of Bruce spent hundreds of thousands of dollars on their leading wagon roads, of which they were justly proud, and over which it was real comfort to drive. Time was when some of the women folk or the old man about the place could take a steady horse, drive to the village, do the errands for the place, and not only save the time of someone whose time was more valuable, but take a little solid comfort out of the job.

But this is all changed; nobody thinks of trusting a woman or the old man on the road with a horse any more. It has to be the best man about the place, and even they go along the road craning their necks watching for the machine, and when one comes in sight, get into the nearest gateway or outway in some way. I submit to you, sir, if this is fair. We could pick our way around the jogs and stones with a great deal more comfort than we can drive over the good roads now; and what are we gaining by all this worry and trouble? Those who make them likely get something out of the business; those who use them likely get some pleasure out of them, especially the way they can clear the road of horse traffic. The departmental stores in the cities gain, because when people can't go to their own village to do business they have to do their shopping by mail; but to the farmers and business men in the towns and villages they are a distinct and heavy loss. Some say horses will get used to them in time, but we have had them four or five years and it is getting worse all the time. A horse badly frightened with one of those things is never a dependable horse any more. They say, why don't you have those fellows who drive their machines too fast hauled up and fined? All you have to do is to look at the number on the machine and you have them. I could tell you, Mr. Editor, of bug-gles smashed, horses ruined, bones broken by the score, but I never knew of one of those fellows fined or interfered with yet. The law we have is no good; the machine fellows don't obey it, and it would do no good if they did.

We want a law giving county councils power to regulate this automobile traffic, and then those counties which want them can have them to their heart's content. Give county councils power to place a tax of from \$100 to \$500 per annum on each machine; or, what would be better, give them power to prohibit them altogether for certain hours of the day, say from 1 p. m. until 8 p. m., and the politician who will come out square and fair for a substantial remedy for this miserable nuisance on the roads is going to get there. We can easily forget we are Tories or Grits for once; at any rate, they will have all the women on their side, and that counts for more than you would think. It won't be long before we have an election for the Legislature. Let us see to it that our candidates are sound on this question before they get a single vote. I hope, Mr. Editor, you will find a place for this in your splendid paper, and that you will give others better qualified a chance to give their views as to a remedy for this sore grievance. JOHN PEIRSON. Bruce Co., Ont.

FORTHCOMING EVENTS.

- Feb. 3rd.—Dominion Cattle-breeders' Association, Toronto.
- Feb. 4th.—Dominion Sheep-breeders' Association, Toronto.
- Feb. 4th.—Dominion Swine-breeders' Association, Toronto.
- Feb. 3rd and 4th.—Canadian Seed-growers' annual convention, at Ottawa.
- Feb. 4th.—Annual meeting Dominion Shorthorn Association, in Toronto.
- Feb. 5th to 7th.—National Live-stock Convention, at Ottawa.
- Feb. 12th.—Canadian Holstein-Friesian Association, annual meeting, Toronto.
- Feb. 12th.—Canadian Ayrshire Breeders' Association, annual meeting, Toronto.
- Feb. 12th to 14th.—Ontario Horse-breeders' Show, at Toronto.
- Feb. 20th.—Prince Edward Island Dairymen's Convention, Charlottetown.
- May 4th to 9th.—Canadian National Horse Show, Toronto.
- June 29th to July 9th.—Dominion Exhibition, Calgary, Alta.
- July 11th to 17th.—Winnipeg Industrial Exhibition.

TO PREVENT LANTERN-GLOBES BREAKING.

Some time ago I saw an inquiry about a lantern that would not break the globes. I had one that troubled me a great deal, so I made another row of holes in the circle that the globe rests on, and have had no trouble since. W. J. S. Oxford Co., Ont.

More than 1,100 farmers and their wives were enrolled in the recent farmers' short course, held at Purdue University, Indiana.

Eastern Ontario Live-stock and Poultry Show.

In Howick Pavilion, on the Exhibition Grounds, Ottawa, the Eastern Ontario Live-stock and Poultry Show was held, January 21st to 25th. Attendance was fairly good; quite up to that of former years. In every way possible the committee in charge used their best efforts to carry to a successful issue the aims and objects of the association, as an educational institution for the people generally, and particularly to those of Eastern Ontario, by bringing together the better class of pure-bred breeding cattle of the beef breeds, sheep, swine and dairy cattle, and by a series of lectures by men proficient in the breeding, feeding and care of these animals.

At a very large expense a mammoth building—which, by the way, is a model of its kind—has been erected, in which every facility has been provided for light, comfort, and cleanliness in inspecting the animals and poultry, and it was the hope of the promoters of this show that a steady annual improvement in number and quality of exhibits would in a few years bring it up to the one held in Western Ontario at Guelph. Time has shown the Eastern breeders to be tardy in making entries, and bringing out their animals for competition, the plea being often heard that Eastern breeders could not compete with Western competitors in the beef classes. For this year's show the directors decided to depart from the usual custom of open entries, and receive only entries from the County of Hastings eastward. It proved an unfortunate year to make the change, and the result was certainly disappointing, inasmuch as in the beef classes of any pure breed, grade or cross, there were very few entries; and had it not been for a carload of fats from the noted herd of Mr. James Leask, of Greenbank, brought down at the last moment for exhibition purposes only, the exhibit would have been a poor one. To a somewhat lesser extent the same condition existed in the dairy classes, several pure-bred Holsteins being entered in the test, but not an Ayrshire.

In conversation with a number of Ayrshire breeders as to why they had made no entries, their explanation was that last year's show being held in March, their cows were bred to freshen for a March show, and the date this year being two months earlier, they, of course, were not prepared for it; all of which is very disappointing to the men who have worked so hard and faithfully to make the show a success. However, let next year's show be a record breaker, and the Eastern Ontario Live-stock and Poultry Show take a place among the best that has been.

THE LIVE-STOCK DEPARTMENT.

CATTLE.

SHORTHORNS.—Cow or heifer, three years or over, brought out a really representative lot, first prize going to the grand thick heifer, Gloster Queen, the property of Peter White, Pembroke; second to Tiddlewink, the entry of E. Baker, Winchester; third to Archie Foster, Twin Elm; fourth to W. A. Wallace, Kars, and fifth to Reid & Co., Hintonburg.

In heifers two years and under three, the leading honors again went to the Belmar herd of Peter White—first to Mina Lass 14th (the Toronto junior champion), second to Mina Lass 13th; third to E. Baker, Winchester; fourth to W. A. Wallace, Kars.

In heifers under two years, Peter White again brought out the first and second prize winners, in Mina Lass 16th and Rosa Hope 17th; third and fifth going to Reid & Co., and fourth to W. A. Wallace.

In the class for grade or cross of any breed, only two sections were represented, the entries of Reid & Co. and W. A. Wallace, and these of a very ordinary sort, with scarcely a semblance of fitting.

The judges were John Gardhouse, Highfield, and John Campbell, Woodville.

SHEEP.

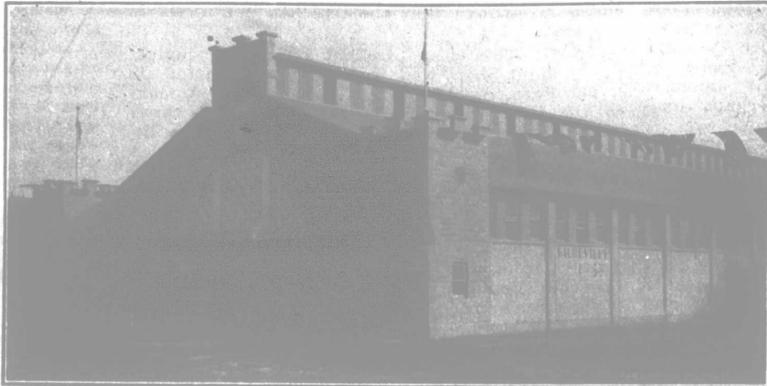
The sheep exhibit was a very small one in point of numbers, only one pure-bred class (Shropshires) being out, but these were representative of the breed, and a fair good lot.

In the class for ewe under one year, A. N. Stewart, Dalmeny, Ont., produced the first, third and fifth prize-winners, and W. A. Wallace, Kars, the second and fourth. Three ewes under one year were shown by the same two exhibitors, but the order of awarding the honors was reversed, Wallace getting first and Stewart second.

The class grades or crosses, numerically, was a little stronger, and the quality really good. For wether under one year, first went to A. Dynes, Hintonburg; second and third to H. Hillard, Kirk's Ferry. In three wethers under one year, the same two exhibitors were represented by one entry each, Dynes getting first and Hillard second. In three ewes under one year the order of award was reversed, Hillard getting first and Dynes second. The judge was Mr. John Campbell, Woodville.

SWINE.

The swine exhibit was par excellence, away the best of any branch of the live-stock exhibit, some 175 head



Howick Pavilion.

In the Annex of which the Eastern Live-stock and Poultry Show is held.

being out. Yorkshires were shown by David Barr, Renfrew; W. H. McNish, Lyn; Reid & Co., Hintonburg; A. Foster, Twin Elm, and A. Dynes, Hintonburg. The exhibit was a really creditable one, from a type and quality standpoint, and to the credit of the exhibitors be it said, that in every case the pigs shown were of a size commensurate with the age the class called for.

In export bacon hogs (three pure-breds) there were fifteen entries, many of them of a quality and type fit to go up against the best shown at Guelph. First went to A. Foster; second, third and seventh to D. Barr; fourth, fifth and sixth to W. H. McNish.

In export bacon hogs (three grades or crosses), first and third went to W. H. McNish; second and fourth to D. Barr. Sweepstakes for best three export bacon hogs—first, A. Foster; second, W. H. McNish; third, D. Barr. The judges were Prof. J. H. Griddale and W. E. Matthews, Hull.

YORKSHIRES.—Barrow, six months and under nine, D. Barr cleaned up the board, with first, second, third and fourth. Barrow under six months, W. H. McNish first, third and fourth; A. Dynes second; D. Barr fifth and sixth. Sow, six and under nine months, Barr first, third and fourth; Foster second, fifth and sixth. Sow under six months, McNish first, second and fifth; Barr third, fourth and sixth.

BERKSHIRES were shown by Reid & Co., Hintonburg, and R. M. Wallace, Kars, who bought out some exceptionally choice things. In barrow, six and under nine months, Wallace won a straight first, second, third, fourth. Sow, six and under nine months, Reid & Co. first; Wallace second. Sow under 6 months, Reid & Co. first; Wallace second and third.

TAMWORTHS were exhibited by W. H. McNish, Reid & Co., and A. N. Stewart; the exhibit was one highly creditable to the breed and breeders. Barrow, six and under nine months, A. N. Stewart first; McNish second and fourth; Reid & Co. third and fifth. Barrow under six months, McNish first, second, fourth; Reid & Co. third, fifth and sixth. Sow, six and under nine months, McNish first; Reid & Co. second and third. Sow under six months, McNish first, second and fourth; Reid & Co. third and fifth.

GRADES OR CROSSES.—Barrow, six and under nine months, Reid & Co. first; H. Hillard second; D. Barr third; W. H. McNish fourth and fifth. Barrow under six months, McNish first and third; Reid & Co. second; D. Barr fourth, fifth and sixth. Sow, six and under nine months, McNish first, fourth and fifth; Reid & Co. second and third. Sow under six months, Reid & Co. first and second; McNish third, fourth and fifth. The judge, Mr. R. H. Harding, of Thorndale, gave universal satisfaction.

DAIRY TEST.

The entries in the dairy-test competition, numerically and by breed representation, were far from satisfactory, due, no doubt, to a very large extent, at any rate, to the change in the dates of holding the show. There were entered for competition some three or four pure-bred Holsteins, and about the same number of grades. The usual two-day test was the order of proceedings. An outstanding winner came out in the Holstein heifer, Franci 3rd, under 42 months of age, owned by J. H. McLean, Inkerman, Ont.; her test for the two days showing: Milk 129.5 lbs., butter-fat test 3.66%, lbs. fat 4.74; number points, 137.28; award, first.

Holstein cow, 42 months and over—Hasken Bell; owner, J. H. Caldwell, Fallowfield, Ont.; lbs. milk 121.3, butter-fat test 3%, lbs. fat 3.64; points, 111.28; award, first.

In the same class, and winner of second place, was Maude De Kol, owned by T. A. Spratt, Billing's Bridge. Lbs. milk 122.8, butter-fat test 2.66%, lbs. fat 3.27; points, 104.

Grade cow, 42 months and over—Rose, owned by Robt. Heron; lbs. milk 119, butter-fat test 3.6%, lbs. fat 4.28; points, 124.76; award, first.

Same class, winner of second place, was Roan, owned by Reid & Co.; lbs. milk 109.1, butter-fat test 3.53%, lbs. fat 3.85; points, 113.25.

Grade heifer, under 42 months—Blacky, owned by

Reid & Co.; lbs. milk 79.7, butter-fat test 3.56%, lbs. fat 2.837; points, 83.61; award, first.

For exhibition purposes a number of Holsteins from the herd of Mr. G. W. Clemons, of St. George, Ont., were brought down, and proved the center of attraction in the live-stock department.

DRESSED CARCASSES.

In the dressed-carcass competition for pure-bred hogs, A. Foster was awarded first and sweepstakes on the pair that won sweepstakes alive; D. Barr second, fourth, fifth and sixth—the second-prize pair being the same that won second prize alive—third went to A. W. Stewart on a pair of Tamworths.

Dressed carcass, grades or crosses, first and fourth went to D. Barr; W. H. McNish second and third. The first-prize pair dressed was second alive, and the second-prize pair was first alive, remarkably uniform judging, and a tribute to the skill of the judges, Prof. Griddale and W. H. Matthews for the alive classes, and Prof. Day for the dressed-carcass class.

POULTRY EXHIBIT.

Better than ever before, with an entry of considerably over the two thousand, making an increase of over two hundred over any preceding year, the poultry exhibit was second only to that held at Guelph in connection with the Winter Fair.

The entry list represented practically the whole of Ontario and a good sprinkling from Quebec, very many of the Western Ontario breeders being out very strong. The interest displayed in the poultry department by the visiting public, as characterized by the crowds to be seen wending their way up one aisle and down another at all hours of the day, shows that the public are taking a deep interest in this—one of the greatest sources of revenue for the farmer of modest means. Practically all breeds known to the poultry fancier were on exhibition, from the tiny strutting Bantam to the big, clumsy Buff Cochins. The awarding of prizes was done by the well-known expert, Mr. Wm. McNeil, of London.

THE LECTURE PROGRAMME.

The first session of the lecture programme was fairly well attended. An address of welcome was delivered by Mayor Scott, of Ottawa. He advocated an abattoir for the city. President Creelman, of the Ontario Agricultural College, said: "The individual in farming is the all-important factor." He gave six reasons why the farmer should be better educated for his work:

First.—One-quarter of our cows in Ontario are unprofitable, and are actually not paying for their food.

Second.—The average yield of our staple crops, grains, grasses and forage and roots is less than one-third of the maximum. The average farmer is not getting more than one-third of the crop that the best farmers are getting.

Third.—Our soils, in many parts of the country, are being worn out, because there has not been proper rotation, or because they are not conserving the energy, and are selling the life rent of the farms.

Fourth.—Patent stock foods at big prices are a mistake when just as good foods, with practically the same ingredients, might be mixed on a farm.

Fifth.—Small seed and broken seed in the seed as sown on the farm reduces the crops one-half.

Sixth.—Every stone pile, every stump, every wet place reduces this average, but not their labor.

Doctor James Mills said that in intellectual power and moral stability the farming section of the community would compare favorably with any other section; the learned professions were recruited from the farming community.

Hon. Colonel Matheson, Provincial Treasurer, said the Poultry Show compared favorably with that of Guelph, if it does not equal it. He advocated better education for the farmers of the Province.

At the Wednesday morning session, Hon. Nelson Monteith, Minister of Agriculture, occupied the chair. The first speaker was W. F. Stephen, of Huntingdon, Que., on "Breeding and Care of Dairy Cows, from Birth to Maturity." He gave two reasons why our cows are not producing more milk:

First.—The dairymen have not given the breeding of dairy cows proper consideration; and, second, they have been running the business haphazard. Breeding from scrub sires because they are cheap is a great mistake. The herds that were giving good returns had been bred along proper lines, and had always had a pure-bred bull at the head. Our dairymen have mixed up the breeds too much.

When we go to a herd that has a high standing and is doing well, we find a pure-bred sire at its head, and they have been bred along proper lines. If you want a breed for beef, you must have animals of the beef type, and if you want milk production, you must have a breed of that type.

We find in the Old Land the breeders stick to one breed for generations, and that is what made the dairy breeds what they are to-day, and that is one thing we cannot emphasize too strongly in this country. The Holstein breed has been bred for nearly 2,000 years along certain lines, and they cannot be improved by crossing. The Channel Island breeds have also been bred for generations, and I do not think you gain anything by mixing them up.

I am glad to see that there is a desire to breed from pure-bred sires; you can get a better stock of greater vitality and more vigorous constitution. You can get better stock by breeding from old bulls than you can by breeding from a young bull. There are four laws of breeding which are not very difficult to understand: First.—The law of heredity (like begets like); second, the law of variation, which varies from that; third, the law of environment, which has a bearing on our breeding operations; fourth, the law of atavism or breeding back.

Constitution and vigor is something we must maintain in our dairy cows, and one of the things we have to fight for is to keep the constitutional vigor from depreciating, and, therefore, in selecting our sires and our females we must select animals of strong constitution, which is indicated by the strength of the nostrils, the shape of the head, breadth of forehead, good lung capacity, good heart action and strong loin.

As soon as the calf is born, we have the baby cow, and it is in the dairyman's hands to develop that baby cow so that she will become a great producer, and it is possible to spoil it by the treatment you give it. Milk is the natural food of the calf, and if we allow it to suck its mother or feed on the whole milk for a period of two months we will begin to develop in that calf a flesh-forming and beef-forming characteristic; but if we feed it on ratios of skim milk, we grow up an animal that will develop bone, muscle and sinew. I like to use linseed meal along with the skim milk. It is best not to overload the stomach of the calf, and I like to feed with the skim milk a preparation composed of one part of pure linseed meal and three parts of flour. Commence this when the calf is three weeks old, when you take off the new milk. One tablespoonful of that mixture, mixed in cold water, and then pour on it boiling water, and allow it to simmer two or three minutes. It has a tendency to keep the digestive organs in good condition.

The following questions were put to Mr. Stephen after he had finished his address:

Q.—Do you think it a good plan to feed the dairy calf three times a day for the first month?

A.—It is not a bad plan. The trouble is many dairymen have not the time to do it. In the Old Land they feed them about three quarts in the morning and evening, and one quart at noon. Of course, it is nature's way to feed the calf often and a little at a time.

Q.—Is there any strength in whey for calves?

A.—Yes; whey has a good value, but the great trouble with whey is that it is too strong in acid.

Q.—How do you cure the scours?

A.—Reduce the feed. If you are feeding skim milk, cut it off, and substitute whole milk, unless it is Jersey milk, and, if so, add water to it. If it is a serious case, a teaspoonful of laudanum will set it right.

Mr. J. H. Grisdale, of the Experimental Farm, Ottawa, gave a very interesting address on feeding dairy cattle. He said Canada was essentially a milk-producing country, and it was very important that the farmers should know how to feed dairy cattle properly, and that in order to get the best returns it was necessary to give the cattle all the feed they would consume profitably. He said that if there was one thing that insured good digestion and the comfort of an animal more than another it was giving the animals sufficient feed to keep them well filled, and then persuade them to eat as much more as possible. He did not advise feeding expensive feeds for the purpose of filling them. Farmers can grow cheap feeds that will come in very handy for roughage, and he thought that the cheapest feed for that purpose was corn ensilage. He advocated feeding twice a day. First in the morning, give them ensilage, pulped roots and cut straw, and on top of that the meal, and after that portion of the ration is consumed, give them the long hay; then, in the afternoon, that is repeated, so that the cattle lie all through the middle of the day, digesting the food, just as they lie all through the night digesting their food. He said they had experimented feeding in this way at the Experimental Farm, Ottawa, and they got no better returns either in beef or milk from feeding three times a day. He advised giving them all the salt they would eat, but did not advise feeding it to them with their rations. He also said they had experimented as to whether roots were superior to ensilage, and they did not find that roots were at all superior; but they did find that a mixture of the two gives better results than either one separately. He gives better results than either one separately. He said farmers might look out for poor results where the cow had to eat feed whether she liked it or not in order to keep herself comfortable and filled. The best way to feed them was to give them a mixture so appetizing that they would always like to have a little more. Of the rough feeds, he thought clover hay was the best, except alfalfa.

Mr. Dan Drummond gave an address on judging dairy cattle. He said there was no better way to find the merits of a dairy cow than by the scales and by the Babcock test, together with the duration of feed flow and the feed consumed; and the question of feed flow and the feed consumed, and the question of the cow consumed should be carefully looked at, because the cow has got to pay for her feed for the entire year as well

as during the time she is milking. He said the score-card was practically useless in judging a dairy cow. There were five ways in which to look at a dairy cow. There are four systems in the dairy cow—the nervous system, the digestive system, the circulatory system, and the milk-secretion system; and there are five points to look at in judging a dairy cow. Quality to a dairy-man means a good deal. There is a good deal in the way the animal walks. It will tell you as to her vigor and constitution. She should walk in a sprightly manner. The head of a cow should be clean-cut, and not have any surplus flesh on it. The face veins should stand out distinctly, like cords. A cow with a defective quarter will never get a prize in a ring because it is very apt to be hereditary. There should be sufficient chest capacity for the heart and lungs. The dairy cow has to consume a third more than a beef steer, and she must have a larger stomach capacity, and we should see that it is well developed. He said the best producing cows were those that have good handling quality, a soft, pliable skin, oily and soft hair, and the skin not too thick. The cow that has those handling qualities will be a most economical producer of milk. She will assimilate her food better and make better use of it, and give you better results in the pail for the food consumed.

At the meeting devoted to the question of horse-breeding, the resolutions as adopted by the Canadian Horse-breeders' Association were indorsed without any amendment.

Prof. Arkell gave an interesting address on the judging of sheep. He said a good judge must have some experience in handling sheep, and he also should have some experience in exhibiting. He said that one good thing in judging the amount of flesh in proportion to fat on a sheep is at the dock. If the dock is soft and covered with fat, there would be a lack of lean meat on the carcass; but, on the other hand, if it is even and smoothly covered with lean flesh, and if the dock at the juncture with the body is firm and fleshy to the touch, you will find that the carcass has a larger amount of lean in proportion to the fat, and that is what the butcher requires—as much lean meat

the same time meet the demands of the feeder. He said that a little, short pig is not as profitable a feeder as one that runs a little to the other extreme. A short, thick pig simply puts on fat, looks nice, and pleases the eye, but there is not much growth in him. The back should come out even with the shoulder, and the rib should be sprung out even, and sprung from the backbone, and give a flat, straight side-rib. The back should be heavily muscled from the rump to the loin. An extremely wide back is an indication of too much fat. The heavy jowl is not desirable, because it is cheap meat. It is desirable to have a head that is neat in the jowl. Medium weight in the neck, muscular, but not arched with fat. Medium width in the shoulder, and very compact and smooth over the shoulder. The spring of rib coming well out from the backbone and then turned sharply down to give you a flat, straight-sprung top loin, carrying some width right through the heart, over the hams and a good length from the back of the shoulder to the tail, and then we want a ham that is somewhat tapering and that has not an excessive development of fat. We do not want a great, coarse, lanky, slab-sided, shallow-hammed brute. That is not a bacon hog, and is not what the packers want.

ONTARIO HORSE-BREEDERS' EXHIBITION.

Practically the end of the large live-stock conventions and meetings for 1908 will come during the time of the Ontario Horse-breeders' Exhibition, at Toronto, February 12th, 13th and 14th, the last of the association meetings coming on during that week. Persons wishing to attend these meetings and the Show will be able to take advantage of the single-fare rate arranged for the Show.

Round-trip tickets will be sold for single fare from all points in Ontario on Friday, 11th and 12th, and on the 13th and 14th round-trip tickets, for single fare, will be sold from points in Ontario where the regular single fare is \$2.50 or less. All tickets are good to return up to Feb. 15th. This should ensure a good attendance at the meetings, and it will naturally be expected that no one would take advantage of the rates arranged for the Show without putting in an appearance at the Exhibition. The Exhibition is also fortunate in immediately following the National Live-stock Convention, at Ottawa, when so many live-stock men from Eastern and Western Canada will be in the Province, and will be glad to avail themselves of the opportunity of attending. The interest that has been aroused in the horse-breeding industry the last two years through the investigation, the newspaper articles and discussions which have taken place will no doubt increase the attendance at the coming Exhibition. It may also be taken for granted that the greater number of entries which can be assured will also have a corresponding effect on the number of people who will attend.

The advantages to the Exhibition, apart from the actual prize money, will depend upon the number who attend, and from the foregoing it will easily be seen the coming Exhibition will be the largest in the history of the Show. Prospective buyers should, therefore, be plentiful, and anyone desiring to have their inspect his stock should make an exhibit; for it may be taken for granted that as well as having every facility for inspecting the stock at the Exhibition, and it being a much easier and more pleasant method of making a selection, there will be amply sufficient stock on exhibition for buyers to procure what they may require.

MILITARY DRILL.

Enclosed please find \$1.50, for which please send "The Farmer's Advocate" to me for the current year. I consider "The Farmer's Advocate" a first-class paper, but I am disappointed with your disapproval of military drill in the public schools. I believe that the best way to preserve peace in our country is to let any possible combatant know that the average yeoman is both capable and willing, if occasion arise, to bear arms and use them. Apart from this phase of the matter, there are two things which I believe tend to greatly improve the status of the farmer among his fellow men: One is the improvement in physical deportment brought about by military drill, calisthenics, etc., and the other is a thorough knowledge of the English language, and the ability to speak the same in public. I believe attention to these two matters would go a long way towards doing away with the phrase, "only a farmer." In this connection, I am glad to see a discussion on "public speaking and debating" in "The Farmer's Advocate" of January 9th.

Leeds Co., Ont. WILLIAM JELLY.

It is rumored that many of the largest apple dealers in Nova Scotia will be obliged to compromise with their creditors this year, and there is reason to fear that a number of the Ontario shippers will be in a similar position, although we are officially assured that the Ontario growers have been paid to a greater extent than those in Nova Scotia. It is hinted, however, that two or three co-operative associations in the Upper Province have been hit rather badly, though it is difficult to obtain authentic information at this stage, as those who have lost heavily are very reticent. Some of our cheese factories have also been bitten to a greater or less extent.



John Brodie, Mapleton, Ont.

President of Dairymen's Association, Western Ontario.

as possible with enough fat to give it quality and delicacy of fibre. You can judge as to the quality of flesh by the touch. It will indicate the way in which the sheep has been fed, and will also indicate the amount of lean on the carcass and the quality of meat, and it will indicate whether there is a lot of surplus tallow or fat. Prof. Arkell said it was hard to describe this touch, and it can only be acquired by practice. The fleece should cover the body evenly throughout, and should not run fine on the back and coarse on the breast and about the legs, and there should be that characteristic fibre that distinguishes the different breeds.

Q.—What points would you lay most stress on?

A.—I should think the breeders' and feeders' standpoint, because when you are emphasizing that you usually emphasize the butchers' standpoint.

Q.—Do you put any stress on the way in which the front legs set under the sheep?

A.—You want width below; in the floor of the chest, the legs should be set strongly and fairly under the body.

Q.—Is there anything in the size of the nostrils?

A.—I do not like too narrow or contracted a face. I like a strong face, not too bold or coarse, but sufficiently strong to indicate substance.

Prof. Day, of the Agricultural College, gave an illustrated address on a bacon hog, in which he said that from the bacon standpoint it was possible to have a pig too deep in the body, and it was also possible to have it too long to be a real desirable one to feed; but at the same time it was not necessary to have a short-bodied pig in order to have a thrifty, profitable pig to feed. He said the farmers could get a pig that would meet the demands of the export trade, and at

EXPANSION AND PROGRESS AT THE O. A. C.

Expansion is the order of the day at the Ontario Agricultural College, Guelph. The regular two-year and four-year classes are full to overflowing, the recent increase of forty in the capacity of the student residence being already fully occupied, with a good many students still boarding out. All told there are some 275 young men in the regular courses in the Agricultural College; while in the Macdonald Institute alongside there are 112 young ladies in the residence, and several boarding out, making a total of about 125 studying domestic science.

In addition to the regular courses, the special short-course work is coming into yearly-increasing prominence and favor. Three hundred and twenty men were enrolled this year in the special two-week stock-and-seed-judging course, and interest was pronounced keener and better sustained than ever before. The instruction and practice in judging live stock and seeds, together with the demonstration afforded by killing tests, simply fascinated the class, and insured a splendid attendance and intense interest to the very end. On the evening before the final day an innovation was introduced in the form of a most successful banquet, got up by the short-course students. Whether or not this increased the eloquence of the lecturers on the following day we will not undertake to say, but some of the students assured us that the professor's eloquent addresses on the concluding day fairly lifted them off their feet.

Of the other short courses in progress, the dairy classes numbered 41, of whom 30 were in the factory course, and 11 were taking work in the farm-dairy class. A commendable change has been made this year in the programme of the factorymen's course. A good deal more work is being given in the bacteriological and chemical laboratories, instead of requiring so much in the dairy building. It is assumed that the students in attendance have already served an apprenticeship in actual factory work; but what they most need from the dairy school is help with the scientific phases of the work, so that they may have a better, more intelligent, and more lasting understanding of bacterial and chemical processes, and how to control them. The men during January have been spending half their time, outside the lecture periods, in the bacteriological laboratory, and half in the dairy school. During February, it will be half in the chemical laboratory and half in practical dairy work. Thus they will have twenty-two periods of 2½ hours each in the bacteriological laboratory, which is more than double what they ever got before; the same is true of the practical-chemistry work. Prof. Dean believes in the idea advanced at Woodstock by Mr. Ed. H. Webster, that the creameryman of the future will be more than a buttermaker. He will be a man with a broad outlook and thorough all-round training.

The four-weeks short course in poultry numbers twenty students; while for the new short course in horticulture, which begins this week, forty-four applications had been received, which would likely mean a total attendance of about seventy-five. The annual Poultry Institute will be held at the College, Feb. 10th to 13th, when some excellent talent will be on hand. A large attendance can be handled.

Altogether, the prospects for development at Guelph are bright, and no reasonable support is being spared by the Province to increase the value of its already vast and substantial service to the country. Last session, the Legislature increased the vote some \$14,000 on behalf of maintenance, and \$7,000 on capital account, and it has been recently bruited through the newspapers in a tenor that seems to imply official inspiration that the Minister of Agriculture has for some time had under consideration a scheme for further improvement of advantages and equipment. To what extent the Legislature would be asked for an increased appropriation had not been definitely settled, but it was stated that the total vote asked for would probably be some \$20,000 in excess of last year.

THE BREEDERS' HORSE SHOW.

At the Ontario Horse-breeders' Exhibition, which is to be held in the St. Lawrence Arena, corner of King and Jarvis Streets, Toronto, Feb. 12th to 14th, there will be seen the best representatives of the pure breeds of horses which are kept in this country. There will be on exhibition Clydesdales, Shires, Hackneys, Thoroughbreds, Standard-breds and ponies. In addition, there will be heavy-draft horses shown singly and in teams. To anyone interested in horses, it will be an exceptional treat to see these horses come into the ring, class after class, perfectly fitted, and in the pink of condition, to compete for the highest honors in their respective classes. It will also give an opportunity to beginners to learn something of what has been decided upon from years of experience as being the best type and conformation for the particular use which is made of each of the breeds. When it is possible to see a number of horses together, good points, as well as defects, are much more easily seen, and are brought more prominently to the attention than when no comparison can be made.

These are the classes of horses of special interest to farmers. Persons attending the Show may see a horse which, during the coming season, may travel in their own neighborhood. The Show will give an opportunity of comparing him with others of the same class and deciding whether or not he may be the best horse to make use of. For those, also, who desire to purchase a stallion or mare, no more suitable and convenient condition could be provided. The single-fare passenger

rates, which have been arranged, will enable those coming to Toronto to do so with comparatively little expense.

WANTS A CANADIAN "INTERNATIONAL."

Editor "The Farmer's Advocate":

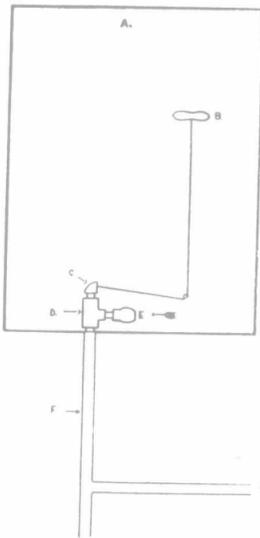
I have read with great interest Mr. Gunn's letters in reference to the location of the Winter Fair. The idea of having a great International Show of our own, comprising not merely cattle and chickens, but horses, appeals to me powerfully. Such an exhibition would assist Canadian live-stock interests immensely, partly by its educational influence, but still more by attracting outside purchasers. There are few things that would help Shorthorn, Ayrshire, Clydesdale, Hackney, and, in fact, all Canadian breeders more than extending their market by bringing American purchasers to their doors. A great "International" of this description is possible at Toronto Junction, but impossible at Guelph. By all means let us have full discussion before steps are taken which would forever prevent this attractive vision from becoming a reality. T. B. M. Montreal.

RE VALVE IN WATER TANK.

