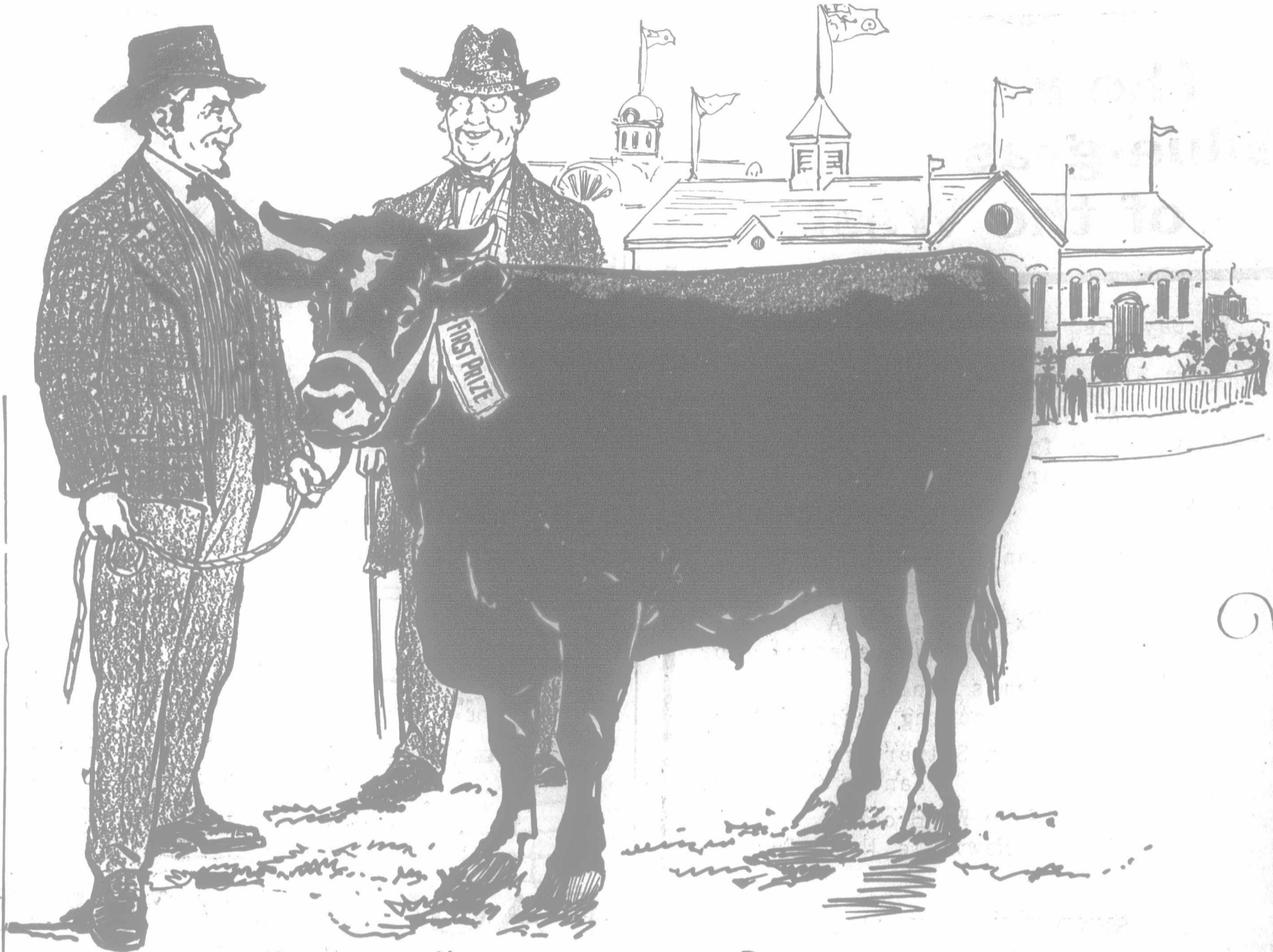


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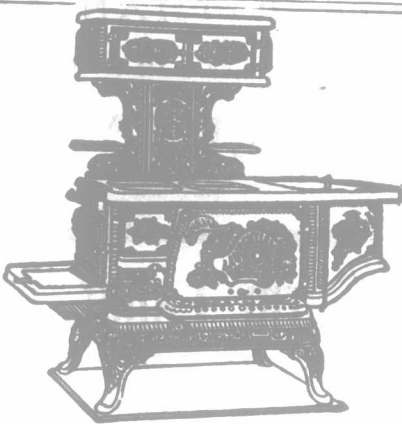
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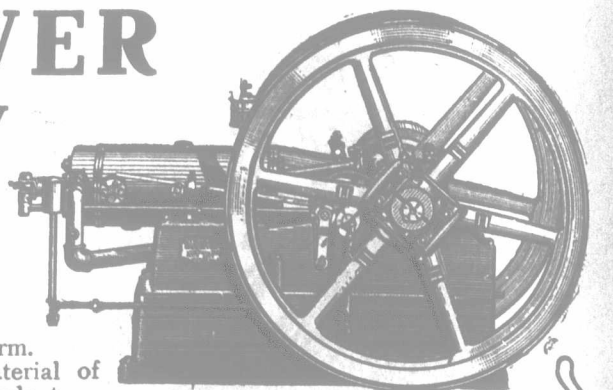
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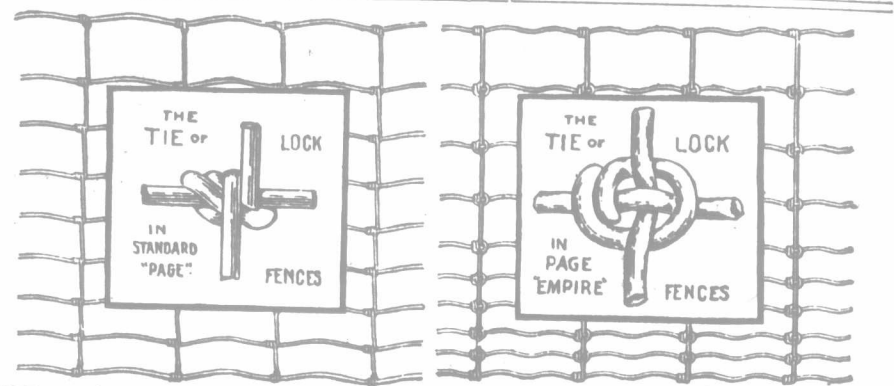
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# The Farmer's Advocate

## and Home Magazine

"Persevere and Succeed."

Established 1866.

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VOL. XLI.

LONDON, ONT., AND WINNIPEG, MAN., MARCH 1, 1906.

No. 701

### EDITORIAL.

#### A Word to the Hired Man.

We often receive letters from wage-earners asking what are the recognized holidays which the farm hand is entitled to claim. Now, the faithful hired man deserves some time to himself for diversion, especially if he has matrimonial intentions, but we sometimes wonder if the men who are interested in Easter Monday, Labor Day and Victoria Day have their minds very earnestly fixed on their work. We have every sympathy with the farm hand; we like to see him get a good wage, and it seems to us employers should be willing to accord the deserving hired man such a chance as they would desire their own boys to receive from a neighbor. Indeed, it looks very much as though the farm service of the future should be mainly a training school for young, prospective farmers, and a means whereby they may acquire the capital with which to start. We cannot see how immigration of inferior races will ever solve the labor problem; it is, at best, only an expedient, and when we consider the character of much of the immigrated labor, and reflect upon the consequences of introducing this element into our citizenship, we may well ask ourselves whether effort in this direction is judiciously calculated. To our mind, the principal ready solution, apart from reform of rural education, that promises any permanent results, is the foresighted adoption of methods that will enable us to accomplish more per man, and thus make it possible for us to pay our help and earn for ourselves a higher wage. To do this is not easy, or it would have been practiced already. It will take as much study and brains as are demanded by any manufacturing or commercial enterprise, but it is not well that we should address ourselves to overcoming the difficulty, rather than waste time looking for an undesirable way around it?

So much by way of suggestion from the employer's standpoint. To the farm hand we would say, remember that the farm is not a gold mine, and that the farmer probably levies a smaller proportionate toll on the proceeds of his laborers than does any other employer. Remember, also, that, while farm wages may look small, it is easier to save from \$100 to \$200 a year than in many city positions where the pay checks run up to a thousand a year. Remember that a dollar honestly earned by a bona-fide producer of wealth brings more genuine satisfaction than a fortune acquired in speculation. Riches do not measure happiness. If one opens his mind to the poetry of the farm, there is more of soulful comfort and heart-gladdening beauty there than anywhere else on earth. Remember that the downright, practical experience acquired at farm work is a valuable asset in assuring future comfort and happiness. No matter what walk of life one may afterwards enter, he will feel that the farm experience is a solid, practical foundation under his feet.

Remember, too, that until one shows an interest in his work, he has no right to expect confidence from his employer, and unless he conducts himself like a gentleman, he has no right to expect courteous treatment from the farmer's wife. There is a very true saying to the effect that the world is a looking-glass in which we see the image of ourselves. Many of us see a hideous picture, because we are always scowling at the looking-glass for the presentment it shows us. The employer and his family are a mirror in which the hired man sees himself reflected, and in the hired man's attitude the employer can frequently see a reflection of his own. Of course, there are bright

and dull mirrors, but the worst of them reflect with amazing accuracy; it is often hard for us to believe how true the reproduction is.

The hired man who is taking care not to earn all he gets, is almost certainly getting more than he earns; the only one who is in danger of earning too much is the one who fears he is hardly "making good." Such a worker is always in demand; if one man cannot pay him as much as he is worth, another will; and if such a one combines integrity, enterprise and perseverance with his industry, he is bound to reap his reward. In a word, then, our advice to the hired man is, take all the wages you can get, be awake to every opportunity, get as good a place as you can, then, by your work, prove yourself fit for a better one. Read, study, think, improve your mind, keep your character clean and husband your physical strength, don't be a slave, don't toady, and don't cringe, but serve your employer as a man, and if friction arises see whether you have been in the least at fault, and let him attend to his side of the case. The man who can do that wins the world's respect. Above all, work to your employer's advantage, that every stroke may count. The waste of effort and time by the pernicious habit of time-serving, common nowadays, is one of the grave economic losses of the age.

As a cheering thought, remember there is always room at the top. The reward of faithful effort sometimes seems slow, but it is exceedingly sure. You can't keep a good man down. The writer's experience as a farm hand has been gained in two Provinces, and under several employers, while he has also tasted the joys of the navy's life in August heat and winter frost. He has never been out of a job at good wages, for, through it all, he kept uppermost in mind that the best way to get more wages is to earn more, and that the only man who can be relied on to put his very best effort into the job he has in hand.

#### Judgment Needed in Selecting Cows by Performance.

An awakening of interest in the selection of dairy cows—both pure-breeds and grades—according to actual performance, gauged by milk scales and Babcock tests, is a hopeful assurance of future progress in dairy stock-breeding. Co-operative and private testing of common herds, and officially-supervised but privately-conducted testing of pure-breeds, must prove a great boon to the dairy business. We have heard the objection raised that official tests of pure-breeds, kept after the manner suggested in our issue of January 11th, would be of little reliance to the prospective buyer, as there would be too great an opportunity for the breeder to "stuff" his milk records. This, however, is not so easy as it looks, even were the breeders so disposed, for the official's monthly weighing of milk and sampling for Babcock test would be a check on the private record, any marked discrepancy being sufficient to call for investigation, and either correction or exposure. The plan works well, we believe, in the case of the American Guernsey Cattle Club, and with the admitted integrity of the majority of our breeders, and with a vigilant inspector, we have no reason to anticipate fraud in Canada. Advanced registry, based on official test of each cow for one year, is entirely feasible, and men who have given the matter some thought are convinced there would be no insuperable obstacles in extending the period of test to cover two or more years, at the option of the breeder.

But a word of caution is pertinent at this stage. When cow-testing becomes popular, as we hope it will be, there will be a tendency to run

to extremes after cows with phenomenal records. Such stock will very likely be bid up out of reason, in the hope that its progeny will prove equally heavy producers. Constitution will be slighted, size and substance ignored, and the fact overlooked that the records of phenomenal producers are seldom repeated by their immediate descendants. The result might be expected to be a race of scrawny, ill-favored cattle, incapable of bearing a generation as good as themselves. Of course, this will not be the result in all instances, but unless guarded against it will be the tendency, and then there will come a reaction, a seeking after more constitution, size, substance and type.

Let us avoid the mistake. While welcoming the testing of cows, let us not pin our faith blindly to the cow which gives an extraordinary yield of milk and fat, but to the hearty, vigorous dam—the cow that produces somewhat above the average, and has the stamina to back it up and impart to her progeny sufficient capacity, vitality and nerve force to equal or exceed the matron's own performance. Breeding will never be a science of mathematics purely, though the more exact knowledge one can bring to his aid, the better his chances of success along utilitarian lines. Let us look upon milk records as help rather than an infallible guide. Then may stock improvement proceed gradually along rational lines, and we will not be in danger of defeating our object by undue haste to capture a nest of golden eggs.

#### Good Salaries to Good Men.

We were pleased to read in the speech from the throne, at the opening of the present session of the Ontario Legislature, that funds would be asked to increase the teaching facilities of the Ontario Agricultural College at Guelph. This suggests the thought whether it is not time to consider a change in the rule of limiting the salaries of the professors to \$2,000 a year. It is true that some of them get considerable perquisites, such as free light, free heat, free house rent, and so on, but the nominal salary that may be offered to any man is the above sum. Compared with a farmer's income, \$2,000 is a big stipend, and it is a large salary to pay to an ordinary man, but for the kind of men who ought to be kept at that institution it is hardly adequate, for the simple reason that these can get better salaries elsewhere in similar lines of work. The College has suffered already from the loss of promising members of its faculty, and although, fortunately, some good men have, out of loyalty and other considerations, remained with it, the drain must continue unless it is made better worth while for talent to stay. A still greater handicap is the president's inability to introduce needed new blood by going to eminent men and offering sufficient inducements. We have in mind at least one Canadian who would be a tower of strength to the staff, and capable of doing incalculable good to Canadian Agriculture, but who will never be tempted by a salary of \$2,000 a year. The head of a department in an agricultural college should command as high a salary as any university man, for his qualifications demand a rare combination of practical and scientific attributes. A good man, working for a country where agriculture is of such paramount importance as in Canada, is cheap at almost any price. A poor one should not be retained.

Then, too, the members of the staff should have more opportunities to travel around through the country and get in touch with the men they are trying to serve. And, still further, they should travel abroad, not to Britain merely, but in the United States and elsewhere, so as to see how similar institutions are working, to broaden

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THE LEADING AGRICULTURAL JOURNAL IN THE  
DOMINION.

PUBLISHED WEEKLY BY  
THE WILLIAM WELD COMPANY (LIMITED).

JOHN WELD, MANAGER.

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WINNIPEG, MAN.

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out in every possible way, and keep their constituency informed as to the latest research work being conducted all over the world. No institution can grow properly that is nurtured within its own shell. The O. A. C. has done splendid work, but is capable of doing better, and we respectfully commend these suggestions to the Hon. Nelson Monteith, Minister of Agriculture, and to his chief, Premier Whitney. Some few years ago the limit of salaries was raised from \$1,800 to \$2,000, and the members of the staff are being increased \$100 a year—except Prof. Day, who, by a special Order in Council in 1903, was advanced \$400 to the maximum. Prof. Zavitz has reached the limit, and at the end of 1907 there will be others to be considered. It is quite certain the maximum cannot remain permanently at \$2,000, and, while it is far from our part to counsel recklessness in Departmental Administration, we believe the Minister will be justified in considering a change that would permit the payment of larger salaries to the heads of the important college departments.

### The Farmer is the Man.

In a recent address, the Hon. R. P. Roblin, Premier and Minister of Agriculture for Manitoba, made this declaration of faith in regard to the true source of wealth:

"I challenge any man to prove, or even assert, with any degree of authority or knowledge, that any banking institution, any wholesale house, or any departmental store, no matter how large, ever added one new dollar to the wealth of the realm. But the farmer who tills the soil and sells one bushel of wheat, or grows a bullock for the market, adds to the wealth of the nation. Therefore it is to the sturdy husbandman of this country that we look for that development and that progress that we aspire to make in Manitoba, one of the most if not the most important Province in Canada, as far as agriculture is concerned."

## HORSES.

### Horse Breeding.

In a lecture delivered by Mr. G. A. Ferguson, in connection with the Aberdeen University Agricultural Discussion Society, recently, Mr. Ferguson said the breeding of horses resolved itself into two branches—the principles of breeding, and the practice. The surest method of carrying out and improving the practice was by diffusing as much as possible the correct principles. The object the breeder had in view was the production of a first-class animal—an animal that would be an improvement on its parent. The way to bring this about was to breed on a sound plan, and not at haphazard. Like producing like was as nearly as much an exception as a rule, in horses. Like did produce like, but not in the generation wanted, for often they found that the sins of the fathers were visited on the children in the third and fourth generation. The type of horse would always be dependent on demand, and he thought he was near it when he said that the type they now had was nearer satisfying all the demands that might be made upon it than any other type that had hitherto existed. Pedigree could be abused, and often was abused. Used rightly, however, it was invaluable. What was wanted in Clydesdales was more line breeding. Line breeding, however, must not be confounded with inbreeding. Let them be given a stallion with good masculine appearance and with plenty of virility, and line-bred to a notable grandsire, or great-grandsire, or great-great-grandsire or dam, with correct breeding downwards, then they would have more pleasing results. In the selection of the animals from which they were to breed, preference should be given to the animals that gave a very good first impression. They should, in their stallions, have strength, a grand carriage, and plenty of masculine character. In their mares they wanted quality and feminine character. He would like to emphasize one thing in breeding, and that was the wisdom of keeping the horse or mare that bred well. In the North the practice was all but universal to breed from mares engaged in regular farm work. One peculiarity worth mentioning was the success that often attended the first foal of a mare freshly bought from a distance. Another peculiarity which he could not explain was that one horse should be a greater getter of colts, and another a greater getter of fillies. Individual effort in breeding was fostered most largely in two ways, (1) by shows, and (2) by breeding associations or clubs. Of shows he could not speak too highly. They had given a sort of life stimulus to breeding; they gave the opportunity for comparing and selecting, and they established a brotherhood amongst breeders. He thought the secret of the animal to run rough for a time before being put to stud, and to be brought into thriving condition when brought to stud. For youngsters, an abundance of exercise and fresh air should always be given. For young horses, straw or hay chaff was of great use mixed with grain, as it kept them from bolting the food, but the quality of the fodder must be good. His experience of Clydesdale breeding has been that it was a profitable as well as a pleasant hobby. They wanted, however, more young men in it—young men of education, fellows who would lift the association with horses into higher scale. (Applause.) He was most hopeful for the future of the breed. With the excellent breeding strains now available, and with a clearer prospective of what the best type of Clydesdale was, he would say that it appeared to him no time had ever been so opportune for starting a stud.

Mr. Gray said he would start the heckling by asking Mr. Ferguson whether the best possible type of a draft horse was not obtained by a cross between a Clydesdale and a Shire.

Mr. Ferguson said, undoubtedly the Clydesdale was the best draft horse of the present day. The Clydesdale could not be improved by crossing with the Shire. His reason for saying so was that the Clydesdale had been evolved from the Shires already, and was an improvement on the Shires.

Mr. John Marr, Uppermill, said he agreed with Mr. Ferguson that no more interesting work could be taken up than that of breeding horses. On the average, he believed that the man who bred from first-class stallions out of first-class mares got the best produce. It was very important not to breed in-and-in with horses, because there was no class of stock that he knew where too much inbreeding told so much upon the size and constitution and power of the stock than in horse-breeding. They wanted, in horse-breeding, to have an animal of first-rate conformation, action and quality, and he thought they should aim always at keeping up weight and constitution. In race-horses they had a test which corrected the effects of inbreeding. That was the race-course. It was a test of endurance, constitution and stamina, which they had not got to the same extent in draft horses, because a horse might be weak

in constitution, even although he was well formed and heavy. Such a thing could not happen in the Thoroughbred. He did not say that it was not necessary to have a certain amount of line breeding, but he thoroughly agreed with Mr. Ferguson that heterogenous crossing was about the worst thing they could have.