Editor "The Farmer's Advocate":

In regard to Mr. Day's reply to G. J. B.'s tank problem (see page 2064, issue December 26th, 1907), allow me to say that the first answer is quite correct, but I beg to differ with him as to the last clause of the paragraph in question.

No valve is needed at the bottom of the tank if the discharge pipe into the tank is located here, for the reason that the water cannot flow back through the pump, as there is usually a check valve located near



the pump, in addition to the pump valves themselves, so that we do not know why he suggests a valve in the tank itself.

The most economical plan in making connections to tanks is to use the one pipe only in bottom of tank, both for discharge into the tank and also to draw water from it. This is done by laying a branch pipe from the discharge pipe into the tank, and drawing the water for use from this same pipe. The advantage in this is to have only one connection into your tank.

With the one pipe both for inlet and outlet, a float valve can still be used in the tank to shut off the inlet into the tank when the tank is full, and still let the water out through same pipe when necessary. Enclosed find sketch of same, which we trust will be intelligent.

A. C. MORRIS.

[Note.—Publication of the above communication has been delayed, by a mischance in securing the cut.—Editor.]

FALSE MARKING OF FRUIT.

On Jan. 24th, at Picton, Ont., Messrs. H. E. Groff and T. D. Onderdonk, of the firm of Groff & Onderdonk, Trenton, were fined to the extent of about \$23 (including costs) for selling illegally-marked and packed apples, and Mr. A. E. Brown, of Ameliasburg, and W. Miron, of Northumberland Co., buyer and packer, respectively, were convicted and fined the costs of the court. During the evidence, it transpired that Mr. Groff had complained of there being too few No. 1 apples coming forward from the district where Brown was the buyer and Miron the packer, and had instructed Brown to mark at least 20 per cent. of the apples No. 1. The conviction was made on the strength of the discovery by fruit inspectors Baker and McCabe, of ten barrels of apples marked "A. E. Brown, grade No. 1," consigned to Cape Town, South Africa, and contained apples not good enough to justify that mark.

Report states that many prosecutions for false marking of fruit have been instituted in all parts of the Province, and several are still pending. Thirty convictions have already been secured this season.

A NEW CREAM BOTTLE.

In the testing of cream with the Babcock test, it is always difficult to avoid a burnt reading without the addition of more or less water, and when 18 c.c. of cream is used, and sufficient water is added to prevent charring, the necessary amount of acid always fills the bottles too full for rapid mixing.

In order to overcome the difficulty, Mr. Mitchell, Supt. of the Eastern Dairy School, Kingston, Ont., conceived the idea of using a 9 c.c. pipette with bottles graduated to correspond; or, in other words, the neck of a bottle reading up to 50 per cent. for the 9 c.c. pipette contains just half as much space as the 50 per cent. bottle for the 18 c.c. pipette.

The new bottle has been thoroughly tested by practical men, and all who have used it are unanimous in the opinion that it overcomes all the objections found in the old-style bottles.

With the 9 c.c. pipette of cream a pipette of water is added, which washes practically all the cream out of the pipette and prevents the fat from charring when the acid is added.

This bottle will be known on the market as the Mitchell bottle, and the Wagner Glass Works Co., of New York, has agreed to manufacture them at a price which will make their cost to retailers about the same as that of the old-style cream bottle.

JAS. STONEHOUSE.

Instructor in Buttermaking and Separators, Eastern Dairy School, Kingston, Ont.

DECREASING BRITISH FOAL CROP.

It is regarded in Old Country agricultural circles as likely that the British Board of Agriculture will be obliged to take up the whole question of horse-breeding. At present it has no real locus standi in the matter, says the London Daily Mail, which proceeds to explain as follows:

"Horse-breeding in this country is looked after by the Royal Commission which was appointed some years since to expend the small sum granted by Parliament for its encouragement, and this is customarily laid out in premiums to be competed for by stallions. Some good is done, but the number of British-bred horses is decreasing at an alarming rate—there were 10,000 fewer foals last year than the year before—and the diminution continues unabated. This result is held by leading agriculturists to be due primarily to want of system and lack of initiative shown by the Royal Commission.

"Lord Carrington, the Minister for Agriculture, is evolving a very comprehensive scheme to provide remounts for the War Office. But, important though this is, it only affects one aspect of the whole question. At present there is something suspiciously like a deadlock. The Royal Commission wants more money, the payment of which the Board of Agriculture is not willing to recommend in view of the existing system of administration. The conference of 1906 between the Board of Agriculture and the Commission led to no practical result.

"Now it is expected that the matter will be raised by agricultural members in Parliament with the object of remodeling the entire system."

CROPS AND LIVE STOCK IN ONTARIO IN 1907.

The area of field crops (exclusive of orchards and vineyards, mixed grains) in Ontario in 1907 was 9,323,624 acres, as compared with 8,962,925 acres in 1906, being an increase of 360,699 acres, according to the Bureau of Industries of the Provincial Department of Agriculture. Compared with 1906, fall wheat shows a decrease of 111,123 acres and 3,296,283 bushels; spring wheat a decrease of 27,231 acres and 793,349 bushels; barley an increase of 10,728 acres, but a decrease of 3,534,679 bushels; oats an increase of 215,798 acres, but a decrease of 24,817,154 bushels; peas a decrease of 69,379 acres and of 23,951 bushels; beans a decrease of 3,710 acres and of 160,043 bushels; rye a decrease of 10,125 acres and of 245,876 bushels; buckwheat an increase of 6,595 acres and of 753,565 bushels; corn for husking an increase of 54,478 acres, but a decrease of 1,740,751 bushels; corn for silo an increase of 19,558 acres, but a decrease of 119,866 tons; potatoes an increase of 47,283 acres and of 5,887,594 bushels; turnips a decrease of 9,501 acres and of 8,854,546 bushels; hay an increase of 219,635 acres, but a decrease of 792,762 tons.

Horses show an increase of 37,519; milch cows an increase of 23,024; other cattle a decrease of 80,406; sheep a further decrease of 198,725; swine an increase of 229,888, and poultry an increase of 3,173,242.

"THE FARMER'S ADVOCATE" HIS COMPASS.

I see I overlooked the fact that my subscription to "The Farmer's Advocate" has expired, though I have been still receiving it. I hope that you have not discontinued it, as I would not like to miss any numbers. Only one number failed to reach me during the past year, and I have preserved all the others. I am enclosing my renewal for ensuing year. Farming without "The Farmer's Advocate" is akin to navigating without a compass. Wishing you all possible success, I am,

WM. J. ROGERS.

Antigonishe Co., N. S.

GOSSIP.

ABERFELDY STOCK FARM.

Messrs. John Gardhouse & Sons, Highfield, Ont., owners of the noted Aberfeldy herd of Scotch Shorthorn cattle, stud of Shire horses and flock of Lincoln sheep, were never in better shape to cater to the wants of their customers on both sides of the line than at present. With over sixty head of richly-bred Shorthorns of superior quality, with fifteen Shire mares and fillies, seven of which are imported, with three imported Shire stallions and two yearling stallions (Canadian-bred), and a large flock of high-class Lincoln sheep, parties looking for extra good things in these lines of stock can certainly find it on this noted farm. The Shorthorn herd is one of the oldest established in Canada, having been in continuous existence for over forty years. Many of America's most noted Shorthorns were bred in this herd; sons and daughters and grandsons and granddaughters of those great bulls, Imp. Gardsman and his far-famed son, St. Valentine. Considerable of this blood still in the herd to a great extent accounts for prizewinners being produced from this herd year after year. Later bulls in service were Prince Louis (imp.), a Lancaster-bred bull and a Toronto winner, and Scottish Prince (imp.), a Toronto senior champion. Many of the younger animals now in the herd are the get of these two great bulls. The present stock bull is the Cruickshank Butterfly-bred Imp. Prince of Archers, a son of the noted Royal Ensign, and a nephew of the champion, Royal Emblem; dam Butterfly Girl, by Superior Archer. This bull bids fair to eclipse any former sire at the head of the herd as a getter of extra choice, thick stuff, his get coming true to type and remarkably uniform. He is a wonderfully thick, melow bull, and, we hazard the guess, a coming Toronto champion. A number of the cows are imported, and belong to such fashionable strains as the Claret, Broadhooks, Cecilia, Lovely, Brawith Bud, Roan Lady, Undine, Jilt, Rosebud and Miss Ramsden. In younger stuff are about 15 heifers, two and three years old, a number of them show heifers and some wianers already. In young bulls there are seven, from six months to a little over a year, the oldest being Prince Victor, a roan yearling, by Scottish Prince (imp.); dam Imp. Eliza; a show bull from the ground up, an extra good one. Another is a red ten-months-old, by the same sire; dam Imp. Belle; this, too, is a show bull—a thick, even, sappy youngster. Still another is a roan ten-months-old, by the stock bull, and out of a Roan Lady dam; he, too, will certainly be a future winner. Then, there is a roan nine-months-old, by Scottish Prince, out of a half-sister to St. Valentine, a Clementine; this bull is a rare good one. Another, the same age, is a roan, a Brawith Bud, by the stock bull. The other is an Undine, by the same sire; he is six months old, and will make a show bull of a high order. Of the fifteen Shire mares, ranging in age from one to five years, seven are imported. Two were served in England, the balance after coming to Canada; a typical lot, with abundance of substance and character, standing on grand bone, ankles and feet, and moving with a free, true, springy action—a grand lot of mares that will certainly do good in Canada. Among the stallions is the bay, rising three, Government (imp.), one of the best Shire stallions ever brought to the country, having size, style, smooth conformation and a heap of quality of underpinning. Dominion (imp.) is a brown, same age, probably a little more massive, and a right good one, with a deal of character and quality. Royal King 3rd (imp.) is a brown four-year-old, quality all over; a horse that should take mighty well in this country. Then, there are two Canadian-bred yearlings, one from imported sire and dam, the other by imported sire, and out of Rose, a Canadian-bred mare, and a Toronto champion. Aberfeldy Stock Farm is the Canadian home of the English Shire horse, and certainly never before were so many extra good ones on hand. All are for sale. In Lincoln sheep for sale are about twelve ewe lambs coming a year old, and a few one- and two-year-old ewes; choice representatives.

GEO. G. STEWART'S CLYDESDALES.

One of the leading Clydesdale importers of Canada, and one who has made an enviable reputation for himself as an importer of high-class horses, as well as for straight dealing and honest representation, is Mr. Geo. G. Stewart, of Howick, Que. A gentleman born and bred among the Clydesdale heather of Scotland, he knows what a typical Clydesdale should be, and his many importations have found ready sale, and invariably have given the best of satisfaction to purchasers. His last importation, landed in the late fall, is, we believe, considerably the best he ever made, which is saying a great deal; consists of five stallions and nine fillies. Prominent among the stallions is the renowned sire, Lord Fauntleroy (10370); he is deeply bred in the blood of Prince of Wales and Darnley; is now eleven years old, and as fresh as a four-year-old, and last summer in season condition weighed 2,150 lbs. He is a beautiful, smooth-turned horse, on an ideal bottom of strong, flat bone, well-sprung ankles, and grand feet, and he certainly moves nicely. As a show horse, he won one first and three seconds at Glasgow; while, as a sire, he has been a brilliant success. He was sired by Vanora's Prince; dam by the great Prince of Albion, grandam by Macgregor. He has four registered dams, something few horses of his age have. Last year he had a £100 premium. Another of the good ones that Mr. Stewart was fortunate enough to secure is Sir Vivian (12374), a brown five-year-old, 1,900-lb. son of Airies Prince; dam by Castle-reagh; grandam by Silver Twist. He, too, has four registered dams, and is a very thick, smooth horse, full of Clyde draftiness and character, a horse that should find ready sale in this country. Naldema (13234) is a bay three-year-old, by Baron of Buchlyvie; dam by Lord Lothian; he is a very smooth, compact horse, with abundance of quality and a grand mover. Last fall he won first at Huntingdon. Sagamore (13723) is a black two-year-old, one of the best colts that crossed the water last year; has great size, and is quality from the ground up, coupled with a beautiful mold of body, and lofty, stylish carriage, making a colt very much to be desired. He was sired by Revelanta; dam by Eastfield Laird. Streathern King (13873) is a bay two-year-old, by Getruchio; dam by Royal Erskine. This is a big, growthy colt, with a deal of character, standing on strong, flat bone, and should make over-a-ton horse. The fillies are an extra good lot; large, and all have splendid underpinning, and look like the making of up to 1,800- or 1,900-lb. mares, and all have the best kind of bone and ankles. Lady Buller (18656), a bay three-year-old, by General Buller, and Blackberry (18654), another bay three-year-old, by Baron o' Dee, are a matched pair that weigh 1,600 lbs. each, and are without doubt pretty nearly if not quite the equal of any pair that have crossed the water. Both are in fine condition, and they are a high-class show team of superb quality throughout. Queen of Crief (18662), a bay two-year-old, by Revelanta, is safe in foal to Baronson, by Baron's Pride. She is a grand good kind; few like her have been imported. Maggie Drone (18660) is a bay two-year-old, by Lord Mac, a filly up to a big size, with quality and character, and supposed to be in foal. Daisy Bryce (18657), a bay two-year-old, by Baron St. Clair; Lady Provan (18715), a brown two-year-old, by Maccarie; Springhill Duchess (18655), a brown two-year-old, by Sir Randolph, dam by Cairnbrogie Stamp (this filly is a half-sister to Baden Powell and Clan Chattan); Lady Dawson (18720), a brown yearling, by Rosedale; Strathearn Gem (18691), a brown yearling, by Strathearn Knight. All these fillies are large, full of true Clyde character, and a superior lot, and they can be bought very cheap, considering the class of stuff they are, and on favorable terms. The farm is connected by long-distance phone.

Meeting of the Ontario Yorkshire Club will be held at the Palmer House, Toronto, on Tuesday, Feb. 4th, at 5 p. m. A full attendance of members is requested.

Mr. Thomas J. Hand, one of the principal pioneers in the breeding of Jersey cattle in America, and one of the four who took the initiative in establishing the American Jersey Cattle Club, died in Brooklyn, N. Y., on the ninth of January last, in the eighty-fourth year of his age. He was an ex-president and for many years was secretary of the club.

Mr. D. Ward King, of Missouri, has been engaged for a speaking tour, Feb. 3rd to 17th, of the State of Maryland, in the interest of good roads. The tour is under the co-operative management of Johns Hopkins University, of Baltimore, and the office of Public Roads, Washington, D. C. Maryland has 16,773 miles of wagon roads, of which 840 are of stone.

QUESTIONS AND ANSWERS.

- 1st.—Questions asked by bona-fide subscribers to "The Farmer's Advocate" are answered in this department free.
- 2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.
- 3rd.—In Veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.
- 4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

Miscellaneous.

NON-TECHNICAL BOOKS ON FARMING.

Can you inform me, through "The Farmer's Advocate" columns, where to obtain a book treating of general farm management, in A-B-C style?

IGNORAMUS.

Ans.—"Successful Farming," by Wm. Rennie; price, through this office, \$1.50 net, or \$1.60 postpaid.

POINTERS ON HOG-RAISING.

I would consider it a great favor if you would let me know the best authority on hog-raising. I am not a farmer yet; am taking possession of one the 1st of March, and am looking for all the pointers I can get.

N. G. B.

Ans.—Prof. G. E. Day, of the Ontario Agricultural College, is the acknowledged authority on Canadian swine husbandry. His book on "Swine," price \$1.25 (postpaid), may be obtained by ordering through this office.

REGISTERING CLYDESDALES AND PERCHERONS.

Can grade Clydesdales or Percherons be registered in a Canadian studbook which have five top-crosses by registered sires?

J. A. W.

Ans.—Yes, in the case of the Clydesdale Studbook. A Percheron Studbook has only recently been opened under the National Live-stock Records system, at Ottawa, and we understand that only animals tracing to imported ancestry on side of both sire and dam are accepted for registry.

SCABIES IN PIGS.

I have a bunch of pigs, three months old, which have some kind of disease. All over their backs, a thick sort of scab has formed, and their hair appears to be wet at times. They become thin, and in poor condition. Am feeding barley and oat chop, one part barley to two of oats, and, also, mangels. They have a dry bed in stone stable. Kindly let me know the name of disease, and what treatment you would advise.

A. E.

Ans.—This is evidently scabies, a parasitic complaint, for which frequent applications of one of the coal-tar sheep dips is likely to be as effectual as any treatment that can be used. The solution should be applied as warm as can be borne, and well soaked in by the use of cloths. A thorough washing with soap suds with a little sulphur in it, and repeated two or three times may answer the purpose. The bowels should be kept relaxed by giving each pig a half pint of raw linseed oil, or a teaspoonful of sulphur daily for a week. Try feeding their meal dry, and give drink in separate trough, as their failing condition may be due to too much cold, sloppy feed, causing indigestion.

MARKET MATTERS.

- 1. What is the law regarding market fees?
- 2. Can fees be collected when there is no covered market?

W. H. Ontario.

Ans.—1. The Consolidated Municipal Act, 1903, makes lengthy and elaborate provisions respecting markets and market fees, and we would refer you to sections 579 and 580 thereof for the desired information.

2. Yes; but subject to the exceptions and restrictions contained in the sections above referred to.

REGISTERING DRAFT COLT.

I have a very fine colt which has five registered crosses on the sire's side, four of which are Clydesdale, but one, it is said, is a Shire. Is he eligible for registration? He is certainly the making of a grand horse, and I would like to keep him for a stallion.

B. L. C.

Ans.—The rule for registration of stallions in the Canadian Clydesdale Studbook requires five top-crosses of registered Clydesdale sires. In all cases of Canadian-bred animals, the dam must be recorded before the male foal is eligible. In the case of a female foal with five crosses, the dam must be recorded before the foal is eligible. A mare or filly having four top-crosses of recorded Clydesdale sires is eligible for registration.

Even if your colt were eligible, which he evidently is not, and even if he is an extra good one, we would not advise keeping him for a stallion. So many stallions are being imported, the market is pretty full, and people will buy and patronize these in preference to home-bred stallions, even though no better. It costs about twice as much to raise a stallion as a gelding, counting time of caring for and cost of extra feeding, and a Canadian-bred stallion with five crosses will not, as a rule, sell for twice as much as a first-class gelding.

WINTERING STEERS.

As we have been thinking of putting in a bunch of two-year-old cattle to feed for the grass, what is the cheapest way to feed them to come out in good shape in the spring?

- 1. How would they do on straw and ensilage, all they could eat?
- 2. How would 25 or 30 do running loose in a stable by themselves?
- 3. If we were to tie them up, would they gain enough extra to pay for the extra work and expenses?
- 4. About how much should a good two-year-old steer—a thrifty, good feeder—gain in a winter, or about how much profit would he make on an average?

J. M.

Ans.—Steers which are being merely wintered for the purpose of finishing upon grass, as a rule, require very little meal, especially if they can be fed hay. I would not expect, however, that these steers would make any gains worth speaking of upon straw and silage. Of course, being young steers, they would grow some; but the gains would be comparatively light. If they could be fed some hay with the silage during the first two or three months, and then a very light meal ration, say about a pound to each steer to start with, and gradually increase to two or three pounds per steer, I would expect that they would make very fair gains through the winter, and should be in good condition to finish on the grass. These steers, if dehorned, may be expected to make better gains if allowed to run in loose boxes than if tied up. If not dehorned, I would not advise allowing them to run loose. I think it would be better, however, where there are twenty-five to thirty steers, to divide them into two groups, if possible, putting the larger ones in one group and the smaller ones in the other. The troughs should also be fixed with up-rights with intervals of about three feet to prevent one steer from crowding another away from the manger. The amount of increase in weight which a steer will put on during the winter depends, of course, entirely upon the feeding. If fed as I suggested, on hay and silage with a very little meal, they would probably gain in the neighborhood of a pound each per day, and, possibly, a little more. On steers which are being finished for export, and fed a very fair meal ration, an average gain of fifty pounds per month during six months is counted very satisfactory.

O. A. C.

G. E. DAY.

MARKETS.

TORONTO.

LIVE STOCK.

Receipts of live stock at the City and Junction markets last week were 253 carloads, consisting of 4,220 cattle, 2,149 hogs, 2,202 sheep, 168 calves, and 150 horses. Trade was not as brisk for unfinished, half-fat cattle, but all of good to choice, well-finished butchers' and exporters found ready sale at as good prices as were paid the week previous.

Receipts at the Junction market on Monday, January 27th, numbered 1,050 cattle; quality fair; export trade firmer; butchers' steady. Exporters, \$4.75 to \$5.25; export bulls, \$3.60 to \$4.50; picked butchers', \$4.75 to \$5; good, \$4.40 to \$4.65; medium, \$4 to \$4.30; common, \$3.75 to \$4; cows, \$3 to \$3.75; calves, \$4 to \$6.50 per cwt. Sheep, \$4 to \$4.50; lambs, \$5.80 to \$6.40 per cwt. Hogs, \$5.40, fed and watered; \$5.15, f. o. b. cars at country points. Milk cows, \$30 to \$55 each.

Exporters.—Last week prices ranged at \$4.75 to \$5.25 for steers, and \$3.75 to \$4.40 for bulls.

Butchers'.—Picked lots sold at \$4.75 to \$5; good, \$4.35 to \$4.60; medium, \$4 to \$4.30; common, \$3.60 to \$3.90; cows, good, \$3.50 to \$4.25; common cows, \$2.50 to \$3.25; canners, \$1.50 to \$2; bologna bulls, \$1.75 to \$2.

Feeders and Stockers.—Few feeders or stockers have been offered since the New Year, and any steers at all fleshy were bought by butchers at better prices than could be obtained for them as feeders. A few lots of light steers, 800 to 900 lbs., were sold at \$3.25 to \$3.75. Several farmers were on the market, but could not obtain what they wanted.

Milkers and Springers.—Good to choice quality milkers and forward springers found a ready market, owing to there being two Montreal dealers on the market wanting some of these classes. Prices ranged from \$40 to \$55 each, and one prime-quality cow brought \$68. Common light cows were slow sale at \$20 to \$35 each.

Veal Calves.—The market for good veal calves remains strong at unchanged quotations. Prices ranged from \$3.50 to \$6.50, with a few new-milk-fed at \$7 per cwt.

Sheep.—Export ewes sold at \$4 to \$4.50; rams, \$3.50 to \$4 per cwt.; lambs of good to choice quality, \$6 to \$6.50 per cwt.; common, thin lambs, of which there are too many, sold at \$4.50 to \$5.75 per cwt.

Hogs.—The hog market is weak, and prices lower. Packers quote \$5.50 for selects, and \$5.25 for lights and fats, fed and watered, at Toronto market. Prices to drovers, f. o. b. cars at country points, are reported at \$5.25 per cwt.

Horses.—The sales conducted at the Union Stock-yards, Toronto Junction, by Manager J. Herbert Smith were well patronized, there being a large attendance of farmers and dealers from all over Ontario, as well as two dealers from the Northwest. The two principal buyers were Messrs. Conn, of Ottawa, and Simpson, of Winnipeg. First-class drafters are not being sought after, or, rather, dealers say it is too early in the season, but expect a good demand later on. There is a fair demand for general-purpose horses, and medium drafters, at moderate prices; but drivers are slow sale. Drafters sold at \$150 to \$200 each; general-purpose horses, \$125 to \$175; drivers, \$90 to \$160; serviceably sound horses sold at \$30 to \$100 each. Mr. Conn, of Ottawa, bought two carloads, and Simpson, of Winnipeg, one carload.

BREADSTUFFS.

Wheat.—No. 2 white, 99c.; No. 2 red, 98c. to 98½c.; No. 2, mixed, 98c.; Manitoba, No. 1 Northern, \$1.21; No. 2 Northern, \$1.16; feed wheat, 69c.; No. 2 feed, 64c., all rail.

Barley.—No. 2, 76c. to 78c., outside points; No. 3 extra, 75c. to 76c.

Oats.—No. 2 white, buyers, 51c.; No. 2, mixed, 50c.

Corn.—No. 3 yellow, sellers, 65½c.

Peas.—No. 2, 83c.

Rye.—No. 2, 81c.

Bran.—\$23, in bulk, at Toronto.

Shorts.—\$24 to \$25, in bulk, at Toronto.

Buckwheat.—68c.

Flour.—Ontario, 90 per cent. patents,

\$3.75 bid for export; Manitoba patent, special brands, \$5.80 to \$6; second patents, \$5.40; strong bakers, \$5.30.

COUNTRY PRODUCE.

Butter.—Market about steady at following quotations: Creamery, pound rolls, 29c. to 30c.; creamery, boxes, 29c. to 30c.; dairy, pound rolls, 25c. to 26c.; tubs, 23c. to 24c.

Eggs.—Strictly new-laid, 30c.; cold-storage, 21c. to 22c.

Cheese.—Market unchanged; large, 13½c.; twins, 13½c.

Poultry.—Receipts were liberal; prices easier. Dressed prices were as follows: Turkeys, 15c. to 16c.; geese, 10c.; ducks, 12c.; chickens, 12c. to 13c.; old fowl, 9c. to 10c. Poultry, alive.—Turkeys, young, 14c.; turkeys, old, 12c.; geese, 10c.; ducks, 11c.; chickens, fancy, large, 11c.; fowl, 9c.; squabs, per dozen, \$2 to \$3.

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

Potatoes.—Market firmer. Car lots of Ontarios, 80c. to 90c. per bag, on track, at Toronto.

Beans.—\$1.70 to \$1.75 for primes, and \$1.80 to \$1.85 for hand-picked.

Hay.—Baled, in car lots, \$16 to \$17, on track, at Toronto.

Straw.—Baled, in car lots, at Toronto, is quoted at \$9 to \$10 per ton.

TORONTO FRUIT MARKET.

The Toronto apple market has been well supplied during the past week. No. 1 winter, such as Spies and Baldwins, \$3 to \$3.50; No. 2 winter, \$1.75 to \$2.75; onions, per bag, \$1 to \$1.25.

SEED MARKET.

The William Rennie Co. report the seed market steady at our last quotations. Alsike, fancy, per bushel, \$8.25 to \$8.60; No. 1, \$8 to \$8.25; No. 2, \$6.75 to \$7.25; red. No. 1, \$10 to \$10.25.

HIDES AND TALLOW.

Prices are quoted as follows by E. T. Carter & Co., 85 East Front St., Toronto: Inspected hides, No. 1 cows and steers, 4c. to 4½c.; inspected hides, No. 2 cows and steers, 4c.; country hides, cured, 4c. to 4½c.; calf skins, 7c. to 8c.; kips, 6c.; horse hides, No. 1, each, \$2.10; horse hair, 26c.; tallow, 5c. to 6c.; wool, unwashed, 10c.; washed, 19c. to 20c.; rejections, 14c. to 15c.; lamb skins, 70c. to 80c.

MONTREAL.

Live Stock.—The local market shows a very firm undertone, particularly for choice cattle, and prices scored a further advance, owing to the scarcity of stock. Sales of choice steers, weighing 1,400 lbs., have been made at 5½c. to 5¼c., here, although the general range is 5½c. to 5¼c. Fine cattle may be had at 5c.; good, 4½c. to 5c.; medium, 3½c. to 4½c.; common, 3c. to 3½c., and inferior as low as 2½c. The offerings of lambs are light, and, as a consequence, prices range a fraction higher, at 5½c. to 6½c. for best, and 5½c. to 5½c. for common stock. Sheep showed little change, being still 4c. to 4½c. per lb. for best, 3½c. to 3½c. for good, and 3c. to 3½c. for common. Notwithstanding that receipts of hogs were smaller, the market showed an advance of ¼c. to ½c. per lb., demand being light. Sales were made at 6½c., and perhaps a shade more, for some choice stock, while only 6c. would be paid for other choice stock, this figure, however, being refused by many holders. The market will probably firm up a little, presently.

Horses.—Dealers claim that this market was never so dull before. There is almost an entire absence of demand from local sources, the few animals required being of common-grade. A few of these are being taken, also, by lumbering firms for use in the woods. As for heavy animals, almost none are offering. Although the tendency is for common horses to become cheaper, that for heavy is to hold firm. Prices are unchanged, as follows: Heavy-draft horses, weighing 1,500 to 1,700 lbs., \$250 to \$300 each; light-draft, 1,400 to 1,500 lbs., \$225 to \$275; good blocks, 1,300 to 1,400 lbs., \$200 to \$225; express horses, \$150 to \$225; common plugs, \$50 to \$75 each, and choice saddle and carriage animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—There is a moderate demand for dressed hogs, and as the supply is fairly liberal, the tendency of the market is downwards. Prices have declined slightly, and demand

is mostly for small lots. Fresh-killed, abattoir-dressed stock is selling at 8½c. to 8¼c. per lb., country-dressed being 7½c. to 8c.

Potatoes.—The market is exceptionally dull. Just now, the roads in the vicinity of the city are good, and the weather is fine, so that the deliveries on the farmers' market are large. Wholesalers find that this affects their business somewhat, and do not look for much improvement for a month to come. Best stock, Quebec Whites or Green Mountains, are costing 75c. to 80c. per 90 lbs., carloads, on track, and are selling in the same position at 85c. When bagged and delivered into stores, they sell at 90c. to \$1, according to quantity.

Poultry.—Sales of fresh-killed turkeys were made as high as 16c. a lb.; frozen at 14c. Geese were sold at 9c. and 10c., choice being worth about 11c. Chickens, if choice, would have brought 13c. a lb.; but the general run sold at 11c. to 12c. a lb., fowl being about 7c. to 9c. a lb.

Eggs.—A St. Louis, Mo., firm has been offering United States eggs at equal to about 30c., on track, Montreal. The eggs are called fresh-laid, but are undoubtedly small, and it would be difficult to say what the quality really would be. For Canadian fresh eggs, 40c. is being charged. Lined eggs are quoted about 21c., and No. 1 cold-storage at 21c. to 22c.; selects being probably 25c. to 26c.

Butter.—Stocks of butter are considered lighter than a year ago. Demand continues very good, notwithstanding the high prices being charged. It is possible that some importations of foreign butter will be made via England, but the danger is considered less than some months ago. The sale of a carload of current receipts was made to Western Ontario at 27½c. a lb. Grass goods are quoted at about 28½c. in large packages, and at 30c. in smaller tubs. The make is very light.

Cheese.—There has been very little enquiry over the cable during the past week, and holders are simply awaiting developments, as stocks of cheese are light everywhere. There is no sign of weakness on the part of those who own stocks. Quotations on October white cheese are 12½c., and on September white, 13c., colored bringing a premium of ¼c. in each case.

Grain.—The market for oats has shown very little change during the past week, and the demand has not been very active, though quite a few sales have been made. Quotations continue at 53c. for Eastern Canada No. 2 oats; 51c. for No. 3, and 49c. for No. 4, rejected being 48c., and Manitoba rejected, 50c., car lots, in store.

Flour and Feed.—The market continues to show the same trend as a week ago, being firm under an active demand. Millers say that if this keeps up for a few weeks longer, they will have made up for the extreme dullness of December. Business is more active than a year ago. Millers quote Manitoba spring wheat patents at \$6.10 per barrel, in bags, and seconds, \$5.50; Manitoba bran, in bags, being \$22 per ton, and shorts, \$23.

Hay.—Prices quoted this week are somewhat below those of a week ago, on all but highest grades. Supplies are moderate, and local demand is fair, there being no export, however. Dealers quote \$15 to \$16 for No. 1 timothy, carloads, on track, \$14 to \$14.50 for No. 2, \$13 to \$13.50 for mixed, and \$12 to \$12.50 for clover.

Hides.—As far as prices are concerned, the market is absolutely unchanged. The tone, however, shows an improvement, demand being slightly more active, and receipts being larger. Dealers are still paying 5c., 6c. and 7c. per lb., for Nos. 3, 2 and 1, respectively, Montreal, and 6c. and 8c., respectively, for Nos. 2 and 1 calf skins, and selling to tanners at ¾c. advance. Sheep skins are still 80c. to 85c. each, and horse hides, \$1.25 and \$1.75, respectively, for Nos. 2 and 1. Tallow is 1c. to 3½c. for rough, and 6c. for refined.

BUFFALO.

Cattle.—Slow; prices unchanged.

Veals.—Active and firm; \$5 to \$8.75, a few \$9.

Hogs.—Heavy, \$4.45 to \$4.50; mixed, \$4.50 to \$4.55; Yorkers, \$4.55 to \$4.60; pigs, \$4.60; roughs, \$3.80 to \$4; dairies, \$4.40 to \$4.50.

Sheep and Lambs.—Steady; lambs, \$5 to \$7.15.

CHICAGO.

Cattle.—Common to prime steers, \$4.25 at \$6.25; cows, \$2.56 to \$4.50; heifers, \$2.50 to \$4.50; bulls, \$2.85 to \$4.25; stockers and feeders, \$2.60 to \$4.75.

Hogs.—Choice heavy shipping, \$4.40 to \$4.45; butchers', \$4.35 to \$4.40; light, mixed, \$3.25 to \$4.30; choice, light, \$4.30 to \$4.35; packing, \$4 to \$4.40; bulk of sales, \$4.30 to \$4.40.

Sheep and Lambs.—Sheep, \$4.25 to \$5.50; yearlings, \$5.50 to \$6; lambs, \$6.20 to \$7.

BRITISH CATTLE MARKET.

London.—Cables are steady at 11c. to 13c. per pound, dressed weight, refrigerator beef is quoted at 10c. per pound.

TRADE TOPICS.

HORSE INSURANCE. — During the past year we have had a number of enquiries from subscribers as to where they could obtain insurance upon valuable horses. Unfortunately there are no companies licensed in the Dominion of Canada, at present, to do this class of business, and anyone, therefore, wishing to obtain such insurance can only do so by sending abroad for it. We are informed that Messrs. Burnett, Ormsby & Clapp, Limited, 7 Melinda St., Toronto, a well-known firm of insurance brokers, with offices at the above address, and also in Montreal, Que.; Woodstock, Ont., and New York, have placed a considerable amount of business for their clients at London Lloyds, claims of which, we understand, have been promptly and satisfactorily settled. Any of our readers needing such insurance would do well to communicate with Messrs. Burnett, Ormsby & Clapp, Limited.—Advt.

WHO IS GOING TO BUILD?—The Metal Shingle and Siding Company, of Preston, Ont., in their new advertisement offer useful presents to everyone sending them a list of three or more names and addresses of people who will build in 1908, on the conditions named in the advertisement. It will cost only the postage on a letter to secure a prize in this venture, and should be well worth trying for.

BOOK REVIEW.

"LETTERS TO THE FARM BOY." Henry Wallace has written, and The Macmillan Co., of New York, U. S. A.; London, Eng., and Toronto, Ont., have published the third edition of a book bearing the simple title "Letters to the Farm Boy." Mr. Wallace is the senior editor of a farmers' paper bearing his name, at Des Moines, Iowa, a periodical so unique in its excellence that it stands in a class almost by itself in the great American West. About this modest book we have nothing but good to say. In the next edition, "Uncle Henry" might add a few letters that would serve to further enhance the interest of the boy in the problems and fascinating processes of the farm and its abounding advantages, though the latter are by no means overlooked. Originally written as a feature of the paper, the letters were revised and published in book form, and proved popular from the outset, being so full of off-hand, racy, common sense, in a style that showed the writer had a boy's heart still and knew how a boy felt. And the "Old boys" liked them too, even those who had long since left the farm. He does not lecture the boy, but talks naturally and sensibly on such topics as "The Farm Boy and His Father, His Mother, His Temper, His Chum, His Reading, His Future Business, His Fun, His Education, His Start in Life, His Habits, From Home, With Sketches About the Hardup, Richman, Broadhead, and Goodman Families, Some Common People and Commercial Morality." There is enough of the dry Wallace humor and keen insight into everyday things to add zest to the reading of this wholesome book, which we can honestly commend to every farmer's son. A copy should be on the shelf of every school and farm-home library. It may be ordered through this office at 50c. per copy, bound in cloth, or we will send a copy as a premium to anyone sending us one new subscriber to "The Farmer's Advocate."



Life, Literature and Education.

[Contributions on all subjects of popular interest are always welcome in this Department.]

PEOPLE, BOOKS, AND DOINGS.

Sir Frederick Treves, physician to the Royal Family, has been presented by the King with the Thatched House Lodge, Richmond, which the famous surgeon will shortly occupy.

The company controlling the Poulson patents has intimated that it will establish, during the coming year, a trans-Atlantic service, including a wireless system recording automatically its messages in ink; a wireless telephone, and a wireless apparatus for transmitting photographs, signatures and sketches.

One hundred thousand dollars has been given to Columbia University for the establishment of a chair of humane education. The new department will be founded as a memorial to Henry Bergh, originator of the Society for the Prevention of Cruelty to Animals.

Mr. Lemieux, Canada's recent envoy to Japan, says that he experienced no inconvenience while in Japan from his inability to speak Japanese. He found English-speaking Orientals everywhere, and learned that the study of English is compulsory in all the High Schools and Universities of the country.

A Swiss engineer has invented a new method of locomotion, viz., by wheels, to be worn one on each foot. The wheels are equipped with solid rubber tires, and brakes, to be put on when going down hill, and are propelled by a motion very similar to that used in skating.

THE MACDONALD CONSOLIDATED-SCHOOL GARDEN AT HILLSBORO, P. E. I.

Hillsboro school district is composed of six former districts. The children are brought to the central school by six vans. There is no village anywhere in Hillsboro—just farms, with a comfortable farmhouse in the middle of each. They used to have six unpainted, rectangular schoolhouses, and no school garden, but now there is one large, painted, rectangular school, and a very fine garden around. This change was made possible through the generosity of Sir William Macdonald, and Dr. Jas. Robertson's tact.

The big school was promised for 1903, but was not ready before 1905, on May 25th, just in time to begin a garden. The older scholars were waiting for the school to open, so that they could pass the college matriculation from it. We had, therefore, "children" from five to twenty years old. The more advanced pupils knew the arithmetic, botany, geography, history, agriculture, etc., required for matriculation, but wanted the Latin Grammar and Caesar, Geometry, Algebra and French, so important on the P. E. Island curriculum. The principal was also head gardener, and found it hard to administer Latin and keep

up his reputation as a "good" teacher, and yet attend to all the other classes outside.

The first class was led out onto the former oat field three days after school began. Someone "snapped" them just after they began to work, and they looked as they appear in picture No. 1. These older pupils afterwards organized themselves, and were given \$5.00 and a plot of rough ground in front of the school near the road. They did most of the work at recess time.

Other classes organized, and got grants of \$1.50 each. One had MACDONALD worked out in Sweet Alyssum; another had ROBERTSON in Pyrethrum Aureum. The four class plots and the 110 individual plots made a respectable garden for the first hurried year. The lower grades would spend a healthy, recreative hour every fine day "working" at their plots; the older pupils spent their recesses studying among the plots; the principal organized excursions, such as for pea-switches and trees, to help make this spot efficient and beautiful. Enthusiasm was rife that first year; a sweet-pea competition was held, a flower show

when he took the picture, No. 3. The rectangular, 5 x 8-ft. plots of 1905 have given way to the class group of plots, composed of sections. Each section has a flower garden in the midst, and vegetables occupy the corners. Generally, four pupils are given one section, but as many as six are put on if they are not very capable, and as few as two have kept one when very capable. Prizes are offered for the best-kept section. The great advantages of this section plan are:

- 1st.—The development of community interest.
- 2nd.—The recognition of individual interest.
- 3rd.—The saving of ground in walks, etc. (saves 20 per cent.).
- 4th.—The more beautiful appearance of the garden.
- 5th.—No badly-kept plots growing up in weeds.

By 1907 the teachers were able to do all the work with their own pupils, the principal only indicating their plot of ground and supplying seeds.

To make a good garden in P. E. Island, it is necessary to procure al-

were put in the warmest location when the weather became warm enough. An advertisement was printed and distributed announcing plants for sale, and at a lower price than in the local market. School children were supplied at half price, and found that they were more interested in looking after what they paid for than when they received them free. They would save their candy pennies, and stock their plots with plants. The parents, too, bought liberally. On several occasions orders for more than \$2.00 were received and filled. All this work was done by the principal after school and at recesses, assisted by the faithful janitor, who had become greatly interested, and who was allowed, for his work, the onions from the experimental plots. On July 1st, when the principal resigned, some \$60 worth of plants had been sold, and all out-of-door operations, fertilizers and seeds paid for with this fund. Prizes were also given the children; valuable plants for potting, and roses, dahlias, etc., were purchased, and a small surplus declared. The garden cost the school trustees not one cent in 1907, and gave the school a profit. The succeeding principal went to the Provincial Exhibition at Charlottetown later, and captured some twenty prizes for flowers and vegetables.

Besides the pupils' plots, a section of the garden was devoted to experimental purposes. There were 30 plots of grasses and clovers, 10 plots of forage plants, experimental plots to test spraying for blight on potatoes, and seed selection in wheat. The hardy border was also put in, a lawn was laid down on a rough section, and all expenses defrayed by the sale of plants.

In 1907, the children's home gardens were far more numerous than in 1905. The hotbed constructed at the school was hardly completed before many others, constructed by boys, were built on the same pattern. Outside windows were made to serve a double purpose. Many creditable gardens were produced, and some money and much experience gained. There was much examination in the "hothouse," and pupils went home to try to grow tomatoes and flowers in boxes on the window-sill. The interest in 1907 was deeper than in 1905.

A plan that gave the school pleasure, brought sunshine to houses, and money to the school, was the growing of potted plants. Geraniums, Coleus, Nicotiana, Calla, Aca-cias, Hibiscus, Primulas, Ice Plants, Mimosas, Calceolarias, Begonias, Cinerarias, Chrysanthemums, etc., were started in old strawberry boxes, and sold at prices varying from 5 cents to \$1.00.

Many happy memories cluster about that spot: The boy who got so interested in fertilizing experiments in his plot that he stole manure from a neighboring field, and had to apologize to the farmer; the young boys who kicked the other fellows' cabbages to pieces; the young lady of nineteen who blistered her hands digging, but still kept on; the hoes and rakes presented Grades I. and II. for their excellent plots by Dr. Jas. W. Robertson; the 66-pound pumpkin; the speeches of Earl Grey



No. 1.—Consolidated School, Hillsboro, P. E. I. The garden as it appeared in early spring.

was organized, and many visitors—perhaps 2,000—saw the plots. The most distinguished was Earl Grey and his party, who again made a special trip in his yacht in 1907, to see what progress had been made. This time, Lady Grey, who accompanied His Excellency, was presented with a bouquet from the school garden.

We will pass now to 1907, skipping a year, and see if the parents still allow the children to work their plots, if the garden does not cost too much, or if the pupils have lost their interest in the work.

The fence by the road now looks like picture No. 2. The principal's garden in the rear is a mass of cactus, dahlias, Groff's hybrid gladiolus, and beautiful annuals of all kinds. Four little girls were standing in it

most all annual flowers, cabbages, cauliflowers, tomatoes, etc., for transplanting. These cost some 10, 15 or 20 cents a dozen in the Charlottetown market, six miles away. To offset this difficulty, the principal had a carpenter with him in March, when the school was closed for Scarlet Fever, and a lean-to, with a glass roof built. It cost, approximately, \$30.00. It was 22 x 10 feet, and included two basement windows, from which the warm basement air rose on cool nights and helped to keep the temperature up. An oil lamp was used on very frosty nights. Early in April, many flats of vegetables, annual flowers and plants for potting were sown. They grew wonderfully well. A hothouse outside was built for cabbage plants, and beds of cauliflowers and cabbage

on the occasion of his two visits; the kind encouragement and interest of Dr. Robertson and Sir William Macdonald, the real founders of the school, in all our work—all these and many more have made the garden the real, vital source of much of our best experience at school.

J. W. JONES.

THE FARMERS' LITERARY SOCIETY A GREAT FACTOR IN MAKING FARM LIFE ENJOYABLE.

We often hear the lament that farm life in winter is so dull and monotonous. It should not be so; it need not be so. There are many ways to relieve the monotony and make the winter season on the farm most enjoyable and profitable. In the older parts of the Provinces, where the country has been mostly cleared, and logging is a thing of the past, the winter is, for the farmer and his family, a season of comparative leisure. This gives time and opportunity for improvement of the mind, for acquiring a knowledge of the past, and of becoming acquainted with all that is going on in the world of to-day. Farmers, as a class, too often neglect the improvement of their minds, and miss much of what is best in life by neglecting to form a taste for good literature in their youth. Of course, farmers should all read the best agricultural literature, and, among such, "The Farmer's Advocate and Home Magazine" easily takes a first place. But they should not stop at that; but, in order to develop the qualities that go to make up good citizenship, they should have a good acquaintance with the best writings of past ages, as well as the literature of the present. I propose to show how, in one little spot in Canada—the home of the writer—the farmers, by working together, have attained some success along these lines, at a small cost to themselves.

A little over twenty years ago, the farmers of two adjoining school districts organized a "Literary Society." We did not get any act of incorporation, but, instead, drew up a simple constitution and a few by-laws for our guidance in carrying on our meetings.

We elected a president, vice-president, secretary-treasurer and librarian for officers. The fee for membership was made only 50 cents per annum, so as to encourage both old and young to join. We rented a public hall, owned by the two districts, in which to hold our meetings. The next thing we wanted was a library. We fell heir to a few old books that had been the property of a society that had existed years before, and had gone down. This formed a nucleus, to which we added from time to time as we obtained funds, till now we have gathered together a circulating library of 600 volumes of the very best literature of the present and past ages. It consists of volumes of history, science, travel biography, poetry, nature-study, philosophy, and the higher class of fiction; and, for reference, we have a 12-volume edition of Chambers' Encyclopedia. Our books cover the whole range of time from Homer, Plutarch and Josephus, down to the most recent literature. In buying books, we aim to get as many complete sets of standard authors as possible. Some of the most popular sets we have acquired are the complete works of Francis Parkman, Washington Irving, Fenimore Cooper, Charles Kingsley, George MacDonald, Carlyle, Ruskin, Dickens, Scott, Rawlinson's. Our aim is to provide variety to suit the different tastes of our members. The tastes of some lead them more to the study of history, while others want philosophy, science, poetry, etc. We add about twenty to thirty volumes every year, and, though we enjoy the writings of earlier times, we get all we can of contemporary literature, so as to keep well abreast of the thought of the time, and be in touch with the progress of the world of to-day. We get the funds

for book-buying from what is left over of our membership fee after paying hall rent, and from the proceeds from lectures that are delivered from time to time under the auspices of the society. Our literary society meets every two weeks, when books are exchanged, and we have discussions on questions that are agitating the political, industrial and social world. At other times, some member reviews a book that he has read and studied, and the book and his views of it are discussed by the members. Occasionally we have a "newspaper night," when the editor proceeds to read a paper containing his own editorials, and contributions on various subjects by the members, which, along with some of "The Spice of Life," makes an interesting entertainment. With such excellent books for reading, and our interesting and profitable discussions every two weeks, and a good lecture sandwiched in now and again, there are no dull times with us during the long winter, and, when the season ends, in April, we feel that we have had an enjoyable as well as a profitable time.

If farmers are going to take the position they should in directing the destinies of this young and rapidly-developing nation, they must prepare for their duties by training themselves and acquiring the ability to think out the great social and political problems that are confronting Canada to-day; and besides thinking them out, they must be

COMPETITION III.

Topic.—"George Eliot's place among the novelists, as illustrated in Adam Bede."

Every noted writer who has given to the world a work of fiction has been largely influenced by the social and religious conditions of his time, and it has been his purpose to set forth these conditions in a more or less realistic light, with the object of bringing about a happier state of affairs.

Dickens' muse found vent in attacking public and private institutions. He delighted in startling situations, and was fond of romance. Like Thackeray, he had little sympathy with the cultured classes, and with these he dealt, sometimes, with undue harshness, while the masses were often crowned with doubtfully-merited halos. Yet, who does not love Dickens? He has endeared to us the heart of London. Chancery Lane, Lincoln's Inn, Old Curiosity Shop, teem with the shades of our idols of fiction, and we never hear them mentioned without a rush of memories as of old, familiar places. Scott has likewise made us delight in historic England and the hills and heaths of bonny Scotland. His descriptions are rare and beautiful, and, while his characters may be, in some cases, close to the artificial and melodramatic, we think of them as belonging to a land of romance and tradition.

But George Eliot's work is dis-

Her characters stand out as clearly defined as though chiseled by a master hand, and they are as transparent as the running brook. She wrote of the people she knew and loved. The farm, with its varieties of occupation, was part of her early life, and her little touches of rural nature throughout the book have a rich, mellow tone that thrills one like the cadence of sweet music. The novel is fascinating from start to finish, and, when we lay it down, we involuntarily exclaim, "What a wonderful, wonderful book!" As the mind reverts over the story, we see before our mental vision the uplands and valleys of Derbyshire at that season of the year "when the sound of the scythe being whetted makes us cast lingering looks at the flower-sprinkled tresses of the meadows." Upon its ample bosom reposes the little village of Hayslope, where lived the people "whose lives had no discernible echo beyond the neighborhood where they dwelt." Prosy these lives would appear to the most of us, but, with George Eliot's rare gift, she has made them teem with an interest that no amount of romance or unattainable situation could add.

The work abounds in marked antithesis. The hero of the book, himself, upright in soul as in stature, and who would sooner part with his right hand than do deliberately a wrong act, stands out in notable contrast to the self-indulgent, pleasure-loving, yet, withal, generous-hearted Arthur Donnithorn. Nowhere in fiction can we find a more beautiful character than Dinah Morris. Though possessing a nature so closely approaching the divine, she does not impress us as being overdrawn. She is simply a saint upon earth (and there are such), upon whom the sorrows of the sinful and unfortunate fall heavily. The prototype of Dinah Morris is George Eliot's aunt, Elizabeth Evans. Herself a devout Methodist, she gave to the gifted writer much of her knowledge regarding that sect, but that the prayers and sermons were copied from the aunt, the author strenuously denies, and, in writing to a friend regarding the matter, states, "They were written, with hot tears, as they surged up in my mind." The sermon of Dinah Morris on the village green is forceful, and the prayer offered up for the weak, unfortunate little "castaway" is not only pathetic and soul-stirring, but a magnificent work of rhetoric. To Dinah, the author accords that rare gift she denies the strong-minded Adam Bede—"a fellow feeling with the weakness that errs, in spite of foreseen consequences."

So distinctive appear each of the characters of this great novel that we are loath to pass many of them without comment. The unconscious humor of the sharp-sighted Mrs. Poyser is the rare flavor and sparkle of old wine to the feast, and the caustic Bartle Massey is Worcester sauce to the meat. Both of these personages display the brilliant wit of the author. The noble and broad-minded charity of Mr. Erwin, the rector, endears him to us, and we spontaneously stamp him as one of God's good men.

With all these living, loving, erring beings, we feel a touch of humanity that makes us all akin. We do not read of them and think of them in the abstract, but we think and feel with them. We may not (let it be hoped) possess the arrogance of the gardener, Craig, of whom Mrs. Poyser remarked, he was "like the cock that thought the sun rose o' purpose to hear him crow," nor have we all the self-renunciation of Dinah Morris; but we feel with all of them a sympathetic chord, that somewhere vibrates to our touch.

The object of this book—like most of George Eliot's works—is to show the necessity of living a moral life. This she does, not by a list of startling and exaggerated facts, but by pointing out to us, by a clear insight into the workings of the human mind, how easy it is to err and be



No. 2.—Consolidated School, Hillsboro, P. E. I.

The front fence in 1907; a pole fence in 1905.

able to express their thought intelligently and forcibly, as they have the right to do, being—as they certainly are—the greatest wealth-producing factor in the nation, as well as the strongest moral force. The hope of our country lies in the advancing intelligence of the tillers of the soil, who have it in their power to make and keep Canada one of the best-governed countries in the world. We hope the time will never come in Canada "When wealth accumulates and men decay," but rather that farmers of the country, that are doing so much to make it, will guard faithfully the ballot and keep Canada for the people, and not for the "trusts." Such societies as ours among the rural population will contribute largely to the result.

WALTER SIMPSON.

Bay View, P. E. Island.

OUR F. A. LITERARY SOCIETY.

In our third competition, the best work was submitted by those who wrote on topics (d) and (e). To-day we have only space for the best essay on topic (d), which was written by Miss J. McFadden, Wellington Co., Ont. Announcement regarding the "Macbeth" competition will be made in a later issue.

She reproduces life as she finds it. She does not attack any particular class. She knew little and cared little for the social life of the aristocracy, or for society itself. If she recounts the humility of one of the upper class, she does not bring him low because he holds an exalted position, but because her keen insight into the intricacies of existence fits him for that particular place in her theme; and she shows that the same temptations and same weaknesses are common to us all. This she does by analysis of the human mind, with a discernment almost superhuman. Previous to George Eliot's advent in the literary world, it had been the practice of novelists to introduce the common people into friction, either as freaks of virtue or vice, but she presents them as they really are. She does not make the bad too bad, or the good too good. Her genius does not stoop to exaggeration or burlesque in order to make plain the point of her story. She does this by a clear presentation of human lives; she makes her characters real personages, with whom we sympathize because she makes us understand them.

Such is her work of Adam Bede.

deceived in our own motives; how easy it is for even our generosity and good intentions to be overridden by our weakness. She understands humanity better than humanity understands itself. This is the secret of her greatness. Her mind has been said to approach that of Shakespeare. A biographer says of her that, being a great reader and an admirer of Thackeray, her early writings savor of social satire inspired by him, but that "they were singularly inapposite to so serious a writer and profound a thinker as her writings show her to be"; and Adam Bede is one of her best.

JANE MCFADEN.
Wellington Co., Ont.

[The first statement in this essay might be modified somewhat. While it is true that, as a rule, noted writers have composed their works with the definite object of "bringing about a happier state" of some affair, it is also true that many a notable book has been written merely as a beautiful work of literary art, and with no idea whatever of pointing a moral. Just so, many a beautiful picture has been painted for the mere sake of its beauty, and has been potent to gladden and uplift, even while teaching no definite lesson. . . . To return to the essay—the beginning of paragraph four is rather indefinite. It would be better to say, "In 'Adam Bede' her characters," etc. The last sentence of the essay, also, might be improved. As it stands, it is decidedly awkward, and rewriting, possibly division into two sentences would probably be necessary to give it the necessary force and grace. Miss McFaden can do better than this. She has shown both strength and clearness in other parts of her essay.]

EFFORT.

Once in a great while, when the life of some great man has been snuffed out, as all lives must go, we are impressed with the wonders that have been accomplished by the diligent use of time. It is one thing to be born with a talent (and, by the way, are not all born with a talent of some sort?); it is another to think and work with the persistence and energy that must develop that talent to the uttermost. The poet has sung, and truly, of "mute, inglorious Miltons," yet perhaps the list, were it chronicled, need not be so long. There is no doubt that the world has lost incalculably, in one way or another, through the mere downright indolence of an innumerable host of its inhabitants. It is so easy, especially when once a "living" has been assured, and more especially in regard to mental exertion, to drift along with the tide, dreaming, idling, wasting opportunities, until the days have come when the effort to build the foundation for all best work seems almost too great. Were the foundation there, we might—nay, would—go on with the superstructure; but, at the end of seventy or more years, to begin at the bottom of any considerable work, seems too much to ask of the flesh.

The ultra-strenuous life cannot, ostensibly, be recommended for all. Rest-time, play-time, sleep-time, are very necessary for the great mass of mankind, and it is only the occasional man who can sacrifice any one of these without injury; nevertheless, the fact is not altered that the overwhelming majority of people waste much more time than is necessary, have no idea of the value of odds and ends, rag-ends of the day. The late Lord Kelvin, as an instance to the contrary, constantly carried a note-book with him, in which, during odd spare moments, he might work at whatever scientific problem happened to be at the time in his mind. During nearly 73 years of university life (he entered Glasgow University as a student at the age of eleven, and studied with almost unimpaired vigor until his death) we know what he accomplished—the practicability of the deep-sea cable

through his siphon recorder; the magnetic compass, which has meant so much to the safety of mariners everywhere; contrivances for measuring the speed of vessels, and other practical things; a list long enough, as has been said, "to fill a newspaper column," and all this in addition to voluminous writings on scientific subjects. Could he have accomplished so much had it not been for his sense of the value of moments?

As a general rule, too, this steady, reasonable work is not deleterious to health. It is only overworking—the attempt to crowd twenty years' work into ten—with the accompanying worry, which kills. A great majority of the greatest thinkers—men who have worked steadily from youth on to the end of life, have lived to a ripe old age. Lord Kelvin was nearly 84 when he died. Sir John Her-

The Quiet Hour.

USEFUL AND IDLE WORDS.

There is that speaketh like the piercings of a sword: but the tongue of the wise is health. The lip of truth shall be established for ever: but a lying tongue is but for a moment.—Prov. xii.: 18, 19.

"The ill-timed truth we might have kept—
Who knows how sharp it pierced and stung!
The word we had not sense to say—
Who knows how grandly it had rung?"

A short time ago I had a letter from one of our readers, asking my opinion of the saying of our Lord's that we must give account for every "idle

things of life or floated joyously above the earth altogether. It was not an interruption when we sometimes found ourselves talking about the pattern of a new shirtwaist. Why should it be? We knew that if He numbered even the hairs of our head, if He cared to have us arrayed in white robes in the next life, He cared also to have us suitably dressed in this world, and wanted us to be interested in that important question. We were not talking for the sake of appearing to be "pious," but were simply expressing the thoughts that came into our minds. If we are true in our words—I mean if we really tell out our thoughts by means of them—then the only way to guard our words is to guard our thoughts. If we pray that the words we say may be acceptable in God's sight, it is far more necessary to pray that the meditation of our hearts may please Him. Words are, or should be, just the outpouring of our thoughts. And what a marvellous power, for good or for evil, we possess in that common talent of Speech!

"A kindly word and a tender tone:
To only God is their virtue known;
They can lift from the dust the abject head,
They can turn a foe to a friend instead:
The heart, close-barred with passion and pride,
Will fling at their knock its portals wide;
And the hate that blights, and the scorn that sears,
Will melt in the fountain of childlike tears.
What ice-bound barriers have been broken,
What rivers of love been stirred,
By only a word in kindness spoken,
By only a gentle word."

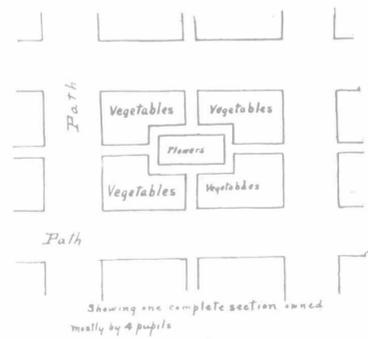
These words are true enough, but are they often true of us? Do you think that our commonplace conversations, which are noted down in the book of God's memory, have made the world much happier or better? Have we cared enough about God and the great realities of life—joy, peace, holiness, heaven—to talk about them naturally and easily, and so to awaken in others an interest in them? If we have contented ourselves with the saying that "speech is silver and silence is golden," and have allowed the great talent of Speech to lie idle, then we must expect the punishment of the unprofitable servant who buried his master's money in the earth and made no use of it. If idle words must be accounted for, surely we must also answer for the idle silence we have kept when we were too cowardly to speak a word for God. Our Lord gave us an example of silence, but it was only on one day—and that the last of His earthly life. Silence is sometimes golden, but speech should be golden too, not once or twice only in a lifetime, but every day. But while we try to consecrate our conversation, using it for God, let us steer clear of that unnatural, untrue thing, which is commonly called "goody-goody talk." Any conversation that may be rightfully dubbed "cant" is always most objectionable, doing harm rather than good to the cause of Christ. One who deliberately sets out to edify others by conversing with them, seldom fails to be priggish and conceited. If you really feel every word you say, you can indulge in "religious talk" pretty often without a word of "cant." A man's words will soon show his acquaintances the general trend of his thoughts, no matter how carefully he chooses them; "out of the abundance of the heart the mouth speaketh." If we love God with all the heart, and strength, if our great aim in life is to serve Him and be holy in thought and act, then our words will soon show the world what we care for most. On the other hand, if we care for pleasure or admiration, or are thinking most of the time about our housekeeping or about the latest style in dress, we need not expect to keep our thoughts secret. They are sure to betray themselves in words. Think how simple and natural was our Lord's conversation with the woman of Samaria. He was interested in her as soon as He saw her—as we ought always to be interested in everyone—and, instead of keeping coldly silent, as any other Jew would have done in the presence of a Samaritan, He gently asked



No. 3.—Consolidated School, Hillsboro, P. E. I.
A happy group in the Principal's garden.

schel, Darwin, Ruskin, Spencer, and, at the present day, Lord Avebury, and Goldwin Smith, are well-known examples, which might be added to indefinitely.

It may be thought that it is but natural, perhaps necessary, only for men obsessed with an idea to keep up this persistent effort year in and year out. But why may not every man be obsessed with an idea? All have not the power to accomplish something new and original for the world, nor is this demanded; but why should not every man become obsessed with the idea of developing his mind to



No. 4.
A "section" of the school-garden, Hillsboro, P. E. I.

the uttermost of its ability, not merely for his own sake, but for the sake of his usefulness to the world. His mind is the only thing he can have that is really worth while. It is himself. Take it away, and you leave but a jibbering idiot or a senseless clod. Why, then, leave it but dross, when it may be gold?

No matter if you are hidden in an obscure post, never content yourself with doing your second best, however unimportant the occasion.

word." I remember how greatly that text used to trouble me when I was a child, for it seemed that, in our careless childish jokes and happy chat, we were piling up a huge mountain of "idle words" against the last account. But I don't think so now. The Lover of little children, the One who held them up as a pattern to men and women, could not have intended his words as a terrible condemnation of the pleasant surface-talk that does so much to make life bright. His words must be directed against a real sin, and our own common sense, together with the witness of our own conscience, tells us that—in its right time and place—bright surface-talk is not a sin. Sometimes it is, though. Yesterday, all through the solemn service of the Lord's Supper, two people in the church behind me were whispering and giggling. Besides being very unmannerly, such behavior is terribly irreverent. When the Lord is almost visibly present in His holy temple, the earth should keep in a holy silence before Him.

There is another text which is a great favorite of mine, and I think it would help us in this hard matter of avoiding sins of the tongue, if we could only keep it always in mind. It is from the prophet Malachi: "Then they that feared the LORD spake often one to another; and the LORD hearkened, and heard it, and a book of remembrance was written before Him for them that feared the LORD, and that thought upon His Name." A week ago I spent a perfect afternoon with a very dear friend of mine, and we spoke of that text and its wonderful promise. I am sure it was fulfilled that day. She would read a little from a book—it was a copy of "Letters of Forbes Robinson," a wonderful glimpse into the sanctuary of a beautiful soul—then we would drift off into happy talk about the great realities of life, dipping occasionally into the book again for fresh inspiration. We both felt the glad consciousness of our dear Master's special presence, and we knew that He was smiling on our pleasant chat as we went down into the deep

for a drink. He really wanted a drink, but He cared far more to help a thirsty soul; and soon He reached her heart, touching with firm yet gentle hand the sinful past and sinful present that was making her miserable. No wonder He forgot His own hunger, thirst and weariness in the joy of awakening a sleeping soul. Then there is that other conversation on the great Easter Day which is told so graphically by St. Luke. Two men were walking along the road and were joined by a Stranger who at once entered into friendly chat with them, asking a very natural question about the subject of their earnest conversation. Soon they grew interested in His words as He quoted text after text from their own Scriptures, showing how all things prophesied about the Messiah had been fulfilled. The talk went far deeper than ordinary conversation, but it was far from weariness, their hearts burned within them as our hearts always do when God is speaking to us, and as they often do when we are speaking about God. One such conversation may remain as a bright spot in the memory for a lifetime, when any number of commonplace talks have faded out of sight. At such times we may be sure that Christ "makes, unseen, a Third." The motto that hangs on the wall opposite to me as I sit at the dinner-table is a very useful reminder: "Christ is the Head of this house, the Unseen Guest at every meal, the Silent Listener to every conversation."

I think we may sometimes make the mistake of not knowing when to stop. If we are trying to be co-workers with God we must not fancy that we have to do all the work, but should sow the seed prayerfully, and then leave Him to do His part. Anyone who plants a seed in his garden, and will not trust it to God, but digs it up over and over again to see how it is progressing, is likely to have a poor harvest; and it is much the same in the spiritual world. It is quite possible to overdo our efforts to help other souls—a little judicious "letting alone" is often better than continually propping and prodding. The story is told of a man who was very anxious to add an emperor moth to his collection of insects. He obtained a cocoon and hung it up in his library all winter. When he found the moth was struggling to emerge from a small hole, and was apparently helpless to force its way through the tough fibre, he came good-naturedly to its assistance and cut the hole larger with a pair of scissors. His help seemed satisfactory, the big moth got out of its difficulties for the time, but it never was able to fly. The kind-hearted naturalist was afterwards told that the struggles were necessary to force the juices of the body into the insect's large wings. Taking all difficulties out of its way was a very mistaken kindness, crippling it for life. So one who tries to make the way of faith too easy for a young and eager soul, may do terrible mischief. God's way is more often to let the soul struggle—perhaps for years—to get out of the darkness; then it grows strong by fighting and learns to look to an unseen Hand for the help that is absolutely needed. Don't get too discouraged, then, if your spiritual seed seems to fall on unfruitful soil. Perhaps silent prayer may have more effect than words. One thing is very certain, helping souls to use their wings is very delicate work, requiring more wisdom and skill than any of us possess. No one ought to undertake such a task without most earnest prayer for wisdom and tact and common sense. Though conversation about holy things is very valuable in the right place; it often does terrible harm, resulting in flippancy and irreverence on the part of those who feel that they are being "preached at" all the time. Only God can tell us when to speak and when to keep silent, when it is wisest to talk on the surface of things and when it is right and safe to "let down the nets for a draft" in the deep waters of another's soul. Well, I have talked so much about useful words that there is no room for discussion of the idle word—perhaps we may take up that subject another day. We all, it is very safe to say, will have to give account for many idle and even harmful words. We have good reason to pray daily:

"Set a watch, O LORD, before my mouth, and keep the door of my lips, that I offend not with my tongue!

Grant me to observe truth and constancy in my words, and remove far from me a crafty tongue. Cleanse the thoughts of my heart by the inspiration of Thy Holy Spirit!"

We know that it is a dangerous thing to play with edged tools, and words are capable of doing deadly mischief if handled wrongly. Someone has said that the most deadly weapon is "speech," and next to it comes the "dynamite gun." But look at the other side—see how knowledge is handed down from generation to generation, ever increasing as it passed on—passed on by WORDS, spoken or written. See how the greatest knowledge of all, the knowledge of God, is passed from one to another—by WORDS. So—

"Not the less do thou inspire
Light's earlier messages to preach!
Keep back no syllable of fire,—
Plunge deep the rowels of thy
speech!"

HOPE.

The Young People's Department.