### How Shall we Mate Our Draft Mares?

The breeding season is now approaching, and prospective breeders will necessarily soon have to decide how they shall mate their heavy mares. Of course, those who have registered mares will simply need to consider the individuality of the sires, while those whose mares are not pure-bred may be undecided as to the breed as well as the individuality of the sires to be chosen. In this respect there is great danger of very expensive mistakes being made when the subject is not well considered. One of the strongest principles of most, if not all, successful breeders, has always been "stick to type." The breeder who, either from disappointments in former efforts, desire to experiment, or other causes, decides to patronize a sire of a breed other than that which predominates in his mare, will, with few exceptions, be doomed to disappointment. Experiments in breeding animals are very expensive, and should be tried only by those of independent means, and who are breeding as a pastime rather than with a view of financial success. If the prospective dam has one or more crosses of any recognized draft breed, a first-class sire of that breed should be selected, and in such cases reasonable probability of the produce being a better individual than the dam exists, but where a sire of another breed is selected there will, in all probability, be a deterioration rather than an improvement in quality; we might say a mongrelization. If the dam have one or more crosses of Percheron blood, a sire of that breed should be chosen; if of Clydesdale or Shire, choose a sire of either of these breeds; if of Suffolk, choose a Suffolk sire, etc., etc.

Allow me to briefly review the history or ancestry of a very large percentage of the heavy mares of Ontario. About 30 years ago there were few heavy mares of any definite type, and about that time heavy stallions of different breeds were imported into Ontario. These animals represented the Clydesdale, Shire, Suffolk and Percheron. There were probably more of the last-named breed than of the others. For some reason Clydesdales and Shires, especially the former, gradually gained in favor. Suffolks and Percherons, while liberally patronized by the farmers for some years, gradually grew into disfavor, importations ceased, those in the country died or were castrated, and we may say that for the last 18 or 20 years these breeds have practically been unrepresented in the stud.

During these years there have been a great many Clydesdale and Shire stallions, and of late years no inconsiderable number of mares imported. Breeders of heavy horses have of necessity patronized these sires, and now, in most sections of the Province, it is seldom we see an animal with any pretensions to draft size and type in which the characteristics of these breeds are not well marked. The mares, with few exceptions, out of which we must produce our draft horses, have two or more crosses of Clyde or Shire. This, Mr. Editor, is a fact that cannot be denied. The intelligent breeder, who gives the subject any consideration, must arrive at the conclusion that in order to be successful in breeding operations he must continue to intensify in the offspring the type and characteristics that predominate in the dam, and that an attempt in any other direction must of necessity mongrelize the offspring and bring disappointment. It would require many generations of careful breeding to "breed out" of the progeny of these mares the characteristics they now possess, and it has yet to be shown that the crossing of heavy horses of different types will make an improvement in type and characteristics. In fact, it has been proved by actual experience, that when such crosses are made the progeny is inferior to their parents on either side. I have no fault to find with any of the breeds mentioned, either as breeds or individuals. There are excellent animals of all these and other breeds, but I object to the mixing of the breeds. The draft-horse breeders of Ontario, having for so many years been breeding to the Clydesdale and Shire, it cannot be other than a strong temptation to attempt to make a change now. If they keep on as they have been doing for a few generations more, they will have practically purified their lines of their own production, and the size, type and characteristics of their horses must of necessity be improved; while, on the other hand, if they change to another breed, these will lose, and probably deteriorate, and we will have a class of animals with no definite character or type, and no "stick to type."

"WHIP."

**Good Temper in Stallions.**

In a recent discussion on horse-breeding, a Scotch breeder of carriage horses with large experience said: "During a lengthy and varied experience in the breaking of young horses, one thing has been most forcibly brought home to me, viz., that there is nothing relating to horseflesh which has a stronger tendency to prove hereditary than what may be termed inherent vice. In maintaining this theory, I do not mean to say that a mare that kicks or jibs in harness will throw all her produce with a like vice; still, if they neither kick nor jib, it is in every way likely that they will display vice in some other way. Therefore, I would say to all breeders of any type of horses, do not breed from either mares or sires which have displayed inherent vice in any form. In addition to that, I am a strong advocate for all stallions that are to be used for the getting of harness horses being themselves exhibited in harness after they are over three years old."

**LIVE STOCK.**

**Feeding Sows.**

In the course of a bulletin prepared by Professor W. J. Kennedy for the U. S. Department of Agriculture, on the subject of pig-feeding in Europe, he gives the following notes of his observations in England: On the best farm the sows are often twelve months old before being bred. Two litters per year is the prevailing custom, and a good breeder is never discarded so long as she continues to rear good litters. The period of usefulness varies from three to eight years. The sows get exercise during the summer, and feed from pasture or a forage crop. Clover and alfalfa are both largely used, and many farmers use vetches and oats, or peas and oats. In the milder parts of the country sows have exercise during winter on pasture, and in the colder districts special exercising pens are provided under cover. Raw or steamed mangels, beets or turnips are fed in winter. Previous to farrowing brood sows are fed moderately. Any fattening or heating feed is eliminated entirely from the ration, or fed in very small quantities, and then in conjunction with cooling feeds, such as skim milk and bran. Within a week or so of farrowing time the principal part of the ration is decreased and the bran increased. Sometimes from four to eight ounces of Epsom salts, according to the size of the animal, are given each sow about two days before farrowing. During the suckling period, which varies from five to seven weeks, the sows are very liberally fed. Rations of equal parts bran, shorts and barley meal, scalded and fed with skim milk, or two parts bran, two parts middlings, one part barley meal, and one part maize meal, soaked or steamed, and fed with or without skim milk, are in general use. The sows are always fed three times per day, and in some instances four times per day. Skim milk and buttermilk are used whenever they can be had.

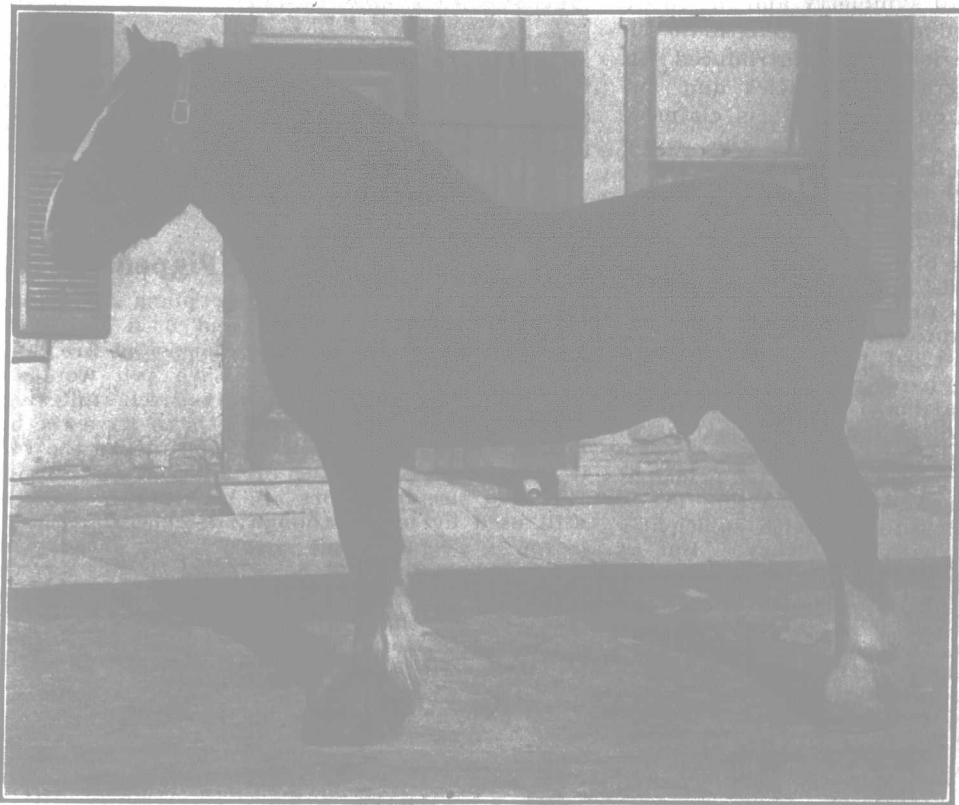
**The Sow at Farrowing.**

Profit to the farmer in pig-raising depends largely on saving a good percentage of the litters born this spring, and the prospect for high prices this year should be an incentive to giving the best of care to the sows, in order that they may produce strong litters and raise them well. The winter, owing to the light snowfall, has been uncommonly favorable to sows getting exercise and access to the ground, which is essential to the production of strong litters, hence the crop this spring should be better than usual. But in the case of sows farrowing in March, care should be observed that the farrowing pen should be warm and free from drafts. The sow should be used to her pen a week or two before her time is due, though she should be let out for exercise a while each fine day, and should have food of a relaxing nature, as bran, oil meal, roots, scraps of meat, and greasy swill. Her pen should be dry and well bedded with clean straw from which she may prepare her nest as instinct teaches her. The theory that has been advocated of giving the sow only chaff, cut straw, or scant bedding at this period, to avoid overlying of the pigs, has not grown in favor, for the reason that the piglings, when born, are more liable to stray away from the mother and become chilled. Given her own way, the sow will heap the bedding on all sides of her, so that the little ones cannot get away, but will roll close to her body and be kept warm, and if she is in a healthy condition she will save a larger proportion of her pigs in this way than with scant bedding. We have known a sow to farrow in a straw stack, and bring out a round dozen of thrifty youngsters. The sow should not be disturbed by feeding for at least twelve hours

after farrowing, and it may be better to leave her alone for twenty-four hours, if all is well, when she should be given only a light drink of swill with a little bran in it, for the first day or two, and very little strong or rich food for a week, when her rations may be gradually increased. In case the sow, from injudicious feeding and lack of exercise previous to farrowing, is constipated, restless and excitable at this period, experiencing difficulty in parturition, it may be necessary to give her extra attention, as by frequently rising she may trample her pigs to death. In such case it is well to take the pigs from her as they are born, placing them in a basket covered with a blanket, until all are born and the sow becomes quieted, when the pigs may be returned to her. Prevention is better than cure, and when the treatment during pregnancy has been such as to ensure a healthy condition of the dam at farrowing time, there is seldom any serious difficulty in parturition, but we have known instances where the contrary has been the case—when the pigs were large, flabby and weak, when great difficulty was experienced by the sow in giving them birth, and instruments had to be used in order to save the life of the mother. For this reason, it would be well to be prepared for such contingency by keeping on hand a pair of farrowing forceps, which we have often seen advertised in American papers, but are not aware whether they are on sale in Canada or not. If any of our readers know of such being available in this country, we shall be glad to hear from them.

**Care of Ewes and Lambs.**

Now that the lambing season is approaching, the ewes require to be a little more liberally fed than may have been considered necessary earlier in the winter, in order to give them strength to meet the demands of motherhood, and to provide a sufficient supply of milk for their young when they come. To this end, the ration of roots should be somewhat increased. A quart each daily of oats and bran will answer well for this purpose, in addition to good clover hay, as much as they will eat up clean. If it is known which of the ewes are to lamb late, and it is practicable to divide the flock, these need not be so liberally fed as those due to lamb early, but perhaps a more necessary division is that the ewes that have lambed be separated from the others in order that they may receive more generous feeding, although in the case of small flocks this may not be necessary if good judgment be used to make sure that all are getting sufficient nourishment to keep up their strength. When lambs are expected to arrive and the weather is cold, the doors should be closed at night, as well as any other openings that would cause cold drafts. And the careful shepherd will not retire for the night without taking a look in by lamp light to see if there is a prospect of a new arrival, in which case he will not mind losing a few hours sleep, but will wait up till the youngster has got upon its feet and received nourishment, after which, if strong, it will be able to take care of itself. To provide for twins or any weak lambs that may come, it is a good plan to have a few short hurdles ready, say 6 feet long and 2 1/2 feet high, two of which may readily be tied together in a corner of the pen in which to place the ewe and her lambs for a day or two until they get acquainted and will keep together. In this case, care should be observed not to overfeed the ewe with grain, but give her a light feed of bran or oats, or both, and a drink of water with the chill taken off, or a bran mash made thin, from which she may drink. In the case of a weak lamb which cannot stand within an hour after its birth, the ewe may be gently laid on her side, and while the shepherd places his right leg over her neck to keep her quiet, he has his hands free to handle the lamb, milking a little into its mouth, when, as a rule, it will take to sucking. Do not be over anxious to have it take much at first—nature's way is a little and often, and that is best. If the ewe neglects her lamb, or refuses to nurse it, she should be tied by the neck in a corner of one of the little hurdle pens above mentioned until she takes to her duty. In case a ewe loses her lamb by death, she may be made to adopt one of twins, by tying her in this way, rubbing some of her milk on the lamb; or she may more quickly be brought to take to it by stripping the skin off her own lamb while yet warm, and tying it on the lamb given to her.



Mascot, Imp., [4554] (12243).

Three-year-old Clydesdale stallion, sire Baron's Pride, dam by Macgregor. First in his class and champion, Canadian Clydesdale and Shire Show, 1906. Imported and exhibited by Smith & Richardson, Columbus, Ont.

**A Good Prospect for Young Stock.**

The present winter, owing to the unusually light snowfall in most parts of the Dominion, should prove exceptionally favorable to the coming crop of young stock of all classes, provided advantage has been taken of the weather conditions to give freedom of outdoor exercise to the pregnant females. It is agreed on all hands that the strength and vigor of the young things at birth, especially in the case of foals, lambs and pigs, depend largely upon this factor, and there will be little ground for excuse if owners fail to realize a benefit this spring from the favorable conditions of the winter in this respect. If any have neglected taking advantage of these circumstances, they will find it the part of wisdom yet, in the case of progeny due to come in the later spring months, to see that the mothers get out for exercise for an hour or more on all suitable days, and in case they are not disposed to stay, it may be well to scatter some tempting food on clean ground to induce them to do so. Mares will be the better for light work, being driven steadily and not required to do much backing; a few whole turnips scattered on the ground will keep the ewes interested, and some corn or peas distributed in the same will serve to keep the sows on their feet, to the benefit of all. We anticipate a more than usually healthy production of young things this spring, and in view of the scarcity and the active demand, present and in prospect, for lambs and pigs especially, breeders should give close attention to the youngsters when due, in order that as large a proportion as possible may be safely started in life and kept growing steadily into profit for their owners.

In a case of unduly protracted parturition, an examination should be made to ascertain whether the presentation is normal or not, and if not the oiled hand should be introduced, and the parts brought into proper position, when time should be again given for nature to work out its own deliverance. It is better generally to have patience than to hurry matters unduly. In the case of the presentation of the hind feet first, it is wiser to take the lamb away in that position than to attempt to turn it. In a case of undue difficulty in parturition, it is good practice after delivery to pour into the vagina from a bottle about a pint of warm water in which is mixed about 30 drops of carbolic acid. This will tend to prevent inflammation, and possibly eversion of the uterus. Docking and castration should be attended to when the lambs are about two weeks old. The latter operation should be performed first, the usual practice being to cut off the end of the scrotum, and draw the testicles, casings and all, singly, with forceps, or as the Old Country shep-

herd places his right leg over her neck to

herds do, with their teeth. Docking is best done by having an attendant hold the lamb standing on its feet, the operator cutting upward through the tail from the under side, at the second or third joint from the rump. This practice avoids danger from shock of the spine and struggling. Should undue bleeding ensue, which is seldom the case at this age, it may readily be checked by tying a soft string tightly around the stump. This should be cut away in a few hours.

**A Study of Breeds of Swine.**

**POLAND-CHINAS.**

The Poland-China breed originated chiefly in Warren and Butler Counties, in the Miama Valley, in the State of Ohio. For many years various names were applied to the breed, as, Magie, Miama Valley, Poland, Poland and China, etc., but at the National Swine-breeders' Convention held at Indianapolis in 1872 it was decided that the breed should be known as the Poland-China, and this designation is now generally accepted.

The foundation animals in the formation of the breed were the common stocks of the country, essentially of very mixed breeding. These were more or less crossed with the Russia, the Byfield and the Big Chinas, all of which existed in Warren County prior to 1820. The Berkshire cross was introduced in 1835, and subsequently gave the black color, improved symmetry and increased activity, and imparted additional strength in the limbs. The Irish Grazier cross, introduced in 1839, gave improved grazing qualities and increased hardihood. No out-crosses, it is claimed, have been made since 1845, though the color markings of the breed, being so nearly like those of the Berkshire, would seem to suggest a dash of that blood, as our early recollection of the breed is that many of them carried nearly if not quite as much white as black.

Formerly the Poland-Chinas were larger and less refined than at the present time, but though reduced in size and improved in form, they are still among the largest of the medium breeds. They possess in a high degree early-maturing qualities, but the inclination of the breed, as found in the United States, where little or no attention has been given to producing what is known as the bacon type, and where corn is the principal if not the only food used, the inclination is to mature so quickly as to interfere with sufficiently large growth, and also with prolificacy. But as bred and fed in Canada in recent years, the specimens exhibited at the fairs have, in most cases, shown improved length of body and smoothness of shoulders, indicating that, with judicious management in breeding and feeding, the breed is quite capable of being moulded into the bacon type. As grazers they are free feeders and easy keepers, but they want good pastures. They kill well, and the quality of their meat is fine in the grain and tender, but where fed corn as the principal diet the proportion of the fat is large, and the bacon only medium. They have proved well adapted to corn-growing countries, hence their great popularity in the Western States, where, following cattle fed whole corn, they grow and fatten rapidly on the undigested grain passing through the cattle, and are thus prepared for market at comparatively little expense, and on food that would otherwise be largely wasted.

Poland-Chinas are widely distributed in the United States, being found in probably every State in the Union. They have also been introduced into several of the Provinces of Canada, though not in large numbers, and have never become generally popular in this country. For crossing on common stocks deficient in compactness, early maturity and good feeding qualities, they answer well, but they are not suited for crossing on the refined breeds. Owing to the too free and prolonged use of a corn diet in the United States, which has had the effect, in too many instances, of impairing their fecundity, their breeding qualities, as to producing large litters, are only fair. The same influences have had the effect of unduly weakening the bone and reducing the stamina. But where they have been selected for length and strength, fed a mixed diet, and given ample exercise, these deficiencies have been largely overcome.

Some of the principal points in the standard of excellence for the breed are as follows. Head—Short and wide; cheeks full, and jaws broad; forehead high and wide; face smooth, and wide between the eyes, and slightly dished; ears small, thin, soft, silky, tips pointing forward and slightly outward, and the forward half drooping gracefully; neck wide, deep, short, and nicely arched; shoulder broad, deep and full, carrying size well down to belly line; back broad, straight, or slightly arched, carrying same width from shoulder to ham; sides full, smooth, firm and deep, carrying size down to belly, and evenly from ham to shoulder. Belly and flank wide, straight and full, and drooping as low at flank as bottom of chest back of fore leg; hams broad, full, long and

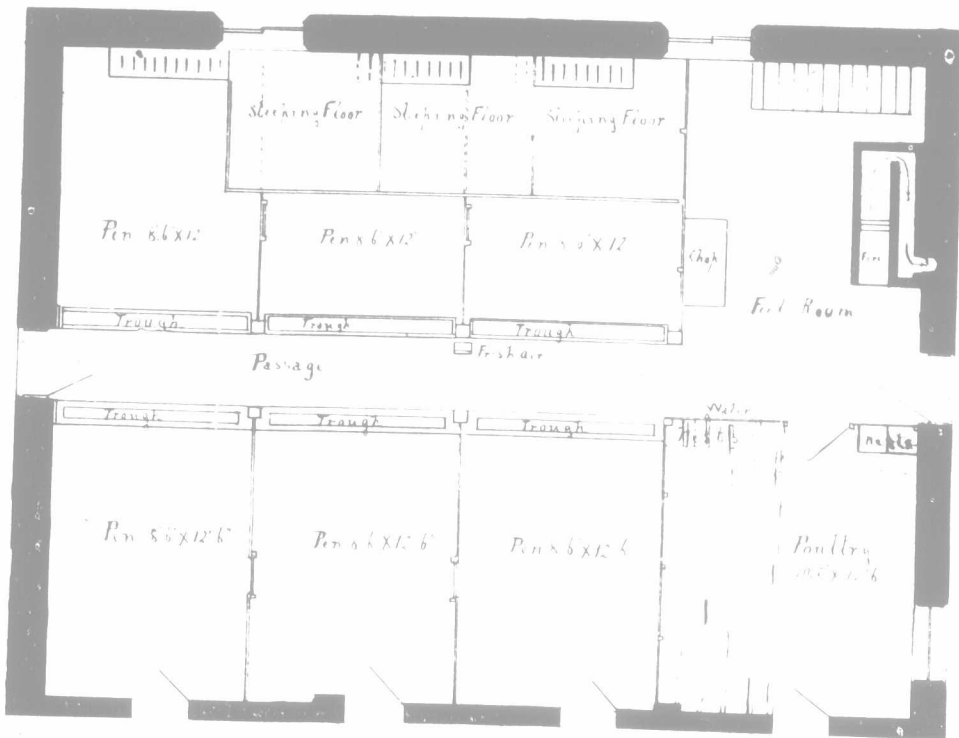
wide; legs medium length, straight, set well apart and squarely under body, well muscled, and wide above knee and hock; feet firm, short, tough and free from defects; tail well set on, smooth, tapering, and carried in a curl; coat fine, straight, smooth, lying close to and evenly distributed over the body; color black, with white on face or lower jaw, white on feet and tip of tail, and a few small, clear white spots on body not objectionable; size large for age and condition—boars two years old or over, in good flesh, should not weigh less than 500 pounds; sows same age and condition, 450 pounds; boars and sows six months, not less than 150 pounds. In general appearance the Poland-China is compact, symmetrical, regular in outline, smooth, and almost massive in build.



A Poland-China Boar.

**D. Lawrence's Pigpen.**

In response to requests for plans of hogpens, we republish one designed and used by Mr. D. Lawrence, Oxford Co. The dimensions are 30x10 feet, with 8-foot ceiling. Each pen would accommodate easily six, possibly seven, full-weight hogs. Most people would prefer to have the henhouse in a separate building, and utilize the room it takes in this building for another pen for pigs. Elevated sleeping floors are here shown, and are still used by many, though the general preference is for a sleeping floor raised a few inches only. Over each trough is a swinging front, so that while trough is being cleaned and fresh feed given, pigs are kept back. This style of house for pig feeding, the main features of which are center



PLAN of PIC PEN

aisle, with pens on each side, is now quite common, and can be adapted to any required capacity. Where only a few pigs are kept, two or three pens on one side of aisle would be sufficient. A good idea, put in practice by Mr. Lawrence, is to have an upper story for storing straw for bedding, etc. In loft Mr. Lawrence also has a water tank supplied from the roof, the water being conducted by iron pipes to pigpen below, and by hose attached, water can be run into each feeding trough or into cooking vat, or can be used to clean off the floor.

**The Value of "Imp."**

To earnest students and breeders of live stock the word "Imported" has always had a definite, rational meaning, and the value of "Imp." attached to a pedigree has ever been measured in their minds in the light of careful knowledge. The use of imported animals in the herds, flocks and studs of such men has been an evident, if silent, recognition on their part of the pre-eminent position among breeders of the British stockman. Until on this continent some certain breed or breeds may have attained a standard of excellence equal to, or surpassing, that of the corresponding breed or breeds in the mother country, until then, selected animals of such breeds may be successfully and profitably imported, to be used in the improvement of our herds. And even then, when Canadian and American breeders have reached such a position, an interchange of blood may serve a useful purpose. But in the common parlance of the country there has been such a magic charm surrounding the word "Imported" that a consideration of the utility of an imported animal may call to mind some facts that may have been forgotten. If our thought is fettered to such a degree by our regard for imported stock that in private and public sale a premium is placed upon such stock, sometimes at the expense of equal excellence, both of individuality and of pedigree, in the animals produced by breeders in our own country, then it would appear that, to a certain extent, we are allowing our judgment to become perverted by this regard, and we are waiting too long to give due acknowledgment to the intelligent and patient effort of the stockmen of our own land. Moreover, it may be we are tacitly admitting that we cannot produce in Canada either the men or cattle that are to be found in England and Scotland, or at least we are not giving an independent recognition to the progress of stock-breeding on this side of the "water," nor are we holding ourselves prepared to take the fullest advantage of it. Such an attitude, if at all manifested on our part, cannot but make for retrogression rather than for advancement, and serves but to stamp us as imitators, while we inherit the right to be fashioners of our own destiny. The superiority of British-bred stock is due largely to the following suggestive facts. It has been bred pure for a goodly number of generations, and the sires possess, therefore, such prepotency as enables them uniformly and impressively to reproduce in their offspring the distinct and peculiar characteristics of their own breed. It has been bred for a sufficient period of time with a definite, specific object in view to allow the specialized, dominant characteristics of the different breeds, i.e., the characteristics by which the utility of each of the breeds is judged, to become firmly fixed and established. It has been bred, each breed in its own locality, so that the breeds, in process of their improvement, have become naturally adapted to the climate, food and environment of particular sections of the country, and possess, therefore, the constitution, ruggedness and vigor that is so essential to animals kept under the somewhat artificial conditions of domestication. Herein, then, lies the value of imported stock for use in the improvement of our herds. From purity of blood we get prepotency, or the ability to transmit the desirable characteristics of the different breeds. From long continued specialized development we find the ability possessed in typical representatives of these breeds to improve our stock in particular, specialized characteristics whether it be mutton production in sheep, bacon production in swine, the capacity for speed or power in the horse, or beef or milk production in cattle. From the natural adaptation to and very often in imported animals a robustness frame that, when their blood is introduced into our own herds, while not making our animals any more hardy or healthful, it tends to increase their size, and at the same time to retain and frequently improve the quality of our stock. These, it would appear, are the advantages to be derived

from the use in our country of selected imported stock.

But there is another phase of the question which should be briefly touched upon, and there is a biological principle involved that must not be forgotten. These much-to-be-desired characteristics are at best but artificially developed, and are possibly more easily acquired than retained. The variation of the animal organism has made possible, under the control of man, the improvement of our domestic animals through intelligent breeding and systematic selection. Further, the animal organism varies, naturally, under, and is influenced directly by changing conditions of climate, food and habit. Contrast the Shetland pony with our modern draft horse. Characteristics thus acquired, whether through artificial selection or natural adaptation, can only be successfully retained under like conditions and under similar treatment. Herein lies the danger of too great dependence upon imported stock. We may and should be able to continue the same systematic and intelligent selection that is practiced by the British stockman, but it is scarcely logical to expect a reproduction in our country of the environment and treatment that the animals have become accustomed to at home. The change is evidently not a marked one, but it is often great enough to disturb the equilibrium of the organism sufficiently to cause a modification in the offspring, to a greater or less degree, of form and character. Moreover, we sometimes find a distinct modification in an imported breed when bred pure in this country for some length of time. Contrast the St. Lambert and Island type of Jersey. In this principle of natural adaptation there are problems of breeding to be solved.

It is not the purpose of this article to advocate the evolution of new breeds. We have breeds enough, perhaps too many. But may not this business of importation be encouraged too far; is it not now too easy a way out of a difficulty? At one time imported stock was necessary to the country, and we honor the enterprise of those who brought it here. But now, choosing the best of what we have, might we not make greater progress if we imported less and bred better? The independence of the Hereford breeders of the United States has won them an enviable reputation. Can Canadians not have a like courage and a like resourcefulness? Selection is the vital principle of improvement. Patient and unwearied perseverance is the price of success. Can Ontario, can Canada not mould and fashion animal form into a purely Canadian product, which shall at once be a monument to the energy and intelligence of our Canadian breeders, and a factor in establishing the reputation of Canadian stock?

O. A. C., Guelph.

**The Bacon Trade.**

To the Editor "The Farmer's Advocate":

The discussion being carried on in your columns, anent the bacon trade, is certainly a very important and delicate consideration, especially at this period, when the industry is only in infancy. If it is properly cared for and managed now, it will undoubtedly continue to increase, and thereby prove a profitable investment to all concerned, and if proper attention and consid'rat on is not given it, it will deteriorate, like anything else at this stage of existence.

The question of great importance here is that of supply and demand. The supply is very limited, the demand for the ideal bacon product in the British market is unlimited. But here the cry goes out, as a result of the high prices recently being paid for Canadian live hogs, the farmers are going into bacon production on a large scale, and there is a probability of oversupplying the market. This is just where we are going to improve our bacon industry, by giving the pork-packing establishments employment, and also by helping to supply the British market. Now is the opportunity for Ontario farmers to help develop one of the most promising industries in the Dominion.

What has given our Canadian bacon such a high standing and reputation on the British market in the past? It was not the American corned hog, nor was it the short, thick, lard hog of Canada, but it was the ideal bacon hog.

What are Canadian farmers to breed in the future? The ideal bacon type, which is most profitable to the producer, the most easily disposed of by the packer, and the most satisfactory and economical to the British consumer.

Waterloo Co., Ont. G. LORNE SMITH.

**To Destroy Lice on Cattle.**

To the Editor "The Farmer's Advocate":

I tried the remedy, cement and hellibore, which was given in "The Farmer's Advocate" for lice on cattle, and found it the best remedy I ever used.

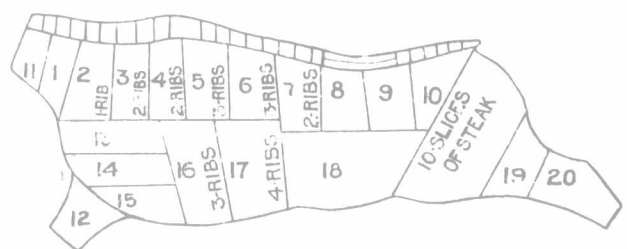
Midlesex Co., Ont.

**Steers Tied or Loose?**

We received a communication recently asking for the experience of those who had tried feeding steers tied and loose. The following item from the 1904 annual report of J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa, may help to answer the question: "The experiment of feeding lots of steers loose, as compared with feeding similar lots tied, has been continued, and is concluded. The results in 1903-4 are decidedly in favor of loose-box feeding. The loose-box-fed lots gained on the average 311 pounds per steer in 129 days, while the tied steers gained 275 pounds in 129 days. The loose-box steers put on flesh at a cost of \$4.76 per 100 pounds, while the tied steers cost \$5.39 per 100 pounds gain in live weight."

**Twenty-share Beef Ring.**

We have been asked to publish a chart for a beef ring of 21 members. Unfortunately, we have no chart for 21 members, but we give the accompanying one for a 20-member ring, sent us by a Halton Co. subscriber, who says it has given good satisfaction in his neighborhood:



Roast.	Boil.	Steak.
1	14	1
2	13	2
3	19	3
4	16	4
5	17	5
6	18	6
7	15	7
8	12	8
9	20	9
10	11	10

**THE FARM.**

**Testing the Germination of Farm Seeds.**

There are two reasons why it is desirable to test the percentage of germination of seeds it is proposed to sow. The first and most important object is to find out whether the seed is worth sowing at all. If the germination is tardy, and a considerable percentage of the seed does not germinate, it indicates that the average vitality of the seeds is low, and the result of sowing such would be weak plants and an inferior crop. If, however, it is decided to sow a seed of rather low germinating percentage, it is well to know the fact, so that allowance may be made, and a little more seed per acre used.

Making a germination test is very simple, and it is a good rule to test samples of every lot of seed it is intended to sow. The testing should be done early, before the rush of seeding. To make the test, take two common plates, and get two pieces of cotton cloth about the size of the plates. Dip the cloths in warm water and spread one of them on a plate. From the seed that is to be tested take a handful and place on the table. Count out 100 seeds just as they come from the edge of the pile. Scatter these 100 seeds upon the wet cloth on the plate. Spread the other cloth over the seed and press it down closely. Then turn the other plate upside down on the plate with the seeds, leaving the corners of the cloths sticking out between the plates. This makes a complete little tester, and is sufficient for all kinds of seeds. Place it where it will keep reasonably warm, and keep the cloths moist by sprinkling with water two or three times a day, if necessary. Count carefully, and keep a record of the number of seeds that have sprouted each day, until the test is complete, or until no more seeds show signs of life. A week is as long as this should take.

Add the counts of the different days together, and the total number will be the per cent. of germination, or an indication of the value of the grain for seed. If 90 to 95 seeds grew, the germination is pretty good, but below 90 the value of the grain for seed begins to be doubtful, and another test should be made a little later to see if the grain is losing its power. If the seeds all sprout about the same time, it is a sign of good strength, but if a few sprout each day the vitality has been injured in some way.

Received the premiums all O. K., and am delighted with them. Please accept thanks for same.

Lincoln and Niagara, Ont.

**A Choice of Three Rotations.**

To the Editor "The Farmer's Advocate":

In reference to your editorial on "Crop Rotation," in the February 15th issue of "The Farmer's Advocate": The prevailing custom in the Maritime Provinces, particularly Nova Scotia, is to use what little manure there may be, supplemented with some fertilizer on a grain crop, get it down to hay of some kind, usually timothy, let it lie in hay as many years as it will cut enough to harvest, and then turn it out for pasture for another spell. Comparatively few carry on a systematic rotation of any kind, and fewer still a short one.

We are all more or less controlled by circumstances as to the rotation most suitable for us to adopt, and we on this Experimental Farm are no exception in this respect, as it is practically impossible for us to introduce pasture into our rotation, although I may say that, personally, I do not feel that that is any great disadvantage.

We practice three different short rotations. (1) A three-year rotation: First year, hoed crop of some kind, with manure, and sometimes some complete fertilizer; never more than 500 pounds per acre. Second year, grain, with liberal clover and little timothy seed sown. Third year, clover hay, cut early, and second crop of clover turned under for roots the following year, being the first year of the second series. I may say here that this is my favorite rotation where practicable. We never put manure on any crop except the hoed crop; we do not cut hay crop more than once, and we get a fairly good crop of clover to turn under once every three years, and find that a decrease of from 15% to 20% of amount of manure used can be made each series of three years.

(2) A four-year rotation: First year, grain on sod (no manure). Second year, hoed crop (roots or corn) with manure and fertilizer. Third year, grain, with clover and timothy seed sown. Fourth year, clover hay, with aftermath plowed under in the fall, for grain the first year of the second series of four years. In this rotation, also, we find that equal results can be obtained with somewhat reduced amounts of manure being used (10% to 15%).

(3) A five-year rotation: First year, roots or corn (hoed crop) with manure and fertilizer. Second year, grain (without any fertilizer) with clover and timothy seed sown. Third year, clover hay, second crop plowed under. Fourth year, grain. Fifth year, clover, second crop turned under. With this rotation we seem to need as much manure for the second series as for the first.

It must be borne in mind that this land referred to is in a very great deal poorer state of fertility than is usually met with in the other Provinces, and, as a rule, is particularly deficient in humus.

R. ROBERTSON, Superintendent Maritime Experimental Farm, Nappan, N. S.

**Crop Rotation.**

To the Editor "The Farmer's Advocate":

There is no question, in the writer's mind, as to the good sense conveyed in your editorial which appeared in Feb. 15th issue of "The Farmer's Advocate." The rotation of crops is a serious problem, and one that is somewhat difficult to work out in a practical and successful way for the average farmer. There are so many varying conditions of soil, size of farm, quantity of stock and location, that it is impossible to say that a certain rotation of four years or five years will answer in all cases. It is also not impossible to grow one crop for a great many successive years on the same soil. I am thinking now of a small piece of land, close to barn, which has grown corn or other such crop for green feed for summer use, for a great many years before I can remember. But, of course, this land has received much manure, for, when there was an odd load of stable manure from box stall or some such place, and other farm work was pressing, it was usually put behind the barn.

It is desirable and very beneficial to follow a rotation of some kind, and preferably one that is regular and systematic. On a farm near here, where the fields are of equal size, and a certain part of the farm which is difficult to work is kept in permanent pasture, a four-year rotation is practiced with great success. They maintain quite a large herd of dairy cows, and know exactly what feed they require in roots, grain and hay, so that they have no trouble in following the rotation.

Here, we find that it would be inconvenient to divide our farm into quarters, and some years have our roots and corn as far as possible on this place. We also desire to grow a considerable acreage of fall wheat, which produces a great quantity of straw, and we like fall wheat to follow reas, if possible. This system interferes somewhat with an even and systematic rotation. When such irregularities do occur, we try to bring that land back into regular rotation as soon as possible. Our preference is for a four-year rotation, where roots or corn follow sod, and after roots, grain, which is seeded down. It has been our custom to follow roots with barley, and we have found that on our land this produces a good yield of barley, and we usually get a good



catch of clover or grass mixture. This is a subject of great interest, and I hope will draw from your readers the experience of many who may be of different opinions, and yet who may have worked out for themselves a rotation which is satisfactory under their local conditions.  
Ontario Co., Ont. WILL A. DRYDEN.

**Windmill for Pumping Water.**

To the Editor "The Farmer's Advocate":  
Spring is drawing near, and the farmer who has to drill or dig for water, and intends to put up wind-power to supply his house and barns with water, may find some useful hints in this letter, in regard to an outfit. First of all, with the wind-power once installed properly, the first cost is all, only for oil. The windmill will force water almost any distance, and lift out of a well from 16 to 400 feet. The well may be around the buildings, and fresh water may be had at the house by means of a small tank at the house, or small tank set inside of big supply tank at barn. I would advise farmers to put a cement tank in the approach of their barns, as it is water-tight and away from frost and water, is always clean and fresh. When a small tank can be set in a house high enough to run an overflow pipe from house tank to barn, it is all right. All the water pumped goes through the house tank; the water is fresh and good, and if barn is too high, would put small tank inside of big tank, with small tank set two inches higher than top of supply tank. The water in small tank can be used at house, and will be almost as cool as out of well. Power-mill can be used for chopping, running cutting-box, root-pulper, saw, and, by putting on pump jack and attachments, can be used in pumping water out of deep wells at a reasonable distance, or by a suction pump when the lift is not over 27 feet. I would advise not to have over 20 feet of lift, as the less lift, the better the satisfaction. I erected one mill—the mill was 400 feet from pump, and pump 570 feet from well. This outfit has been working over two years, and is giving good satisfaction yet.

SUBSCRIBER.

**Stabling for Ninety Head of Cattle.**

Seeing in "The Farmer's Advocate" your request for plans of stables that are giving satisfaction, I enclose the plan of a stable that I am now using the second winter, and which is proving to be not only a great saving in time and labor, but also a comfort to the animals and to those who are caring for them.

Five years ago the large silo was built, the hay barn was placed on a concrete wall, and the stabling put in as it now is, but needing room for about ninety head of cattle, and wishing to have them all together, the north-east corner wall was taken out and the new barn was placed endwise to the older building, and about twenty feet along the east side. The end wall that was removed was replaced by one six feet to the north, thus giving additional space in the feed room, and at the same time bringing the silo directly into the feed room. The ensilage falling at once into the feed room is very easily mixed with chaff or cut straw, which comes down quite near. When the large silo is empty the ensilage from the smaller one is thrown down into a three-wheeled truck and taken to the mixing place. The floors being all on the same level, this truck takes the place of the back-breaking basket, and is used exclusively for taking the food down the hallways to the stock, saving much time and labor. The truck box, 3 1/2 x 6 ft. and 2 ft. deep, is open at one end, has a swivel wheel under the open end, and will turn in its own length. It will hold sufficient to feed twenty to thirty cattle, according to size.

The barn is supported by 6 x 6 in. cedar posts, placed on dwarf walls, which are about three inches higher than the hall floors. The posts make the division between each stall, to which the partitions are fastened, and are 6 ft. apart across the hallway. The dwarf walls, eighteen inches wide, form the bottom of the manger. The front of the manger is formed by a plank, cut as shown in diagram herewith, which is nailed to the 6x6 posts.



The partitions in front of the cattle are made of ten No. 7 crimped wires, from 2 1/2 to 3 inches apart, stretched very tight on the side of the 6x6 post nearest the cattle. The two bottom wires are stapled firmly to a 1x3 strip of wood, giving greatest strength where most needed. The wires make a very neat finish, permit of free circulation of light, and being fastened on the side of the posts nearest the cattle, keep them standing back nearer the gutter, and also gives eighteen inches space for feeding and cleaning out the manger from the hallway. The dwarf wall along the box stalls is raised about ten inches higher than the other mangers, excepting at the gateways, where it is but two inches higher than the floor level. The manger is built on this wall.