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

THE DOG'S LAMENT.

It's very hard to suffer and be still,
Our name's applied to every human ill.
A "doggerel" is a rhyme that's very bad—

Indeed, the very worst that's to be had.
A book is "dog-eared" when it's been abused.

Alas! I think we're very hardly used.
A man's a "dog" because he won't be have.

(It almost makes an honest doggie rave!)
A "puppy" is a fellow most uncouth—
A slur upon the flower of our youth;
A "hound" a villain of the deepest dye—



Greyhounds.

(From a painting by Fred. S. Haines, Meadowvale, Ont.)

An insult to his dogdom's majesty;
A "cur," of course, is not a shining light.

Yet even he is called to bear the slight.
"To dog one's footsteps" is, I really think,

A dreadful thing, from which we dogs
would shrink.

A "dogma" is a hard religious school,
A "dogged" person always plays the fool.

And "dog-days" find us panting with
the heat;

We scarce can blink our eyes, or lift our
feet,

Why—why—throw mud upon our noble
name?

A dog's a dog through all the world the
same.

—London Answers.

And we should find the world not half
such a pleasant place without him.
Why, even as I write I see from the

window two great St. Bernards, a little cur and a little black dog taking a morning trot together. They are only out to see what may be in the garbage barrels, but it is their regular morning business, and they attend to it very industriously, and at any rate they make our street more interesting. In fact, I could easily waste half an hour watching the performances of a party of dogs. They have each his individual way of doing things. There is one little hairy black and brown dog across the road who thinks it his business to keep all intruders off the street. He will gladly allow anyone to walk quietly along the sidewalk, but let no one expect to bring a horse and cart with him. He will find the "dog that owns Victor Avenue," as we call him, like a lion in the path, to drive him back with tremendous barks of rage whence he came. The best part of this performance is to see our guardian come trotting back with a complacent triumph in his eye. I wonder how much dogs know, and how far they can think for themselves. In some ways they seem to have more intelligence than we have. For instance, I know a dog who was carried fifty miles by steamboat to Toronto, and disappeared for five days. But he turned up at home again, all safe and sound, a little thinner for his long trot, but apparently perfectly satisfied to settle down again in the country. How he knew which road led from Yonge St. wharf to his farm, fifty miles away, remains a mystery. And what a lot of affection there is in a dog. It is generally all kept for one person, to be sure. We once had a round-headed Cocker Spaniel, who was not without his faults. He was decidedly a coward, and he was very untidy in the way of putting bones on the lawn. But he had one strong virtue, his affection for his mistress, who was going to school on the street cars. Darkie was unable "to follow her to school," but regularly at 2 p. m. he barked to be let out, and proceeded to the corner to see her home. As I say, dogs are not all alike. They have their various faults, and different ways of looking at things, but there is generally

their cruel drivers still lashing them just for the fun of it. How many good horses are ruined in a year by that kind of boy, I wonder?

Now, there is no use in arguing with a naturally-cruel person, but perhaps if all of us who like to see animals decently treated could join together, we might at least make some poor ill-treated creature happier in our own neighborhood. I should like to have a "Dumb Animals' Protection Society" for readers of this corner. Anyone could join by sending a true story of some animal's intelligence or affection, or of some act of cruelty to an animal, and, also, a promise to stand by helpless animals to the best of his ability. That would mean lots of things, like trying to prevent the hounding of a dog onto a terrified cat (great fun for small boys, but a doubtful pleasure to the dog, and agony, as you can easily see, to the cat), reminding young brothers and sisters to feed their rabbits and canaries and tame squirrels, remembering to give the dog a warm sleeping-place at night, and, in short, doing one's best to make every animal one knows as comfortable as we like to see our own pets. Who will join "The Farmer's Advocate' Dumb Animals' Protection Society"? The sooner we start the better, as the winter is the worst time for many animals who are not properly cared for. So write at once, if you want to join, to "Cousin Dorothy," 52 Victor Ave., Toronto.

THE PRIZE ESSAY.

Don't forget to send your essays before the end of this month. The essays may be long or short, comic or serious, whichever you can manage best. You can talk about the literature of Elizabeth's time, and whether there is much difference between the way English was written by Shakespeare and the way it is written by Marion Crawford, for instance. Were there any novels in those days? Do we have too many now? Or you can write about the cooking in those days. Did they eat too much for breakfast, or are we not provided with as good digestions nowadays? Is it an advantage to have tea and coffee instead of the foaming ale? Or what do you think of the laws under Elizabeth? Was it right to put Mary, Queen of Scots, to death, or to punish men by mutilation and torture? These are just a few suggestions for your essay, and there are plenty of other ways of going about it, if you have read enough history and historical novels to have an idea of how they lived in those days. "When Knighthood was in Flower" is an entertaining book, which, though it is not quite about the same period, is near enough to give an idea of life at the court in that day, and you may know of others. There is very likely one of Henty's on the Wars of Elizabeth. If there is, it is sure to be worth reading. Don't say you can't write an essay. If you have an idea in your head, write it down. It is good practice. If you have several ideas, write them out as you would talk them, and there will be your essay all complete, and ready to take the prize.

C. D.

HALF ASLEEP.

To let one's fancy range;
To play the bed is so,
The window so, as it used to be
In that home of long ago;

To play the door is here;
The street is crisscross there;
And then to wait, as I used to wait,
For the step upon the stair.

To count as the footsteps pass,
Now near, now faint and far—
How personal they sound at night,
What company they are!

Some brisk and some sedate,
I wonder where they go;
And I drowse a little, till suddenly
The dear, dear step I know.

The start of joy, the flush,
The tender, happy thrill,
And then, oh, God! I am homeless and
old,
And his grave is on the hill!

—Gertrude Huntingdon McGiffert, in the Century.

Current Events.

Three men have died at Glen Ewen, Sask., as a result of drinking wood alcohol.

New York capitalists are said to have a scheme under way to build a canal from Montreal to New York.

The foreign trade of the Dominion last year was increased over that of the preceding year by \$64,000,000.

The latest engineering project in Europe is to connect Lake Constance with Genoa by a system of tubular canals built over the Alps.

Socialist riots still continue in parts of Germany, and Prince Von Buelow has intimated that the leaders in future disturbances may be severely dealt with.

Japan has definitely forbidden China to go on with the construction of the Hsinmintun-Takumen railroad, which a British syndicate had proposed to build, paralleling the South Manchurian.

The delegates to the conference of the Labor Party, in session at Hull, Eng., while voting down a resolution that would bind them to Socialism, have passed a motion declaring Socialism to be the definite objective of the party.

A debate on Senate reform was introduced in the House of Commons last week by Sir Wilfrid Laurier. In presenting the subject, he made two suggestions: (1) That the number of Senators be limited; (2) that the term should be limited to ten or fifteen years, with the provision that members of proved ability might be re-appointed.

A peculiar political situation has developed in British Columbia. The Legislature passed, in the regular order, an enactment to make the immigration and employment of Asiatics in the Province more difficult. When the bill reached the Lieutenant-Governor, Mr. Jas. Dunsmuir, he vetoed it, taking the whole responsibility of doing so upon himself. It now appears that the Wellington Colliery Co., of which he is president, had made a contract with the Canadian Nippon Supply Company for a large number of Japanese laborers, to be set to work in the mines, and that the passing of the bill would interfere with the project. The affair has created a great sensation in the Pacific Province, and will no doubt have an important bearing on future political events.

THE JAPANESE IMMIGRATION QUESTION.

The recent presentation of the report of Mr. Mackenzie King, who was sent by the Government to Vancouver to investigate conditions there, and Hon. Mr. Lemieux, Canada's envoy to Japan, has proven sufficiently illuminating and reassuring to allay all fears in connection with the much-discussed Japanese immigration question.

In his investigation, Mr. King found that anxiety in regard to the situation has been confined to the past year. For several years preceding, very few Japanese had entered the Province, the Japanese Government having, in 1900, issued definite instructions against emigration. At the beginning of 1907, however, conditions materially altered. During the first ten months of that year, 8,125 Japanese immigrants entered British Columbia, and when these were augmented by 1,266 Chinese and 2,047 Hindus, anxiety along the Pacific coast amounted almost to a panic.

On searching the matter out, how-

ever, Mr. King found that, of the total number of Japanese, 2,779 came from the Hawaiian Islands, 1,641 directly from Japan. Of the latter number, 900 were brought out by the Canadian Nippon Supply Company, under contract for work on the C. P. R.; 151 were destined for the United States, but were rejected by the American authorities and thrown back upon Canada; 300 were former residents of Canada, while 199 were merchants, students and travellers. Moreover, of the total 8,125, it was found that only 4,429 remained in Canada.

An interesting feature of the situation was the revelation of the workings of the Canadian Nippon Supply Company, of Vancouver. This Company was incorporated Dec. 17th, 1906, by Saori Gotoh and Mr. Kodama for the specific purpose of supplying Oriental labor to Canadian corporations. After its organization, Messrs. Gotoh and Yoshi visited Japan. Their operations while there are not definitely known, but it appears that, after their return, the Japanese emigration regulations were relaxed sufficiently to permit laborers to go under contract to Canada. Prospects for the Company were good. In addition to the 900 men who had been contracted for by the C. P. R., it was found that 500 could be supplied to certain mines in the Province, and the G. T. P. Co. had intimated that they would require 5,000 more for construction work on the new railway. At the same time, conditions in Hawaii proved unsatisfactory to the numbers of Japanese settled there, and who were by no means averse to seeking new fields where such ready openings were afforded. Then the riots came, and the panic.

At the present juncture, however, the crisis may be regarded as definitely past. Mr. Lemieux, on his visit to Japan, found that the Japanese emigration companies have been practically suppressed; that the regulation providing that no emigrant can leave Japan without a passport is being strictly enforced; and that, consequently, the numbers setting sail are under full control of the Government, which is not only willing but anxious to preserve the peace with Canada. The Government, however, disclaims any control over the Japanese who have gone to Hawaii, and who are now under the jurisdiction of the United States.

It only remains, therefore, for Canada to stop this influx, and to regulate such operations as those carried on by the Nippon Supply Co., to bring a satisfactory end to one of the most complicated questions in the present history of the Dominion.

THE BROOKSIDE.

I wandered by the brookside,
I wandered by the mill—
I could not hear the brook flow,
The noisy wheel was still;
There was no burr of grasshopper,
No chirp of any bird,
But the beating of my own heart
Was all the sound I heard.

I sat beside the elm tree,
I watched the long, long shade,
And as it grew still longer,
I did not feel afraid
For I listened for a football,
I listened for a word—
But the beating of my own heart
Was all the sound I heard.

He came not—no, he came not—
The night came on alone—
The little stars sat one by one,
Each on his golden throne;
The evening air passed by my cheek,
The leaves above were stirr'd—
But the beating of my own heart
Was all the sound I heard.

Fast silent tears were flowing,
When something stood behind—
A hand was on my shoulder,
I knew its touch was kind:
It drew me nearer—nearer—
We did not speak one word,
For the beating of our own hearts
Was all the sound we heard.

—Lord Houghton.

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With the Flowers.

PLANTING OUT SHRUBS AND VINES

As spring approaches it may be necessary to remind all who are interested in the beautification of their homes that early spring, before the leaves have shot, is a very good time for planting out shrubs and vines. As regards arrangement, we will say nothing at all except to reiterate the injunction, which has already appeared so often in these columns, to avoid spotty or ten-pin planting. The usual rule for tasteful planting is to keep a clear, unbroken lawn in front of the house (simply massing shrubbery close to the house), and mass trees and shrubs, often running into irregular "bays," as a border to the grass-plot; to have the flower-garden at the back or side of the house, and paths running as directly as possible to the points which they are intended to reach. While these rules are safe, it would not be wise to advocate the broad, open, tree-bordered lawn for every situation. Some grounds look best with a hardwood grove directly in front of the house which should, of course, be surrounded by a small piece of open lawn in order that enough sunlight may fall upon it; to others, again, a long driveway, edged with stately trees of uniform size and kind, may seem necessary to add dignity and repose. These are questions which each homemaker should settle for himself; every homestead should, in fact, be in some way an expression of the personality of its owner. Besides, it would be inexpressibly monotonous to see all the home-grounds the country over laid out in faithful accordance to one plan. Variety is the spice of life. So long as you have plenty of trees and shrubs and unbroken grass swards, and avoid spotty effects, your arrangement is likely to be pleasing. Whether it be a masterpiece in landscape gardening or not must depend upon your own good taste and originality.

As regards the kinds of shrubs, trees, etc., to be planted, may we again suggest, why not, for the greater number of them, select those indigenous to our country? What is the sense of paying out large sums of money for specimens which are little likely to fit in with their surroundings, when you can go to your own woods or swamp borders and select specimens which are quite as handsome, and are much more likely to "grow"? What can be better than our own maples, elms, beeches, pines, spruces, hazel trees, Junes, elders and dogberries, and, in vines, our native grape, bittersweet and clematis? Of course, you will want a few extra to supply a variety in color, and for these the nurseries may be approached.

Apropos of color, it is too often forgotten that planting should be done with an eye to winter as well as summer effects. With clumps of our dark native evergreens, flanked by the bluish "glauca" or argentea varieties (to be procured from the nurseries), and with plenty of red-berried and red-stemmed shrubs, such as the barberry, briar rose, and red-barked dogberries, there is no reason why the home-grounds should not be quite as attractive in winter as in summer—possibly even more so.

Think these things over, will you not?—and try to give, at least, one day of the coming spring to beautification of your home-grounds.

FLORAL ENQUIRIES.

1. Will Virginia Creeper and Trumpet Vine grow from slips?
2. Will the ivy commonly seen in cities clinging to brick houses, stone churches, etc., grow from a slip? When is the proper time to plant the slip (or root)?
3. Can you give me some pointers as to the care of a palm? I have had it.

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FACE TO FACE



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over a year, and a new leaf has come. It had six leaves, then the oldest withered and became brown; now another is in the same condition, and still another is turning brown at the ends of the leaflets. Please prescribe. The other leaves seem fairly healthy.

Ans.—1. The Virginia Creeper (Ampelopsis quinquefolia) will grow from cuttings of ripened wood taken in fall or early spring. Cuttings taken in fall should be heeled-in in sand, in a cool cellar for the winter. These, and spring cuttings, can be planted in sand or sandy soil early in spring, in pots or boxes (with drainage), and set out of doors as soon as weather permits. This plant roots well from layers laid down in fall or spring. The Trumpet Vine is best grown from seed or layers.

2. The ivy mentioned is what is known as the Boston Ivy (Ampelopsis Veitchii). It can be grown from seed, cuttings, or layers. Seed should be sown in spring. Cuttings and layers should be treated same as for Virginia Creeper. It is usually grown from seed.

3. The palm as shown in sketch is doubtless a variety of the Phoenix or Date palm. Possibly the palm needs repotting if the lower leaves are dying so fast. If the pot is full of roots, pot into a two-size larger pot. The leaves of palms should be sponged or sprayed with clear tepid water once or twice a week. A very dry condition of the atmosphere of the house will cause the tips of the leaves to become brown. Excessive dryness at the roots will also cause the last-named trouble. Keep soil always moist, not soddened. Palms should be stood out of doors in a partially-shaded position during July and August. Sprinkle the foliage every day with clear water. WM. HUNT.

O. A. C., Guelph, Ont.

Carmichael.

BY ANISON NORTH. Copyrighted—All rights reserved, including that of translation into foreign languages, including the Scandinavian.

CHAPTER XIII.—Continued.

In the city, as a rule, the people and their interests change with the years, as the bits of glass change places in the kaleidoscope—ever a uniting and a separating, and a new adjustment that somehow seems as satisfactory as the old. But in the country, for the most part, one generation follows another in the same old way, and steps at last beneath the quiet green sod in the old churchyard; and if you visit the spot but once in a score of years, you are likely to find the same old names still living in the children, who will tell you anecdotes of the men and women you knew long ago.

There is, perhaps, in the ripple and glint of the city that activity which the world cannot miss; yet it is about the quiet upper pools that the ferns love to nod and the violets to blossom, and he who will choose to amble there is not all the loser.

For me, the balm of the country was the balm that I needed, and as the time went on I found it possible once more, except on such rare occasions of melancholia as come to most people, to be happy, and to think of Dick with a quiet resignation which brought me no conscience-pricks.

With the rest, things went along much in the same old way. Chris, much to the delight of us all, gradually regained the health he had lost, save for slight twinges of the "rheumatics." But he would not take back the managing of things into his own hands.

"Why, dash it, girl," he said, when I pressed him to it, "ye've shown me a thing or two, 'n' ye're doin' fine! Why should I set up to be punkins when I'm nothin' but a wizened up old cucumber? . . . No, no, lassie, I'll jist putter round 'n' chore like, t' earn my bite 'n' my sup, 'n' I'll be proud 'n' honored to help ye all I can with my tongue. . . But as fer managin',—no, no, ye'll jist keep on doin' that yourself, lassie."

With my mother, too, the years

seemed to bring added health and contentment.

"She's jist like a peach ripenin' on a wall," said Chris; and I often thought his words were apt as I watched her going about, every day more plump and fair, with the pink flush again mounting to its old place on her cheeks.

Upon others, too, my mother's ripe beauty was not lost. Many a one mentioned it, and even Yorkie Dodd took to silent admiration, and resumed his visits, and his staring at the floor.

"D'ye s'pose Yorkie's got an eye to yer mother?" said Chris to me after three or four of these characteristic visits. "Dash it," in rather conflicting metaphor, "I wish the old lad 'ud git someone that 'ud stop his throat!"

But from the twinkle in the old man's eye, one might have doubted whether he would have foregone the bit of fun which Yorkie's visits afforded him.

For my part, I was rather uneasy, lest his coming should annoy my mother; but I might have spared myself that fear.

Never have I seen her laugh more heartily than when, one day, on coming in from the buttery, whence she had sent Yorkie off in high dudgeon, she told us that he had proposed to her; how he had followed her in, and sat on the step, quite filling it, so that she could not get out if she would, and was there "treed like a coon."

"I couldn't git a chance to speak to ye in there, mem," he explained, "with them young chits (Miss Tring, by the way, was considerably over forty) sittin' with their ears open. But I was thinkin' ye'd be a thrifty wumman to look after things. Wimmen's mighty handy about a place, to cook 'n' that. 'N' I've eight cows, mem, good Shorthorns as ever was bred, mem, 'n' I was thinkin' mebber ye'd like the handlin' o' them, 'n' could hev' it all jist by writin' yer name 'Missus Dodd.' . . . A tenninit's job 'ud do it, mem."

My mother told us the whole story, laughing between times till she shook, with the tears rolling over her pretty pink cheeks. Poor Yorkie! Did everyone laugh over his love affairs? And yet, who knows—perhaps they meant as much to him as to those cast in finer mould.

"As if I'd think o' marryin' a pork bar'l like him!—'n' at my time o' life!" added my mother; and then the soft, faraway look came into her eyes, and presently she went out and began walking up and down the path through the corn.

"Poor little mother!" said Miss Tring, as we watched her glinting in and out among the rank green leaves, with the sunshine on the little, whitening rings of her hair. "Poor little mother! She, too, is thinking of the long ago."

Of those outside our household, of whom we have spoken in this record, for many a long day there was little of any moment to be told.

Mrs. Might, still adhering to her purpose of mothering the young people of the neighborhood, since she had no child of her own to mother, continued to keep open house to all the lads and lassies, and, notwithstanding her habit of lecturing now and again, and of giving advice on or without request, had gradually been accorded a place of high favor among her foster-children, by whom her peculiarities were soon readily enough overlooked as "just ways of Mrs. Might's."

Gay Torrance, who was severe upon no one else, was the only one who was disposed to be severe upon Mrs. Might. But then there was reason to think that Gay's mode of getting along in the world was so strongly at variance with the time-honored "way o' the Greens," as by no means to recommend itself to Amanda Green that was. "She always had a pick at me," explained Gay, one day, with a pretty pout. "And since I've come back from Miss Vincent's school it's been ten times

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worse. "Why don't ye show some pluck like Peg Mallory?" she said to me one day, and "—spreading out her little, dimpled, white hands—" how could I do as you do, Peggie? You are so tall, and—and—so capable, somehow, and seem just fitted for doing things!" . . . And the two little hands looked so helpless and baby-like that one wanted to kiss them and tell the little fairy that they were just meant to be looked at, and petted, and permitted to do nothing ever. But then, that would have been very foolish.

"You know I do things," she continued. "I make all the cake, and dust the parlor, and iron all my dresses now, frills and all, and really it takes such a time, and I do so hate it all! I should like to do just as Bessie Upton does. She just gets up in the morning and puts on a pretty silk negligee, and reads stories till noon; and then she dresses and goes out to tennis tournaments and things, you know, and has such a nice time! Don't you think, Peggie, it's too bad that people have longings for things just in them, somehow, and can't get a single one satisfied?"

To Gay the gospel of work was an incomprehensible one.

"Ugh!" she would say, spreading out her fingers, and turning her pretty face away with an expression of disgust, "I can't see the happiness of just having to slave, slave away, and wash dirty pots and pans. I just hate washing dishes, don't you? And then there are so many children at home, and everything in a muddle! . . . Of course, I love them all, but oh I wish we lived in town, and were rich like lawyer Upton! People are so polite there, and no one ever goes at you as Mrs. Might does. She just seems to take a pleasure in scolding me, because she doesn't like me!"

And so I found that Gay's path, which I had once imagined so rose-strewn, had its thorns, too; to Gay, very sharp thorns indeed.

Mrs. Might's version was somewhat different. "I'm jist heart sorry fer that Mrs. Torrance, though it is her own fault. It's jist drudge, drudge from morn till night, 'n' that Gay sittin' up with her two hands as white as milk, 'n' her blue ribbon 'n' danglin' things, when a check apron 'ud suit her better! . . . I jist thought it my dooty to speak about it—but that Matilda Torrance! Ye might as well talk to a block of wood when it comes to sparin' herself 'n' takin' anything out of her children—I tried reasonin', but that was no use. 'N' then I said things that 'ud ha' made anyone else either think, or git roarin' mad—but I declare to goodness, Peg, ye couldn't make that woman mad, even fer her own good. She didn't mind doin' things, she said, 'n' Gay had never been used to it, 'n' didn't seem suited to house-work, somehow. I declare to goodness, it was enough to provoke a saint jist to listen to her, 'n' her jist that fagged. . . . So then I tried Gay, 'n' if the little minx didn't jist turn 'n' flounce upstairs like a cat! . . . However, Peggie, I consider it's me dooty to train that girl jist as if her mother was dead and gone, 'n' if she doesn't turn out some use it'll not be on my conscience. It was never the way o' the Greens to shirk their plain dooty, Peg, I kin tell ye that. 'N' there's one thing sure, if someone doesn't take hold o' that girl 'n' keep her busier than she is, she's goin' to git into mischief sure."

Of the Carmichaels, since Dick went away, I had seen next to nothing. People said Henry Carmichael had become wonderfully changed, that his bluff jest whenever he met a neighbor on the road was now a thing of the past, and that he had given over his old habits of swearing, and spoke and moved in a subdued way, and with a half-sad smile that was very different from the old hearty laugh.

People said, of course, that he was heartbroken over Dick's leaving home, a circumstance over which there was much speculation, and not

altogether to Dick's credit, since it seemed incomprehensible that any young fellow who had such prospects, and of whom there was such urgent need, should leave home except from pure heartlessness. His invalid mother should have been enough to keep him; and nobody would have thought it of Dick Carmichael! . . . But then, some young fellows must see the world. . . . Dick would probably find that a rolling stone is the least likely to gather moss, and would be glad enough to come back to the "old man" in the end.

(To be continued.)

The Ingle Nook.

Just a few weeks ago I came first upon my Pleasant-faced Lady, and I was so interested in the visit to her that I just thought I would tell you all about it. Perhaps she will never know, and if she does she will forgive, since I will not tell you where she lives, nor what is her name.

She has not very much money, this Pleasant-faced Lady—that is, as wealth in this age goes—just enough to be comfortable and cosy, and far too little to keep up to the styles, or to bother much with extensive entertaining. What is more wonderful, she does not seem to care in the least about these material things. She does not want money to— but of that later.

She lives in two rooms, but you would never, never dream on going in that she cooks there, eats there, and sleeps there. Possibly, she has to explain things to you for about fifteen minutes before you can realize what inventiveness—or necessity—can do with a big couch, and packing-boxes, and a few big screens. Yet you never saw more cozy rooms in your life, nor more artistic. There is always a coal fire in the grate; and there is a piano in one corner; and there are books on the table and in the bookcases; there are plenty of cushions, too, and easy-chairs, and, if you go in after night-fall, you find a student's lamp with a big crimson shade on the table.

I have not yet mentioned the pictures—but there are pictures everywhere, for my Pleasant-faced Lady is an artist. She has a little story to tell you of each of them. Here is one of just two oak trees, with a glare of sunlight over the grass behind them. She tells you of the quaint, courtly people in a tumble-down house filled with expensive engravings, whom she discovered on the day that she painted that study; how, wandering across the fields, all unawares she had come upon them, and how, as a result, she came home with a unique and pleasant memory, as well as a newly-painted picture. . . . This bit?—that is not her work, but the work of one of her friends who is so talented, and who went away to Paris to live in that section of the Latin Quarter where artists exist splendidly on "about a dollar a week," and paint, and paint, and paint. What does it matter if there are Socialists and theosophists, and spiritualists, all sorts of individuals, warped on sane, among the crowd?—all are intense, and at one in their fervor for art; and the diversity only heightens the human interest. . . . This bit—ah, that was painted by another young friend, so talented also, and so interesting—just a mite of a girl, whom very few know, because she never talks unless to those who show themselves in sympathy with the things she loves, but then—like an angel. And she (the little mite) had become so discouraged because she could not go abroad and take lessons from great artists, and see great paintings, that she became pessimistic, and then a strong, good friend took her in charge and showed her how much happiness may be found even in humble endeavor, and in realizing fully the beautiful things at one's own door, and finding out the human interest in the people one meets every day.

Having told you these things and many more, the Pleasant-faced Lady shows you a book of engravings of the works of Michael-Angelo and Raphael—a book out of the Public Library, but none the worse because of that—and tells you something of these artists. Last of all she shows you, perhaps, a study arranged for one

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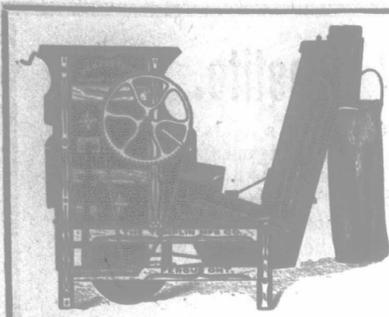
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of her pupils. That first evening it was a board with some green tomatoes and red peppers, and a polished copper mug full of the lights that artists love. "Just a still-life study," she said, "but one can't paint out of doors in this cold weather. . . . And it is such an interesting boy who is copying it. He is a cook, but he loves art, and reads good books, and will be something else some day when he has earned some money." Then she goes on to tell you of some of her other pupils whom she teaches in the old deserted shop across the way, which has been made, pro tem., a studio.

"I do hope I may get a good many pupils this winter," she confides, "for, you know, we all need to make money if we want to go on with our art."

Perhaps all this is not interesting to you, but it has been such a tonic to me to meet this Pleasant-faced Lady, and I have come to love her so much that I just thought I would tell you about her. I have seen much of her since that first meeting, and feel that she is teaching me, more and more, to see beauty in every bit of light and shade, every tree-top, and patch of blue sky—and, more than that, the "possibilities" in every face one meets on the street. I don't know whether any of the wealthier ones among you have a fancy for buying, now and then, a really good painting. If so, perhaps you have one of her creations in your house, for many of her paintings are sold in Ottawa, and Toronto, and Montreal—not enough to make a fortune, you understand, but a very encouraging number in consideration of the fact that Canadian artists seem as yet to be pretty much on the same path with the proverbial "prophet in his own country."

But, if one of her paintings does hang on your living-room wall, a joy to you every time you look at it, you will never be able to connect it definitely with my Pleasant-faced Lady, for, you see, I said I would not tell her name.

D. D.

Remodelling a Dress.

Dear Dame Durden,—I have received many helpful hints from "The Farmer's Advocate," but never have written to the Ingle Nook before. I am after some more help. Have a dress of cream silk organdie, made three or four years ago, which has a square yoke of all-over lace in both back and front. It also has elbow sleeves. The skirt has five ruffles, about three inches wide, around the bottom. Could you kindly tell me of some inexpensive way to fix it up for next summer? How would a large lace collar, to cover the yoke entirely, do, and long cuffs of all-over lace? Then, about the skirt; I saw one last summer with two or three rows of black velvet ribbon, about one inch wide, around the bottom. Would you advise taking off the ruffles and putting on the ribbon, and, if so, then would you use black lace for trimming waist? Or, if you would not approve of that way of fixing it up, please say how you would do it, as I live in the country and do not get much chance to see any new styles. I thought I would get this letter off in time, and not wait until I need the dress. Thanking you in advance for your kindness, I will sign myself—

YOLANDA.

No, Yolanda, I would not put any black on the dress if I were you. Take off the ruffles, which are scarcely worn now at all, and make neat bias folds of them, stitching these by the top edge at regular intervals around the lower part of the skirt. Keep the sleeves elbow length, as short sleeves will be worn again next summer, and finish them with a little band of lace insertion. If the sleeves come over the elbow at all, you might have a little cuff, say three inches deep, made of bands of the insertion stitched together. Small, square yokes, reaching half way to the shoulder, are worn, and are, as a rule, very becoming. Make one of bands of insertion to match the cuffs. You will probably have enough organdie left from the ruffles to make Gibson folds running over the shoulder and down to the waist-line, back and front, which will fill in the space between the yoke and the upper part of the sleeve. Make a soft crushed girdle of white silk, or very light-colored Dresden ribbon, and you will have a little dress, simple, tasteful, and quite up-to-date. I hope your sleeves are already rather full

at the top; otherwise it may be necessary to extend extra Gibson folds quite over the sleeve to give the necessary breadth of shoulder.

Pickled Corn.

In a 1906 issue of "The Farmer's Advocate" appeared the following method of cooking pickled corn: Take about 1½ cups of the pickled corn, wash in cold water twice, then put on to cook in cold water, changing the water two or three times.

D. D.

Several letters are held out this week for want of space, but will appear at an early date.

GOSSIP.

Attention is called to the annual report of the Canadian Bank of Commerce appearing in this issue. This is a remarkably satisfactory statement of the affairs of the bank, an able exposition of the crops and the commercial conditions of the country, and a reasonable, and by no means discouraging, statement of the probabilities of trade and markets in the year upon which we have entered.

J. E. DISNEY & SON'S SALE.

Announcement was made last week of the dispersal sale of the Shorthorn cattle and Clydesdale horses belonging to J. E. Disney & Son, Greenwood, Ont., to take place on Wednesday, Feb. 12th, comprising thirty head of Shorthorn cattle and several imported and Canadian-bred Clydesdales. Much importance attaches to this sale, as it is an old-established herd, founded on choice representatives purchased from the noted Greenwood herd of Mr. Arthur Johnston; kept continually improving by the use of his high-class stock bulls, and it is a herd to-day of which any man may well feel a pride. A number of the females of the herd are descendants of these two great dairy-bred cows, Imp. Daisy and Imp. Princess, of which it is safe to say that a very large majority of the dairy tests in Canada, won by Shorthorn cows, were won by cows whose lineage traced to those two great dual-purpose cows, and certain it is that in this herd are some very heavy and persistent milkers. The Scotch end of the herd represents the Bruce Mayflowers, Miss Ramsdens, Crimson Flowers, and others tracing to Imp. Louisa of the Syme sort, among which are several exceptionally thick, choice individuals, to wit: Lady Anne 8th (imp.), bred by John Marr, sired by the great bull, Luxury; dam by Scottish Victor; she is a Bruce Mayflower, an extra choice cow that has a capital three-months-old bull calf, by Imp. Royal Bruce. Miss Ramsden 11th is another grand good cow, the dam of a six-months-old bull calf, by the stock bull. Island Speed is a Margaret-bred cow, another real good one, and the dam of a red yearling bull, by Imp. Royal Bruce; this is an extra good young bull. Beauty of Hillview is a daughter of Imp. Indian Chief, a Louisa-bred cow; she has a red yearling bull, by the stock bull, a straight good kind. Hillview Lassie traces to Imp. Daisy; she is a very heavy and persistent milker, and is the dam of a red yearling bull, by the stock bull. Crimson Star, by Magnet =37614=, is a Crimson Flower. Her daughter, Hillview Crimson Flower, is a red yearling, by Imp. Royal Scot, the stock bull; she is a show heifer of a high order. Luella, Vol. 21, is a Duchess, by Imp. Keith Baron; she has a beautiful roan nine-months-old heifer, by the stock bull. Others are the get and carry the blood of such noted and richly-bred bulls as Premier Earl (imp.), Vice Consul (imp.), Vensgarth (imp.), Lord Kintore (imp.), Hospodar (imp.), Royal Prince (imp.), Lord Rosebery (imp.), etc., many of which are prizewinners of more or less note. There will also be sold the stock bull, Imp. Royal Scot =60866=, by Buccaneer; dam Duchess Annie 11th, by Colonel; grandam by British Beau; he is a massive red bull, of up-to-date type and a grand getter. Other bulls to be sold are a red yearling, by the Imp. Miss Ramsden bull, Waterdon; dam Moss Rose 6th, a Bruce Mayflower; grandam Imp. Moss Rose, by Count Arthur. Another is a red yearling, by Imp. Royal Bruce; dam Daisy Blossom, a Princess Royal, by Imp. Merryman. Here are a pair of show bulls, whose sires are imported.