The stall posts are of cedar, all turned to six inches in diameter, and the end set in the floor was given an application of boiling coal tar and pitch to preserve them from decay.

The stable has a complete water system. The pump, which is set just under the windmill, does not occupy any extra space. It raises the water about twenty

feet, and draws it 180 feet from a never-falling spring, and forces it into a fifty-five barrel tank. The 1 1/2-inch pipe that supplies the water boxes runs along just on top of the manger plank, and the water-box placed about six inches higher. The boxes are placed not through the partition, but between the two cattle in the stall. The top of the water boxes are about two feet higher than the floor, keeping reasonably clean, and the cattle drink from them with ease. They seem to be in about the right place. The supply of water is governed by only one regulating tank, shown in cut at end of the row of feeders' stalls. The walls are of concrete throughout. They are ten feet high, and are one foot in thickness, with the exception of the manure shed, which is but ten inches. They are plastered on the outside with a mixture of cement, sand and iron dust from the rumpers, and blocked off with white lead, giving it a gray-stone finish. The floors are of concrete, excepting in the box stalls. These have only a little gravel pounded in for a bottom. The gutters are seven inches deep, having a gradual slope of fifteen inches from the passage. The floors on which the cattle stand are of different lengths. The cow stable has the greatest length; the feeders opposite, two inches shorter; the feeders in the larger part of the stable, two inches less, while that for the yearlings is still shorter by three inches.

The partitions between the box stalls are of concrete, eight inches thick and four feet high, and above this are upright octagonal hardwood pieces, one and one-quarter inches by two feet long, and six inches apart, fitted into a two-by-four top and bottom, and bolted on top of wall. These concrete partitions also support the wall against the driveway.

The manure from the entire stable is taken into the manure shed in a little carrier, running on a continuous track. No switches being required is another saving of time. The ground slopes away quickly at the east of the barn proper, which enabled us to make the bottom of the manure shed four feet below the stable floor, and yet on a level with the outside, and while we do not

grain is done. It is so arranged that in loading grain the wagon is backed alongside the wall just under the outside granary door, and the sacks are lowered to the wagon, saving much heavy lifting. The two side doors in granary serve a double purpose. They save carrying much of the grain alongside the machine in the dust to the main hallway door, and also are very convenient to the chopper. The space from the granary to the south side is covered the same height of granary. Steel tracks and slings are used in filling the barn, and the hay is taken in the south end of the hay barn. A fifteen-foot windmill furnishes power for pumping water, cutting straw, and, if judiciously handled, will grind all the grain needed for all the stock.

I do not present this as a perfect plan of barn and stable, but as one from which perhaps a few ideas may be taken that will lighten the labor and shorten the time required in caring for quite a number of cattle.  
Brant Co., Ont. A. W. VAN SICKLE.

[Note.—On a smaller farm, or where fewer cattle were kept, the basement of the hay barn could be utilized as a horse barn and "drive stable" for rigs.—Ed.]

**The Effect of Humus on Soils.**

By Prof. R. Harcourt, Chemist, O. A. C., Guelph, Ont.

The term humus is applied to a large class of ill-defined bodies derived from the decay of former animal and plant life. When this organic matter undergoes complete decomposition, nothing is left but a few gases and a small amount of mineral matter, but when it is in its intermediate stages of decomposition, and mixed with the soil, it is known as humus. It is essentially a product of the millions of living organisms in the soil, and the rapidity with which the raw organic matter is broken down to humus and the humus on into its ultimate constituents, depends upon the number of these organisms, and upon the presence of

is well aerated, warm, moist, and contains plenty of basic substances to combine with the acid formed from the humus, the decomposition will be rapid. Thus it is that more humus is found in meadows and pastures than in continually-cultivated soils, more in heavy clays than in light sandy soils, and the accumulation of humus reaches its maximum where for any reason the soil becomes so waterlogged that the supply of air is cut off, as in swamps.

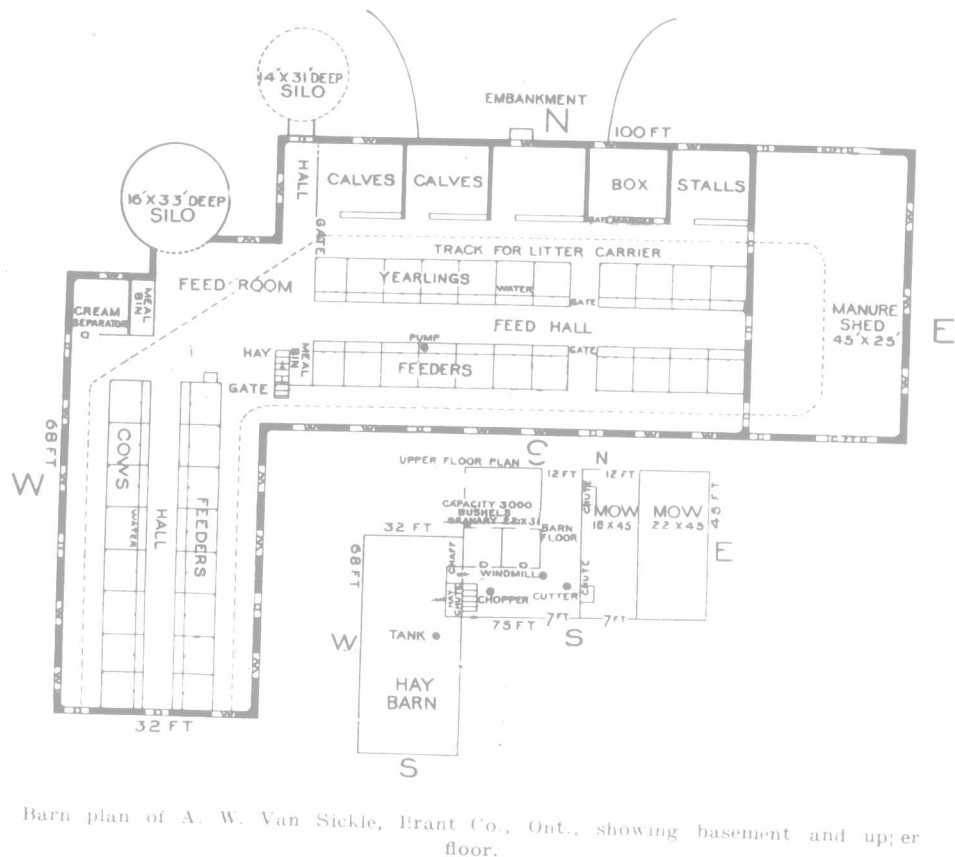
The value of an abundant supply of humus on a cultivated soil can hardly be overestimated. It influences the temperature, texture, absorptive capacity, and color of soils, and directly or indirectly controls, to a large extent their supply

of water, nitrogen, potash and phosphoric acid. In fact it, more than any other factor, fixes the productive capacity of an arable soil, and in many ways may be looked upon as a panacea for all the ailments of the soil.

Humus tends to warm soils, because it makes them darker, and dark-colored soils become hotter in the sun's rays than light-colored ones; the extreme difference observed in the case of natural soils is as much as 8 degrees. No difference will be observed on cloudy days, and at night all soils will cool to the same point. The chemical changes that take place in the decomposition of the organic matter also have a marked influence in raising the temperature of the soil.

Humus has a wonderful influence on the texture of clays, in that it diminishes their tenacity, renders them more pervious, and more easy of tillage. On sands it has the opposite effect, for it tends to bind the particles of the soil together, and thus make them firmer. The influence of humus on the texture of soils of all kinds is so well known that it is not necessary to dwell on this point.

Humus absorbs a large amount of water. This it does because its particles are irregular in shape and porous, thus presenting a large amount of surface on which the water of a well-drained soil is held. A soil rich in humus also holds its moisture more firmly in time of drouth than a soil poor in humus. In fact, this water-holding power is one of the most important differences be-



Barn plan of A. W. Van Sickle, Brant Co., Ont., showing basement and upper floor.

make a practice of hauling out every day, we quite often drive the sleigh or spreader under the track and dump the manure into it, saving once handling. The manure shed has a sloping roof against the end of barn, and is covered with corrugated galvanized steel sheets; much less sheeting being required with this roofing than the shingle, a strip every two feet being all that is required.

The window frames are two and one-half by four feet. Part of the sash are put in to slide past each other, and part are on a swing pivot. I like the swing window the better. It is much more easily opened or closed in the winter season. The sliding window freezes down, and it is almost impossible to open them to admit fresh air.

The only system of ventilation in the stable is three-inch tile, laid through the wall about seven feet apart, and near the top of wall. The tile acted quite satisfactorily in the first stable I built—it standing with its sides east and west—but have not proved sufficient for the larger stable. I would be pleased to hear from those who have successful systems of ventilation in large stables.

The farm is framed in five bents. The posts are 20 feet and the purline posts 32 feet in length. Its roof is covered with steel galvanized shingles. The doors for the driveways are six feet apart, which permits of sliding the half door out of the way. There is a window and swing pivot door (which is always closed unless fastened open) in each end of the barn, and small doors over each of the four large doors. The granary has an eight-foot hallway, in which the chaffing

tween soils rich in humus and those poor in humus. A soil which by long cultivation has lost half its total humus, will show a loss of 10 to 25 per cent. of its water-holding power. Humus is also an important factor, especially in sandy soils, in assisting the capillary rise of subsoil water to the roots of plants. The part which humus plays in supplying water to crops is sufficient in itself for placing a high value upon the humus in soils.

Coming now more particularly to the chemical side of the question, it is important to note that humus as found in the soil always contains nitrogen, and that in its decay, acids are formed which combine with lime, potash and phosphoric acid, forming humates.

Practically all the nitrogen in soils is derived from the organic matter of natural vegetation or barnyard manure, and this, as has been stated, forms the humus; consequently, the amount of humus in a soil is an indication of the amount of nitrogen. Humus, as ordinarily obtained, contains from 3 to 10 per cent. of nitrogen, the amount depending upon the nature of the substance from which it was formed, its age, etc. Many good soils contain from 3 to 5 per cent. of humus, of which about one-tenth is nitrogen. Since, therefore, nitrogen is one of the most prominent constituents of humus, it can easily be seen that a loss in humus also results in a loss of nitrogen.

It is now well understood that the decomposition of organic matter is the result of the action of minute organisms. Cultivation opens up the soil and improves the conditions under which these organisms work, and thus hastens decomposition. As a result of these changes, generally known as "nitritification," humus is broken down, carbonic acid and various other acids are formed, and the nitrogen is converted into nitrates. These nitrates are soluble, and are caught by the water percolating down through the soil and carried away in the drainage water. Nitritification is one of the most important natural provisions for rendering the inert fertility of the soil available to plants, and a certain amount of it is necessary to plant growth, but it can easily be seen that under injudicious management or cultivation of the soil it may work a positive injury by causing unnecessary waste of the nitrogen; or, in case of rich soils, it may supply the growing crop with too much nitrogen, and thus produce a rank growth of straw and leaves. Moreover, it is also plain that unless organic matter is being continually added to a soil under cultivation, the amount of humus with all its beneficial effects and the amount of nitrogen must be gradually reduced.

Summer cultivation of all kinds greatly hastens nitritification. Consequently, bare summer-fallowing will be very beneficial to the succeeding crop, by increasing the amount of available nitrogen, but frequently, if not always, more nitrogen is brought into a soluble form than is necessary for the crop, and whatever the crop is unable to utilize is lost by leaching; thus the available nitrogen is increased, while the total nitrogen is greatly decreased. Experiments have demonstrated that for every pound of nitrogen absorbed by a crop following the summer-fallow, five pounds were lost in the drainage. Summer-fallowing is, therefore, only temporarily beneficial at the expense of the total humus and nitrogen of the soil. On the other hand, while summer cultivation of root and corn crops hastens decomposition in the same way as summer-fallowing, the plant food rendered soluble is absorbed by the growing plant. It may also be noted that nitritification commences in the spring, as soon as the soil becomes warm enough, and that it is naturally most rapid near the surface, where there is plenty of air; consequently, with late spring plowing the available nitrogen is plowed down and inert organic nitrogen is brought to the surface.

Another point regarding the value of humus not generally understood, is that besides being a great reservoir of nitrogen, humus is an indirect means of supplying the plants with other fertilizing constituents. The mineral portion of soils is composed of more or less finely-divided rock particles, insoluble in water. These must be brought into a soluble condition before they can serve as food for plants. In the decay of organic matter, carbon dioxide is liberated and aids materially in the decomposition of these insoluble substances. Various acids, known collectively as humic acids, are also formed, and these aid in this decomposition and combine with the lime, potash, phosphoric acid, iron, etc., and form the humates. The mineral matter combined with humus is rich in potash and phosphoric acid, two compounds which are of great agricultural value. In the case of rich prairie soils, over 1,500 pounds of phosphoric acid and 1,000 pounds of potash per acre to the depth of one foot have been found to be in combination with humus, while in soils poor in humus and worn by cropping, there may not be more than 100 pounds per acre. It is stated that the amount of phosphoric acid usually found associated with humus varies from 0.1 to 0.5 per cent. of the total amount in the soil, indicating

in many cases the amount of this constituent available to plants.

It is not necessary to point out that loss of humus is always followed by a marked decline in productiveness. Every cultivator of the soil is familiar with that fact; nor is it necessary to discuss the various methods that may be followed to increase the humus content of the soil. Remember that land without a crop is subject to leaching, and that any crop, whatever it may be, grown to plow down will convert some of the inorganic constituents of the soil into organic combination and will form humus. Of course, no other crops will give so good results as the legumes, and just here let me state that it has been demonstrated that clover, roots and tops, three months old, will have gathered from the soil and atmosphere as much nitrogen as there will be in two good crops of wheat. During the growth of the clover, potash and phosphoric acid will be brought up from the subsoil by the deep roots, and on the decay of the plant be left in the surface of the soil. Further, in the decay of the clover, the physical condition of the soil will be improved, and the humic acid formed will aid in breaking up insoluble rock particles and combine with the constituents essential for the growth of crops. Nearly all our soils contain a large store of mineral plant food, which, in most cases, can be brought into an available condition by the combined use of humus and cultivation. In the absence or scarcity of the proper soil elements—like lime, potash, etc.—humus-forming material may produce sour lands, and lime particularly, and possibly phosphoric acid may be needed where humus is abundant, but in good soils, well stocked with lime, there is very little danger of this result.

In the above, some of the effects of humus on soils have been very briefly outlined. More might have been mentioned, but sufficient has been said to show clearly that humus is a very important constituent of the soil. It increases the water-holding capacity of a soil, it renders clays more open and friable, and sands more compact, it supplies nitrogen, and it aids materially in rendering available the mineral constituents of the soil. If it does improve soils in all or in any of the ways above indicated, it is safe to conclude that, as a rule, soils will be benefited by those systems of culture which will conserve or increase their humus content.

### Some Modern Ideas in Crop Rotation.

To the Editor "The Farmer's Advocate":

In response to the editorial in the Feb. 15th issue of "The Farmer's Advocate," asking for ideas and experience in regard to crop rotation, I accept the invitation, hoping that by so doing I may help draw out a discussion upon a very important subject.

Nature exacts her own penalties. Man cannot transgress her laws with impunity. That this is true in regard to our treatment of the soils, as well as pertaining to our physical being, is indisputably proven by thousands of acres of impoverished farm lands all over our own and other agricultural countries. Man learns by experience, and it is the unpleasant and unprofitable realization of our initial statement which, of recent years, has been directing a rapidly-increasing current of attention to the question of the rotation of farm crops. With the so-thought inexhaustible fertility of a virgin soil, the early agriculturists had not the immediate need to study this question, but now, for many years, we have been face to face with the giant problem of how to maintain and increase the productiveness of our farms.

The subject is such a complex one that we must approach it from every side. That a rotation is necessary for long-continued success, needs little proof. Before deciding upon any particular system, however, we must consider the main points involved, such as its adaptability to the line of farming we wish to follow, its effect upon the fertility of our soil; the facilities it affords for the control, and, as far as possible, the eradication of noxious weeds and insect pests; and the economy of time and labor, as well as distributing the work over the entire year. These and others, as well as many minor points, are all involved.

Science teaches us the composition and needs of crops. It teaches us that cereal crops feed heavily upon the more important elements of plant food, especially nitrogen, without supplying anything appreciable in return; that leguminous crops, principally clovers, are the best and cheapest means of increasing the supply of nitrogen and humus in the soil; and that the cultivation of the fodder crops unlocks inert plant food, and renders it available. In these three established facts we have something to guide us in arranging our rotation so as to maintain and increase soil fertility. Of the three, we would give to clover the premier position. Not only does it supply valuable plant food, but by its large root system and the addition of humus, it greatly improves the mechanical condition of the soil. In our own experience, we have yet to find the crop that does not do well after clover, especially if a good aftermath be plowed down. For this reason, we prefer as short a rotation as is consistent with

the other objects to be attained, in order that all the land may be seeded to clover as often as possible.

For our own conditions, we prefer a three-year rotation, which is the one we are trying to follow. We are engaged in mixed farming, with live-stock products and apples as our chief sources of revenue. Beginning with a clover sod, the first year will be corn, roots and peas; second year, oats, barley and emmer following the corn and roots, and wheat on the pea ground, all being seeded to clover and timothy; third year, clover. While this is the system we would like to follow, we are sometimes obliged by circumstances to make departures from it. For some years the pea crop has necessarily been ruled out, and then we have had to sow the part of the sod, formerly given to peas, to barley or oats, to be followed by wheat, which is not what we like, as two cereal crops follow each other. However, since we apply the manure as much as possible to the crops following sod, if we are careful to give a liberal dressing to the part intended for wheat the following year, then this may not be a serious weakness, as we do not grow wheat to any great extent. In our locality it is too uncertain a crop to be very profitable. We might also overcome the difficulty by taking a part of the clover sod for wheat, seeding to clover and leaving down for two years instead of one, to keep it in the rotation. The past year we tilled peas again on a small scale, with splendid results, but whether the weevil has gone to stay remains for succeeding years to tell.

Another difficulty in the way of working a systematic rotation upon our own farm is the variability of the soil, which is from a sandy loam to a black clay, and former swamp soils, making certain portions of the farm particularly adapted to certain crops. To partly overcome this, and the fact that only part of the farm is fenced for pasturing, we are thinking of putting four fields under a four-year rotation of corn, barley and oats, and clover and timothy pastured for two years, these being the crops best suited to the soil.

To my mind, the advantages of the three-year rotation, as outlined, are: That all the land is in clover every third year, which greatly increases the amount of humus and nitrogen in the soil, and is then followed by a hoed crop, which renders available for the succeeding crops of cereal grain an abundant supply of the surface-soil plant food. These crops, especially barley, are shallow-rooted, and have a short season of growth. It also gives splendid opportunity to control weeds, because of the frequency of the hoed crop, and there is practically no chance for wireworms or white grubs becoming destructive, as the sod is broken when only one year old.

One objection which may be taken in these days of scarcity of labor is the large amount of plowing; but against this we have the fact that all the sod can be plowed any time between haying and winter—whenever most convenient. If the soil were not too heavy no plowing would be necessary after the corn and root crops, or, if done, it should be shallow, so as to keep the available plant food near the surface. A two or three furrow plow would do it quickly. A large part of the manure can also be hauled on during the winter, which also helps to balance up the time and labor of plowing.

Some, no doubt, under different conditions, prefer a different and longer rotation. If engaged in beef or dairy farming exclusively, leaving the sod down longer would give more hay and pasture. It is a matter which requires much thought before it can be satisfactorily arranged, and each man must consider his own peculiar conditions, and then choose accordingly. All, however, are dependent upon the same laws and workings of nature, which have been set in operation for the purpose of assisting man in supplying the needs of himself and his fellow men.

Lincoln Co., Ont.

H. W. H.

### Well-satisfied Agents.

When people voluntarily write in by thousands to express their delight with premiums received, it is pretty good evidence of their value. The subscribers of "The Farmer's Advocate" are its agents, and the premiums we offer are the reward for their co-operation. That they are well satisfied may be judged from the following unsolicited testimonials, which are but a few specimens of the many that come by every mail:

Please accept my thanks for premiums—reading glass and harmonica—for they are well worth the trouble of securing a new subscriber. I also wish to thank you for the jackknife I received a year ago as a premium, which I neglected to do at the time. Wishing "The Farmer's Advocate" every success.

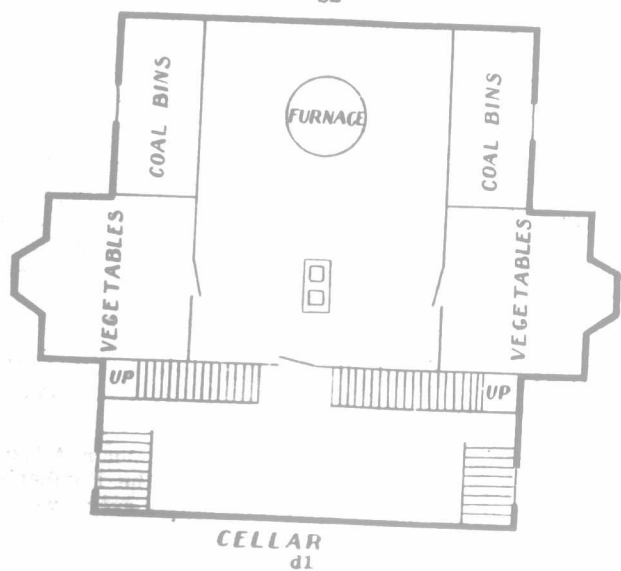
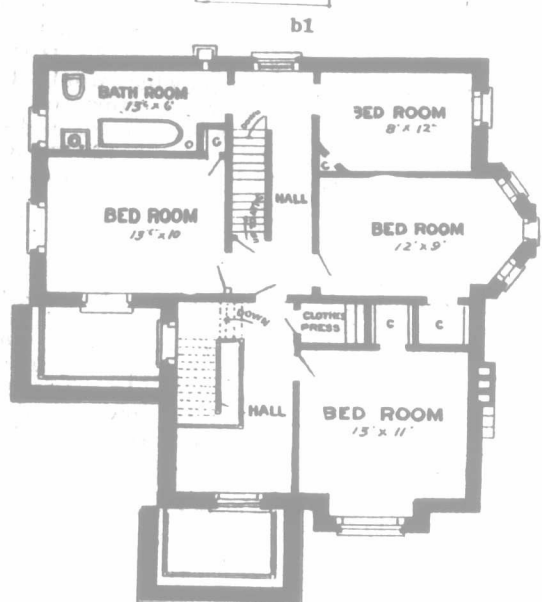
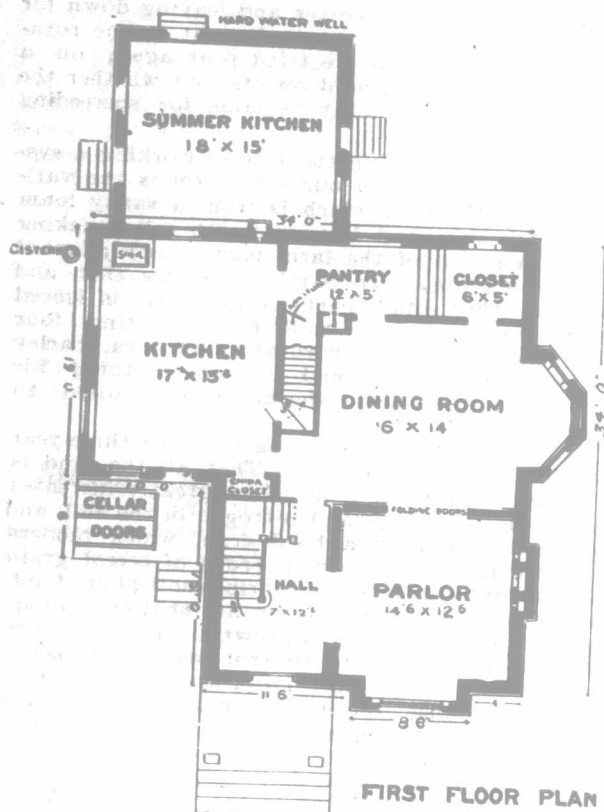
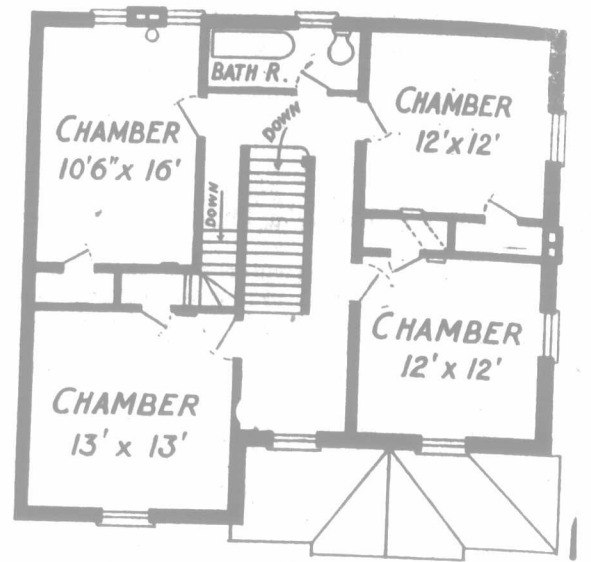
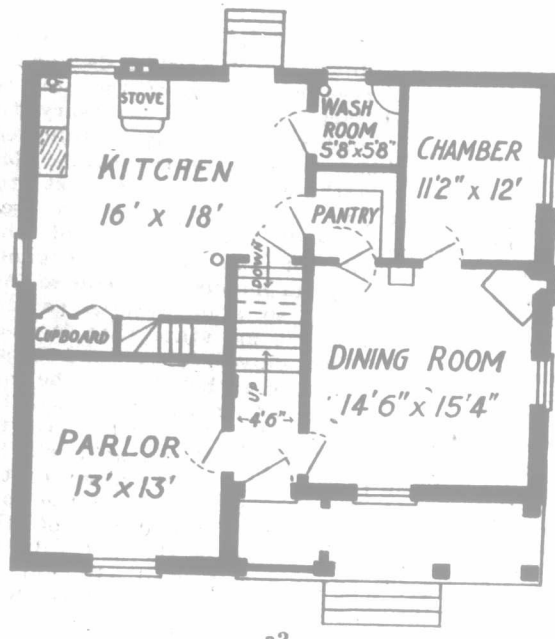
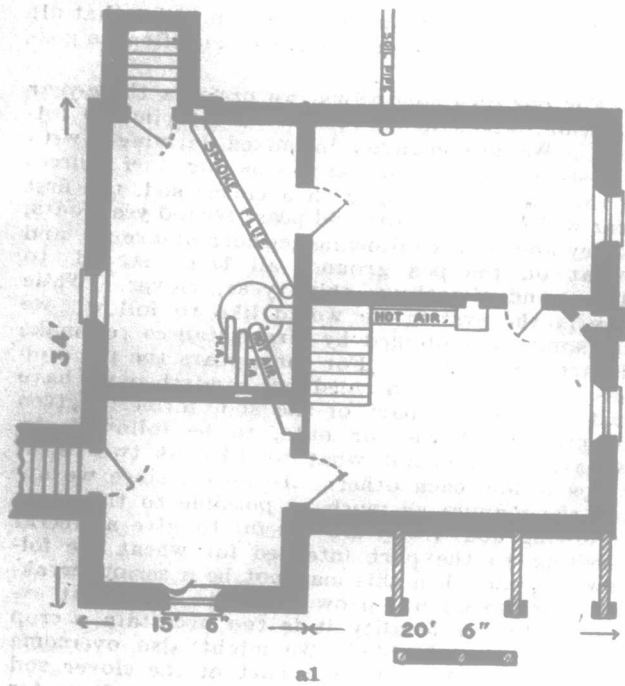
WILLIAM J. RIDLEY.

Haldimand Co., Ont.

I received the prizes for "The Farmer's Advocate" all right; they are good. "The Farmer's Advocate" is looked for in our house every week. Wishing your paper a successful year.

Grey Co., Ont.

W. FOSTER.



**Farmhouse Plans.**

In response to numerous requests, we publish herewith a variety of house plans, which will, no doubt, prove helpful to those of our readers who contemplate building. Wives and daughters will agree with us, that the house is the most important building on the farm, and too much thought cannot be bestowed upon it, since the use of a little grey matter may result in a lifetime's convenience.

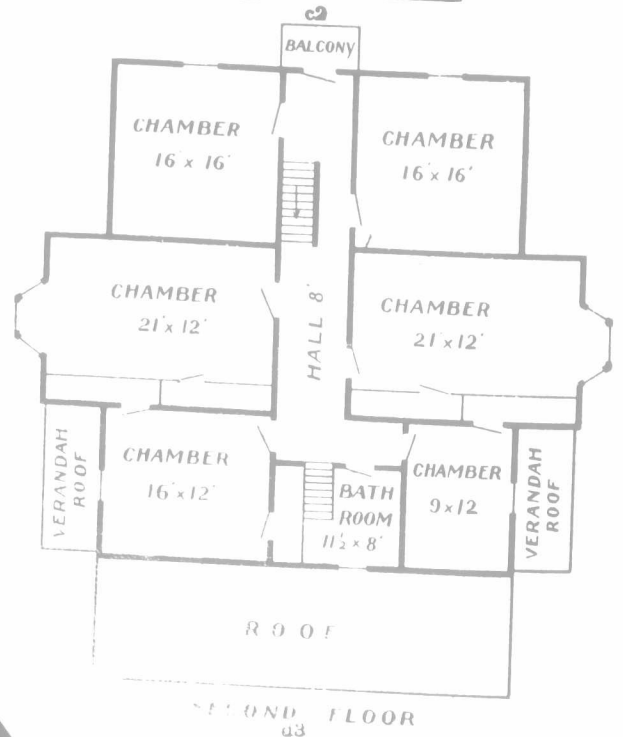
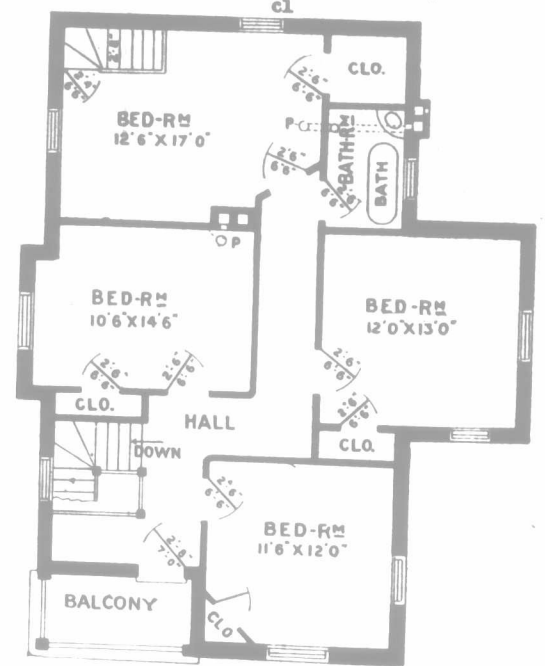
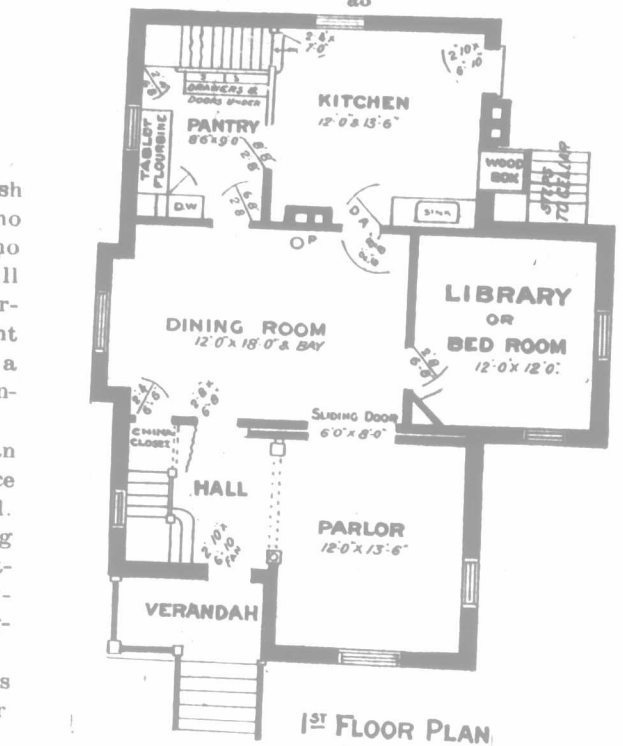
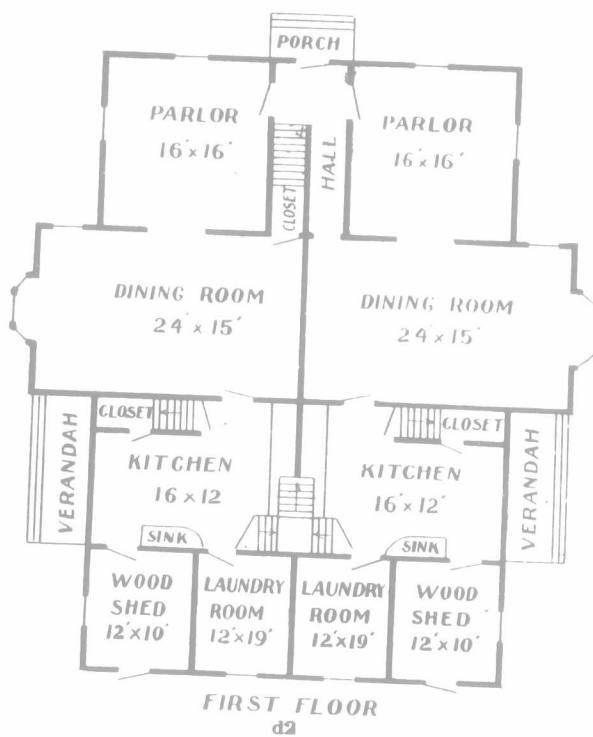
a1, a2 and a3 show the three floors of an economically-built house, a large amount of space being enclosed with a given perimeter of wall. The plan has been criticised, however, for having the parlor so far removed from the more frequently occupied parts of the house, and for the arrangement of door leading from kitchen to dining-room.

b1 and b2 show the ground and upstairs floors of a plan of different lay-out, while a further variety is afforded in c1 and c2.

There are a few persons who may desire a plan of a double house. d1, d2 and d3 show a house intended for two families. Such a domicile has disadvantages which we need not mention, but it has several advantages in cost of building and maintaining. One furnace will heat it, and both families may use the same halls, stairs and bath-room. If one family is absent the other keeps up the fires, so that things are comfortable and safe.

To save useless correspondence, we may as well explain that we are unable to furnish specifications of these houses, but each reader may select the plan that comes nearest to suiting his needs, and by the aid of an intelligent builder or carpenter, or the local architect, work out modifications, details and specifications for himself, cost varying with the material, general finish, ornamentation, and so on.

All of these plans possess features that will appeal to the householder, and our many subscribers having paid their money may take their choice.



THE DAIRY.

A Daily Milk Record the First Step to Progress.

To the Editor "The Farmer's Advocate":

In reply to your question, "Does the Daily Milk Record Pay?" I answer yes. By weighing the milk regularly, you know exactly what each cow gives, and then you begin to wonder what is wrong with some of your cows. Take two cows in one stall—both renewed at one time. After milking some little time, one cow increased in weight of milk per week, the other lost; one rose in test also, from 3.8 to nearly 4, the other did not; both fed the same. Where was the fault? By change of the feed we improved the other cow. Take figures for three weeks:

147½ lbs.	141½ lbs.	145 lbs.	Fat test rose also
181½ lbs.	182½ lbs.	182½ lbs.	

The one cow has been lowering her record for some time. Now we have changed her feed, and she is improving; the other cow still holding her own on the same feed. Another point is, when you see a difference of pounds of milk some days to others, you want to know the cause, then try to remedy. We have raised our milk standard and have improved our cattle, also our barns, since keeping records.

We test our milk regularly for cream. As our milk is sold every day, we have only tested our milk for butter-fat once or twice. We use a tube tester I got in Wisconsin, and find it useful in testing. A butcher's balance scale hangs in the barn, with pencil, putting up a number of papers, one for each week, say enough for ten or a dozen weeks, with the name of each cow. We weigh pail and all, putting all down, and at the end of the week take a sheet off, and you can reckon up in a few minutes: Gross, 257½; tare, 42; net, 215½ lbs. It takes less time in the end, and we do not make so many mistakes. Since keeping records each milker uses his own pail and milks the same cows, and we have found that by keeping regular time our tests are better. We have also found that grooming our cows gives good results; cows in milk should be well brushed every other day, and, better, every day where possible. We notice that when we start to clean our cows they will all rise up if lying down, and after cleaning they will lie down and hardly stir until night. The keeping of records is only the start, but the sooner the man who keeps cows for milking purposes starts, the better for himself and his herd.

Middlesex Co., Ont.

LOUIS DAY.

Silo for Winter Dairying.

To the Editor "The Farmer's Advocate":

My experience is that winter dairying is much more profitable than summer. In winter dairying you have all the year round dairying, provided you feed and care for your herd as you should during the winter. I like to have cows fresh between October 1st and January 1st, then with plenty of good ensilage fed twice a day, and good clover hay and bran, gluten or some other protein feed, according to the price in the locality, letting the cow be the judge as to the amount she will digest properly, you can look her in the eye and say, "You pay for your board or you will go to the butcher." If she is a dairy cow she will comply with your requirement every day through the winter; will go on grass in good shape, and will do nearly as well through the summer as a cow that is fresh in the spring. She will take her yearly vacation in the fall, when the pasture is dry, while her spring freshening sister will shrink in her milk. Then a dairyman has more time to take care of his calves during the winter than in summer, and with good, light, comfortable quarters they will do better in winter than in summer, and by spring will be ready to go to grass, and will stand the hot sun and flies better than a young calf, and you can have the skim milk during the summer for pigs. Whenever your cows are fresh, feed them so as to keep them doing their best; do not think you can let them shrink on their milk for a week or a month and then have them make up for lost time, for they will not do it. They must do their work every day or they will run you in debt. I have 30 milk cows, and I feed them silage all winter, except in the extremely cold weather, when I let up some, as the silage is frozen hard, and to feed it is like giving the cows icicles. But when the weather gets milder the silage thaws out, and I go to feeding it again. Winters differ greatly in that respect. The winter preceding this the silage remained unfrozen, and I fed it continually. We used to sell our milk for shipment to the city, but the shipper that was buying it changed his location to another road, and dropped the men that were supplying him milk. Then I went to making butter, and I figure that it pays better to make butter than to sell milk for shipment to the city. I estimate that I make at least 50 cents more on a can of milk by keeping it myself, making butter from the cream, and feeding the skim milk to pigs. Moreover, I save the disagreeable duty of hauling my milk two and a half miles to the railroad station. Not only was my time taken by that, but I had to keep an extra horse for the purpose. If I had not done that I would have to keep a team from working in the field when I was driving to the station with one of the horses. The farmer that has clover

hay to feed with his silage will not have to buy much grain, as the protein in the clover balances the excess of starchy matter in the silage. Last winter I fed a good deal of gluten feed, because the hay I had was timothy and not clover. With the gluten feed I also fed some oil meal, which I find is good.