When Writing Advertisers
Please Mention this Paper.

GOSSIP.

BELMAR PARC SHORTHORNS.

Excelled by none, equalled by few, the Belmar Parc herd of some 86 head of imported and Canadian-bred Scotch Shorthorns, the property of Mr. Peter White, Pembroke, Ont., will stand comparison with any herd in America. In fact, it is doubtful whether there is in any other one herd on this continent a choicer lot of heifers. A recent addition is the new importation, consisting of four exceptionally choice heifers and one bull. The heifers are: Dorothy's Rose, a Lady Dorothy, by Prince James, by Scottish Fancy; dam by Court's Favorite, by Bapton Favorite; is a roan yearling of thick, smooth, even type, possessing much quality, and a heifer that will take some beating next fall. Beatrice 25th is another roan yearling, by Scottish Farmer, by Prince of Archers; dam by Lancelot; her breeding being the same as the Cruickshank Butterfys. She is an extra thick, mossy heifer, a high-class show animal. Mary Ann is a roan, ten-months-old Mysie; sired by Lord Lyndoch; dam by Cyprus, by William of Orange. This heifer shows grand form, and will certainly be heard from later in the show-ring. Rosa Hope 26th is another ten-months-old heifer; red; sired by Darius, by Count Majestic; dam by Prince of Fortune; grandam by Village Archer. She, too, is one of the thick, even, up-to-date kind. The bull is a red yearling Bandolier, by Sittyton Royal; dam a Cruickshank Butterfly, by the Lavender bull, King's Pawn. He is an exceptionally well-quartered young bull, a rare good handler, and will make an extra good one. Another of the importation, since dead, was the cow, Blythesome 23rd, by Bapton Tyrant; dam by Golden Victor. She was a first-prize winner in Scotland, and has left a heifer calf by the \$1,400 Lavender bull, Scottish Royal. Altogether, this is one of the best lots that has been imported to Canada for a long time, and few breeders have the pluck to pay the prices necessary to secure them. Individual description of the herd is out of the question, as space is limited. Suffice it to say that from the breeder's standpoint every strain or tribe of the breed that have been noted for individual excellence or good-doing qualities is represented here. Very many of them are imported. Many more are bred from imported stock; while the show-ring complexion of the herd is too well known among Shorthorn breeders to need specializing here. We cannot pass, however, without a word or two relative to a few of the superb heifers. Last fall's junior champion at Toronto, Mina Lass 14th, shows a considerable thickening since we last saw her, and we fancy there will be more champion honors coming her way in the future; and her two half-sisters, Red Mina and Red Rosemary, look very much like future winners of high honors. One of the very best things in the stable is the roan junior first-prize winner at Toronto last fall, Belvedere Lily, a heifer immensely thick, as soft as a feather bed, and, without doubt, one of the very best heifers alive in this country. These are only a few of the 20-odd pretty-nearly-as-choice heifers. The stock bulls in service are: Nonpareil Archer (imp.), by Prince of Archers, dam Nonpareil Blossom 2nd, by Sittyton Sort; Marigold Sailor, by Sailor Champion, a son of the great Royal Sailor (imp.), dam Marigold, by Imp. Prime Minister; Proud Gift (imp.), by Golden Gift, dam Pride 18th, by Minatour of Daimeny, and Huntleywood 3rd, by Cicily's Pride (imp.), dam May Queen, by Lordly Archer. Here are a quartette of stock bulls whose equal it would probably be safe to say could not be found in any other one herd in this country. And we shall not be surprised, if, at the Canada National of 1908, the grand champion be found in this bunch. In young bulls there are several the get of the above sires, and out of big, thick, royally-bred cows, imported and Canadian-bred, show stuff among them, and the making of high-class herd-headers. Anything in the herd is for sale. The farm lies in the outskirts of the town of Pembroke, only a few hours' ride from Toronto per C. P. R. Intending purchasers can get in touch with the advertiser at any time by long-distance 'phone.



During the last few years the losses from barns struck and fired by lightning have been enormous.

You never know when it may be your turn—unless you take the only sure way of avoiding lightning's havoc. That is to cover the roof of your barn with Galt "Sure-grip" Steel Shingles, and connect by conductors to the ground.

or cover the sides also with Galt Steel Siding, as shown on the right of ad., or to armor the barn with Galt Corrugated Steel Sheets, pictured on left of ad. Then your barn is fire proof, as steel cannot burn, and lightning merely glides over it and escapes into the ground. Wind and rain have no effect on these kinds of buildings, either. Galt "Sure-grip" Shingles make the

best roofing that has yet been devised. Quickly and easily laid—will not leak, and cannot be blown off; neither do they rust, warp, crack or curl up. Cheap as common shingles, neat and attractive in appearance, built to last a life-time. No roofing investment can compare with Galt "Sure-Grip" Shingles.

More information in our Free Illustrated Catalogue, which we are anxious to mail to you.

THE GALT ART METAL COMPANY, Limited, Galt, Ont.

—THIS IS THE SHEET METAL AGE.—

Galt "Sure-grip" Shingles

THE REFINING INFLUENCE OF MUSIC IS ONE

of the greatest factors in moulding character, therefore all loving fathers and mothers will see that their children have the advantage of a musical atmosphere in the home.

The first step should be the selection of a

Sherlock - Manning ORGAN

which is recognized by all competent judges as an instrument of distinctly superior excellence.

We will gladly send you complete information, and tell you where you can conduct a personal examination on the Sherlock-Manning Organ.

Write to-day.

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

Hereford cattle are beginning to move pretty freely as spring appears in sight. Mr. J. A. Govenlock, Forest, Ont., reports that he has recently sold four out of his noted Forest View Farm herd, which won in 1907 thirteen champion prizes, nine grand champion prizes, eighty-five firsts, thirty-five seconds and five thirds, certainly a remarkable record, and one Mr. Govenlock may well be proud of. The purchasers of these young bulls are: George Clear, Wallaceburg, Ont.; D. C. McKenzie, Strathburn, Ont.; Neil McCall, Forest, Ont.; Patrick O'Brien, Kansas City, Mo. These gentlemen are certainly to be congratulated on securing sires from this famous herd.

WHEN WRITING ADVERTISERS PLEASE MENTION THIS PAPER

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 80 cents.

BARRED ROCKS—Cockerels at \$1.50 to \$2. Best utility and exhibition strains. See my winnings at Midland and Lindsay. First-prize cock only \$4. A. E. Donaghy, Colborne.

BUFF Wyandottes. All high-class stock. Won all prizes at Seaford, Brantford and Mitchell shows. Some choice stock for sale. Eggs \$1.50 per setting, and orders filled in strict rotation. A. D. Sutherland, Seaford.

BRONZE turkeys for sale. Extra fine birds. Good weight. Brilliant plumage. Francis Docker, Dunnville, Ontario.

FOR SALE—Rouen ducks, mated, not akin; large, good color, and have been winners wherever shown. Jas. M. McCormack, Rockton, Ont.

FOR SALE—Two thoroughbred Light Brahma cockerels. Apply: Archie Aitchison, St. Helens, Ont.

FOR SALE—Pure-bred Buff Orpington cockerels and pullets, bred from prize stock. Pullets, \$1 each to \$2; cockerels, \$3 each. P. Crockett, 980 Richmond St., London, Ont.

INGLE NOOK POULTRY FARM offers special bargains in a few choice White Leghorn cockerels. Order quick and get first choice. Only \$1 each. W. H. Smith, 41 Spruce St., Toronto.

MAMMOTH Bronze turkeys. Stock from the first-prize tom, Western Fair, 1907. G. E. Nixon, Arva, Ont.

MAMMOTH B. turkeys for sale, bred from imported stock. Young birds look 1st and 2nd at London, 1907. Pairs and trios mated not akin. R. G. Rosa, Glanworth, Ont.

MAMMOTH Bronze turkeys for sale. Bred from a heavy prize-winning tom and high-class hens. T. Hardy Shore & Sons, Glanworth, Ont.

PLUM Creek Barred Rock and Silver Grey Dorking cockerels for sale. Good birds. Stanley S. Garland, Pinkerton, Ont.

PURE-BRED Barred Rocks, White Wyandotte and White Leghorn cockerels, \$1 each. John E. Morgan, Wales, Ont.

ROUEN ducks for sale. Won first prizes at fall and winter fairs. Write J. Imrie, Romney.

WHITE ROCK cockerels for sale. Satisfaction guaranteed or money back. J. R. Dods, Alton, Ont.

Hatch Chickens by Steam with the EXGELSIOR INCUBATOR Or WOODEN HEN

Simple, perfect, self-regulating. Hatch every fertile egg. Lowest priced first-class hatching made. GEO. H. STAHL, Quincy, Ill.

Send for free Catalogue.

There was a great swell in Japan, Whose name on a Tuesday began; It lasted through Sunday Till twilight on Monday, And sounded like stones in a can.

SCOTCH HORSEMAN

Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock. TERMS—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 80 cents.

SCOTCH des ent married, wanting a situation. Thorough horseman, can do light or heavy horses; also a practical farmer. About thirteen years with one man. W. D. Jackson, Ont.

SEED CORN—Reliable seed corn that we guarantee to grow or money refunded. The largest and most comprehensive seed catalogue published in Canada; send for it; sent free to all who write for it. Globe Seed Co., Ruthven, Ont.

SALESMAN—Here's your opportunity to learn the real-estate business without paying twenty to forty dollars. Certain circumstances enable us to place on the market a limited number of copies of a course of instructions teaching this lucrative business from A to Z, and exactly the same, except original cover, as sold the country over at twenty dollars, and very highly praised, or money refunded. This course is all in one book. No "Tommy Rot" co-operation about it. Price, \$9.50. How this happened is our business, yours is to get the book, so order to-day if you expect one. Positively no letters of enquiry answered, as this advertises the story. The Graves Adv. Agency, Graves Bldg., Cleveland, O.

WANTED—Situation by married man as herdsman. Experienced breeder and feeder of hogs and cattle. Reliable and temperate. Or would work farm on shares. Ira L. Howlett, Keldon, Ont.

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

WANTED—Competent single man to work by the year. State wages. Apply: H. G. Arnold, Maldstone, Ont.

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

FOR SALE! A Carload Heavy Horses from our work. 8-me large mares. To be sold reasonable. Apply: WM. WILKIE (HENDRIE & CO., LIMITED), Toronto Ont.

"Now," said the vicar, "can anyone tell me what a lie is?"
Immediately a small hand shot up.
"Well, my little man?"
"Please, sir, a lie is an abomination unto everyone, but a very pleasant help in time of trouble."



We Invite Dealers to Write for Our Handsome New Catalog

We would like to send you our handsome new Catalog. It tells a great deal about Frost Fences, but there is one feature we want to impress upon you very forcibly, and that is, "Frost Fences are lasting fences." In fact, the only objection an agent might have to them is that they wear too long, but that is where they score with the users. With the Frost reputation for lengthy service as a foundation stone, you can build up a larger, more profitable and permanent fence business.

For the man who requires a ready-made fence there is our New Frost Woven Fence, with its greatly superior tie that needs no short kinking of wires. And our old reliable Frost Field Erected Fence is for the farmer who prefers to build the stiffest and strongest fence that can be put up.

The Frost dealer, with his complete line of superior goods made by one manufacturer, has a great advantage over his competitor. If he sells the farmer Frost Field Erected Fence for the front of his farm, where something especially attractive is desirable, it stands to reason he will return to the Frost agent when he needs a Woven Fence or Gate, because one Frost product satisfies so completely that it invariably sells another.

Now, you can readily see, if you desire to become a Frost agent, it will be wise to take your pen in hand right away, before some one else gets in ahead of you, and write us for dealer's catalog and available territory. And remember always to keep our two locks before your mind's eye. They mean positive assurance of fence endurance.

Frost Wire Fence Company, Limited, Hamilton, Ontario
Manitoba Frost Wire Fence Co., Ltd., Winnipeg, Manitoba

"Frost" Fence

GOSSIP.

SPRINGHILL AYRSHIRES.

The record of the Springhill herd of Ayrshires, owned by Robert Hunter & Sons, Maxville, Ont., for a number of years past at the leading Canadian and American exhibitions, is an enviable one, and one seldom attained by any individual herd. Up till two years ago, when the herd was dispersed by auction at record prices for the breed, the Springhill herd was invincible, and practically cleaned the board wherever shown. Since then several importations have been made, but so great has been the demand on the herd for choice show and breeding animals that the Messrs. Hunter have been unable to keep a show herd together that would satisfy their idea of what a show herd should be. At the present time they have on hand about 60 head, 45 of which are imported. Nearly all the others, young things, were imported in dam, the great majority of these are the daughters of Record-of-Merit cows in Scotland. The older ones, since arriving here, have demonstrated their ability along producing lines by giving from 7,809 to 11,094 lbs. of milk in a thirty-eight weeks' test, and that with the poor pasturage of last summer. Among the younger things are two three-year-old heifers, sired by the Scottish champion, Auchenbrain Hope Again. Five of the yearling heifers are daughters of Auchenbrain Good Hope, a very high-priced bull sold to go to Australia. Then there are six imported yearling heifers and nine imported two-year-old heifers. All old enough are being bred to the stock bull, Lessnessock Durward Lely (imp.), a son of the great sire, Bargenock Durward Lely, who sired the first, second, third, fifth and sixth-prize yearlings, and the first, second and fourth-prize two-year-old heifers at Ayr last year; dam Burgenock Blossom 3rd that in twenty-eight weeks gave 9,100 lbs. milk that tested 4.6 per cent. He is a bull of wonderfully perfect type, exceptionally true in line, a grand show animal. With these high-class, richly-bred heifers in calf to this bull, they should be interesting buying for anyone looking for the cream of the breed. In still younger stuff there are six heifer calves, from three to six months old, and three bull calves, about four months old, all imported in dam. Mr. Hunter is shortly leaving for Scotland for another importation. He intends to bring nothing but the best to be procured, and is prepared to select for anyone favoring him with an order. Parties wishing anything special should send in their orders without delay, as the time is short. Anything in the herd is for sale.

Mr. O. Sorby, Guelph, is reported to have sold the champion imported Clydesdale stallion, Acme (10485), by Baron's Pride, to Mr. R. M. Holby, Manchester, Ont., for \$2,000. Acme is now in his ten-year-old form, and has proved himself a sire of high rank.

Mr. H. J. Davis, Woodstock, Ont., in a note regarding the late joint sale of Shorthorn cattle in that city, writes: "I would like to say that good cattle still have a fair value, and this sale demonstrated the fact that only these are wanted. Another lesson learned was that readers can co-operate and manage their own sales without Government aid or assistance, and business men of Woodstock did a wise thing in erecting a sale pavilion for such events. The manager is already being offered contributions of good Shorthorns for next year's sale, and, being situated as Woodstock is for railroad and other conveniences, we bespeak for it the success it deserves."

Attention is again called to the advertisement of the first-class 150-acre farm offered for sale by D. A. James, Dorchester, Ont., seven miles east of the city of London, and two miles from Dorchester Station (G. T. R.). This is a rare good chance to secure a first-class farm and buildings in one of the most prosperous districts in Canada.

You'll not find a more pliable roofing than Brantford Roofing, because there isn't one made, and you'll experience considerable difficulty in trying to find one closely approaching it in elasticity.

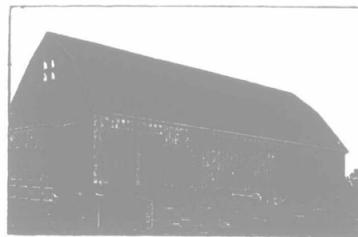
This Elastic Toughness is a Permanent Feature of

Brantford Roofing

It retains it in all conditions of weather. Frost, which makes many a roofing brittle enough to crack when you bend it, does not affect the pliability of Brantford Roofing.

Get Samples

of this phenomenally durable roofing (Asphalt and Rubber Finishes) from your hardware dealer, or direct from us, and examine it. You'll find it coincides with your own views as to what a good roofing should be. Sold at as low a price as is possible for a really good roofing.



Brantford Roofing Company
Limited
Brantford, Canada.

SALE DATES CLAIMED.
Feb. 12th.—John E. Disney & Son, Greenwood, Ont., Shorthorns and Clydesdale mares (imported and home-bred).
Feb. 14th.—R. H. Reid & Sons, Pine River, Ont., Shorthorns.
Feb. 25th.—Geo. Rice, Tillsonburg, Ont., Holsteins and Yorkshires.
Feb. 26th.—Stephen Nicholson, Sylvan, Ont., Shorthorns.
March 3rd.—S. J. Pearson & Son, Meadowvale, and F. A. Gardner, Britannia, Ont., joint sale of Shorthorns.
March 4th.—Provincial sale of pure-bred cattle, at Guelph.
March 5th.—Joint sale of Shorthorns at Hamilton, Ont., W. C. Edwards & Co., Rockland; Sir Geo. Drummond, Beaconsfield, and Peter White, Pembroke.
March 6th.—Robert Miller, Stouffville, Ont., Shorthorns.
March 18th.—N. A. Steen & Sons, Meadowvale, Ont., Shorthorns.
Mr. D. Allan Black, Kingston, Ont., advertises that he will exchange Shorthorn cattle for pure-bred or grade sheep.

BOOK REVIEW.

"SUCCESSFUL FARMING" REVISED.

In 1900 the agricultural public welcomed the announcement that Wm. Rennie, the noted farmer, founder of the seed firm which bears his name and for the previous six years farm superintendent at the Ontario Agricultural College, had written a book, "Successful Farming," embodying his views and farm practice—a practice which had produced phenomenal results on the College farm, and which since then has proven equally successful on the Rathbun Co.'s farm, at Deseronto, where, by up-to-date methods combined with frugality, he converted an annual loss of \$5,000 a year into a profit of \$2,000 in the second year of his management. As a successful farmer, Mr. Rennie is, therefore, well qualified to discuss "Successful Farming." The first edition of his book, however, while meeting a long-felt want for a simple, practical treatise on Canadian agricultural science and practice, suffered somewhat from hasty preparation, and as years passed and agriculture developed, the need of revision became apparent. This has now been met in a second edition recently to hand from the printers. As the outcome of his later experience and investigations, much valuable information has been added, and we are particularly pleased to observe considerable space devoted to alfalfa, which the author declares is destined to revolutionize farming in this country. It is especially recommended for side-hills that are difficult to cultivate. His principles of crop rotation (four-year) and stock husbandry, while radical, possess many points of merit, and many of his ideas are coming into increasing popularity among our best farmers. No department of the farm or farm home seems to have been overlooked, and the book is one that should be in every Canadian farmer's bookcase. Price, through this office, \$1.50 (postpaid).

TRADE TOPICS.

INDEPENDENT RURAL TELEPHONE.—Now is the time to plan for starting rural-telephone lines, or improving systems already in existence. The Canadian Independent Telephone Co., of Toronto, offer, in their advertisement in these columns, to supply free information of value on this subject.

THE TEMPLIN MANUFACTURING COMPANY, of Fergus, Ont., advertise in this paper their Perfection grain separator, specially adapted to the cleaning of seed grain, an important consideration in keeping the farm clear of noxious weeds and securing the highest yields of the best quality in all field crops. This firm also manufacture sleighs, wagons, etc. See their advertisement, and write them for particulars.

THE CANADIAN BANK OF COMMERCE

ANNUAL MEETING.

The forty-first Annual Meeting of the shareholders of The Canadian Bank of Commerce was held in the banking house, at Toronto, on Tuesday, January 14th, 1908, at 12 o'clock.

After the report presented by the Directors had been read to the meeting, the General Manager, Mr. Alexander Laird, spoke as follows:

GENERAL MANAGER'S ADDRESS.

We have come to the close of a year unprecedented in the history of financial stringency, and as it was world-wide in effect we in Canada have not escaped from the results of our own great expansion in trade, and the inevitable contraction of credit which comes as a check in the midst of prosperity throughout the country. Notwithstanding the unfavorable events of the year, the statements of the Bank, which we have pleasure in submitting, are the best in its history. It is needless to say that with the present outlook we must again repeat the warning to you not to expect a repetition of such large profits. The check upon the volume of business has been later in coming than some of us expected, but it has now actually come, and with a disposition on the part of the public towards the liquidation rather than the creation of debt, the volume of banking business must decline and profits be correspondingly affected.

The net profits for the year amount to over 17½ per cent. on the capital of the Bank, and exceed those of last year by \$11,224. We have during the year paid four quarterly dividends of 2 per cent., or at the rate of 8 per cent. per annum, and after devoting the large sum of \$350,000 to expenditures on Bank Premises, and making the usual provision for the Pension Fund, we have carried forward a balance of \$675,912.10 at credit of Profit and Loss Account. Now that the Rest of the Bank equals the sum of fifty per cent. of the paid-up capital, our recommendation will be that transfers to that account be made in even millions, and that in the meantime the unappropriated profits should be carried forward at the credit of Profit and Loss Account.

Our deposits during the year show a small decrease, namely, \$111,000. The decrease is altogether in deposits not bearing interest, which are composed of the fluctuating balances of various business communities, and are, therefore, in the nature of things subject to rapid changes. A year ago we pointed out that some of the deposits then held were of a temporary character, and we deem it proper to say that at the close of this year also a considerable amount came under this category. In common with other banking institutions, a real shrinkage of deposits will probably result through withdrawals of money, which, but for the present emergencies of trade, would remain with us. On the other hand, our deposits bearing interest, being those of a more stable character, have increased during the year \$1,584,000.

The administration of the affairs of the Bank during the past year was fraught with unusual difficulties, but we look forward with the confident expectation that with our organization we shall be able to conserve and maintain a high standard of efficiency in the management of the great interests committed to our care.

The President, Mr. B. E. Walker, then addressed the meeting, dealing in his usual way with commercial conditions in the world generally, but especially in Canada and the United States. He said in part:

PRESIDENT'S ADDRESS.

At the end of a very eventful year in the financial world, it cannot be truthfully said that any business man in Canada was without warning, even if he found himself quite unprepared for the new conditions he was called upon to face. Nor can it be truthfully said that the banks, as a whole, have failed to do as much for the borrowing public as the latter had a right to expect. Indeed, when we consider the rash and ignorant criticism of the banks heard in communities where the stringency in money has been most keenly felt, it seems al-

most as if it were useless to offer a signal of danger to the borrowing public so long as prosperity is in full force. A year ago this bank did its part in offering a warning which events have shown to be justified, but this warning was actually regarded as an evidence of total inability to understand the true business conditions in the West. Canada was doing more business than was justified by the money at our command at home, or that could be secured abroad by the sale of the securities the country was creating, although it was not producing even sufficient merchandise to meet the demand or building to any degree in advance of immediate requirements. We were, however, importing far in excess of our exports, and, generally, we were mortgaging our future, not, as a rule, in the case of each individual, municipality, industrial company or railway, beyond what could be plainly justified if money were easy, but beyond what was wise, having regard to the world-wide condition of the money market which has been so marked in recent years. Now that the check upon our expansion, which we would not make of our own accord, has, in a measure, been forced upon us, we shall doubtless rapidly adjust our affairs to the new conditions, and I shall be surprised if we do not eventually conclude that, as a borrowing country, we have escaped the more serious troubles of our neighbors, have not failed to sustain the high credit Canada enjoys in Great Britain and elsewhere in Europe, and that the banks, even if no more free from blame than other members of the business community, have really done all that could fairly be demanded.

While Canadians have taken a natural pride in the great growth of their foreign trade, which has increased from \$257,168,000 in 1897 to \$617,944,000 in 1907, some remark has seemed necessary each year upon the large excess in our imports. For the year ending, midsummer, 1906, the two had so approximated that the excess of imports was only \$37,680,000 in a foreign trade of \$550,854,000, but for the year ending, midsummer, 1907, we have an excess in imports of \$101,601,000, our exports being but little larger than for the previous year, while our imports are about \$65,000,000 more. The first three months following midsummer, 1907, showed no tendency towards improvement. We cannot build a third transcontinental railroad in addition to providing for the large growth of older railroad systems; we cannot take care of an enormous and unprecedented inflow of immigrants; and we cannot build up new towns and cities by the hundred, without largely increasing our purchases as compared with what we have to sell. That is what we mean by mortgaging our future. After we make allowance for the wealth brought in by the immigrants themselves, and by the many men with capital who come, mainly from the United States, to establish industries or to become merchants or important farmers, the total of which must be very large indeed, the greater part of the sum required to liquidate this excess of imports must be obtained from the sale of our securities abroad. The railroad corporations provide their share, and generally in advance of its expenditure, but our towns and cities have of late years sold their bonds so readily that they have not hesitated to spend money in very large sums on improvements, the bonds for which cannot, as a rule, be legally issued until the work is completed. At the same time, many industrial companies have been spending money and depending on foreign markets for the sale of securities with which to replace the capital required for such expenditures. In ordinary times such a course would not seriously inconvenience Canadian finances, but coming in a year when the balance against us was so large, our crops below the normal, and the money markets of the world in the worst possible condition for all borrowing countries, it would have been strange if we had not experienced considerable discomfort. We can, however, congratulate ourselves on the soundness of our business conditions apart from the lack of capital, and this has enabled Canadian enterprises

to obtain money in European markets on easier terms than many other countries. The course we should follow in the immediate future seems plain. In all cases where important expenditure for public or private works is contemplated we must be assured as to securing the capital before undertaking the work, and this doubtless means that we must go more slowly for a few years. Whether we like the discipline or not, the results will certainly be good for Canada in many ways.

The scarcity of money arises from various causes. Roughly speaking, if one man wishes to borrow, another man must have saved in a shape ready for investment. If the world is in a debt-paying, and, therefore, also a saving mood, it will set aside annually more savings than are needed; and if the world's trade is expanding and profitable, and extravagance is therefore general, the reverse will be the case. One great French economist has endeavored to state the conditions of the world as they existed in 1906. He estimates the capital needed that year for new commitments as \$3,250,000,000, and the world's savings available for investment at not more than \$2,400,000,000 to \$2,800,000,000. There was, therefore, an enormous deficiency, and however near this may be to the actual facts, it illustrates in a forcible way what the world is trying to do, and why interest rates have risen and the prices of all securities, no matter how excellent, have fallen. When we look at ordinary commercial banking operations connected with the production and movement of commodities, we must realize that as against an increased gold supply and the increased credit made possible thereby, there have been two factors tending to increase the load of credit to be carried. First, a great increase in the quantity or number of articles of merchandise to be carried; and, second, a great increase in the price of almost all articles. Clearly the world has gone too far in the one direction, and now we must look for a mood of economy, in consequence of which personal extravagance will decline and savings increase, and the pace of the world's building operations and trade movement will somewhat lessen. This will probably be accompanied by a fall in wages, however regrettable, and by a fall in prices generally, although the steady increase in the gold output of the world and the power of certain great industrial organizations may be opposing factors to any large and permanent decline.

ONTARIO AND QUEBEC.

Agricultural conditions in the different parts of Ontario and Quebec have rarely been so varied and so difficult to describe in the few words at our disposal. The late spring—unfortunately, general throughout Canada, and, indeed, throughout a large part of the world—was followed in these Provinces by unusually dry weather, and doubts existed at one time or another regarding almost all crops. In the end results were very varied, even in the same districts, and, of course, the yield as a whole is much smaller than usual. But in one respect all farmers have benefited alike—the prices of everything produced on the farm have been higher than in the previous year. This factor, as far as many parts of Ontario are concerned, has caused the money result to be not very different from other years. Wheat, no longer a very important crop, relatively, in these Provinces, was quite satisfactory in yield in some parts, but, as a rule, considerably below the average. Oats, usually reliable, were, because of drouth, blight, and other causes, a remarkably poor crop. Hay, generally the most valuable crop in Quebec, and very important in Ontario, was very variable in both Provinces, because of many features connected with the late spring and lack of rain, and, as a whole, the yield was unsatisfactory. Where any fair percentage of a normal crop was gathered, high prices have helped the farmer materially in the money result, in many cases leaving him as well off as in other years.

Those who sold cattle and hogs early did well, but financial conditions in the United States and lower returns from Europe have caused a sharp drop in the prices of both, and those who did not sell are unfortunate for two reasons—they must either hold until spring, and pay unusually high prices for feed, or do as many are doing, sell stock at low prices, whether ready for market or not. It is in the dairy department, however,

that the effect of the lean pastures shows most clearly. Last year we had to note record results in money from the exports of cheese and butter combined, namely, \$26,000,000. This year the total only slightly exceeds \$20,000,000, and the loss is mainly in butter. The quantity of cheese is somewhat less than in any year since 1901, but the average price obtained was phenomenally high, and the result in money was only about nine per cent. below 1906. But in butter, what with the actual shortage in make, and an extraordinary consumption at home, the exports from Montreal, which for the previous nine years had averaged 418,429 packages, with an average value of \$5,537,403, actually fell to 66,773 packages, with a value of \$942,000. Although a high price for butter ruled during the year, it is clear that it paid the farmer better to make cheese, and thus almost all the shortage is shown in the one article. It is also to be remembered that the quantity of butter available for export is always small relatively to the total production, so that in a year of lessened production and increased home consumption it is not strange that the surplus has nearly disappeared.

The crop of apples has been variable in quantity, with good prices, and, as a whole, the results are quite satisfactory. The exports from Montreal were 626,000 barrels, against an average of 862,000 barrels for the preceding seven years.

Without referring to other aspects of farming, grazing and dairying, it is plain that we have had an off year, which surprises us because of the many years of unusual prosperity enjoyed by the farmers of this part of Canada. But still the year, because of high prices prevailing in almost every article and good yields in some crops, has left our farmers in many parts of Ontario with little cause for complaint. As a rule, collections from farmers and others have been well maintained, even exceeding other years in some districts.

Until the financial stringency began to have some effect, no diminution in the output of manufactories was visible; indeed, they were doubtless never so busy before. The only evident checks upon the output were difficulty in obtaining labor and raw material, and shortage in car supply. For these reasons most manufacturers were continuously behind in their deliveries, and the refusal of orders because of inability to make more goods was a frequent occurrence. The banker has for some time past been urging a curtailment of output because of world-wide money conditions, and clearly this will now take place. We have not, however, been witnessing an overproduction of goods; indeed, part of the large increase in our imports has been clearly due to the inability of our own manufacturers to cope with the demands of the buyers. With the rapid settlement of our West, and with normal crops, our purchasing power will, we hope, remain sufficient to keep our manufacturing establishments well employed.

Building in towns and cities throughout Ontario and Quebec was already showing signs of a check, because of the high prices of material and labor, and this tendency has now been sharply accentuated by the tightness in money. Although dwelling houses are hard to obtain in almost every growing town, any abatement in the volume of capital being fixed in either private or public improvements must be welcome at present.

Until the effect of dear money in the United States began to be felt, the demand for our lumber was strong and prices were higher even than for the previous year. For the moment there are few buyers, but sellers are not inclined to lower prices materially. Money conditions and other causes will cause most operators to lessen their cut this winter, and the Ontario and Quebec lumbermen, who are near the great markets of consumption in the United States, do not anticipate much trouble in marketing their next season's product. Foreign markets are, however, uncertain, and the future is not as clear as in recent years. A fall in wages has already taken place, and in other elements of cost in lumbering there will doubtless be a reduction in consequence of the restriction of output and the stringency in money.

In mining, the Cobalt district is likely to give Canada a definite rank among the silver-producing countries. Of course, the bulk of the world's silver is produced by Mexico and the United States, and we cannot hope to reach the rank of these

countries. We hold now, however, the fifth place among the silver-producing countries, and a little further development might easily put us in the third or fourth position. The product for 1907 from the Cobalt district is valued at about \$6,000,000, against about \$5,500,000 altogether for the years 1904-5-6—that is, since the foundation of the camp. Satisfactory development work continues, and many of the mines are working lower levels with success. Much excellent machinery is being installed, and very substantial buildings are being erected. Indeed, the camp appears to have settled down to legitimate mining on a comparatively large scale. We have not as yet the figures for 1907, but the total value of minerals of all kinds, metallic and non-metallic, produced in Canada in 1906, was about \$80,000,000—a very considerable advance over previous years.

MANITOBA, SASKATCHEWAN AND ALBERTA.

So much has been written and said about the crop conditions of the Prairie Provinces, and these conditions have varied so greatly in different districts, and have changed so rapidly from time to time, that it is a relief and a pleasure to be able to report that the money result from all cereals will certainly be about \$85,000,000, and will, perhaps, equal the result from the crop of 1906. Of course this is due to the high price set against the much smaller quantity, and the great loss in grades due to frost. Had the season been a normal one, and had prices, which are not appreciably affected by our crop, remained high, our Western farmers would have enjoyed a prosperity exceeding anything they have known. Apart from the difficulties of transporting and financing the grain, the unfortunate feature of the crop has been that the results fall so unevenly as to districts. In the main the fair results have been enjoyed by those districts which could have borne poor crops, while the most meagre results have often come to the newest districts. Our estimate of the crop of 1906, which has since been verified by the latest returns of the actual outcome, was 190,000,000 bushels of cereals, as compared with 167,000,000 for 1905. Our estimate for 1907 is 160,000,000, divided as follows:

Wheat	70,000,000 bushels.
Oats	75,000,000 bushels.
Barley	15,000,000 bushels.

With two years' increase of settlement this is not a good showing, but it is too slight a falling off to distress anyone living in the West. The average yield per acre is, of course, low: wheat, 14 bushels; oats, 33, and barley, 25. About half of the wheat will grade as fit for milling—No. 4 or better. Oats suffered more from frost than wheat, and about two-thirds of the crop is of the lower grades.