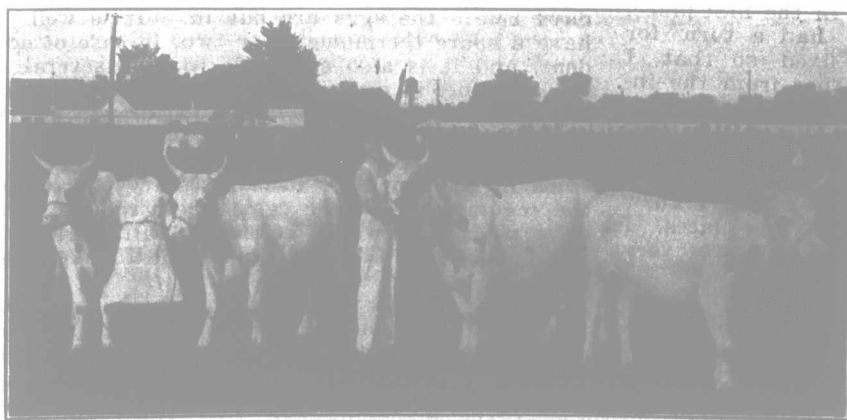
Some farmers have conceived the idea that the silo is too expensive a structure for them to have on the farm. The men that hold such an opinion have not investigated the matter. A well-built, permanent silo can be put up for about \$1.50 per ton of capacity. That is a cost of \$300 for a silo that will hold 200 tons of feed. This amount of feed will supply 20 cows



R. S. Stevenson, Ancaster, Ont

President Canadian Holstein-Friesian Cattle-breeders' Association.

with all the silage they should have, even if they are big cows and are fed the year round. If the farmer is to build a barn that will hold hay for twenty cows even for a winter, can he build it for \$300? Not at all. He would have to invest very much more than that sum in a barn to hold the hay for that number of cows. So we see that silage is the cheapest thing possible to feed, if we are to consider the cost of the structure that contains it. The farmer who intends to largely increase the number of his cows will have to put thousands of dollars into a barn structure if he intends to confine himself to the feeding of hay for roughage. It will be far easier for him to extend his stables and build a silo than to construct a stable sufficiently high to hold the hay. When one is freed from the necessity of providing for bulky feed, he can then construct his dairy stable with the one object of securing cleanliness and light. He can build his stable long and low, and secure a flood of light from three sides. His structure does not have to be heavy, as it must be if it is to



Registered Ayrshire Heifers.

In the dairy herd of Hon. W. Owens, Montebello, Quebec. (See Gossip.)

sustain a heavy superstructure. A silo is thus not expensive, and, moreover, it is a great encourager of the development of dairying. It solves the problem of how a dairyman can make a living off 50 to 100 acres of land. That is going to be the great question in the not distant future, for the farms are already being cut up into smaller ones. If any man doubts whether or not it will pay him to build a silo, let him look into the cost and the benefits, by getting estimates on the cost of construction.

J. P. FLETCHER.

Fulton Co., N. Y.

Feed, Breed, Weed, to Improve the Dairy Cow.

II.—BREEDING.

The foundation upon which all improvement has been made in improving the different breeds of stock has been good care, and there is no use trying to make progress without this foundation. Just from not realizing this very important point thousands of dollars have been wasted by people starting in to breed pure-bred stock and to improve their herd. Good care and proper feed are absolutely essential to success. The characteristics of different breeds of stock have been further developed by judicious mating. If a man wants to get a fast horse he does not breed to heavy drafts, or, as an old neighbor well said, you can't expect rats from mice. If we want to improve the milking qualities of our cows, then we must breed from milking strains, and from those cows, also, that develop that particular trait. The different dairy breeds have gotten their different characteristics from the system upon which they have been handled and the peculiarities of their environment. The speed of trotting horses has been brought to a greater swiftness by breeding for speed, and in the same way, when seeking to develop a superior milker, we must breed for that. It is not enough alone to know that the animal is registered, or of a breed that is noted as great milkers, because amongst all breeds there are animals that are not so good, and there are pure-bred registered cattle that have lost all their superiority from the way they have been handled. The work of many years may be lost in a very few years by lack of care and feed. It is, therefore, of first importance what the immediate dams of that particular dairy animal have done. The longer and further back, of course, the better it is, but if the closest dams are not good, it shows that the system under which the cattle have been kept has degenerated them. A cow in her natural state does not give a very great quantity of milk. The large productions are acquired by feeding and breeding for that end, and can be very easily lost. It seems to me that, with proper care, we should make a good deal more progress in breeding high-class animals than has been done, because, with the many records now being made, especially if those records are official and absolutely correct, we can know for a certainty what we are breeding from. I think that we can, by systematic work along right lines, breed up a herd of cows that will give from 10,000 to 15,000 pounds of milk a year. Of course, there are cows that will make over 20,000 lbs. of milk a year, but that is rather high-class work, and those animals may be considered as something in the nature of "sports." Perhaps fifty years hence they will not be considered so much "sports" as now.

Whilst I am strong on breeding for performance from performers, I find from my very heavy correspondence that some do not properly realize what these great records mean. A good many seem to think that they should have a bull from a cow that has a record of about twenty-five lbs. butter a week to breed on a grade herd. Such are very scarce, and are required for the pure-bred herds at long prices. Because a man cannot get such, he should not run away with the idea that something else offered him will not do him any good. A cow that will make from 16 to 18 lbs. butter a week when fresh, is a very good cow, and a long sight better than the general run of cows. Possibly there is not one herd in the

county that has one such cow in it, outside of the pure-bred herds. A cow with a record of from 17 to 18 lbs. butter a week would equal a cow with a record of 12,000 to 15,000 pounds milk a year. These letters are written especially to be a help to the general dairymen. The man who is breeding high-class stock now does not want any help, and I want to say to the general run of dairymen that if they get a young bull from a cow that will make a record of from 16 to 18 lbs. butter a week, or from a heifer that will make a correspondingly good record for her age, and when they get that animal keep him growing well and in good thrifty condition, also breed him to their best cows, and keep them in good condition at all times—then they are working to progress. A calf so born into this world is more than half raised, and its ancestors should not only be good performers, but they should be in good condition, so that they shall be able to transmit this performance in the way of vitality to their unborn progeny. This I consider of much greater importance than how the calf is reared afterwards. Unless it is born right, it never will be right. Having, then, the dairy

calf born into this world with plenty of vitality, it is not much trouble to develop the future animal from it. The main thing is to keep it growing thriftily, and thriving at all times.

There are a great many ways of rearing a calf, and any way is good enough that will keep the animal growing well. Nothing is better than skim milk for dairy calves, but we have found other ways just as good. Now, for instance, when we are selling milk for city use, we have no skim milk. We have just as good calves, though, and we feed in this way: The calf for the first two or three weeks is given its mother's milk fresh, then, as the calf gets older than three weeks and is doing well, we add a little warm water to the milk each day, and gradually reduce the quantity given of milk, until, at about six weeks old, the calf is getting about two quarts of milk and two quarts of water, and as it gets older we increase the water, so that it will have sufficient drink to do it. We find that our calves so fed take to eating hay, a little silage and bran, at a very early age (3 or 4 weeks), and they gradually work up upon this feed until they eat quite a bit of it. We find, though, it is good to give the calves a little milk, even if only a quart or two, in their water for six or seven months, as it keeps them thriving better than anything else will. Very often the mistake is made of giving the calf too much milk when young, and shutting it off at too early an age altogether. We find it of great advantage in developing our heifers to keep them growing at all times, from calves to maturity, and I can especially recommend rape as great feed for yearlings and young cattle, also dry cows, and I plan to have some of this in the fall when other pasture is getting somewhat dry. We have a good many heifers and cows fresh in the fall or early winter, and I find, by putting them on a good feed of rape and keeping them in first-class condition—having them, in fact, fat when they come into the stable—they do better all winter. Heifers or cows that calve towards spring are much better and likely to do better when fed on a succulent ration like ensilage, roots, etc.

GEO. RICE.

## POULTRY.

### How She Gets Winter Eggs.

To the Editor "The Farmer's Advocate":

Three years ago I watched "The Farmer's Advocate" anxiously for assistance in making my hens lay, and have read with much interest and not a little profit, every article on the management of poultry published in the paper since. This winter, I am glad to say, my hens are doing their duty, and I am sure are costing less to keep than they have for years. Therefore, I thought my method of management might be interesting to some readers of your poultry column who are trying, like myself, to get the best results from a few hens. I had about seventy very nice, pure-bred Barred Plymouth Rock pullets hatched in May and early part of June. After the fall wheat was cut they got very little food besides what they gleaned on the stubble until late in October. On Thanksgiving day I put them in winter quarters—a henhouse about ten by sixteen feet, built against the south end of the horse stable, of double boards, with concrete between, with gravel floor, and two south windows. Last year I put in double windows, which I find a great improvement—just two sashes that were lying by, and put in by a handy man about the farm. The henhouse was built, in the first place, by one of the farm hands who had a turn for building. I had one window fixed so that I could slide both sashes back, either from the inside or the outside. This I find very convenient, as I kept the window open and put in a wire screen most of the time when I had such a great number of fowls in my small henhouse. I kept them shut in for three or four weeks, as I knew they would return to their old roosting-places. I was rather afraid of illness, as they were very crowded; but they were healthy and happy. I fed liberally with oats and barley, and mangels or turnips. I frequently gave them a sheaf of oats to keep them busy. Often I put a sheaf of oats in the henhouse late in the evening, that they might be kept busy until I was able to attend to them in the morning.

Early in December I reduced my flock considerably. On the tenth of December they began to lay. At present I have thirty-six hens, and am getting from fifteen to seventeen eggs a day. In December I began feeding a warm mash of nearly a pail of red clover chaff, with about half a gallon of ground oats and barley, a small tablespoonful of salt, and sometimes a teaspoonful of red pepper mixed in the mash. This I give about ten o'clock in the morning. Frequently I scald the mash with boiling skim milk. I keep a pail with fresh water for them all the time. On cold days I give them hot water. They have a box of fine gravel and a dust-bath in the henhouse. Every day that is not intensely cold they run out in the stable yard, where there are no animals to

trouble them, and I throw them out a few oats to keep them scratching while they are in the open air. They have had two or three cooked livers and a little raw beef. When the weather is very cold I give a little buckwheat once a day. In former years we have fed our hens wheat, chiefly, but this winter they have had no wheat. Last year I intended having pullets hatched in March, but could not get eggs for hatching. This year I have plenty of eggs from my own hens, and hope to set my incubator about the first of March. I purpose setting two hens this week, just to test the fertility of the eggs.

York Co., Ont.

WRINKLES.

### Management of Incubators.

There are 130 incubator manufacturers in the United States, any of which sent out last year from 2,000 to 10,000 machines. This gives some idea of the number of incubators in use across the line, and a fair indication of what are used in Canada. Go where you will throughout the Dominion and you will generally find an incubator in the neighborhood. The results have been varied, but for the encouragement of those who have not had the success they anticipated, I would say, don't be discouraged. If your machine is of a good, reliable make, the fault may not be in the incubator. Profit by your failures of last season. No machine, however perfect, can hatch a large percentage of strong, vigorous chicks from eggs that have been produced by parent stock lacking in vigor. Be sure your breeding stock is perfectly healthy, and of good strong constitution. So much depends upon the vigor of the laying stock that without it failure must inevitably follow.

**Selection of Eggs.**—In selecting eggs for hatching, it is well to have them as near the one age as possible, and the fresher the better. Eggs with thin shells, or deformities of any kind, should be discarded, as also eggs of over or under size. In fact, no egg should be expected to produce a chick that was not in itself normal; hence, put into the incubator eggs of good shell, uniform in size and shape.

Eggs held for the incubator may be kept at a temperature of 50 to 60 degrees, and it is not advisable to turn them.

**Location.**—Probably the best place to locate an incubator is a well-ventilated basement, where the side opens out level with the ground. For one or two machines, any well-ventilated room where a fairly even temperature can be maintained will answer. Where many machines are operated in the one room, the question of ventilation becomes a more serious one. Better results will be maintained if the room can be kept at a fairly even temperature.

**The Incubator.**—The two systems of supplying heat in most of the incubators is by the "Diffusion" and "Radiation" methods. A diffusion machine is one where the warm air is forced or diffused into the egg-chamber, such as the Cyphers, Model, etc. The radiation machine is one where the egg-chamber is heated by radiation from a heated surface, such as Prairie State, Chatham, and like machines.

An incubator should always be stored in a dry room, and should be thoroughly cleaned before storing. In operating, follow the directions of the manufacturers minutely, and do not deviate until you are sure you can improve. If you do change, and fail to get the anticipated success, don't blame the machine. Incubators are made to run under certain conditions. When the machine is put together, see that all the parts are working freely. Set it level, and operate several days before the eggs are put in. It is well to have a spare thermometer or two, in case of accident, and it is also advisable to keep several in the machine, in order to get thoroughly acquainted with the egg-chamber. Incubators do not always heat evenly, and if not it is well to know, so as to be able to guard against disaster. In some of the machines it is necessary to readjust the regulator when the eggs are introduced, but, as a rule, if it works before, it will work after the machine is filled, without additional adjustment.

The first week of incubation is the most important. Extremes of temperature during that period are injurious; extremes during later incubation do not materially affect the hatch.

The testing should be done at least twice during the hatch; cooling after the third or fourth day. The practice of cooling so many minutes is not a good rule—rooms differ so much in temperature. Place the eggs on a table, and cool until they feel cool in the hands, and when putting in change the sides and ends alternately.

During the latter part of the period of incubation the temperature may be gradually increased one or two degrees, until, when the eggs pip, the temperature reads 104 or 105.

**Number of Hatches.**—As a rule, the early hatches produce the best chicks. Chicks hatched during the summer months are not so thrifty, and are more subject to diseases. Aim to start early enough that your third and last hatch is off by the last of May.

F. C. ELFORD,  
Department Agriculture, Ottawa.

### Simple Remedy for Roup.

To the Editor "The Farmer's Advocate":

I see a question asked in the last issue of "The Farmer's Advocate," "How to cure roup." I will give a simple remedy, which we have used with perfect success for the last fifteen years. When we notice one of the fowls attacked with the disease, we catch it and fill its mouth with sulphur. We have never found it necessary to repeat the dose, and to protect the rest we place dry bran and sulphur in a dish on the floor, where they can help themselves. It will prevent as well as cure the disease.

A. DOHERTY.

[Note.—There are many forms of roup, and not all would yield to the above treatment, though it would be all right for cases where the throat was the part affected. The genuine diphtheritic roup, however, should not be treated, but the bird destroyed.—Ed.]

## APIARY.

### Out Apiaries.

Paper by Denis Nolan, before the Ontario Beekeepers' Association.

In dealing with this question, it might be considered by a great many beekeepers as one in which they had little interest, as such a small percentage of those who keep bees ever manage out yards. However, I think if we look a little closer into the matter we will find that it is of more or less importance in beekeeping.

Only in rare instances do we find persons who are fortunate enough to have a locality, a strain of bees, or some superior system of management, which enables them to keep a sufficient number of colonies in one yard to allow them to be classed as specialists in beekeeping or large producers of honey. Beekeepers who are almost solely depending on their honey crop as their source of income, are desirous that their crop should be of such proportions as to furnish them ample funds for a comfortable living, find that under ordinary conditions such a quantity of honey cannot be produced in one apiary alone. By distributing our colonies in yards away from our home yard, we are enabled to allow our bees a much larger area to gather nectar from without having to travel great distances. By doing this we can keep a large number of colonies, devote all our time and study to this one work, be a specialist in this particular line, always looking for better things in management, production and marketing of honey, etc. We are accomplishing something for the beekeeping world which cannot be overlooked, besides turning into a sole occupation a profitable and pleasant work, which, in a great many instances, is regarded as a mere side line.

From what I can learn from observation and otherwise, the fewer number of colonies kept in a given area, the better results are secured. Taking this as a basis, we will have to determine to our own satisfaction what is going to be the limit of the number of colonies kept in one yard, according to our own management and locality. Speaking on my own experience, I would suggest one hundred good colonies in the spring, which might be increased to 150 during the season. To increase these numbers would mean that you reduce the yield per colony, increase the desire to swarm, and have a larger amount of bees and brood to sustain on the nectar of the field covered. To reduce the number means you reduce the income on some investments, viz., cost of establishing yard, attendance, etc.

In establishing out apiaries, the first consideration should be locality. The area to be covered by the bees should furnish ample forage without traversing territory covered by bees from other yards, which would place it about three miles from any other large yard. See that the territory has some honey and pollen yielding trees and shrubs for spring stimulating, as well as full quota of basswood, clover, and perhaps a little buckwheat. A locality can best be judged after a practical test of two seasons, and sometimes a half mile materially affects the yielding secured.

Next locate the site for the yard, which is an all-important matter. If possible, choose a sheltered spot, if bees are to be wintered there outdoors, and have it shady if you desire trees. I prefer cedars, but set out half a dozen tufty cedars, by standing them in tiles set in the ground; you will see on your arrival, in an instant, if any swarms have clustered. One of our most satisfactory sites was in the center of a way.

A good tight house, bee-proof and dry, is a necessity, of course, but as out apiaries are not permanent institutions, we can do very well with any means of shelter for our supers, empty hives, extracting outfit, etc., that sheds rain and storm. When the season arrives, if the building does not exclude robbers, a small cotton tent can be made to extract in, for undoubtedly you will have considerable extracting to do after the main honey flow is over if you are an out-yard man. Another advantage the cotton tent has is that it gets very warm in the rays of the sun, and honey

that is very thick can be easily extracted in cool weather.

We like a good house at our own yards where we can store our honey when it is extracted, until we have time to remove it to the railway station. This saves handling, especially when one is busy, but if such is not available, the honey can be taken home in 60-pound tins as it is extracted, and can be strained from the extractor or after taking it home.

For wintering, if you do not wish to put your bees in cellars or repositories, they can be successfully wintered outdoors, packed in suitable cases, with four or six inches of good packing round the hives. Set the cases about eight inches above the ground, and protect the yard with a tight fence on the west and north sides, six feet high, to break the force of the wind and keep out the snow.

We now come to the most important question of all, "Managing the bees." In the fall and spring we find the beekeeper (aided by what he can prepare during the winter months) is quite capable of attending to several apiaries, but when it comes to the busy summer season, when the bees swarm and gather honey, you will have to decide which plan of the many ways and means suits your individual tastes, your locality, and perhaps hives. Any plan that can be successfully applied to any yard can be applied to an out-yard, only, thoroughness is more essential in your out-yard than at the home yard, because the out-yard will be, for a great part of the time, without any attention, and many little things might get the benefit of your watchfulness at home that the out-yard will not receive. The work must also be done systematically and systematically, not putting off till to-morrow what you can do to-day.

## GARDEN ORCHARD.

### Choosing Varieties of Fruits to Plant.

A perennial question with farmers, as well as commercial growers, is what varieties of fruit to plant. Conditions differ, so that no general lists can very well be given for a Province, much less for the whole country. We have therefore concluded to give our readers the knowledge of professional fruit-experimenters and successful fruit-growers, in their respective localities. We print in this issue several of the letters received, suggesting a few of the best varieties of apples, pears, plums, peaches and grapes, or such of these as are considered worth planting in the writer's particular territory; also a few of the best varieties of strawberries and bush fruits. We have requested correspondents to not merely mention the varieties they personally prefer, but to take account of others commonly favored in their districts, and to give reasons for recommending certain varieties, while omitting or pronouncing against certain others. Our aim is to supply information concerning the hardiness, bearing and other qualities of the several sorts that will enable the careful reader to size up the varieties intelligently, and choose for himself an assortment best suited to his needs.

### Leading Varieties of Vegetable Garden Crops.

The following list of names of the leading varieties of different garden crops is prepared for the benefit of farmers and amateurs, as well as commercial growers, by H. L. Hutt, Professor of Horticulture at the Ontario Agricultural College. The list gives the results of experience at the College in the management of the sixteen-acre vegetable garden:

- Asparagus—Conover's Colossal and Palmetto.
- Beans—Summer, Golden Wax; autumn, Bush Lima; winter, Navy.
- Beets—Globe, Egyptian Turnip; long, Long Smooth Blood.
- Carrots—Chantenay and Scarlet Nantes.
- Cabbage—Early, Winningstadt; late, Flat Dutch, Savoy, Red, Mammoth Rock.
- Cauliflower—Extra Early Erfurt and Early Snowball.
- Celery—Early, White Plume; medium, Paris Golden Yellow; late, Giant Pascal.
- Corn—Early, Golden Bantam and White Cory; medium, Metropolitan; late, Country Gentleman and Stowell's Evergreen.
- Citron—Colorado Preserving.
- Cucumber—White Spine for slicing; Cool and Crisp for pickling and slicing.
- Egg Plant—New York Improved.
- Kohl-rabi—Early Purple Vienna.
- Lettuce—Hanson and California Cream Butter.
- Musk Melon—Rocky Ford, Hackensack, and Montreal Market.
- Onions—Yellow Danvers, Prizetaker, and Red Wethers.
- Parsnips—Hollow Crown.
- Peas—Early, Steele-Briggs' Extra Early, and Nott's Selector; medium, Gradus; late, Champion of England Improved Stratagem.
- Potatoes—Early, Early Ohio; late, Empire State.
- Pumpkin—Small, Sugar; large, Junbo.

- Radishes—Early, Rosy Gem and French Breakfast; winter, Scarlet China.
- Rhubarb—Victoria, or any other carefully-selected seedling variety.
- Salsify—Long White.
- Spinach—Victoria.
- Squash—Summer, Crookneck and White Bush Scallop; winter, Hubbard.
- Tomatoes—Early, Earliana, Dominion Day and May-flower.
- Turnips—Golden Ball and Hartley's Bronze Top.
- Vegetable Marrow—Long White Bush.
- Watermelon—Hungarian Honey and Cole's Early.

### Varieties of Fruits for Niagara District.

At this season of the year fruit-growers and farmers are being interviewed by nurserymen and agents soliciting their orders for the spring planting, and the most perplexing problem is what varieties will be the best to plant. In many cases the agent's advice has to be taken, and this is too often biased by the quantity of stock of each kind he has to sell. The object of this article is to give a fruit-grower's and shipper's advice as to what he considers some of the best varieties to plant in the Niagara Peninsula.

Apples.—Very few are being planted, but as we are finding in many cases our larger farms being sold and subdivided, it would be wise for our beginners to plant a few apple trees for home use and also for market—Astrachan, Duchess, Gravenstein, Blenheim, Greening, Baldwin and Spy, ripening in the order named.

Pears.—A few Giffard, Clapp's Favorite, Bartlett, Howell, Box, Anjou, Lawrence and Keiffer. Clapp's Favorite is the most subject to blight. Box is better to be top-grafted on some strong-growing variety, as it is a slow grower on its own stock. Lawrence will make a good Xmas pear, and bears well if properly cared for. I have placed Keiffer on the list as it is a strong, healthy grower, prolific bearer, and sells for canning purposes. It should always be planted on light loamy or sandy soils.

Cherries.—Not very much choice in the early sweet varieties, as all are subject to rot. Among them I would suggest Black Tartarian and Yellow Spanish. Some cherries, if pickers can be secured, will pay well, and are assured bearers. Early Richmond, Montmorency, Ordinaire and Morello will give satisfaction. Cherries thrive best on well-drained, gravelly soils.

Plums.—It is a question whether it is wise to plant many plums in this section. If some are wanted, I would advise only a few of the Japanese, and on clay soils European varieties. In the Japanese class, for very early, a few Red June, Shiro, Abundance and Burbank are also good. In the European varieties, Bradshaw, Gueii, Imperial Gage, Lombard, Grand Duke and Coe's Golden Drop might be mentioned.

Peaches.—Very early varieties are not being planted, as they are so subject to rot and are such poor shippers. The first named would be St. John, a few Champion (a white-fleshed peach), Early Crawford, Niagara, Late Crawford, Elberta, Chan's Choice, Oldmixon (white), and Smock. The planting of such varieties as Longhurst, Tyhurst, Wager and other varieties of small hardy peaches in this section of the country is as unwise as planting the early clingstone varieties. Very often we find to our sorrow that some fruit-tree agent has palmed some of these for better varieties.

Grapes.—Black: Moore's Early 50, Campbell's 50, Worden 200, Concord 800. White: Niagara. Red: Lindley, Agawam and Vergennes. In the blacks I have given the proportion I would plant. Of course, soil and locality will have something to do in choosing. In the reds, Lindley does fairly well on either sand or clay, and Agawam requires heavy, stiff loam.

Strawberries.—On very early, light, sandy soil, Michael's Early is planted to quite an extent for the early market. Then follow Williams for light, and Clyde for heavy soil. These are all perfect-flowered varieties. There are, of course, many other varieties planted in smaller quantities, and do well, such as Brandywine, Splendid, Bubach, Wm. Belt and Van Deman, but the first three are the mainstay in this district.

Raspberries.—Black: Hilborn and Gregg. Red: Marlboro and Cuthbert. Purple: Shaffer. Cuthbert is preferred at the canning factory, but the Marlboro is earlier, and commands usually a better price for early shipment.

Currants have been almost entirely dropped, owing to past low prices. If planting, I would suggest for black, Champion and Naples; for red, Cherry, Fay and Red Cross.

White currants and raspberries have only a limited market, and it would be unwise to plant many, unless for special use.

A few standards only of each kind of fruit should be planted. The tendency with beginners is to plant too many varieties. The old growers usually narrow down to two or three varieties of grapes, about six of peaches, and a like proportion in other kinds of fruit. There are varieties not mentioned in the above that do well

on special soils or under special conditions, but are not desirable to recommend for general use. Lincoln Co., Ont. ROBT. THOMPSON.

### Varieties of Fruits for the Province of Quebec.

During the past three weeks I have had an opportunity, while holding institute meetings, of visiting a number of districts in the English-speaking parts of this Province, and while trying to distribute information for the benefit of those engaged in fruit-growing, I have at the same time endeavored to secure from farmers their opinion as to the varieties of fruits that they have found the most profitable. So, in this way, I have obtained considerable information that has materially influenced me in my opinion, and possibly will give more weight to my judgment as to varieties of fruit most suitable for this Province. That is, of course, speaking in a general way, for this list must necessarily be modified somewhat for the different sections.

Apples.—Duchess, Alexander, Wolfe River, Wealthy, Fameuse, McIntosh, Blue Pearmain, Bethel and Golden Russett.

Pears.—Clapp's Favorite.

Plums.—European: Mount Royal, Arctic and Imperial Gage. American: Cheney and Hawkeye.

Cherries.—Orel No. 25 and Montmorency.

Grapes.—Moore's Early.

Currants.—Black: Lee's Prolific. Red: Wilder, White: White Grape.

Blackberries.—Agawam.

Red Raspberries.—Herbert, Marlboro, and Cuthbert.

Purple Raspberries.—Columbian.

Gooseberries.—Downing.

Strawberries.—Splendid, Beder Wood and Senator Dunlap, perfect flowering; Warfield and Sample, imperfect flowering.

Possibly a few words as to why I advise the apples given in the list will not be out of place. The Duchess, of course, is possibly now sufficiently planted, so we can drop that as not being desirable for further planting. The Alexander and Wolfe River are being quite extensively planted, and the great advantage of Wolfe River over Alexander is that it can be harvested a little later than Alexander, and holds to the tree better. They are practically the same in texture, season and hardiness. The tree is a good grower, and ripens its wood well in the fall. The Fameuse, too, is planted sufficiently to supply the markets in season. Rather than an increase of area to this variety, I would suggest better spraying, and attention to picking and packing. McIntosh Red, I do not think, can be overplanted. The tree is even harder than Fameuse, and a good grower. This Province could make itself famous in producing Fameuse and McIntosh Red if the growers would co-operate and put the fruit on the market in quantity, in uniform packages of uniform quality. The Blue Pearmain seems to do well wherever I have been. It is a fairly good February and March apple. Its color is good, the tree is hardy, and naturally is not a heavy bearer, which, no doubt, accounts for it not being more largely planted. I think it is an apple we can well afford to plant more largely of. Unfortunately, however, this variety is not offered for sale by our nurserymen. The Bethel seems to give general satisfaction as a February and March apple. The tree is hardy, but not very productive. The fruit is good-looking, much resembling the Blue Pearmain, but more conical and larger. The great objection to this variety is that it loses its flavor early in January. It is a better cooking apple than the blue Pearmain. The Golden Russet is generally a poor cropper, but a good grower. This variety needs better cultivation than that generally given, in order to get best results. The Milwaukee is a good cooking apple for December, January and February, and should be more largely planted. It is hardy, productive, and fruits early. Unfortunately, stock of this variety is hard to secure. The fruit very much resembles Duchess. The yellow Transparent is good for a very early sort. In some sections the Ben Davis does well, but it is not generally hardy. An apple that seems to be hardy is Grimes' Golden. This is an excellent dessert apple for February and March. On account of its color it is not a good commercial variety. Talman Sweet is also a good hardy sort for domestic use, especially good for baking. The Wealthy is not liked by many on account of having so much small fruit, the trees breaking, and the fruit dropping easily. The trees should not be allowed to overload too much, as small fruit will result. Thinning prevents this, and so much breaking will also be prevented. The dropping is often largely due to not picking early enough. The Baxter seems to do exceptionally well in some sections. It is a fine-looking apple. The Pewaukee, too, does well. It is liable to drop its fruit before mature, which is against it. Its color is against it, also. W. S. BLAIR.

St. Anne de Bellevue, Que. You should have one of our premium knives. Only one new subscriber.

**What to Plant in Algoma District.**

In this region, beginning at a point east, say, of French River on the Georgian Bay, and west to beyond Port Arthur, and north to the farthest limit at which fruit can be grown—and this is very much further north than is generally supposed by persons residing in Old Ontario—you will see that it is impossible to give a list of fruits adapted to such a range; proximity to large bodies of water, difference in soils, elevation, etc., are all to be taken into account. But taking the Districts of Algoma and Nipissing, for a distance of 30 miles back from the Georgian Bay and St. Mary River, where the country is most thickly settled, the following list may be considered suitable, with the exception of soil differences, shelter, etc.:

Excepting blackberries, all small fruits can be grown with surer success than in Old Ontario. Spring frosts do little damage to fruit buds, the nights in summer are cool, and the summer drouths so prevalent in the East are unknown. Good gooseberries are: Pearl and Downing. Red raspberries: Loudon, Marlboro, for early; Cuthbert on high, dry soil. Currants: White Grape or La Versaillaise for profit, and the old Red Dutch for quality; Black: Fay's Prolific and Champion. Currants and gooseberries succeed best on rather heavy soil.

I do not care to say which strawberries are the best. Haverland, which has done best with me, may have to take third or fourth place with my neighbor.

Grapes, unless in a very favorable location, are not a success, except for a few vines to beautify home grounds. They need not be planted with a view to profit. Champion and Moore's Early are among the surest to ripen.

Sour cherries, on warm limestone soil and in the vicinity of large bodies of water, are certainly a success. Early Richmond, Montmorency and English Morello will fill the season. I have never found the Russian cherries quite so profitable as those named, but further inland, away from water, they seem to succeed better. Sweet cherries are too tender, as a rule, for our section.

Peaches cannot be grown; heavy frost will kill them to the ground every winter.

Plums can be grown with fair success when the soil is suitable, but on heavy clay are not entirely hardy—that is, the Domestic class. I have not found anything better than the old Lombard, to which may be added Glass Seedling and Moore's Arctic. A very great difference exists among the Japan plums as regards hardiness. Some, such as Wickson, are very tender; others, again, are inferior in quality, but as a class they are showy and look well in the basket. Burbank, Ogon, Abundance, Gold, with me, have all proved hardy; the first named is of good quality. Red June is good, but just a little tender here. The Americana Class are very hardy, and will grow where a maple will grow; they have more or less the appearance of the native wild plum, which is against them. The top of the tree is very brittle; a heavy crop of fruit will break the large limbs off. As a rule, they are inferior to eat out of hand, but make excellent preserves. This class is not extensively grown by nurserymen in Ontario yet, but no doubt it is the coming plum for the far north. Hawkeye, Stoddard, De Sota, Wolf, are all good, but late in ripening their fruit. We want something earlier in the season.

Pears are not much of a success commercially. It is too much of a struggle between the climate and the tree which is to come out ahead. The Russian pears are quite hardy, but they are very poor. I do not care to recommend any one to plant them to any extent, but if planted they should be headed not more than one foot or eighteen inches from the ground. This holds good with all tree fruits. Nurserymen head their stock far too high for planting in the north, but the fault is not entirely theirs, for many people would refuse to buy stock with the top starting eighteen inches from the ground.

At the risk of being told that I am talking nonsense, I will take chances and affirm that many varieties of summer and fall apples are a surer crop and certainly a better-paying crop than in what is considered the best apple sections. There is no off year in the north. It is true we are limited to certain varieties, some of which grown in the southern portions of Ontario are of very poor quality, which, when grown in Algoma, are the very best. For instance, Alexander and Wolfe River are coarse and poor when grown in Kent or the Niagara District, and excellent in quality here. Sun scald is about the only trouble we have to guard against, and this may be naturally overcome by heading the trees near the ground. The following may be considered a good list, given in the order of ripening: Yellow Transparent, Astrachan, Duchess of Oldenburg, Charlamoff, Wolfe River, Alexander, Gideon, McIntosh Red, Princess Louise, Wealthy, Pewaukee, Scott's Winter, St. Lawrence. This list might be largely extended, but is fairly representative of the varieties planted. We have not yet a perfect winter apple, but when it is understood that, with the exception of the first four, the others will keep when grown here two months longer

than the same grown down East, we are not so badly off. Ontario did well for some years, but the hard winter of 1893-94 was too much for it. The three principal commercial apples in the East are of no use here. Thousands of Kings, Spies and Baldwins have been planted, and I have yet to hear of a single mature apple being gathered from either of them. Top-grafting these varieties on hardy stock is being tried; the result we have yet to learn, but my own opinion is that our fall here is not conducive to ripening up the fruit or wood of them.

Algoma Fruit Station.

CHAS. YOUNG.

**Varieties of Fruits in Georgian Bay Region.**

After many years' experience with hundreds of varieties, and also with buying and shipping, I would advise the planting of comparatively small numbers of each kind of fruit.

Apples.—There are very few of the so-called novelties or new kinds that are at all the equal of many of the old, well-tried varieties. The following list is sufficiently large, and, in my opinion, comprises the cream of all the two hundred or more kinds of apples grown in the Georgian Bay district. For winter export, Rhode Island Greening, King, Baldwin, Northern Spy, Mann, Golden Russet, though one of the best, usually yields and barrels up so slow, I always hesitate to recommend it. Of Ben Davis this country already has enough for many years to come. For summer and fall, home use and export, in the order named, and in a limited way, except Gravenstein, Transparent, Duchess, St. Lawrence, Gravenstein, Alexander, Calvert, Snow or Wealthy, Twenty-ounce Pippin, King Pippin, Ribston, Blenheim, Fallawater. These are all quite hardy, and succeed well in the Georgian Bay District, in fact, in all the apple-growing sections. Stark, Baxter and Wolf River are fine, showy apples, but no better or not quite so good as Baldwin, King or Alexander, of which they are of about the same season, in the order named. Gravenstein is without doubt the peer of all the fall apples, and sells almost as well as Spy.

Plums.—In plums, I would also advise few varieties. Out of our large collection of about two hundred kinds, to cover the season for home use and markets, Red June, Washington, Bradshaw, Lombard, Quackenboss or Glass, Archduke, Prune d'Agen, Yellow Egg, Coe's Golden Drop, Reine Claude. Where they do well, Pond's Seedling and German Prune, but they are rather poor bearers with us. To be sure, there are many other good plums, but for quality and profit, in my experience, there are no other ten or twelve varieties on our whole list that are nearly so good. This list is quite large enough; usually few varieties are most profitable and give least trouble. I have named only one Japan plum, and that on account of its being the first good plum to ripen. Japan plums are quite hardy, enormously productive and strikingly handsome in appearance, yet their quality is so much against them, as compared with the European, that I could not at all recommend them. When well known they are very hard to sell; canners don't want them; they say they put up a very poor grade of goods. Our lake traders won't buy them when they can get anything else. In my opinion, they have done more to make plum-growing unprofitable than all other factors combined.

Pears.—The following are succeeding remarkably well at this station, covering the season in the order named: Beurre Giffard, Clapp's Favorite, Bartlett, Howell, Belle Lucrative, Flemish Beauty, Duchess, Louise Bonne de Jersey, Seckel, Beurre Clairgeau, Goodale, Beurre d'Anjou, Josephine de Malines. There are a good many other good pears doing well here, but this is enough. For home use, Beurre Giffard, Bartlett, Duchess, Seckel and Anjou would be enough. Flemish Beauty, when well grown, is one of the finest of pears, but on account of its liability to scab requires the most careful pruning and spraying.

Cherries.—All things considered, there is, perhaps, as much made out of the common red and black as any others. But many of the better varieties succeed just as well—May Duke, Windsor, Olivet, Black Tartarian, Gov. Wood, Early Richmond, Montmorency, and sometimes Yellow Spanish.

Peaches.—Triumph, Fitzgerald, Tyhurst, Bow-slaugh's Late, Champion and Crosby. These are all good peaches, and fairly hardy with us; only partially failed once in five years. They are also all freestone, except Triumph, which is a clingstone, but the earliest of all. Those peaches are all very much harder than Crawford's, which are rather uncertain in this district.

Grapes.—Grapes are, in a small way, grown almost as easily as potatoes. Everyone should have a few grapes. Champion, Niagara, Moore's, Diamond, Green Mountain, Worden, Delaware, Vergennes, Salem, Brighton and Concord are all doing well here, but ripen from one to two weeks later than in the Niagara District.

Red Raspberries.—Marlboro for earliest.

Cuthbert next, easily lead. Shaffer is an excellent berry for canning, but many object to its color, which is rather dark crimson.

Gooseberries.—Industry, Red Jacket, Peril, Whitesmith, Downing and Houghton. These kinds nearly always bear well with us, and give little or no trouble with mildew.

Blackcaps.—Tyler, Hilborn and Grey, in the order named, to cover the season.

Currants.—Red: Cherry, Fay's Prolific. White: White Grape, White Imperial. Black: Champion, Lee's and Naples.

Every farmer should have a fruit garden, and supply his table with the luxuries of the season. Any of the above, if properly cared for, will many times repay all the time, trouble or money invested in them.

Co-operative Planting.—If fruit-growers in localities would arrange to all plant the same varieties, and not too many, it would be of great benefit to them all. Buyers or shippers could then get carloads of one kind, if desired. As it is now, there is such a multiplicity of varieties that this is almost impossible. Also, there is a great deal more waste, and they are much more costly to pack.

Grey Co., Ont.

J. G. MITCHELL.

**THE FARM BULLETIN.**

Our knives are in great demand. They make an excellent premium.

We guarantee all premiums to be just as represented. Get one, and satisfy yourself on that point. We refuse to send out anything cheap or trashy.

The Queensland Government have cabled for 500 bushels of Manitoba seed wheat. Some seed wheat sent from the Canadian Northwest on a previous occasion was found so desirable that more is wanted.

The Stationary Engineers of Ontario, who number in the vicinity of 10,000, are petitioning the Ontario Government for an amendment to the present Ontario Act concerning stationary engineers, the object of the desired amendment being to make certificates necessary, in the interests of public safety.

We are informed that it is contemplated to discontinue some of the less important fruit experiment stations in Ontario, and probably establish a large station in the Niagara district. The system is managed by a Board of Control, composed of officials from the Ontario Agricultural College and directors of the Ontario Fruit-growers' Association.

Several of the co-operative fruit-shipping associations in Ontario have been considering the advisability of sending a man over to the Old Country this summer to promote the apple trade, and possibly act as a direct selling agent. A. McNeill, Chief of the Fruit Division, is confident, however, that this will not be necessary, that the excellence of last season's pack will make a direct sale for all the co-operative associations that have a reputation, and that the money will be paid and the bargains completed on this side the water.

**P. E. I. Notes and Conditions.**

The winter is gliding away very pleasantly. It has indeed been remarkable weather, with scarcely any snow, very little frost, and poor ice, but sufficient for the training of the numerous trotters which Prince County boasts of possessing. Most every day in the week spectators may witness a friendly race between some of the very fastest horses, as well as others which are mere colts but are very promising, and will surely be heard from a little later on. The ice on the muskeg mud beds, which had got so thin on account of the continued mild weather that digging had to be abandoned for a time, thickened up again, so that a great many have been hauling this very valuable fertilizer upon their farms. The hauling on land has been so very poor that hundreds of cars of mud have been shipped from Summerside to the different stations along the line. Feed is plentiful this winter, and the hay presses are kept busy going from one barn to another, baling up the surplus hay, which will be placed on the market. At present every place is full of hay, and it is difficult to get \$8.00 per ton for it. A great many cattle are being stalled for the spring market, but the prospect for a big price is not very encouraging. Anyone who has pork to sell is right in the swim; 8c. to 8½c. per pound has been paid for pork now for some time past, and the price is likely to remain high. Potatoes for the local trade are only 22c., but no one can tell yet what the spring price will be. Oats are the same price all winter, 35c. and 36c. for white and black; wheat, about 70c.; roller flour, \$2 per cwt.; eggs, 18c.; butter, homemade, 20c., factory, 25c.