After a winter of severity, greater than had been known for a quarter of a century, the farmers succeeded, although a month later than for many years, in sowing an acreage as large as that of 1906. The growing season in Saskatchewan and Alberta was all that could be desired, but in Southern Manitoba the rainfall was quite insufficient; so that, barring frost, it seemed as if the two Western Provinces would show excellent results and Manitoba would disappoint us. But frost came to the late-sown crops and did an amount of damage hardly recognized at the time, so that in the end Manitoba, where conditions had improved, and Southern Alberta, produced the best crops, both in quality and quantity.

Apart from the peculiarities of the crop of 1907, the difficulties of marketing the crop have been so pronounced and have caused so much discussion in the newspapers, that it may be well to refer frankly to some of them. The farmers blame the grain dealers as to price, both farmers and dealers blame the railroads as to car supply, and for the first time in the history of the Northwest the banks have found it difficult, because of the many demands by borrowers, to release the money necessary to carry the grain to market. One might think from some recent criticisms that these difficulties had never been heard of before, whereas they have accompanied the marketing of grain and cotton in the United States, from time to time, through the entire history of its settlement. We have been proceeding upon the assumption that the railroads carry to the point of lake

navigation all the grain the farmers choose to market in the few weeks between threshing and the close of lake traffic, and that the banks cannot only take care of this but also find the money for the entire balance of the crop as the farmer chooses to sell it during the winter, and await the liquidation of such advances in the late spring or early summer. Now, we may as well recognize the fact that when the crop is materially larger both of these things will be impossible, even with an ordinary money market. The grain and cotton crops of the United States have been moved largely by European credits, in addition to local loans, and this has been a sound system financially, because ultimately sufficient grain or cotton goes forward to Europe to liquidate such credits. Of late years in the United States dealers have been able to move the grain crops without much outside assistance, but not the cotton crop, and this is really because the point of consumption for most of the grain is now at home and not in Europe, while a great part of the cotton crop is still sold in Europe. We are a young country, with little accumulated capital relatively to our wants, and, like the United States of twenty or thirty years ago, we must use the credit of Europe to some extent for our grain carrying, redeeming such obligations as the grain goes forward.

Now, the reason why it has been feasible for the United States to borrow quite readily very large sums of money against grain in store, is because for the last thirty years or more everything possible has been done at such places as Chicago and Minneapolis to assure the lender that he had grain of a certain grade in the hands of a terminal warehouse, the owner or officers of which could have no object, and, because of weighing and inspecting supervised by the State, no power to dispose of the grain except in accordance with the State-countersigned receipts. The banking and elevator interests of Winnipeg have been steadily endeavoring to improve the conditions surrounding terminal receipts in Canada, and the system at present in use will give any foreign as well as any domestic banker a most perfect form of security.

Winnipeg holds the second place in America in the volume of grain trading, and everything which can be done to make this great department of our commerce work satisfactorily should have the patient consideration of all concerned. There seems to be little doubt that many of the provisions of the Dominion Act, known as the Manitoba Grain Act, are unsatisfactory to the farmers, the railway companies, the elevator companies and the banks. Designed originally, no doubt, to protect the farmer, it can be so made use of by dishonest people as to cause to others serious delays in transportation and losses in money, and in the final result it must hurt many more farmers than it benefits. So long as it is possible for hundreds of orders for single cars to be placed in the names of people who have actually no grain to ship, it cannot be also possible for the elevator companies to get cars to ship grain with reasonable promptitude, or to place the blame for lack of cars with any precision upon the railroad companies. It seems clear that the Act should be entirely reconsidered and amended before we enter upon another season.

In the cattle business the striking feature, of course, was the very heavy losses on the ranges, caused by the severe winter. It will doubtless take two or three years for the stock of cattle, horses and sheep on the ranges to get back to a normal condition. Meantime prices are likely to be good, even though dear money and lack of cars may effect the situation for the moment. The fact that several shipments of Alberta cattle have been made to Chicago via Montana with highly satisfactory results, shows the natural widening of the market coincident with the decline in the supply. It is to be hoped that the farmers of the three provinces will now be firmly impressed with the wisdom of breeding cattle, horses, sheep and pigs to an extent not attempted heretofore. Not only does the lessening for the time being of the number of cattle on the ranges seem to assure the farmer of good prices for some time to come, but his experience with his grain crops in 1907 has proved once more that he can get the best value out of damaged wheat and oats, and

when prices happen to be low, out of any grain, by feeding it to his own stock. Wherever dairying has been developed this is abundantly clear, and we are glad to know that in many parts, particularly in Alberta, where mixed farming is more general, the farmer is able himself to use profitably all his damaged grain crops.

It would also be well if the farmers of these provinces would consider the value of raising their own poultry. The money paid out by the farmer who grows grain alone, for many of the necessaries of life which he could produce on his own farm, such as butter, eggs, poultry and pork, may seem, when he is prosperous, a small matter; but prosperous or not the loss to his province is very serious, and sooner or later it may be serious to him individually.

So far as the payment of debts is concerned, collections are good or bad in accordance with local crop conditions, but better as a whole than might have been expected.

Naturally these lessened results from agricultural and pastoral work, accompanied by dear money, have caused a curtailment in building of every kind, and this again will, as in the East, result in a much smaller cut of lumber in all districts relying on the Prairie Provinces for their market. This is from several points of view highly desirable. The cost of production was reaching dangerous figures, even though justified by the market prices, and while curtailment of building is as imperatively necessary in Canada as elsewhere in the world if we are to get the money market into an easy condition again, it was inevitable if the high prices of labor and material continued.

While it is not practicable to ascertain how many new settlers entered the Prairie Provinces, the immigration into all Canada for 1907, with the last month or so estimated, is about 280,000, of which about 210,000 are English-speaking people. This is a large gain over 1906, and whether immigration is now to be checked or not, the settlers of the last few years in the Northwest will largely aid the future prosperity of Canada after they get through their first few years of pioneering. Land sales and homestead entries are, of course, somewhat less in number, but the average price for land sold is slightly higher than in 1906, and we must remember that if the opportunity for labor in other fields declines for a time throughout the world, many will, as in similar past experiences, go back to the land. Any decline in homesteading is partly due to the increasing difficulty of getting land near to railroads; indeed, it is surprising how far settlers are willing to go, counting up the railroad coming to them in the near future. Prospectors are even going into the Peace River country, and before long it will be difficult to avoid opening it up for active settlement.

After several years of abundant crops, we have to record a year in which in several parts of the Northwest the farmers' results are quite unsatisfactory, but as a whole the country will receive a very large sum for its products, and the general result to the three provinces will still represent prosperity, although on a diminished scale. Expansion for the moment will be checked, extravagance in expenditure, even where there is no actual diminution of income, will be changed to economy, stocks of goods will be lessened instead of persistently increased, and generally we shall have a time of debt-paying instead of debt-creating.

UNITED STATES.

Taking the United States as a whole, another great crop of cotton has been raised and is being sold at good prices, and while the grain crops of 1907 were slightly less than those of either 1905 or 1906, the result with the higher price is considerably greater to the farmer, so that the agricultural basis of the country has been well sustained. During the winter of 1906-7 the money markets of the United States had, however, repeatedly reflected the fact that the expansion in building, in trade volume and in prices, common to so many different countries, had outrun the world's supply of money, and in March a short stock-exchange panic gave special emphasis to this condition. It became evident that the plans of great railroad systems, involving very large expenditures of money, could not readily be carried out; money became

perceptibly dearer for long loans, and ordinary building operations were somewhat checked. Sober financial journals suggested that we were approaching a crisis, but during the summer much was forgotten. However, during the week beginning 21st October a decidedly critical situation arose in New York, due largely to the acts of some of the larger Trust companies which had apparently forgotten the principles on which such institutions should be based. The failure of one of the largest of these companies, and runs upon several others, created panicky conditions in New York, and this state of feeling rapidly spread throughout the country, causing timid individual depositors to withdraw money and lock it up, and, a still more serious matter, causing country banks to attempt to build up reserves, in some cases needlessly large, by drawing their balances from the reserve cities. Under the banking system of the United States, because of an inelastic currency, but quite as much because of the laws regarding reserves and the peculiar system under which they can only be used for the very purpose for which they are held at the expense of breaking the letter of the law and thereby creating a panic, the effect of this hoarding of currency was to paralyze business and cause on the one hand a premium on currency for a short time as high as 3½ per cent., and on the other the creation of a temporary currency, illegal, but eminently sensible, in order to enable the business of the country to go on. At the same time gold was imported from Europe to the extent of over \$100,000,000, and while this was an extraordinary evidence of ability to apply heroic remedies to the situation, the very fact that it was necessary and possible to obtain this very large sum from Europe naturally alarmed the money markets there, because it was a concrete example of the violent and enormous forces which American trade and finance can exercise upon Europe when the pendulum has been allowed to swing too far in one direction. The situation is now steadily improving, the gold importations and the premium on currency, have stopped, and the reserves of banks are being brought back to the legal requirements. How far the enormous fall in the price of copper, and the more moderate fall in other metals and in lumber, will be followed by a general fall in the price of all commodities, it is too early to estimate. But as the wages of labor are being reduced, and large numbers have been thrown out of employment, we must expect a moderate readjustment of prices. Food stuffs do not, however, because of another series of factors, show any tendency to decline in price.

The hope has been confidently expressed on many occasions since 1893 that the United States would bring about reforms in its currency and banking systems. Partly because the situation is full of difficulties not present in most countries nothing of a decisive nature has yet been accomplished, but the demand for reform from the public throughout the United States is more persistent than ever before, and we cannot doubt that with the recent experience sharply in mind steps will now actually be taken to remedy the defects referred to. It is well for all of us residing outside the United States not to forget that while stringency in money was inevitable, owing to expansion, the extraordinary features which differentiate the monetary troubles of the United States from those of other countries are due almost entirely to their peculiar banking and treasury systems. In Canada we have an enforced revision of the Bank Act every ten years, and it is well to bear in mind that we are approaching the time when the discussion connected therewith usually takes place.

The situation bears little relation to that following the troubles of 1893, either as to currency conditions and standards, crop conditions, or volume of manufactured goods relatively to the demand, and, provided the usual crops are harvested next year, a very full measure of industrial activity should prevail throughout North America. The marketing of the actual products of the field, forest and mine of itself requires that large additions should be made to railroad equipment and that other building operations should be carried out, and if the world generally can be induced on the one hand to exercise its power of

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TRADE TOPICS.

RENNIE'S SEED ANNUAL.—The beautifully and profusely illustrated 1908 catalogue of high-class farm and garden seeds, issued by the old and reliable seed house of the Wm. Rennie Co., Toronto, has been received at this office. It should be in the hands of all interested, and may be had free by all applying and mentioning "The Farmer's Advocate." A long and honorable record in the seed business stands to the credit of the Wm. Rennie Co.

SLINGS, PEA HARVESTERS AND HARROWS.—It is always a pleasure for us to recommend the enterprising firm of Tolton Bros., Guelph, and we are accordingly pleased to inform our readers that they are now in a position to supply the trade with a satisfactory slinger, suitable for all kinds of tracking, and capable of handling all kinds of slings or forks, having a notable and interesting feature possessed by no other make of carriers, viz., that of shirring the bundles automatically when the load is being lifted, consequently no man power is required to accomplish this work as in old-style carriers. This should be remembered by those intending to purchase the most up-to-date outfit for unloading hay and grain. Messrs. Tolton Bros., owning a farm as they do in connection with their agricultural business, have facilities for thoroughly perfecting the working of the articles they manufacture, and, being always alert to produce something better than their competitors, are enabled to rank foremost in the production of their several specialties. This is particularly true of the improvements which they have been making in the pea-harvesting line, as their up-to-date pea harvester is a marvel for simplicity and efficiency in cutting and bunching the peas, being as well adapted for the work it has to do as is the mower for cutting hay and the self-binder for grain. They are busy at present preparing an output of their small steel smoothing harrows, which have a wide reputation for efficiency, as well as strength and durability.

The annual meeting of the Shire Horse Association of Canada will be held at the Walker House, Toronto, on Friday, February 14th, at 10.30 a. m.—G. De W. Green, Secretary-Treasurer.

saving to a greater degree, and on the other to moderate somewhat the pace of its industrial expansion, especially as regards the fixing of capital in betterments of all kinds, we need not fear for the prosperity of the farmer throughout North America, or that our workshops will be idle to an extent which should interfere with a sound and reasonable prosperity.

GOSSIP.

The second annual meeting of the American Black-faced Highland Sheep Society will be held at the Fifth Ave. Hotel, New York City, Feb. 7th, at 8 p. m. A good attendance of members and those interested is desired.—Frank Reed Sanders, Secretary, Bristol, N. H.

Sir A. Conan Doyle, at the Authors' Club Christmas dinner, related that in America some negroes were keeping the festival of Christmas, and they were told to hang up their stockings at night.

One poor negro had no stockings, and so he hung up his pants. In the morning he was asked what he had got in his pants. He replied:

"I guess I got a nigger, for my pants have gone."

DAIRY SHORTHORNS.

At a recent meeting of Council of the Dairy Shorthorn Association of Great Britain, held in London, Mr. C. E. Wodehouse drew attention to the judges' instructions at shows, and said there appeared to be a tendency to pay too much attention to milk, and not sufficient attention to size, quality and general excellence of the animal itself. He did not think the object of the Association would be furthered by awarding prizes to animals which had little else to recommend them than their udders. An animal with milk alone was not of much use to the breeder of pedigree cattle. He thought that the prizes of the Association should go to the 4½-gallon cow with a sweet head, good horns, even flesh, and showing quality all over—an animal which would breed stock fit for export or to go into any herd at home. Mr. Adeane suggested that they should add to the instructions to judges the words "Regard should also be paid to the type and character of pure-bred Shorthorns," and it was agreed that this suggestion should be considered at the next meeting of the Council. It was decided to give £90 in prizes at the forthcoming summer shows as compared with £60 last year. The question of publishing milk records will be considered by a committee.

IMPORTANT SHORTHORN SALE.

An important auction sale of high-class Shorthorn cattle will take place on February 14th, at Clover Lea Stock Farm, eight miles from Ripley Station, on the Palmerston-Kincardine branch of the G. T. R. This time it is representatives of the excellent herd of thick-fleshed, good-doing Shorthorns, the property of R. H. Reid & Sons, of Pine River P. O., Ont. Several times in the columns of this paper we have had something to say of the extra good quality of Mr. Reid's cattle; but this is the first time the general public has had an opportunity of getting representatives of this fine herd at their own prices, an opportunity which should be appreciated and taken advantage of. All told there will be sold sixteen head, from ten to fifteen months of age, eleven bulls and five heifers, four of the heifers are the get of the Cruickshank Brawith Bud bull, Imp. Golden Cross, now at the head of the herd. The other is got by Wellesley Chancellor, a son of the great breeding bull, Bapton Chancellor (imp.). One of the bulls is the get of the Roan Lady-bred bull, Imp. Royal Champion. Another is the get of the Mary-bred bull, King of Diamonds =60099=, a son of the Clara-bred bull, Pennon Diamond (81837); dam Imp. Mary 15th. The others are the get of the above-mentioned bull, Imp. Golden Cross. Fuller particulars of their breeding will appear next week. Conveyances will meet the morning trains at Ripley on day of sale. The terms will be nine months' credit on bankable paper, or five per cent. per annum off for cash. For catalogues address R. H. Reid & Sons, Pine River P. O., Ont.

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WE WANT MORE NAMES

Of Farmers Who Intend Building During the Present Year.

To everyone sending us three or more names and addresses of people who will build in 1908 we will give a useful present. Our only conditions are (1) that the parties named should be actual intending builders; (2) that the proposed building should be such as would be likely to use Sheet Metal Building Goods. Our leading lines are:

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"Roofers to the Farmers of Canada."

ROBT. HUNTER & SONS' CLYDESDALES.

In the selection of a Clydesdale stallion for breeding or show purposes, observation shows beyond doubt that the rank and file of farmers have a decided preference for the medium-sized horse that shows a deal of natty, stylish dash when moving, and stands on medium-sized, flat, flinty bone, covered with nice thin skin and soft, straight, silky hair. An ideal horse of this type is offered for sale by Robert Hunter & Sons, Maxville, Ont. He is Baron Colin (imp.) [4542] (12444), brown four-year-old; sired by Baron's Pride; dam by Flashwood's Best, breeding gilt-edged and extremely fashionable. He is one of the very smooth, stylish, quality horses, moving with prompt, true action, and is right in every particular, a sure foal-getter, and his get shows size and quality. He will be sold well worth the money. The Messrs. Hunter are also offering the yearling, Canadian-bred Clydesdale stallion colt, Kyama, bay, rising two years old, by The Rejected (imp.); dam Maggie of Carrick (imp.), by Royal Carrick. Here is an exceptionally good colt, very showy, smooth,

and has underpinning of rare good quality, including the best of pasterns and feet. From present indications he will make a show horse that will certainly be heard from. Both these horses can be bought right, and they are all that could be desired. Parties interested should look their way.

A Bostonian bought an estate in Scotland without having seen it, and last summer he went over to have a look at the place. The drive from the nearest railway station to Glen Accra was a matter of twelve miles. The Bostonian hired a Highlander to drive him. As the cart joggled along, the Bostonian said: "I suppose you know the country hereabouts pretty well, my friend?"

"Aye, ilka foot o' 't," the Scot answered.

"And do you know Glen Accra?"

"Aye, weel," was the reply.

"What sort of a place is it?" the American asked.

The Scot smiled grimly. "Aweel," he said, "if ye saw the de'il tethered on it, ye'd juist say, 'Poor brute!'"

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BOG SPAVIN BONE SPAVIN RINGBONE **CURB SPLINT POLL EVIL** **LAMENESS SWELLINGS SOFT BUNCHES**

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HERBERT SMITH, Manager.
(Late Grand's Repository.)

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

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

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

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

IMPORTED CLYDESDALES! 9 stallions, 1 to 6 years of age; 10 fillies, 1 to 3 years of age, several of them in foal; 1 two-year-old Hackney stallion; 1 two-year-old Shire stallion; 8 Percheron stallions, 3 years old. All are selected animals, bred in the purple. Will be sold cheap and on terms to suit. **T. D. ELLIOTT, BOLTON, ONT. Phone.**

DUNROBIN Clydesdales, Shorthorns, Yorkshires STOCK FARM. Now is the time to invest in a good Clydesdale Mare or Filly. Two good stallions for sale. Price right. Large selection.
DONALD GUNN & SON, BEAVERTON P. O. and STN.

25 Imported Clydesdale Stallions and Fillies 25
Two Clyde stallions, 1 Hackney stallion, over 20 Clyde mares and fillies, from 1 to 5 years of age. Many high-class show animals among this lot. Many winners in Scotland among them. They have size, quality, style, action and breeding. Come and see them. **GEO. A. BRODIE, Bethesda P. O., Stouffville and Germley Stations**

IMP. CLYDESDALE STALLIONS AND FILLIES.—Our new importation of stallions and fillies are the best we could select in Scotland, particularly well bred, with the size, smoothness and quality that Canadians admire. Show-ring stuff. Come and see them. Will sell on terms to suit. **JOHN A. BOAG & SON, QUEENSVILLE P. O., Ont., Newmarket Sta., G. T. R. Telegraph and telephone one-half mile from farm. Metropolitan Street By. from Toronto crosses the farm.**

IMPORTED CLYDESDALES Up to over a ton in weight, with the very richest of breeding and the best of quality. I think no better shipment of stallions ever left Scotland. I have also nine fillies, without doubt the best lot in Canada. All will be sold cheap and on terms to suit. Long-distance phone. **GEO. G. STEWART, HOWICK, QUE.**

Clydesdale Stallions! **ROBT HUNTER & SON, Maxville, Ont.** are now offering that grand quality horse, Baron Collin, imp. [4542], by Baron's Pride, dam by Flashwood's Best, four years old; also Kyama, Canadian-bred, rising two, imp. sire and dam, a big, grand, good colt, a show animal. Long-distance phone.

OAK PARK STOCK FARM HACKNEYS!
Four imported and home-bred stallions for sale. Ten imported and home-bred mares for sale. Among these are prizewinners at Toronto, Chicago and New York. Prices reasonable. Visitors always welcome to inspect stock. **T. A. COX, Manager, BRANTFORD, CAN.**

GOSSIP.

The famous Clydesdale stallion, **Clan Chattan**, now eleven years old, but looking very fresh and fit, after keen competition by a number of prominent Clydesdale fanciers at the displensing sale at Craigieburn, Falkirk, recently, was knocked down to the bid of Alexander Rennie, Greenhill, Paisley, at £170.

LOOKS ROSY FOR SHEEPMEN.

The color at present is a bright sky blue, just like one of those bright sunshiny summer days, as against the deep indigo blue of a few weeks ago, when Mr. Sheepman was wondering and figuring on the loss side of his balance sheet, but conditions have changed, and, at present, are rosy, so rosy, in fact, that feeders are walking on air and only touching the high places, showing that sometimes "all things come to him who waits."—[Chicago Drovers' Journal.]

Our readers will be interested in seeing the announcement of Dunham & Fletcher's Oak Lawn Farm, Wayne, Illinois, which appears on another page, for the history of this establishment covers the whole period of the growth of the draft-horse industry in the United States. Even as short time ago as 1878, the Percheron Studbook could speak of the industry as follows: "Since the first edition of this book was published, just two years ago, two Illinois importers alone have brought from France 42 horses and mares, for all of which they find ready sale at good prices, making a total increase of 133 to the pure Percheron stock of this country, a number of which is much less than the present annual importations of Dunham & Fletcher alone." Our readers will be interested in knowing that this firm have another importation on the way, due to arrive February 5th, which, as usual, will contain the best animals to be had in France. For over forty years this establishment has stood at the top as regards the quality of the animals they handle and fair treatment of their customers, and anyone contemplating the purchase of a stallion or mare should write or visit them before making his purchase.

MONKLAND YORKSHIRES.

The enviable reputation of Canadian bacon and bacon hogs is largely due to the enterprise of men like James Wilson & Sons, of Fergus, Ont., who have the means and the energy, coupled with intelligent judgment and a willingness to pay long prices for choice breeding animals. The Monkland herd of Large English Yorkshires is to-day one of the most noted in America. Strictly true to type, the 500 or over now on hand would certainly be a revelation to anyone not acquainted with the extent to which this firm carry on the breeding of this great bacon-type breed. An idea may be gleaned of the extent of their breeding operations when it is known that at the present time they have, bred and ready to breed, over 250 sows, imported, imported-in-dam, and Canadian-bred, many of them up to 500 to 800 lbs. in weight; long, deep-sided, strong-backed, of ideal bacon type, and, withal, remarkably easy feeders and rapid growers. At the head of this great herd are the several stock boars: Imp. Hollywell Cardiff 6th; Imp. Broomhouse Mad-rate; Monkland's Candidate (imp. in dam), a son of the twice-winner of first prize at Edinburgh, Imp. Broomhouse Hawthorne, without doubt one of the best sows ever imported, and her other sons, Monkland Lad and Canadian Duke; five stock boars, all exceptionally choice representatives of the breed. Hogs bred in this herd can now be found in every Province in Canada, and in many States of the union. The keynote of their phenomenal success and rapid increase in sales is that in every case an honest description of the animal is given. Satisfaction is guaranteed, and as soon as possible after shipment the pedigree follows. Purchasers by mail can thus rest assured that in every case they will get a square deal, and if not satisfied all they have to do is to say so, and ship the pig back at Messrs. Wilsons' expense. Just now there are about fifty young boars for sale, fit for service, but a large number of younger ones. Breeding stock can be supplied in pairs, trios, or car lots. Address James Wilson & Sons, Fergus, Ont., where they have 'phone connection (Bell system).

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ARE THEY WEAK OR PAINFUL? Do you spit yellow and black matter? Are you continually coughing and hawking? Do you have night sweats? Do your lungs ever bleed? Have you pains in chest and sides? Do you have pains under your shoulder blades?

THESE ARE REGARDED SYMPTOMS OF LUNG TROUBLE AND CONSUMPTION

You should take immediate steps to check the progress of these symptoms. The longer you allow them to advance and develop, the more deep seated and serious your condition becomes.

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absolutely, that Lung-Germine the German Treatment has cured completely and permanently case after case of advanced Consumption, (Tuberculosis) Chronic Bronchitis, Catarrh of the Lungs, Catarrh of the Bronchial Tubes and other Lung Troubles. Many sufferers who had lost all hope and who had been given up by physicians have been permanently cured by Lung-Germine. It is not only a cure for Consumption but a preventive. If your lungs are merely weak and the disease has not yet manifested itself, you can prevent its development, you can build up your lungs and system to their normal strength and capacity. Lung-Germine has cured advanced Consumption, in many cases over four years ago, and the patients remain strong and in splendid health today.

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Under date of Mar. 11, 1907, William Schmidt, 1904 Coleman St., St. Louis, Mo., writes: "It is now nearly four years since my cure of Consumption was made complete by your Lung-Germine, and I am happy to say that I remain as well and strong today as the day I was cured. I am healthy and able to work every day." We will gladly send you further proof of many other remarkable cures, also a FREE TRIAL of Lung-Germine, together with our new book on the treatment and care of Consumption and Lung Trouble.

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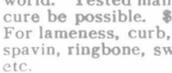


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For the cure of Spavins, Ringbones, Curbs, Splints, Windfalls, Capped Hoof, Strains and Wounds. Thick Neck from Distemper, Ring worm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Frederick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price. \$1.00. Canadian agents: J. A. JOHNSTON & CO., Druggists, 171 King St. E., Toronto, Ont.



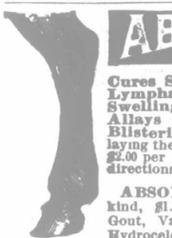
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 Greatest maker of sound horses in the world. Tested many years, never fails if cure be possible. \$100 reward if it does. For lameness, curb, splint, spavin, ringbone, swellings, etc.



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 Liniment for household use. Ask for Tuttle's American Worm and Condition Powders and Hoof Ointment. "Veterinary Experience," perfect horse-man's guide free. Symptoms and treatment for all common ailments. Write for it. Postage 2c.
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 Beware of all blisters; only temporary relief, if any.
 C. H. R. Crocker, South Farmington, Nova Scotia.



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 Cures Strained Puffy Ankles, Lymphangitis, Bruises and Swellings, Lameness and Always Pain Quickly without Blistering, removing the hair, or laying the horse up. Pleasant to use. \$2.00 per bottle, delivered with full directions. Book 5-C, free.
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RIVER VALLEY GLYDESDALES AND SHORTHORNS.

For Sale—Two stallions, one imp., the other imp. in dam; 2 imp. mares 3 and 4 yrs. of age—a grand pair, with size and quality; 1 fully foal imp. in dam. Shorthorns all ages, of both sexes; straight milking strain. A. W. GARFORTH, Thornbury Sta., Redwing P. O.



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 New Importation of Clydesdales and Hackney Stallions. For sale more Old Country premium and H. and A. Society winners than any other importer. Such horses as A. C. M., M. S. M., M. S. M., Roxelle, Ardlethan Goldsmith, King's Seal, Baron's Charm, Baron's Carrick, Abbey Fashion, Medallion and many others equally good. Thirty six in all. P. ices reasonable.
 OSWALD SORBY GUELPH P. O., ONT.

Clydesdales, Shorthorns and Cotswolds—For richest bred and choicest individuals of above breeds, write me. My new Cotswold and Clydesdale importation will arrive early in the season.
 J. O. ROSS, Jarvis P. O. & Sta.

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 More profitable than poultry. Experience unnecessary. We give advice free. Our new 95c book, "Money in Canaries," tells all about it. With book we send free, if you name the paper, a 10c packet: BIRD BREAD. Also, "How to Kill Birds of Lice," and "Bird Magazine." Send 25c to-day; stamps or coins. Refunded if you buy birds from us. Birds shipped anywhere any time. Write us before buying. Address:
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If you know of any one suffering from Consumption, Catarrh, Bronchitis, Asthma, or any throat or lung trouble, or are yourself afflicted, this book will help you to a cure.
 Write at once to the Yonkerman Consumption Remedy Co., 132 Rose Street, Kalamazoo, Mich. Don't wait—do it now.

QUESTIONS AND ANSWERS. Veterinary.

DISEASED PORK.

We killed some pigs and found that the flesh contains numerous little bean-shaped tumors; some are in bunches, and some single. Is the meat fit for use?
 E. D.

Ans.—These tumors may be tubercular, or they may be parasitic. In either case I do not consider the flesh is fit for food.
 V.

STIFF IN HIND LEGS.

Five-year-old mare is stiff in hind legs from overfeeding last summer. C. I.

Ans.—It is very unusual for horses to become stiff in hind legs from this cause, and I am inclined to the opinion that your diagnosis is wrong, but, without more minute symptoms, it is not possible for me to diagnose. It would probably be wise to have her examined by a veterinarian, and treat as he directs. If you decide to treat her yourself, give nothing but bran to eat for twelve hours, then give a purgative of eight drams aloes and two drams ginger, and nothing but bran for twenty-four hours longer. Follow this with two drams nuxvomica three times daily. If feet are hot, poultice with warm linseed meal or boiled turnips.
 V.

STEEL HAMES.

I have long steel hames, with brass knobs on top. How can I prevent the steel from rusting?
 E. P. F.

Ans.—As you are doubtless aware, polished steel rusts very readily. In order to prevent rust, it is necessary to rub them dry and apply a little oil or vaseline, or rub with an oily cloth each time they are removed from the horse. The least dampness upon them will be followed by rust in a few hours; but if kept slightly coated with oil or vaseline, they will not rust, even though they may be hanging in the stable for days. You may think that it is too much trouble to rub and oil them each time they are used, but you will find it the only way to keep them bright, and, of course, a rusty hame looks much worse than a wooden one. In order to keep them bright, it is necessary to give the attention mentioned, or get them plated.
 V.

LAME HORSE, ETC.

1. Horse occasionally goes lame in hind leg. Three weeks ago he took bad on the road, and seemed to be affected in both legs. I got a veterinarian to treat him, and he seemed to get all right; but after I had driven him about a mile, he went lame again.

3. I have three horses that are not doing well. They are well fed, but do not thrive.

3. Which is best for horses, nitre alone, or nitre and copaiba? What quantities, and how often should they be given?
 H. H.

Ans.—1. The symptoms indicate what is called an embolism, or partial plugging of the iliac artery. Your veterinarian, who treated him, should be able to give a more certain diagnosis than I. If I am correct in my diagnosis, the hopes for a recovery are slight. Give him rest. Purge with eight drams aloes and two drams ginger, and follow up with one dram iodide of potassium night and morning in damp food. I would advise you to get your veterinarian to drive him until he shows the symptoms, and if he agrees with me in diagnosis, treat as above.

2. Have their mouths examined, and, if necessary, their teeth dressed. Take equal parts sulphate of iron, gentian, ginger and nuxvomica. Mix, and give a dessertspoonful three times daily. Feed well, and give regular exercise or light work.

3. It depends upon what is the trouble. It is very bad practice to make a practice of giving horses or other stock medicines or drugs at stated periods. No drugs should be given, except there is some fault to correct, and then the drug that is calculated to correct that fault should be given in proper doses. Many think that it is necessary to give horses drugs once or twice weekly in order to keep "their water" right. This is a great mistake. If a horse's urine becomes thick and milky in appearance, it is good practice to give about half an ounce nitre (saltpetre) once a day for two or three doses, but do not give again unless the condition of the horse indicates the necessity.
 V.

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Clydesdale and Hackney

STALLIONS AND MARES

Two to Six Years Old

These horses combine size, weight and quality. All of which are for sale at reasonable prices. Send for illustrated catalogue.

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Have at their American branch, at St. Thomas, Ont., under the management of C. K. Geary, a number of good big stallions, also several very fine fillies coming three years old, and safe in foal to some of England's leading sires. Address all communications to:

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



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

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

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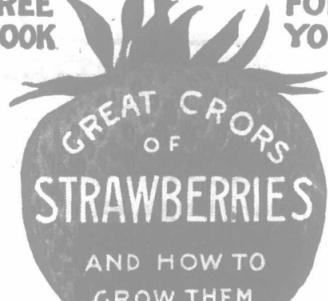
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Beautifully Illustrated **Mighty Interesting**

If you want to know how to grow big crops of big red strawberries and how to get big prices, send for our 1908 book. It tells all about soil preparation, setting, matting, pruning, cultivating, spraying, mulching, picking, packing and marketing. All of these essential features and many more are explained in such a way that you can't go wrong. It was written right out in the strawberry field by a man who has made a fortune growing strawberries, and he tells you just exactly how he does things. Send your address. That's all. The book is free.

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BREEDER OF SHORTHORN CATTLE
Golden Cross (imp.) at head of herd.

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Present offering: Young bulls, red or roan, 10 to 19 months old, sired by my noted stock bull (imp.) Joy of Morning; also heifers and cows in calf. In Yorkshires: Choice sows bred, and boars fit for service, from imp. sire and dam.

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Erie St., C. P. R.

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Please Mention this Paper

QUESTIONS AND ANSWERS. Miscellaneous.

EXTRACTING OIL FROM FLAX.

Would you kindly give the process for extracting the oil from flaxseed in a small way?
A. A. M.

Ans.—If there is any simple method of extracting oil from flaxseed in a small way, I am not familiar with it. Ordinarily, it requires tremendous power to press out the oil. Perhaps some readers of "The Farmer's Advocate" can offer suggestions.
G. E. DAY.
O. A. C.

TO CORN BEEF.

Can beef, killed now, be cured so as to keep good for family use until next summer? If salted down like pork it is not very good.
A SUBSCRIBER.

Ans.—The following recipe is excellent for either beef or pork that is intended to be hung up after being cured in pickle; is especially good for dried-beef ham: "One gallon water; one and a half pounds salt; one-half pound brown sugar; half ounce baking soda. Boil this, and skim. Do not salt for two days after killing. Sprinkle meat lightly with saltpetre to clean before salting. When the brine is cool, cover the meat with the brine, and leave in brine, according to size of pieces, from three to six weeks. To smoke, wash with hot water, scrape, and smoke for two to three days."
T.

MEASUREMENT OF WOOD.

Kindly give example in your next issue how to find the number of cords of wood in a pile 34 feet long, 6 feet high and 20 inches wide (short wood). I think your paper is best and cheapest ever printed.
SUBSCRIBER.

Ans.—The standard cord of cordwood is 8 feet long, 4 feet wide and 4 feet high. Multiplying these dimensions together we get 128, the number of cubic feet in a cord. Sometimes, by a cord of short wood is meant a pile 8 feet long, 4 feet high, or the equivalent of this, and as wide as the wood is in length, and not the full 128 cubic feet. Working out the example given, 34 feet by 6 feet by 20 inches, or 1 2-3 feet, and divided by 128 gives us two cords and 84 cubic feet in the pile. Of short cords there would be—34 feet by 6 feet and divided by the number of square feet in the face of a cord, which is 32—six and three-eighths cords.
T.

CURING MEAT.

Will you inform me, through "The Farmer's Advocate," how to cure meat, that is, for smoking, and how to smoke it, without the corn-cobs, as of old? I have been a reader for a year, and very much interested in "The Farmer's Advocate."
J. H. M.

Ans.—To cure hams, beef, pork, etc., make a mixture of 9 lbs. salt, 3 lbs. sugar, 1 pint molasses, 3 ounces saltpetre, 1 ounce baking soda, 5 to 6 gallons water. Heat slowly till salt is dissolved, then boil and skim. Cover the meat with the mixture for five or six weeks; then smoke every day for a week. Maple chips will do as well as corn-cobs for smoking. Every farm should be equipped with a small smoke-house, in which meat may be cured, and which may be used as an ash-house for the greater part of the year.

IMPROVING NEGLECTED LOCUST HEDGE.

By reading your paper I find I have made a mistake regarding our honey-locust hedge. I did not keep cutting it every year, but let the branches grow to the height of four feet or so. What shall I do, cut it back now, or would it be any harm or spoil the looks too much to mix cedars through it?
X. Y. Z.

Ans.—The most effective way of improving a neglected locust hedge is to cut it back within a foot or so from the ground, which will cause it to throw out a number of strong shoots from each plant. These should be headed back again when they reach a foot or so in height. By following up this method, the hedge will soon become so dense that live stock of any kind will not attempt to go through it. It would be very unsatisfactory to try to mend it by planting in cedars or other kinds of plants. If there are gaps in the hedge, they should be filled with young locust trees.
O. A. C. H. L. HUTT.

SHORTHORNS AT AUCTION

R. H. Reid & Sons, Pine River, Ont.,

WILL SELL BY AUCTION, ON

FRIDAY, FEBRUARY 14th, 1908

16 Head of Young Shorthorns:

11 Bulls and 5 Heifers, from 10 to 15 months of age, at their farm, Glover Lea, 8 miles from Ripley station, on the Palmerston-Kincardine branch of the G. T. R., where conveyances will meet morning trains. Pure Scotch and Scotch-topped. Extra well bred, and a rare good lot.

Terms: 9 months' credit on bankable paper, or 5 per cent. per annum off for cash. Lunch at noon. Catalogues on application.

J. R. PURVIS, Kinlough, } Auctioneers.
R. McCHARLES, Solkaich, }

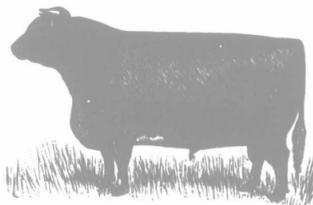
R. H. Reid & Sons,
PINE RIVER, ONT.

Dispersion Sale of SHORTHORNS & CLYDESDALES

At the Farm, Hillview, on Wednesday, February 12th, 1908,

WILL BE SOLD WITHOUT RESERVE

30 head of Scotch and Scotch-topped Shorthorns of the Bruce Ma-flower, Miss Ramsden, Margaret, Crimson Flower, Duchess, Louisa, Daisy and Princess strains, including the stock bull, Imp. Royal Scot 60866.



Also 4 registered Clydesdale mares and fillies, Imp. and Canadian-bred, and the Clydesdale stallion, Imp. Holstane Chief, and the Thoroughbred stallion, Hillview Wilkes 1245.

TERMS OF SALE: 7 months' on bankable paper; 5 per cent. per annum off for cash. Conveyances will meet morning trains at Pickering, Clarendon and Brooklin stations. Lunch at noon. Sale held under cover if weather proves unfavorable. For catalogues apply to the proprietors.

J. E. Disney & Son, Greenwood, Ont.

Geo. Jackson, Auctioneer.

LIVINGSTON'S OIL CAKE MEAL.

OLD PROCESS

Nothing is better for fattening steers quickly and putting them on the market in prime condition than Oil Cake Meal. Thousands of Canadian and English stockmen use Livingston's, and would have no other. It is equally good for milk cows. They give more and better milk when fed Livingston's Oil Cake Meal. Also used for horses, sheep and hogs. Write for information regarding prices, etc., etc., to

DOMINION LINSEED OIL CO., LIMITED
Montreal, Que. Baden, Ont.

SHORTHORNS AND LINCOLN SHEEP.

Two bulls, 11 and 12 months old—a Miss Ramsden and a Bessie, both by the good breeding bull, Proud Gift =50977= (imp.), also cows and heifers in calf by him. Inspectors solicited! Always have some choice Lincoln sheep for sale at reasonable prices.

J. T. GIBSON, DENFIELD, ONTARIO.

A. EDWARD MEYER,

BOX 378, GUELPH, ONT.

BREEDS
Scotch Shorthorns

exclusively. Herd bulls: Scottish Hero (imp.) =56042= (90065), a Shethin Rosemary; Gloster King =68703= 283804, A. H. B., a Cruickshank Duchess of Gloster. Young stock for sale. Long-distance phone in house.

Shorthorns! BELMAR PARC.

John Douglas, Manager, Peter White, Pembroke, Ont.

Calves for sale by our grand quartette of breeding and show bulls:

Nonpareil Archer, Imp. Proud Gift, Imp. Marigold Sailer, Nonpareil Eclipse.

Females. Imported and from imported stock in calf to these bulls.

An unsurpassed lot of yearling heifers.

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

THREE Trying Times in A WOMAN'S LIFE WHEN MILBURN'S HEART AND NERVE PILLS

are almost an absolute necessity towards her future health.

The first when she is just budding from girlhood into the full bloom of womanhood.

The second period that constitutes a special drain on the system is during pregnancy.

The third and the one most liable to leave heart and nerve troubles is during "change of life."

In all three periods Milburn's Heart and Nerve Pills will prove of wonderful value to tide over the time. Mrs. James King, Cornwall, Ont., writes: "I was troubled very much with heart trouble—the cause being to a great extent due to "change of life." I have been taking your Heart and Nerve Pills for some time, and mean to continue doing so, as I can truthfully say they are the best remedy I have ever used for building up the system. You are at liberty to use this statement for the benefit of other sufferers."

Price 50 cents per box or three boxes for \$1.25, all dealers or The T. Milburn Co., Limited, Toronto Ont.

Shorthorns! WOULD EXCHANGE

a few high-class Shorthorns FOR PURE-BRED OR GOOD GRADE SHEEP, Shropshires preferred.

D. Allan Black, Kingston, Ontario.

EAST BANK HERDS

Shorthorn Cattle, Yorkshire and Berkshire Swine.

As I must leave farm in March, I am offering 40 sows of choice breeding and quality Prize-winners and the get of prize winners. Also cows and calves bred, fed and sold right.

IRA L. HOWLETT, KELDON.

Shorthorns—Sweepstakes herd at

London, Aylmer, Wallacetown, Rodney, Ridgetown and Highgate, 1907. We have for sale at reasonable prices 3 choice young bulls, 1 red and 2 roans, of grand type and quality. All sired by the good breeding bull, Ridgewood Marquis = 48965 =, a son of the old champion, Spicy Marquis. Also a few young cows and heifers. JNO. LEE & SONS, Highgate, Ont.

T. DOUGLAS & SONS STRATHROY, ONT.

Breeders of Short horns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion, imp. and home-bred sires. Write us what you want or come and see our stock. Farm 3 miles north of town

Maple Grove Shorthorns

Herd headed by the grand show bull, Starry Morning. Present offering: Imported and home-bred cows and heifers, also a few young bulls. Terms and prices to suit the times. C. D. WAGAR, Enterprise Stn. and P.O. Addington Co.

SHORTHORNS

For want of stable room will sell cheap 10 heifer calves, 13 yearling heifers, 4 two-year-old heifers in calf and 3 red bulls about 14 months old. Right good ones. CLYDESDALES.—Two-year-old mare in foal, and a good pair 4 and 5 years old. Write, or come and see them.

JAMES McARTHUR, GOBLES, ONTARIO.

SPRING VALLEY SHORT HORNS

Two young imported bulls of the very best quality and breeding. Six Canadian-bred bulls, mostly the get of Bapton Chancellor (imp.). Prices right.

KYLE BROS., AYR, ONTARIO.

SCOTCH SHORTHORNS!

We now offer four heifer calves 10 and 11 months old. All reds. Bred from imp. sire and dams. Will be sold right. C. RANKIN & SONS, Wyebridge P. O., Wyevale Sta.

High-class Shorthorns Royal Chief, a son of Mildred's Royal, at head of herd. We are offering a few choice heifers of show-rising form. Pure Scotch. Terms reasonable. A. DUNCAN & SONS, Carluke, Ont.

GOSSIP.

Benevolent Old Gentleman.—My good man, are you looking for work? Tramp.—Not if I can find anything else to do.

SHEEP-FEEDERS CONTENTED.

Feeders of sheep and lambs are not lying awake these nights worrying over the future market. And they are surely justified in this, says the Chicago Livestock Report. They had some reason for so doing not many weeks ago, but not now. That there is a big shortage in the feed-lots, as compared with late years, is a patent fact, the decrease east of the Colorado line being anywhere from twenty-five to forty per cent. from one year ago. This in itself is a bullish factor. Another good omen is the increased buying by eastern shippers lately, which was a bar against the domination of the trade by packers. The countryman is certainly not warranted in crowding the market with half-fat, and is not consulting his best interests by so doing. Demand for feeding lambs is showing good expansion, but such material has been relatively scarce. Most countrymen are not inclined to market good shearing, thrifty lambs, and, besides, the packer buyers are putting up keener competition for the offerings in plainer flesh, forcing prices for many such kinds out of the reach of the country buyers.

THE CAWDOR CUP.

The Council of the Clydesdale Horse Society of Great Britain has settled the terms of competition for the fourth Cawdor Cup for stallions. This cup will be competed for at the forthcoming Stallion Show on the first Wednesday in February. It will not be so easily won as the three preceding cups have been. It must be won four times by an exhibitor with different animals before it becomes his absolute property. No horse whose name is already on a Cawdor Cup will be allowed to compete for this cup. All horses competing for this cup must pass an examination for soundness by the veterinary surgeon appointed to examine horses competing for the Brydon Challenge Shield. This does not apply to height, only to soundness. No horse rising four years old will be allowed to compete for this cup, unless it is proved to the satisfaction of a committee, appointed by the council for the purpose, to have left at least 35 per cent. of foals in the preceding season. The committee appointed for this purpose this year consists of Mr. J. Ernest Kerr (convener), Principal McCall and Mr. James Rodger, with the secretary. All questions that may arise in connection with Cawdor-cup competitions in 1908 are referred to this committee. Of course, all horses competing for the Cawdor Cup must be registered in the Studbook.—[Scottish Farmer.]

DOGS MENACE TO SHEEP.

Many more sheep would be kept on the farms of the country were it not for marauding dogs. This complaint has been general in late years, and especially so since prices for both mutton and wool have been raised to such a remunerative basis. In many Middle-west and Eastern States demands are being made that State Legislatures enact some law that will do away with the numerous dogs which rove over the country districts and are such a menace to sheep on the farms. And it is encouraging to note that in most States this movement is given solid support by the rural press. The question that is being put forward is whether the sheep or the dog shall go. By presenting the facts to the members of the State Legislatures, it should not be difficult for them to see that it is imperative that the sheep-killing dog has to go in order that the farmer may, with safety, run a flock of the animals with the golden hoof.

Missouri has a law that affords farmers with a flock of sheep great relief from the dog with a taste for mutton. In that State a farmer can kill any strange dog found on his land, and the owner of the animal is barred from instituting damage suits against him. There are certain kinds of dogs that will not harm sheep, but those of the marauding classes should be exterminated. They are a nuisance as well as a menace to the neighborhood in which they are.

Salem Herd of Shorthorns



The number of important premiums won by this herd is excelled by no other. It has placed herd headers that have earned distinction for their buyers in many leading herds of the United States and Canada. At present there are a number of this kind for sale; also some high-class heifers. They are bred, fed and priced to the advantage of buyers.

J. A. WATT, SALEM P. O.

Elora Stns., G.T. and C.P.R., 13 miles north of Guelph. Long-distance phone.

1854 Maple Lodge Stock Farm 1907

An exceptionally choice lot of heifers and young bulls for sale now. Best milking strains.

A. W. Smith, Maple Lodge P.O., Ont.

Valley Home Shorthorns AND BERKSHIRES.

Our herd numbers sixty-five head. We are prepared to give bargains to suit all who wish to buy from one animal up to a carload of females, and 13 bulls from 9 to 18 months old. Also 55 Berkshires of prolific strains.

S. J. PEARSON, SON & CO., Meadowvale, Ont. Stations: Meadowvale, C.P.R.; Brampton, G.T.R.

10 IMPORTED 10 BULLS

Recently arrived from Scotland in good condition. They are a superior lot. Selected for herd-headers. We also have a number of Canadian-bred bulls of excellent quality, and representing the choicest breeding. Females suitable for show or breeding purposes.

W. G. PETTIT & SONS, FREEMAN, ONTARIO.

Burlington Jct. Sta., G. T. R. Bell telephone at each farm.

WATLAND BANK SCOTCH SHORTHORNS!

7 bulls, superior breeding, 11 to 15 months; 5 high-class bull calves 5 to 8 months; and a number of cows and heifers and heifer calves; at half prices formerly asked. DAVID MILNE, Ethel, Ont.

MAPLE GROVE SHORTHORNS

Scotch and dairy bred; up-to-date in type; prize-winners at the local shows. A number of 1 and 3 year old heifers, 1 year old bull, and one 6 mos. old—the last will make a show bull. Flora bred—will be sold easy. L. S. POWELL, Wallenstein P. O. and Stn. C. P. R.

Six Thick, Thrifty Shorthorn Bull Calves JUST HOME FROM SCOTLAND.

They are ready to use, and I am going to sell them. Will change for your old imported bulls if good. Will also sell imported cows and heifers and home-bred bulls; also some good Shropshire and Cotswold ewes, bred to great imported sires.

ROBERT MILLER, STOUFFVILLE, ONTARIO, CANADA.

PLEASANT VALLEY SHORTHORNS

For sale: 3 young bulls by Old Lancaster Imp. from imp. dams, including Lancaster Victor first prize sr. bull calf at Dom at Sherbrooke, second at O. N. E., Toronto. Correspondence solicited. Inspection invited. Geo. Amos & Son, Moffat Stn. & P.O. C. P. R. Farm 11 miles east of City of Guelph.

Queenston Heights SHORTHORNS

All Scotch. The thick-fleshed, early-maturing sort. Special prices on young stock either sex. Ask for catalogue with sample pedigrees. Hudson Usher, Queenston, Ont. Farm three miles north of Niagara Falls.

Winners at the leading shows have been sired by bulls bred here. We can sell you a good bull to head your herd of SHORTHORNS, or for use on your good grade cows. The bull catalogue explains the breeding. Write for it.

John Dryden & Son, Brooklin, Ont.

Stations: Brookline, G. T. R.; Myrtle, C. P. R. Long-distance telephone.

GREENGILL HERD OF HIGH-CLASS SHORTHORNS.

We offer for sale choice young bulls from 8 to 19 months old, sired by imp. Lord Roseberry also cows and heifers with calf at foot or bred either imp or Canadian-bred.

R. MITCHELL & SONS, Nelson P. O., Ont., Burlington Jct. Sta.

Brown Lee Shorthorns!

Imperial Victor = 6807 = at head of herd. Long stock for sale at all times. Prices very reasonable. Ayr, C. P. R.; Drumbo, G. T. R. DOUGLAS BROWN, Ayr, Ont.

PLEASE MENTION THIS PAPER

LISTEN!

We are offering **Special Bargains** in **Shorthorns** just now. The **Reason** is that we have a **Large Stock** and **Feed is Scarce**. Most of you know the **Kind of Cattle** we have, so that it is useless repeating the usual formula. In order to **Reduce Our Stock**, so that we may be able to pull through the winter, we **Will Sell at Prices** which will **Well Repay the Purchaser** who has feed to keep them until spring. We have pretty nearly anything **You** want. If you can not come to see, write and tell us as nearly as possible what it is, and we will frankly tell you whether or not we can supply.

John Clancy, Manager. **H. Cargill & Son, Cargill, Ont.**

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use **Fleming's Spavin and Ringbone Paste**. Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Each case cured by a single 5-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Blistering, new and old cases alike. Write for detailed information and a free copy of **Fleming's Vest-Pocket Veterinary Adviser**. **FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario.**

J. Watt & Son

For sale—2 high-class bull calves of the richest breeding; 20 young cows and heifers, a number of which are well gone in calf to Imp. Pride of Scotland. Moderate prices. Correspondence invited.

Salem P.O., Elora Sta. G.T.R. & C.P.R.

Shorthorns, Cotswolds, Berkshires

For sale: 2 bulls 18 months, 1 bull 12 months, and 4 from 7 to 9 months; and females all ages. In Cotswolds a few good ewe lambs. Nothing to offer in Berkshires. **CHAS. B. BONNYCASTLE, P. O. and Station, Campbellford, Ont.**

SHORTHORNS AND LEICESTERS.

For sale: Young bulls, age 7 to 12 months, by Imp. sire, and from grand milking dams. Leicesters: A number of choice rams and ram lambs, also a choice lot of shearing ewes now bred to a good ram of the finest type and breeding, at easy prices for quick sale. **W. A. DOUGLAS, Caledonia station, Tuscarora P. O.**

Glen Gow Shorthorns

Our present offering is 9 bulls from 6 to 14 months of age sired by Imp. Ben Leman and Imp. Joy of Morning, and out of Imp. and Canadian-bred cows. Also a number of very choice heifers. No fancy prices asked. Long-distance 'phone. **WM. SMITH, Columbus P. O., Brooklyn & Myrtle Sts.**

J. BRYDONE,

Breeder of pure Scotch Shorthorns. Breeding females imported. Headed by the pure Cruickshank (Duthie-bred) bull, Sittyon Victor (Imp. 50098—57567). Young stock from Imp. dams for sale. Prices reasonable. Telegraph, Telephone **R. R. Sta. and P. O., Milverton.**

WILLOW BANK Shorthorns and Leicesters.

ESTABLISHED 52 YEARS. Have a special good lot of either sex to offer in Shorthorns of various ages. Also a few choice Leicester sheep. Write for prices, or, better, come and see. Choice quality and breeding. **JAMES DOUGLAS, CALEDONIA, ONT.**

Shorthorn Bulls—Ready for service. One will make a show bull. Also young things from Matchless, Crimson Flower, Miss Ramsden, Rosemary, Diamond and Lady Fanny dams, the get of Chancellor's Model. Prices to suit times. Come and see. **ISRAEL GROFF, Elmira, Ont.**

Shorthorns & Leicesters for sale. Two young bulls for sale from good milking dams. Leicesters—a few females for sale, different ages. **JOHN LISHMAN Hagersville, Ont., P. O. and Stn.**

ROSE COTTAGE STOCK FARM—2 Shorthorn bulls for sale—14 and 20 months—one red and one roan. The red a Matchless. The roan, sired by Royal Prince, is a full brother to Fair Queen and Queen Ideal, the two champion females of two continents. **H. K. Fairbairn, Thedford, Ont.**

GOSSIP.

Farmers are up against that all-year problem—bad roads. That simple and cheap King road drag would prove a solution if used often enough.—[Chicago Live-stock Report.

Messrs. D. C. Flatt & Son, Millgrove, Ont., write: "Would you buy a No. 1 show pig if it cost you no more than the ordinary ones? We have about 150 Yorkshire boars and sows, from two to four months old, sired by the great boar, Summer Hill Champion, and every pig is from Imp. Scotch sows of selected quality. Champion won the silver medal at Toronto, 1907, and has wonderful scale and conformation, and the reason we value him so highly is that every pig he sires is just like himself—the long, smooth, deep kind, with plenty of bone. They are very easy feeders, and weigh like lead, and his litters have averaged thirteen pigs each. See show record of our herd in advertisement elsewhere in this paper."

ANOTHER GREAT RECORD.

When the age and condition of the cow are considered, one of the most marvellous records ever made is that reported as recently completed by the Holstein cow, De Kol 2nd's Alban De Kol 36714, in the herd of E. A. Powell, Syracuse, N. Y. She dropped her last calf October 16th, last, at the age of thirteen years one month and twenty-nine days, not having been dry in four years, and she had an attack of milk fever after calving. The record was made under the supervision of representatives of Cornell University. Her best seven days was 26.57 lbs. of butter from 532.6 lbs. of milk. Her best thirty days was 109.71 lbs. of butter from 2,165.1 lbs. of milk. Her average per cent. of fat for thirty days was 4.057. Her lowest average for a week was 3.992 per cent. Her highest average for a week was 4.158 per cent.

CANADIAN Ayrshire BREEDERS' ASSOCIATION ANNUAL MEETING.

The annual meeting of the Canadian Ayrshire Breeders' Association will be held in Room 1, 4th floor, Temple Building, corner Bay and Richmond Streets, Toronto, Ont., on Wednesday, February 12th, at 10 o'clock a. m., to hear reports of President, Secretary-Treasurer, Registrar, Record of Performance test work, and committees, also for the election of officers, and for the transaction of any other business that may properly come before the meeting. All interested in the breeding of Ayrshire cattle are cordially invited to attend this meeting. The Directors will meet in the Walker House, Toronto, Ont., on Tuesday, 11th of February, at 2 o'clock p. m. Notice is hereby given that it is proposed to make a complete revision of the constitution and by-laws and rules governing registration, in conformity with the Act respecting the incorporation of live-stock record associations. Also, the wisdom of adopting a new form of pedigree, in keeping with the Record of Performance Test, will be discussed, and if in the interests of Ayrshires, adopted. As the Horse Show will be held in Toronto during that time, round-trip tickets for single fare will be sold from all points in Ontario, February 11th and 12th, good to return until the 15th, on all railway lines. Members in Quebec may purchase return tickets at regular first-class fare to the first convenient point in Ontario, where the above reduced rates apply. We beg to remind the members that the fee for 1908 is now due. A prompt remittance to the "Accountant," or Secretary, will be esteemed a favor.—W. P. Stephen, Secretary-Treasurer, Huntingdon, Que.

Scotch Shorthorns

Our breeding females are very heavy milkers, also good individuals. For sale are a few young bulls and a few choice heifers, all from imported sires, and a number from imported dams. The imported Bruce Mayflower bull, Royal Bruce 55038, heads the herd. **R. J. DOYLE, Box 464, OWEN SOUND, ONT.**

BRAMPTON JERSEYS

CANADA'S PREMIER HERD—Strengthened regularly by importations from United States, England and the Island of Jersey. We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from. Write for prices and particulars. Long-distance 'phone at farm.

B. H. BULL & SON, BRAMPTON, ONT.

Jerseys & Extra Choice Young Bulls For Sale, 8 and 9 months old, grandsons of the great Financial King, out of large, heavy-milking dams. Inquiries solicited. **ARTHUR H. TUFTS, Box 111, Tweed, Ont.**

Lyndale Holsteins

Bull calves for sale out of cows with records of from 18 to 20 lbs., and sired by a grandson of Pietertje Hengerveld's Count De Kol.

BROWN BROS., LYN, ONTARIO.

"THE MAPLES" HOLSTEIN HERD

Young bulls fit for service. Bull calves. Also a few choice heifer calves.

Walburn Rivers, FOLDEN'S, ONT.

MAPLE GLEN HOLSTEINS

Herd of 35 head with A. R. O. breeding, backed up by butter tests of over 16 lbs. as a two-year old to over 26 lbs. as a cow. A good herd to select from. Two spring bull calves on hand. A R. O. test of one is over 26 lbs. for dam and 8. dam. Come and inspect the herd. Any animal will be offered for sale. **G. A. GILROY, GLEN BUELL, ONT.**

Homestead Holsteins Yearling bulls for sale, out of cows with records from 16 to 21 lbs., and sired by Bettie Bros' famous bulls, Cornelius Posch and Count Mercena Posch. Write for prices. **G. & F. Griffin, Box 43, Burgessville, Ont.**

QUEEN CITY HOLSTEINS.

15 young cows from 3 to 6 yrs., due to calve during next 3 mos.; bred to bulls having high official backing. Half of them will supply our requirements. Orders booked for bull calves at moderate prices; also a few bulls ready for service. Farm situated 7 miles north of Toronto, near the Metropolitan By. Write: **R. F. Hicks, Newton Brook, Ont.**

SPRING BROOK HOLSTEINS AND TAMWORTHS.—Holsteins of richest breeding and highest production. Tamworths of best British blood and ideal bacon type. Herd headed by prizewinning Imp. Knowle King David. Stock of all ages and both sexes for sale. Young sows bred to Imp. boar. Write, or come and see: **A. C. HALLMAN, Breslau, Waterloo Co., Ont.**

METAL EAR LABELS

with name and address and numbers. No trouble to know your stock. Write for free sample. **F. G. JAMES, BOWMANVILLE, ONT.**

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls. 100 head to select from. Imported Pontiac Hermes, son of Hengerveld De Kol world's greatest sire, head of herd. All leading breeds represented. **H. E. GEORGE, Crampton, Ont. Putnam station, near Ingersoll.**

RECORD OF MERIT HOLSTEINS

Herd 110 strong. Over 40 head now in the Record of Merit Two of the richest-bred bulls in Canada at head of the herd. For sale: 18 bulls, from 2 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls. **P. D. BDE, Oxford Centre P. O., Woodstock Station.**

RIVERSIDE HOLSTEINS

For sale: Eight young bulls from 3 to 8 months old, out of Record of Merit cows, sired by Johanna Rue 4th's Lad and Sir Pietertje Posch DeBoer, whose dam and sire's dam average in official test 5.87 lbs. butter in 7 days, and 87.6 lbs. milk 1 day. **J. W. RICHARDSON, Caledonia, Ont.**

FAIRVIEW HERD is the place to buy your next bull.

I can furnish you with a bull sired by our great herd bull, PONTIAC KORNDYKE, who has 19 daughters in the last year's report that made official records from 12 pounds at less than two years old to over 31½ pounds at four years, and the whole number averaged over 41% fat. No other bull in the world has ever made such a showing in one year. I have just tested another of his daughters that made 26.40 pounds butter in seven days with second calf. I have over 60 cows and heifers in calf to him. Come and look my herd over before making your selections elsewhere. **E. H. DeLair, Hevelton, St. Lawrence Co., N. Y., near Prescott.**

Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices. **G. W. Clemons, St. George, Ont.**

Annanda's Great Dairy Herd

ONLY BULLS, 4 to 10 months old, for sale at present. Bred from great producing ancestors. Bred right. Fed right. **Holsteins and Ayrshires**

EVERGREEN FARM HOLSTEINS

are headed by the richly-bred bull, Sir Mercena's Favorit. Dam, Favorit 7th, and sire's dam, Mercena 3rd, have records averaging 23½ lbs. butter in 7 days—85% fat. Young bulls out of Advanced Registry cows; also young females. **F. C. PETTIT, Burgessville, Ont.**

STEVENS DAIRY FARM HOLSTEINS

I have now for sale two bull calves 6 months old sired by a grand son of Pietertje Hengerveld's Count De Kol; also four choice young cows due to calve in February. **W. C. STEVENS, PHILLIPSVILLE P. O., DELTA STATION.**

Holsteins and Yorkshires.

R. HONEY, Brickley, Ontario, offers a very choice lot of young bulls also boars and sows fit to mate.

HILTON STOCK FARM—Holsteins, Cotswolds and Tamworths—Present offering:

Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. **R. O. MORROW & SON, Hiltten P. O. Brighton Tel. and Stn.**

FOR QUICK SALE.—Choice registered Holstein bull calves at \$25.00 each, sired by Prince Reginald De Kol, whose dam has an official record of over 18 pounds at three years old. Express paid anywhere in Ontario. **W. A. BRYANT, Catrington, Ont.**

RECIPE MIXED OFTEN.

Some remarkable stories are being told about town and among the country people coming in of this simple home-made mixture curing Rheumatism and Kidney trouble. Here is the recipe and directions for taking: Mix by shaking well in a bottle one-half ounce Fluid Extract Dandelion, one ounce Compound Kargon, three ounces Compound Syrup Sarsaparilla. Take, as a dose, one teaspoonful after meals and at bedtime.

No change need be made in your usual diet, but drink plenty of good water.

This mixture, writes one authority in a leading Philadelphia newspaper, has a peculiar tonic effect upon the kidneys; cleansing the clogged-up pores of the eliminative tissues, forcing the kidneys to acid and strain from the blood the milder and other poisonous waste matter, overcoming Rheumatism, Bladder and Urinary troubles in a short while.

A New York druggist who has had hundreds of calls for these ingredients since the first announcement in the newspapers last October stated that the people who once try it, "swear by it," especially those who have Urinary and Kidney trouble and suffer with Rheumatism.

The druggists in this neighborhood say they can supply the ingredients, which are easily mixed at home. There is said to be no better blood-cleansing agent or system tonic known, and certainly none more harmless or simple to use.

A young lady who had returned from a tour through Italy with her father remarked that her father had liked all the Italian cities, but especially did he like Venice.

"Ah, Venice, to be sure," said the friend to whom she was relating some of the adventures of their trip. "I can readily understand that your father would prefer Venice, with its gondolas, and St. Mark's and Michael Angelo's."

"Oh, no," said the young lady, "it wasn't that. But he could sit in the hotel, you know, and fish out of the window."

Two smart young Londoners once accosted a respectable-looking shepherd in Argyll with: "You have a very fine view here—you can see a great way." "Ay, ay, a very great way." "Ah! You can see America from here, I presume?" "Farrer than that." "Farrer than that?" "You just wait 'til the mists gang awa' and you'll see the mune."



ROCK SALT for horses and cattle, in ton and oar lots.
TORONTO SALT WORKS, TORONTO.

Trout Run AYRSHIRES and POULTRY

1 imported bull calf, 2 August bull calves from imported stock, 1 May bull calf. Females all ages; heavy milkers and from heavy milking stock, with good teats. Also Shropshire ram lambs. Buff Orpingtons, B. P. Rocks, B. Log-horns, Mammoth Pekin ducks at \$1.25 each. Toulouse geese, \$6 per pair. Prices very reasonable, considering quality. For particulars write: **William Thorn, Lynedoch, Ontario.** Trout Run Stock Farm.

SHANNONBANK Ayrshires and Yorkshires—Am now offering 2 young bulls 10 months old, and half a dozen heifer from 6 to 12 months of age, bred from producing, show sire and dams. Yorkshires, both sexes, imp. in dam sire and dam, different ages. **W. H. TRAN, Cedargrove P. O., Locust Hill Sta., C. P. R.**

Hillview Herd of Prizewinning AYRSHIRE CATTLE.

All animals bred and carefully selected for size, constitution, long teats and deep milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write **A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont. Winchester Station, C. P. R.**

D. M. Watt, St. Louis Station, Quebec, breeder of HIGH-CLASS AYRSHIRES

Canadian and Scotch-bred. All of deep milking qualities.

AYRSHIRES FROM A PRIZEWINNING HERD

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON, Campbellford Sta., Ontario.**

QUESTIONS AND ANSWERS.

Miscellaneous.

CHART FOR 24-MEMBER BEEF RING.

You would do me a great favor if you could supply me, through your columns, with a chart for a twenty-four-share beef ring. **D. S. F.**

Ans.—We have repeatedly published charts for sixteen- and for twenty-share beef rings, but have not seen or had a former request for a twenty-four share ring. If any of our readers can supply such, we shall be pleased to hear from them.

REGISTRATION FORMS FOR AYRSHIRES.

Please inform me to whom I should apply for registration forms for Ayrshire cattle. **J. B. L.**

Ans.—Address, "Accountant," National Live-Stock Records, Department of Agriculture, Ottawa, stating breed and number of forms required. These are furnished free of charge, and if the letters O. H. M. S. are written on upper left corner of envelope, letters so addressed go free of postage.

POLISHED HARDWOOD FLOORS.

Please inform me what is the best means of polishing hardwood floors (soft maple). **J. D.**

Ans.—An excellent polish for floors is made of one pint raw linseed oil, one-half pint wood alcohol, one gill brown shellac. The shellac and wood alcohol should be first thoroughly mixed, and then the oil added. Put on with soft cloth, and rub thoroughly—the more rubbing, the better. If you chose, you might stain the floor, and finish it with one of the prepared waxes, which may be bought ready for using.

LUMP JAW — PINWORMS.

1. Please describe lump jaw in cattle. Give cause and cure.
2. What is best and simplest remedy for pinworms in horses?

SUBSCRIBER.

Ans.—1. This disease, technically known as actinomycosis, is due to the invasion of the tissues by a fungus. It appears as an enlargement on either the lower or upper jaw, and in its advanced stages gathers pus, breaks and runs. If treated in the early stages with the iodine-of-potassium treatment, described in reply to similar enquiries in this issue, it may be arrested, though the enlargement may not entirely disappear. It is to some extent contagious, and it is unlawful to sell for beef an animal afflicted with this disease.

2. Clean out the rectum with the hand, and inject a solution of quassia chips, half a pound in one gallon of rain water. Mix, and boil to half a gallon; strain off the chips, and inject with a syringe; hold the tail down tight for half an hour; clean the rectum out, and give an injection once a week.

THE OAT BLIGHT OF 1907.

Has it been found out just what happened the oats last year in the appearance of a rust or blight, but not identical with the old type; also if the seed of those affected is liable to bring the same trouble to the newly-sown crop? If so, is there any treatment that can be given the seed as a preventive? **G. H. C.**

Ans.—This peculiar and serious affection of the oat crop was observed in New York State in 1889. In a considerable area of the State, every field was reported to be badly affected. We do not find any subsequent records of it until last year, when its attack caused complaint in the Northern States, from Pennsylvania to Minnesota and throughout Ontario. Those who have attempted to explain it have attributed it to the peculiar conditions of the early May weather. Unusually cold and even frosty weather was followed by a dry spell. The devitalized protoplasm in the leaves did not regain its power to make chlorophyll; it turned yellow or red, and was easily invaded by fungi, mostly a species of fuscladium. If the climatic theory is correct, the blight will not appear this year, unless the same conditions of weather should be repeated. There is no reason to believe that the disease will be carried in the seed. **J. D.**

LOOK \$200.00 IN CASH AND 500 VALUABLE PREMIUMS

In order to introduce our goods into homes where they are not already known, we have decided to give away the above-named sum and 500 handsome premiums. The cash and premiums will be given in order of merit to persons sending in the best ending to the Limerick Verse that is written in part below.

- 1st prize.....\$50.00 in cash
- 2nd prize.....\$40.00 in cash
- 3rd prize.....\$30.00 in cash
- 4th prize.....\$20.00 in cash
- 5th to 9th prizes, five prizes of \$10.00 each.....\$50.00 in cash
- 10th to 14th " Five Ladies' or Gents' Gold Filled Hunting Case Watches.
- 15th to 19th " Five Family Dinner Sets, (37 pieces).
- 20th to 24th " Five Ladies' or Gents' 14k Gold Filled Watches.
- 25th to 29th " Five sets of half a dozen Silver Plated Knives and Forks (Regent).
- 30th to 34th " Five Ladies' or Gents' Solid Silver Watches.
- 35th to 39th " Five Handsome Violins and Bows.
- 40th to 44th " Five Hardwood Accordions.
- 45th to 49th " Five Magnificent Fur Ruffs.
- 50th to 54th " Ten Ladies' Toilet Sets.
- 55th to 59th " One Hundred Ladies' or Gents' 14k Gold Filled Rings.
- 60th to 64th " One Hundred Waterford Fountain Pens.
- 65th to 69th " One Hundred Sets of 6 Silver Plated Tea Spoons (Regent).
- 70th to 74th " Forty Ladies' Hand Bags.
- 75th to 79th " Six Sets of Silver Plated Sugar Spoons and Butter Knives (Regent).

Below will be found the Limerick Verse WITH A MISSING LINE, which we expect our competitors to supply!

In giving good prizes we take pride,
They make known our goods both far and wide:
Why delay,
Call or write to-day,

(Fill in the line above.)

Please note that the last line should rhyme with the first two lines. As a last WORD for the missing line, we would suggest the use of any of the following words: "divide," "applied," "fied," "simplified," "provide," "convide," "supplied," "denied," "beside," "sighed," "tried," "decide," "betide," "cried," "dried," "bride," "side," "complic," "sided," "implied," "inside," "blid," "tried," "ride," "tied," "abide," "aside," "deride," "astride," "bided." These words all rhyme with the endings of the first two lines in the verse.

CONDITIONS

There is another simple condition attached to this contest about which we will write you as soon as we receive your answer to the above. This condition does not involve the spending of one cent of your money.

The judging of the Limericks will be in the hands of a committee of three gentlemen of undoubted integrity who have no connection with this office. No employee of ours or any of their relations will be allowed to compete, and the committee's judgment must be accepted as final.

I agree to abide by the decision of the committee of three appointed by the Bovell Manufacturing Co., and enter this competition on that distinct understanding.

Signature.....

Address.....

(State whether we are to address you as Mr., Mrs. or Miss.....)

Please write very plainly. Cut out this advt. and send it to us after filling in the blank line. The filling in of the missing line may take a little thought and time, but it should be time and energy well spent. There are over five hundred prizes, any one of which is well worth the time and energy that we ask you to expend. Surely this is enough for everyone! Write to-day. Do not send any money. We will answer your letter immediately, and tell you of the simple condition that must be adhered to. Address very plainly

BOVEL MANUFACTURING CO., Dept. 10, MONTREAL

RAW HIDES, SKINS, &c.
CONSIGNMENTS SOLICITED.
Write for LATEST PRICE LIST.
E. T. CARTER & CO.,
TORONTO, ONT.
The Largest WOOL, HIDE & FUR HOUSE in Canada

STONECROFT STOCK FARM, St. Anne de Bellevue, Quebec.

(Adjoining the new Macdonald College.)

Breeders and Importers of High-class

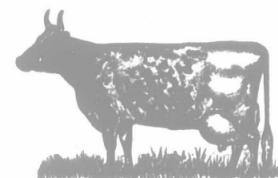
Ayrshire Cattle, Clydesdale Horses, Yorkshire Swine and Collie Dogs

Anything for sale. We offer especially a few select young bulls to clear cheap. Orders booked for spring pigs.

HAROLD M. MORGAN, Prop. E. BJORKELAND, Manager. Bell Phone connection.

AYRSHIRES Young bulls from producing dams and same sire, from 7 months up to 2 years. Rare good ones and will speak for themselves. **N. DYMENT, Hickory Hill Stock Farm, Clappison, Ont. Dundas Station and Telegraph.**

SPRINGBURN STOCK FARM.—Ayrshire Cattle, Oxford Down Sheep, Berkshire Pigs. Young stock for sale. Buff Orpington poultry, eggs \$1 per 13, \$4 per hundred; orders now being booked. **H. J. WHITTEKER & SONS, Williamsburg P. O.**



AYRSHIRES! SEE STOCK NOTES.

To dairymen:—We offer cheap 3 young bull calves, bred from large, heavy-milking cows with good teats.

To breeders:—We have several very choicely-bred young bull calves, combining showing and dairy qualities; 3 young bulls fit for service; spring females, any age, either milking or dry. Orders taken for importing in 1908. Our J. Retson is now in Scotland.

Phone Campbellford. **ALEX. HUME & CO., Menie, Ont.**



Mr. FARMER

Do You
Know
PROF.
SHAW



The Great
LIVE
STOCK
Authority



READ WHAT HE SAYS
ABOUT STOCK FEEDS AND STOCK FEEDING

Professor Thomas Shaw is one of the world's greatest authorities on feeding and care of live stock. He will be recognized as one of the old time Guelph Agricultural College Professors and one of the best known feeding authorities. He has devoted nearly fifty years of his life to scientific feeding experiments, the results of which have saved our farmers many millions of dollars. He is the author of numerous text books which are in daily use in all agricultural schools.

On the subject of feeds and feeding here is some plain, practical talk by Prof. Shaw. Every farmer will do well to tuck this up in his feed barn. Put it where you can follow its teachings literally—word for word—because you cannot get any better advice on this important topic. He says:

1st.—“A mixed feed of grains, corn, oats and barley, (ground and properly balanced, that is, the right quantities of each to produce a feed that contains the proper nutritive elements, protein carbohydrates and fat) will give better results and for a longer period than any one grain of equal or similar nutritive character. The reason is plain. They form a feed that supplies power, energy, heat, life, flesh and fat in the correct form from which the animal derives the greatest benefit. Again stock will not tire of a mixed ration and hence relish it better.

2d.—“A mixed grain feed of corn, oats and barley fed for meat or milk production in ground form, mixed with fodder or ensilage will effect a *saving of 20 per cent in feed* over the usual method of feeding whole grain, besides producing far greater returns in milk and meat.

3d.—“No single grain furnishes a perfectly balanced ration for farm stock.

4th.—“Corn, oats and barley, *properly blended*—that is, *balanced* as regards nutritive value, make an ideal grain ration for horses, cattle, sheep and swine, in fact, one that cannot be easily surpassed.

5th.—“Outside the corn belt a mixed ration of ground corn, oats and barley, and sometimes bran, should be a standard grain ration for meat and milk production and also for heavy farm horses.

6th.—“Corn, oats and barley in a properly balanced ground ration forms a feed that furnishes the work horse with flesh, fibre and muscle making tissue, enabling him to stand hard work and maintain good life and flesh.”

Our own feed experts have worked along similar lines, and we have produced a feed such as Professor Shaw recommends. It is—

Schumacher Stock Feed

a perfectly balanced ration of the best feeding parts of Corn, Oats and barley products. This feed is the result of practical experience. There is not a particle of theory about it. We have watched the effect of various feeds upon horses in daily use on the farm, on the road and in the lumber camps; upon market, breeding and dairy cattle; upon sheep and hogs. Schumacher Stock Feed is the result of these observations and experiments. It is the feed that produces the greatest net results in dollars and cents.

Schumacher Stock Feed furnishes feed variety. This means that live stock of all kinds will relish it better and lick up the last morsel. It furnishes in the correct proportions the elements that make flesh, bone, muscle,

tissue, fat and energy. It puts the bodily organism into condition to produce *more milk, more meat, more power*, at a lower cost than you have heretofore thought possible.

Feeding whole grain is like throwing money away, because a large percentage passes through the animal in an undigested condition. You can sell your grain and buy Schumacher Stock Feed and make money by the transaction. It is finely ground and thoroughly kiln-dried. Nothing is lost or wasted in the process of digestion. Try Schumacher Stock Feed for 30 days and you will agree with thousands of other progressive feeders that it is truly *the feed to feed for any need for every breed*. It is sold only in sealed and branded sacks with the guaranteed analysis on every sack.

ALL GOOD DEALERS SELL IT. IF YOUR DEALER DOES NOT HAVE IT, WRITE TO US.

The Quaker Oats Company Peterborough, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

BLIGHT ON HORSE-CHESTNUT TREES.

What causes the blight of horse-chestnut trees? Is there any preventive?
J. D.

Ans.—The blight on the foliage of horse-chestnut is a “leaf-spot,” called by plant pathologists *Phyllosticta paviae*. It produces large, brownish or reddish, disfiguring and injurious spots. Early and repeated sprayings with Bordeaux will prevent or restrict its growth.
J. D.

TO PREVENT HOGS FROM FIGHTING.

Noticing an enquiry some time ago as to how to pen a number of strange hogs and keep them from fighting or worrying each other, I submit the following: Take a pair of ringing pinchers, and put a ring in each side of snout, well down. As a pig generally strikes sideways when starting to fight, the ring being in the side gives him something else to think about.
J. A. H.

SOWS FAIL TO COME IN HEAT—ECZEMA.

1. I have two sows that do not come in heat. I feed them pulped turnips, oat chop and a little whole buckwheat. They run in the barnyard, but have a warm place to lie.

2. I have a six-year-old mare that scratches herself in the stable. She has the hair rubbed off her hips to about the size of a saucer.
SUBSCRIBER.

Ans.—1. We can suggest no means of bringing about the desired condition, other than keeping a young boar with them. Some sows show the signs of oestrus much less than others, and they may not have been observed.

2. This is eczema. Try washing the parts with a strong solution of one of the coal-tar sheep dips, or with corrosive sublimate, twenty grains to a quart of water. This is poison, and should be so labelled. It may be well to purge with a ball, if mare is not in foal, consisting of eight drams aloes and two drams ginger, feeding only bran mashes for twenty-four hours previously, and after bowels become normal give one ounce Fowler's solution of arsenic night and morning for ten days.

ROOFING MATERIAL.

1. What kind of roofing would you advise for a barn roof?

2. Has corrugated, galvanized iron proved durable?

3. How long has it been in use?

4. Is there any way of distinguishing good from poor galvanizing?

5. Is there such a thing as double galvanizing?

6. What gauge iron would be proper to use on barn?

F. L.

Ans.—1. I believe galvanized-iron shingles the best roof for a barn. It will cost from 75c. to \$1 more per square than the best wood-shingle roof, but it is a great protection against fire from sparks; also if this roof be connected with the earth by wires, which go down deep enough to be always in moist earth, it is also a great protection against lightning. For these two reasons I think if I were putting a roof on a barn I would use the metal shingles rather than the wooden shingles, despite the slightly-higher cost. A corrugated-iron roof laid on strips four inches wide and two feet centers, can be put on for about \$1.25 a square less than the wood shingles, taking into account the difference between close sheeting and strips two feet apart; but it does not make so substantial a roof as either of the others, and hence is not as much used. If solid sheeting is used, the corrugated-iron will cost about 50c. to 75c. more per square than the best wood shingles, i. e., about 25c. per square less than the metal shingles.

2. Yes.

3. Probably over fifty years in Canada.

4. A layman would probably not see much difference between good and poor galvanizing.

5. No.

6. If the roofs and sides are sheeted before the galvanized iron is put on, 28 gauge would be heavy enough; but if the iron is to be laid on strips two feet apart, then 26 gauge should be used.

O. A. C. WM. H. DAY.



HOW TO BUILD A GOOD FENCE

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

THE BANWELL HOXIE WIRE FENCE CO., Ltd.
Dept. B Hamilton, Ontario. Winnipeg, Manitoba.



Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world
G. Howard Davidson, Pres., Millbrook, N. Y.
Address correspondence to MORTIMER LEV BRING, Secretary, Lafayette, Indiana.

Shropshires and Cotswolds

I am now offering 35 shearing rams and 50 shearing ewes, also an extra good lot of ram and ewe lambs from imported Minton ewes and Butlar ram.

JOHN MILLER,

Brougham P.O. Claremont Stn., C.P.R.

FAIRVIEW SHROPSHIRE

We wish our customers a prosperous New Year. Allow us to heartily thank you for your many kind words of appreciation of sheep sent in 1907. We congratulate ourselves in not having a single lamb of sheep sent out all the year, and a few good ewes and ewe lambs, and a few famous champion rams.

ADVERTISERS

THIS PAPER

FURS WANTED HIDES

IN ANY QUANTITY OF ALL KINDS

WRITE FOR PRICE LIST

SHIPMENTS SOLICITED

JOHN HALLAM III FRONT ST. EAST TORONTO

Farnham Farm Oxford Downs

We are now offering a number of select yearling rams and ram lambs, sired by imported ram, for flock headers; also yearling ewes and ewe lambs. Price reasonable.

Henry Arkell & Son, Arkell, Ontario.

Arkell, C. P. R.; Guelph, G. T. R.

SHROPSHIRE SHEARLING EWES

for sale, bred to high-class imported Butlar ram.

GEO. HINDMARSH, AILSA CRAIG, ONTARIO.

Southdowns

FOR SALE: 2 imported prizewinning rams, and 60 home-bred and imported ewes. COLLIES.—Puppies by champion sire, and out of prizewinning dam.

Robt. McEwen, Byron, Ont.

SHROPSHIRE

Choice breeding ewes for sale at reasonable prices. White Wyandottes at all times.

W. D. MONKMAN, BONDHEAD, ONT.

More Terrible Than War!

More terrible than war, famine or pestilence is that awful destroyer, that hydra-headed monster, Consumption, that annually sweeps away more of earth's inhabitants than any other single disease known to the human race.

"It is only a cold, a trifling cough," say the careless, as the irritation upon the delicate mucous membrane causes them to hack away with an irritable tickling of the throat. When the irritation settles on the mucous surface of the throat, a cough is the result. To prevent Bronchitis or Consumption of the Lungs, do not neglect a cough however slight as the irritation spreading throughout the delicate lining of the sensitive air passages soon leads to fatal results. If on the first appearance of a cough or cold you would take a few doses of

Dr. Wood's Norway Pine Syrup

you would save yourself a great deal of unnecessary suffering. Dr. Wood's Norway Pine Syrup contains all the life-giving properties of the pine trees of Norway, and for Asthma, Croup, Whooping Cough and all Throat and Lung affections it is a specific. Be sure when you ask for Dr. Wood's Norway Pine Syrup to get it. Don't be humbugged into taking something else. Price 25 cts.

Miss Lena Johnston, Toledo, Ont., writes: "I have used Dr. Wood's Norway Pine Syrup for throat troubles after taking numerous other remedies, and I must say that nothing can take the place of it. I would not be without a bottle of it in the house."

LARGE ENGLISH YORKSHIRES

Pigs of the most approved type of both sexes all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We were more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.

D. O. FLATT & SON, Millgrove, Ont.
MAPLE GROVE YORKSHIRES
Imported and Canadian-bred boars and sows of the best possible breeding, with lots of size and quality. A fine lot of both sexes and all ages. Everything guaranteed as represented. Prices reasonable.

H. S. McDIARMID, Fingal P. O., Shedden Sta.

PINE GROVE BERKSHIRES!

Bred from imp. and Canadian-bred sires and dams, which are of choicest breeding. Stock, all ages, for sale. Some imp in dam. Guaranteed as represented.

W. W. BROWNIDGE, Milton, C.P.R. Ashgrove P. O., Georgetown, G.T.R.

"John, I'm afraid of burglars."

"You needn't be. Our main possession is a second-hand carpet, and that's nailed down."

QUESTIONS AND ANSWERS. Miscellaneous.

LUMPS IN UDDER.

I bought a young pure-bred Ayrshire heifer recently. She had calved about a month ago. I find she has several hard lumps in her udder, some between the teats, and some back of them. What is the cause and cure? C. H. H.

Ans.—This is the remains of a caked udder, and may pass away without other treatment than rubbing well with goose oil twice a day. If lumps still remain, try iodine ointment, applied after milking, which will probably reduce the lumps. If it seems to blister, apply lard or sweet oil after.

TREATMENT OF PRESERVED EGGS.

Should eggs be washed after preserved in water-glass, or what is the best procedure? E. F.

Ans.—As a rule, eggs that are preserved in water-glass require to be washed, and the best procedure of washing is a matter of opinion. Personally, if I have many eggs, I like to puff them in a tub, and use water of about 90 degrees temperature, or just tepid. If you put a large number of eggs in a tub together, you can roll them over one another and get the gelatinous coating off. You will require, however, to handle practically every egg, and some of them will require brushing or something of that nature; then stand them on end on a piece of cloth, something like a bran sack, and allow to dry.

O. A. C. W. R. GRAHAM.

FROST AFFECTING TILE DRAINS, ETC.

1. Is there danger of frost breaking the tile in drains, where they are not more than 16 or 18 inches deep?
2. Is it necessary to keep the cross-drains open where there is an under-drain put in close to the cross-drain?
3. Is peas a good thing to seed down with clover?
4. When is the best time to sow rape to avoid the louse?
5. Which is the best for sheep, rape of Thousand-headed kale? W. T.

Ans.—1. The main danger of injury to tile from being too shallow rests in the fact that their pores are apt to become filled with water, and then when the ground freezes it is inclined to chip the tile. In the course of time this will destroy the tile, but it would take quite a number of years to do so. Of course, if the tile were full of water at the time the ground froze, the water would certainly burst the tile, but this is very unlikely to happen, because as the ground freezes from the surface, the flow of water is checked, and by the time the frost reaches the tile they are practically empty in nearly all cases.

2. The chances are that it would not be necessary to keep cross-drains open where an under-drain is put in close to the cross-drain, unless the cross-drain carried away a large amount of surface water at certain seasons of the year. I would advise leaving the cross-drain open for a few years at any rate, for purposes of observation, as only in this way can an opinion be formed regarding the advisability of filling it.

3. It would not be wise to seed clover with peas. It has been tried, but is almost invariably a failure.

4. As a rule, late-sown rape is more likely to escape the attacks of the plant-louse than earlier-sown. Where the rape is not required for pasture until, say, the middle of September, it may be sown as late as July 1st, and give a satisfactory crop. Would recommend not sowing it earlier than the middle of June, and postponing the sowing until the beginning of July, where it is practicable.

5. The Thousand-headed kale has given a larger yield in the experimental plots than rape. Unfortunately, we have no feeding experiments with these two crops. My impression is that for pasture purposes the rape would be found rather more satisfactory, though I may be wrong in this supposition. I would expect, also, that the rape would be a little richer in nitrogenous matter, though, unfortunately, we have no analyses of the two crops. Until the kale is better known, I think it would be advisable to use rape for pasture.

Elmhurst Berkshires

We have a number of choice young boars ready for service. Some imported, others imported in dam—also from imp. sire and dam—which we will price right for quick sale. Write us for what you want.

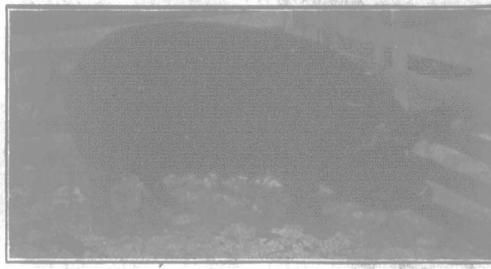
H. M. VANDERLIP,

Importer and Breeder, CAINSVILLE P. O., BRANT CO.

YORKSHIRES of Choicest Type and Breeding.



I have on hand 75 brood sows of Princess Fame, Cinderella, Clara, Minnie, Lady Frost and Queen Bess strains. My stock boars are true to type and richest breeding. For sale are a large number of sows bred and ready to breed, boars fit for service, and younger ones of both sexes. Pairs and trios not akin. J. W. BOYLE, P. O. Box 563, Woodstock, Ont.



Large English Berkshires

for sale from imported stock. Sows with pig and pigs for sale. All ages. At reasonable prices. Guarantee satisfaction. Boars and sows delivered at Woodstock station, C. P. R. or G. T. R.

JOSHUA LAWRENCE, Oxford Center, Ont.

Duroc-Jerseys Boars fit for service. Sows ready to breed. Several sows in pig, also younger ones. Imported Canadian Boy 19097 heads our herd. **MAG CAMPBELL & SONS, Harwich, Ont.**

HAMPSHIRE OR BELTED SWINE. Young stock, either sex, for sale. Prices and terms reasonable. **ARTEMAS O'NEIL, BIRR, ONTARIO.**

For Sale—Ohio Improved Chester Whites, the largest strain, oldest established registered herd in Canada; young sows in farrow; choice young pigs, six weeks to six months old; pairs not akin; express charges prepaid; post office and safe delivery guaranteed. Address **H. D. GEORGE, Fergus, Ont.**

Yorkshires—Boars ready for service; sows ready to breed, and bred; young pigs just weaned and ready to wean. Cotswold and Shropshire rams, yearlings and lambs, registered. **GEO. M. SMITH, Haysville, Ont.**

MONKLAND YORKSHIRES

are the easily fed, quick maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now. **JAMES WILSON & SONS, FERGUS, ONTARIO.**

Large White Yorkshires!

Am offering at the present time a choice lot of boars ready for service, from imported stock; also young pigs of both sexes, not akin. Prices right, and quality of breeding unexcelled. Write or call on **H. J. DAVIS, WOODSTOCK, ONT.**

NEWCASTLE TAMWORTHS.

Oldest established herd in Canada. For sale: 19 young sows sired by Colwell's Choice and Newcastle Warrior, both Toronto champions, and bred to imp. Cholderton Golden Secret; also younger ones, both sexes, by him, and out of dams by above Chs. sires. Several boars fit for service. Will sell right for quick sales. **A. A. COLWELL, NEWCASTLE, ONT.**

MOUNT PLEASANT HERD OF TAMWORTHS and Meletons.—For sale: Pigs of either sexes, from 6 weeks to 7 months; pairs not akin; also bull and heifer calves under 5 months. Phone in residence. **BERTRAM HOSKIN, The Gully P. O.**

OAKDALE BERKSHIRES Largest Berkshire herd in Ontario. Stock boars and several brood sows imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prize-winning lines and true to type. Everything guaranteed as represented. Long distance phone. **L. E. MORGAN, Milliken P. O., Co. of York.**

Yorkshires and Tamworths—Either breed any age, both sexes; sows bred and ready to breed. Yorkshires bred from imp. sire and dam. Tamworths from Toronto winners. Pairs not akin. As good as the breeds produce. **CHAS. CURRIE, Schaw Sta., C.P.R. Morrisston P.O.**

Meadowbrook Yorkshires. Young stock of both sexes. A number of sows old enough to breed, all sired by imp. Dalmeny Topman. Everything guaranteed as represented. **J. H. SNELL, Hagersville P. O. & Station.**

ENGLISH BERKSHIRES

Boars ready for use. Choice sows to farrow in March and April. Shorthorns of both sexes. **JOHN RACEY, Lennoxville, Que.**

Glenburn Herd of Yorkshires

Winner of gold medal three years in succession. 6 young boars from 6 to 9 months; also 75 young sows, from 6 to 12 weeks old. **David Barr, Jr., Box 3, Renfrew, Ont.**

LARGE ENGLISH YORKSHIRES.—We have a limited number of choice young pigs for sale, bred from our choicest sows and got by the imported boars, Dalmeny Joe 13577 and Broomhouse Beau 14514. Pigs from the latter won all the first prizes at the Ottawa Fat Stock Show last March for the best dressed carcasses, and sweepstakes over all breeds or grades. We guarantee satisfaction in all mail orders. **JOSEPH FEATHERSTON & SON, STREETSVILLE, ONT.**

Willowdale Berkshires

are unsurpassed for quality and breeding. Young stock, all ages, for sale reasonable. Satisfaction guaranteed. Long-distance telephone in residence. **J. J. WILSON, Importer and Breeder, Milton P. O. and Station, G. T. R. and C. P. R.**

SUNNYMOUNT BERKSHIRES!

Boars fit for service. Sows bred and safely in pig. Sows fit to be bred. Young pigs just weaned. **JOHN McLEOD, Milton P. O. and Sta., C. P. R. & G. T. R.**

FAIRVIEW BERKSHIRES

Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars. **HENRY MASON, SCARBORO P. O.** Street cars pass the door.

Subscribe for the Farmer's Advocate.

A MESSAGE TO MEN WHO ARE WEAK AND AILING.

The failure of medicine, of quacks, and even of other so-called electric belts is no argument against Dr. McLaughlin's Electric Belt. No other treatment, no other belt, is in the same class with it. Everything else may fail, but Dr. McLaughlin's Belt will cure. It HAS cured thousands who tried other remedies without success.

Here's an Offer
That No Weak
Man Can Afford
to Miss.

Everybody
Admires and
Honors a
Strong Man.

ARE
YOU
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If you are
Tired of Use-
less Drugging,
Come Now.

Do You Want
to be

"A Man
Among
Men?"

WRITE
TO-DAY

This is a message to men. It is to men who want to feel like men, to look like men and act like men. This is to men who lack courage, whose nerves are shaken, whose brains are muddled, ideas confused, sleep restless, confidence gone, spirits low and easily depressed, who are backward, hesitating, unable to venture because they are afraid of failure, who want somebody to decide for them, who are weak, puny and restless. It is to men who have part or all of those symptoms and want new life, new force, new vigor.

DR. McLAUGHLIN'S ELECTRIC BELT

is no longer an experiment. It is hailed by thousands with loud praise, because it has cured them. "It cured me. I am well and strong as ever. What more could one ask?" writes a man with a heart full of gratitude.

Do not be in error. This grand appliance is like no other. It is new. It has all the good points that are known in electricity. It gives a powerful current, but does not burn or blister, because my special cushion electrodes make the current a warm, gentle glow, which exhilarates and relieves at once.

Dear Sir,—I am fully satisfied with the result of your Belt. It is fully as good as you claim. It has made a new man of me. I have gained both weight and strength. Every word turned out to be true. I could not believe at first myself that your Belt was as good as it is. My friends tried to make me believe that your Belt was no good, but I was strong-headed, and got the Belt. After wearing it for seven weeks, I knew that the Belt was good, and in two months' time I was completely cured. Now all my friends believe in the Belt, but none stronger than I do. I have recommended your Belt far and wide.—ALEX. McDONALD, Dunmore, N. S.

Dear Sir,—I have great pleasure in writing to you to say that, after a fair trial of your Belt, it has accomplished wonders in so short a time. The indigestion is gone, and I can eat a good, hearty meal now (what I have not done for a long time), and the pain in my back is about gone. In fact, I feel like a new man, and will say that I am well satisfied with my bargain.—JOHN BEATTIE, Mina, Ont.

Dear Sir,—You will excuse me for not writing before, but I was in the lumber woods, and did not return until this month. Yes, sir, my back is all right. It is better and stronger now than it has been for thirty years. It is a permanent cure. My head don't bother me; nerves are strong; I am better all over. You can use my name to certify that your Belt is all you claim for it.—GEORGE STANLEY, Perth, Victoria Co.

My case has certainly been a very serious one, and one of long standing. I had latterly and so long been unable to do any work at all. Your Belt has worked wonders in my case, as I am working steady now. It is well known here that it is your Belt that has put me on my feet again, and, no doubt, will be the cause of other sales for you.—WILLIAM J. BYERS, Nipissing, Ont.

Your Belt has certainly done me a great deal of good in every way, and I shall always recommend your Belt to anyone I know that is in need of it.—ROBERT DICK, Kimberley, Ont.

I write to let you know that my health is very good. My back is about cured. The benefit I received from the Belt is well worth the price I paid for it. The advice alone is worth the money twice over. My friends tell me that I am looking fine. I tell them I don't know whether I am looking fine or not, but I can tell them I am feeling more than fine. I shall speak well of what you have done for me with your Belt and advice. Wishing you every success, I remain, yours very truly, W. H. BELDING, Chance Harbor, N. B.

I know no better way to prove my confidence in the wonderful curative power of my Belt than to cure you before I ask my pay. Can anything be fairer than that?

My confidence in my method enables me to offer the Belt on trial, and one who can offer me reasonable security can use my Belt at my risk and—

PAY WHEN YOU ARE CURED.

I have a nicely-illustrated book which every man should read. I will send it, closely sealed, FREE.

FREE BOOK. If you cannot call, then fill out this Coupon, mail it to me, and I will mail you, free, sealed, and in plain envelope, my Book, which contains many things you should know, besides describing and giving the price of the appliance and numerous testimonials. Business transacted by mail, or at offices only.—No agents.

Now, if you suffer, do not lay this aside and say you will try it later. Act to-day—NOW.

Put your name on this Coupon and send it in.

DR. M. S. McLAUGHLIN, 112 Yonge St., Toronto, Can.

Send me your Free Book, closely sealed, and oblige.

Name Address

QUESTIONS AND ANSWERS. Miscellaneous.

LICE ON CATTLE.

Can you tell me of anything that will kill the nits of lice on cattle, and how long it takes them to hatch under ordinary circumstances, as I have been told they become grandmothers in forty-eight hours, and begin to believe it, as we have used a great many dollars' worth of recommended louse killers, and spent days in trying to exterminate them the last two years, but have a nice crop of the large blue ones yet? If any of your correspondents have ever entirely exterminated these, without taking hide and hair off or burying the critter, I hope they

will kindly give it to the readers of "The Farmer's Advocate." G. H. C.

Ans.—Any application that would destroy the germ of life in the nits, would doubtless injure the skin and the roots of the hair. We have no knowledge of the history or fecundity of the insect, but in an extended experience have never failed in ridding cattle of lice by the simple methods. It is good practice to clip or cut the hair short on back and neck, then treat by sprinkling with sifted hardwood ashes, or dry cement, mixed with insect powder (pyrethrum). We recall a case of a bull purchased, which was covered with blue lice, and with one application of insect powder was completely rid of the nuisance. Oil or grease of any kind will kill lice; but if coal oil is used,

it should be mixed with twice the quantity of other oil, otherwise it will blister.

PREPARING TOBACCO DIP— CAPONIZING.

1. How should tobacco dip for lice be prepared?

2. How and when is the operation of caponizing cockerels performed? J. D.

Ans.—1. Take one or more pounds of cheap plug tobacco, according to quantity of solution required; cut and pull to pieces, and boil in a pot on stove, then add water, testing the strength on live vermin, and increasing water as long as strength of solution is sufficient to kill.

2. Caponizing is quite an art, not to be undertaken by an amateur, and not yet considered profitable in Canada.

MAP OF ONTARIO.

Will you kindly tell me, through the columns of your paper, where I can get a map of the Province of Ontario, showing the counties, towns and small places in the farming part of the Province?

A READER.

Ans.—Address Mr. Thomas Southworth, Parliament Buildings, Toronto, Ont.

DESTROYING HORSE-RADISH.

How can horse-radish be killed?

J. H. B.

Ans.—We know of no other means than that of digging it up. There will, no doubt, be portions of the roots left, which will grow and come up to the surface, but by cutting these off as soon as seen, destruction will soon be completed.