The Institutes are holding good meetings. A series of "Good Seed" meetings were held in different sections throughout the Island this winter. Much interest was manifested, and farmers gained valuable information regarding the obnoxious weeds which are fast gaining a foothold on many of our farms. I know of farms in my locality, the hay off which I would not take as a gift and use it on my farm. The farmers now should look out and secure the very best seed grain obtainable a few cents per bushel on seed grain is nothing compared to the extra value received for a good crop. We would wish P. E. I. farmers not to sell

too much surplus hay at a small figure before they know what effect this mild winter, with no snow and bare frozen fields, is going to have on next season's crop. East Prince, P. E. I. COLIN C. CRAIG.

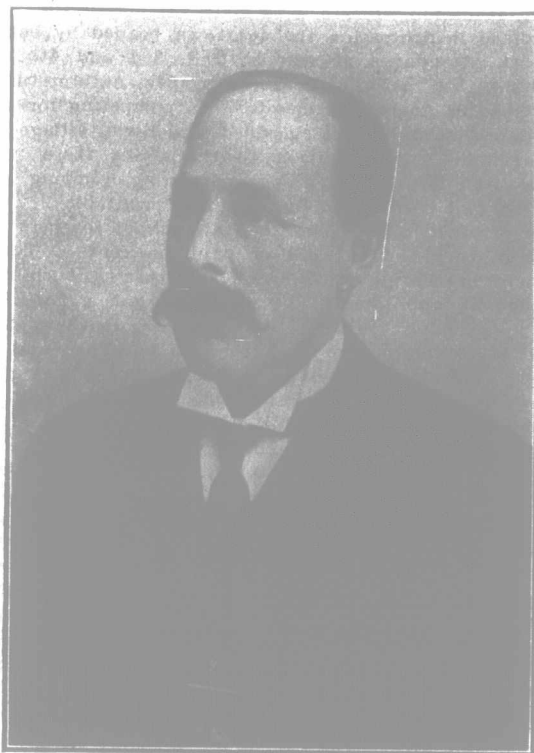
Glasgow Stallion Show.

The Scottish Stallion Show is over for another year, and the results have to some extent been a surprise. The winning horses are got by young sires, now making names for themselves, and in whose veins there flows the blood of new combinations. Mr. Matthew Marshall, Stranraer, has won both senior and junior district premiums for the Glasgow Agricultural Society with Galloway-bred horses. The aged horse is Malvolio 13088, a rich, dark-brown four-year-old, got by Marcellus (11110), out of a mare by Mains of Airies 10379, and therefore a horse which, according to U. S. A. customs arrangements, would not go in duty free. He has great weight and substance, with capital cart-horse action, and was a popular enough winner. The three-year-old is Memento 13100, a black horse, got by Baden-Powell 10963, a very bonnie, stylish horse. His dam was got by the noted Prince Robert 7185, and Memento has taken largely to that side of the house. He is a big, lean, upstanding horse, with good feet and pasterns, and big, broad bones. He moves extra well, but lacks depth of rib, in this particular greatly resembling Prince Robert, which never until his dying day gathered middle. Memento is a colt of great promise, and, of course, judges prefer a horse which is not too matured at three years old. Marcellus is a very celebrated winning horse, bred by Mr. Marshall himself, and promising to make a successful sire. He was got by the great Hiawatha 10067, whose sire was Prince Robert. Baden-Powell is a beautiful horse, bred and owned by Mr. John Findlay, Springhill, Baillieston, the breeder of Baron's Pride 9122, and Royal Chattan 11489, and Baden-Powell is uterine brother to the latter, being out of a daughter of Baron's Pride, while his sire is Sir Everard 5353, the sire of that horse. In the open competition for horses, not necessarily competing for the Glasgow district premiums, Memento held his own, again winning first prize against all three-year-olds, and he also secured the Brydon 100 gs. Challenge Trophy, which is confined to horses three years old and upwards, which must, if three years old, be 16.3 h. h., and pass the vets. for soundness; or, if four years old and upwards, be 17 h. h., and pass the vets., as well as be proved stock-getters. Malvolio was not so fortunate in his class when confronted with new opponents, and he had to take second place to Mr. George Alston's handsome five-year-old horse, Revelanta 11876, which in 1904 won the Cawdor Cup, and could not again compete for it. He was in for the Brydon 100 gs. Trophy, but, unfortunately, was 1/2-inch short of the 17 h. h. necessary to qualify for that victory, which it is understood was otherwise certainly his. The Cawdor Cup winner was Mr. James Kilpatrick's first-prize two-year-old, Oyama 13118, a beautiful colt, got by Baronson 10921, and a remarkably close mover all round. He beat everything on the ground except Revelanta, which could not compete for the Cawdor Cup, having already won it. Oyama's sire is one of the choicest horses got by Baron's Pride, and on the dam's side he is of the same descent as Marcellus. He is owned by Mr. Matthew Marshall, and on Tuesday secured the unique distinction of being hired for season 1907 by the Scottish Central Horse-breeding Society. Never before has a horse been hired so long in advance, and the tribute paid to Baronson is thus unprecedented. The second-prize three-year-old stallion, and the second-prize two-year-old stallion were both got by Mr. Taylor's Sir Hugo 10924, a big horse, by Sir Everard, which breeds extra good stock. These colts were, respectively, Mr. Geo. A. Ferguson's Allandale (12418), and Mr. Wm. Taylor's Sir Spencer 13211. Both are admirable specimens of the Scottish cart-horse breed. Surveying the premium awards on Wednesday, the leading sires are found to be in order: Hiawatha 10067, 4 wins, viz., one second, one fourth, one fifth and one com.; Baron's Pride 9122, 3 wins, viz., a first, a third and a fourth, all in the aged open class; Sir Hugo 10924, two seconds; Baronson 10981, two, the Cawdor Cup champion, and the third-prize two-year-old colt in the same age; Marcellus 11110, a first and a second, with the one horse, Malvolio; Lord Lothian 5998, two, a second and a fifth, with Lord Lonsdale and Lothian Again, full brothers, owned by Mr. John Kerr, Redhall, Wigton, Cumberland; Baden-Powell 10963, a first and the champion trophy with Memento; Marmion 11429, a third, with a grand big horse named Dunedin 12951, and the following also had one each: Sir Everard 5353, Elator 10340, Labori 10791, Balmedie Queen's Guard 10966, Pride of Blacon 10837, Baron o' Buchlyvie 11263, and Royal Edward 11495. Apart from the gets of Hiawatha and his sons, Marcellus and Labori, and Mr. Park's Marmion, the awards were a notable victory for the Sir Everard tribe. Baron's Pride, Sir Hugo and Baden-Powell are his sons. Lord Lothian was his half-brother. Baronson, Elator, Balmedie, Queen's Guard, Pride of Blacon, Baron o' Buchlyvie and Royal Edward are all sons of Baron's Pride. This is in the main the Darnley 222 side of the Clydesdale family; Hiawatha and Marmion are more of the Prince of Wales 673 side. Many of the best horses in the breed to-day combine both. Glasgow, 8th Feb., 1906. "SCOTLAND YET."

Every man and boy should have a good knife. Our premium knife is the best that's made, and it's free for only one new subscriber.

Eastern Ontario Live-stock and Poultry Show, Ottawa, March 5 to 9, 1906.

The following are some of the subjects which will be discussed at the above exhibition: BACON HOGS.—"Experiments in Hog Feeding," "Some Mutual Interests of Packers and Hog Producers," "The Importance of the Bacon Trade to the Canadian Farmer." SHEEP.—"Advantages of and Profits in Sheep-raising," "Desirable and Undesirable Points in Mutton Sheep," "The Best Markets for Sheep and How to Supply Them." BEEF CATTLE.—"Selection of a Beef Sire," "Selection and Breeding of Beef Cattle," "Finishing and Marketing Beef Cattle." POULTRY.—"Summer Egg Production," "Results of Experiments Conducted at the Poultry Departments of the Ontario Agricultural College and the Experimental Farm." DAIRY CATTLE.—"The Dairy Female from Birth to Maturity," "Treatment of Milk Fever and Other Udder Diseases in Cows," "General Observations on the Dairy Industry in Denmark, with Special Reference to the Co-operative Testing Associations." SEEDS.—A session will be set apart for lectures and discussions on subjects relating to the production and selection of seeds.



J. G. Lethbridge, Strathburn, Ont. Master Dominion Grange.

Cow-testing Associations Organized.

Since the organization of the first Canadian Co-operative Cow-testing Association, at Cowansville, Que., the movement has been active in that Province and Ontario. A communication to "The Farmer's Advocate," from Chas. F. Whitley, the Dominion Agricultural Department's official in charge of dairy records, mentions the following four, in addition to the one at Cowansville and to the one at North Oxford, Ont., referred to in our February 22nd issue: PRINCETON, ONT.—President, Mr. Convey; Vice-President, W. Hutchison, Jr.; Secretary, Clyde McWebb. Committee—A. B. Hewitt, W. Affleck and John Elms. BROCKVILLE, ONT.—President, S. Brown; Vice-President, Thomas Davidson; Secretary, N. Forester. Committee—J. Nilson, Jas. Hudson and J. Stewart. MOUNTAIN VIEW, ONT.—President, John Lahemer; Vice-President, J. Anderson; Secretary, G. Anderson. Committee—R. C. Hubbs, J. G. Simonds and R. Anderson. ST. ARMAND WEST, QUE.—Secretary, W. F. Kay, Phillipsburg, Que.

A Canadian Book on Swine.

"Having long felt the need of a book upon swine, which would meet the requirements of the college student and the busy farmer, I have at length been induced by my friends to attempt the work myself," runs the preface of a well-printed and profusely-illustrated new book on swine, by G. E. Day, Professor of Live-stock Husbandry at the Ontario Agricultural College, Guelph, and a well-known authority on bacon hogs. The appearance of the work is opportune just now, when His Porcine Majesty is occupying such a conspicuous position in the live-stock arena, and besides commending itself as an agricultural college text-book, the work should find a wide distribution throughout the country; it will doubtless stand a good while as the Canadian authority on swine. In its preparation, the author states special attention has been given to present-day problems, and he has succeeded well in his avowed effort to condense the information into small space. Among the chapters taken up are: Judging swine, of bacon and lard types; breeds—British and American, standards of excellence and scales of points,

feeding and management, buildings, and miscellaneous topics, such as cooking of feeds, correctives, vermin, etc. The keynote to the book is sounded in the second paragraph of the opening chapter on breeding: "The watchword of the successful breeder must be utility. Utility is the touchstone upon which each breeder's work will be tested. If his work stands the test it will surely meet with recognition; if it fails in the test it will ultimately disappear and be forgotten. In setting up an ideal, therefore, utility is the first great requisite. In establishing a type nothing must be admitted that will detract from utility. Every step in the breeder's operations must be dominated by this one great consideration." The next paragraph establishes that the butcher's and feeder's standards of utility must be and can easily be combined in the breeder's ideal. The book has been published by the Kenyon Press, of Des Moines, Iowa, and the price is \$1.25. Copies may be ordered through "The Farmer's Advocate."

Ontario Association of Fairs and Exhibitions.

The annual meeting of the above association was held in the City Hall, Toronto, February 21st and 22nd. The attendance was large and interest keen throughout, at times even a trifle furious. Two subjects which stood out above all the others in the interest they excited and the time devoted to them being, viz., "Children's Day at the Fair," and "Horse-racing." Other subjects that were dealt with were, "The appointment of a Provincial Auditor for Agricultural Societies' books," and "Having a uniform set of books for such Societies."

President Mr. J. W. Sheppard, Cayuga, in a brief and congratulatory address, made reference to the advantages of having a Provincial Auditor appointed to look after all Agricultural Societies' books, as is at present done with insurance companies' books, municipal treasurers' accounts, etc.

Mr. H. B. Cowan, of Toronto, Superintendent of Fairs, then read his yearly report. He had but just returned from a tour of investigation through the New England States and New York and Ohio, and referred in the first place to what he had observed there. Agricultural fairs in these States had declined in number, in usefulness and in interest, because they had gone to extremes in horse-racing and doubtful attractions. Instances were given of several of these States in which as much money is given for races as for all strictly agricultural and educational features combined. In one of the States mentioned nearly fifty per cent. more was given for racing than for legitimate purposes. So had in character had some of the attractions and side-shows become, that in one State legal enactments had been passed by the Legislature, forbidding categorically lewd shows, pool selling, gambling, drink selling, etc., at all public fairs. Mr. Cowan cited the case of one exhibition, to which abandoned women from New York City had been brought, and an unblushing house of ill-fame was run on the grounds. "I cite this case," he said, "to show what lengths have been reached from such a start as has been made right here in Ontario."

Referring to the year's work in Ontario, he was glad to say that the detectives sent out to look after fakers and side-shows at fairs reported things much improved. It will be remembered that in 1904 many arrests and seizures had been made on show grounds. In 1905 such doubtful characters were less in evidence, and in some cases where they were present, fled at sight of detectives, even before directors were aware that they had entered. One side-show, however, which had been run out of the Toronto Industrial because of its immorality, had managed to make a circuit in rural districts, the bawler loudly proclaiming that the show was for men only. An encouraging feature in the year's work was the increased call for expert judges. The Department had sent out 125, who had routes, including several shows assigned to them, and on the whole they had given good satisfaction. Complaints, many of them bitter, had been received against the work of some of these, but when analyzed it had been found that four men only had caused most of the trouble. Societies were requested to notify the Department at once if a judge sent out proves unsatisfactory, so that a better might, without delay, be put in his place. Warm praise was given to the young fellows, mere boys some of them, who had been trained in the judging classes at Guelph, and who, on being sent out as judges had surprised and delighted fair boards. They were better able, as a rule, to give reasons for their decisions than the old experts.

The report contained several suggestions and recommendations. The first in order and importance referred to the wisdom of having judging rings. In some cases animals were never taken out of the wagons in which they were hauled, and yet judges were expected to make correct comparisons, and spectators were supposed to be instructed thereby. A judging ring of some sort, no matter how inexpensive, was better than none. Some fair boards had not only rings, but seats surrounding them, which the whole day long would be filled by onlookers interested in the judging.

The matter of seats for tired people should also receive attention. In line with this was the suggestion that directors should arrange for good dinners to be served to the crowd. Ladies' Aids of churches and W. C. T. U. women were generally found ready to co-operate in this work where convenient dining places did not exist.

Printers' ink should be freely used; tickets attached to articles should contain as much information as it



was possible to put on them. Stencilled placards containing information and directions were not difficult to make, and would be found very instructive to the public. An instance was given of an entry ticket for poultry containing much information as to size, age, weight, etc., of dressed chickens most suitable for export trade. Prize-lists needed revision frequently; varieties and breeds not suited for the locality should be struck off and worthy new introductions put on. Fair boards might find it to their interests to send their prize-lists for revision to Professor Zavitz, who, by his connection with the Co-operative Experimental Union, would be able to suggest varieties of fruits, grain and roots most suitable for the district. No prize should be given to grade males, and where grade females received prizes, classes should be separated. For instance, it was not well to offer prizes for best cow, disregarding the possibility that specimens of the dairy and beef type might compete for it; or for best pig, black or white. Some classification should be made where grades are shown.

Directors were advised to meet a few days before the fair, and to come early on the morning of the fair day, so that everything might be run on schedule time. Some fair boards had found it helpful in smoothing out difficulties to have directors, judges and invited guests take dinner together. It afforded opportunity for hearing and straightening out many tangles.

In the discussion, one delegate pronounced it all wrong to give as big a prize for a hen as a horse or for a sheep as a cow. Another agreed as to ruling out grade males, but said that in his district, where the production of milk for the city trade was a specialty, there was more interest taken in the proper crossing of breeds for dairy purposes than in pure-breeds. He thought prizes should be offered for grade dairy cows. On the matter of a Provincial Auditor and uniform system of books for societies, opinions differed. The question which was repeatedly raised in discussion was in regard to horse-racing at fairs. In August, 1904, the Department of Agriculture had sent out to all agricultural societies a circular, calling attention to the fact that such was illegal, and that directors by whose sanction it was carried on were liable to fines or imprisonment. This was construed by many to mean that the Government would prosecute offenders, and that the grant would be withheld from societies implicated. In consequence, many societies which had at the time arranged for races, cancelled them. In discussion, Mr. Cowan was pointedly asked again and again, "Did the Government mean to prosecute?" "No!" he answered, "as often as asked, 'That was left to individuals.' Would the grant be withheld? 'No.' Is horse-racing on show grounds forbidden? 'Yes.' Heads seemed to be thick; for a considerable time, the questions, accompanied by remarks which showed mystification, continued. Mr. Cowan in the end remarked, that he believed in the Eastern States they had gone to extremes, because there was no law forbidding horse-races at fairs, and that we had been restrained somewhat by the fact that here there was a statute against such.

The evening session was presided over by Hon. Nelson Monteith, Minister of Agriculture. In his opening remarks he made reference to an agricultural show that had been held in Upper Canada as early as 1793. The shows had gone on increasing in number until now there were, perhaps, too many. He feared that prominent men do not, so much as formerly, meet at fairs and discuss the progress of the year. It is not so much of a social time as it ought to be. He spoke of having attended a show in the Rainy River District, which was small indeed, and exhibits few, but interest general and keen.

In Ontario no branch under the control of the Department of Agriculture bulked more largely than the Agriculture and Arts Societies, and none received so large a grant of public money. The sum of \$90,000

per year is divided among them, and he appealed to the representatives present to see that this was expended where it would do the most good. The time had come, and he believed they agreed with him, when the Agriculture and Arts Act should be remodelled, and he intended at the present session of the Legislature to bring in a measure to that effect. Some very cute attempts were made to draw from the Hon. Minister some information as to the provisions of the new act, but he prudently declined to be drawn.

H. B. Donly, of Simcoe, Norfolk Co., who was to have opened the subject of "School Children's Day at the Fair," not being present, the subject was discussed in a very interesting and instructive manner by those present, but as Mr. Donly was present the next morning and gave his address, we give a summary of it here, and put the discussion which preceded it after.

Mr. Donly said that at the Simcoe Fair they had a three-days' fair, and had found the second day somewhat lacking in interest. It was largely a repetition of the first, and the gate receipts were small. They had never had any special attractions, nor paid performers. They decided to try in the line of something for the children. It had not been easy to work up; it took three or four years, but interest grew rapidly at last. They got the co-operation of the public school inspector, which helped very much. They made no charge for children. All teachers who applied got tickets for scholars. Prizes were given for six events: 1st (all joined in procession through town, headed by band), for best attendance of school; 2nd, 3rd and 4th, for marching; 5th, calisthenic exercises; 6th, nature study—collections of grain and insects. In competing for best attendance, schools were classified into town, village and rural schools. In addition to the above there were prizes given for children's sports, running, jumping, etc. The day had been found pleasing and profitable.

Mr. Brown, of Dufferin Co., said school teachers got complimentary tickets, children paid five cents. Teachers were in charge of children. Another got children together at appointed hour, each one got a flag, had band procession. Parry Sound—Each teacher took charge of scholars, led them through buildings and explained exhibits. Prizes given to farmers bringing in largest families. No race suicide. One brought in fifteen. Barrie—Tickets for every scholar in forty schools supplied free to teachers; all want to come, so parents must bring them; it pays. Blyth—Two days' fair; expert judges hard to get; raise them. Prizes to children for judging fruit, naming varieties, etc.; wish to extend the work to stock also; great interest; crowd out objectionable features by introducing good ones. Erin—School section exhibits. In one school yard fifty-seven varieties of potatoes. Grain shown both in straw and cleaned; roots, etc. We have the only purely agricultural show in the Province. Delegate from Egremont, South Grey, promptly arose, and said that they had held a purely agricultural show for 38 years, and the last was the best. Prizes for children's performances had been given up, and prizes were now given for drawing and the like. One place where for years prizes for children's work had been given, added this year a procession. School Inspector Craig sounded a note of warning in regard to the extra burden laid upon teachers. Some, he knew, were getting tired of it. The discussion, which had extended beyond the allotted time, was brought to a close by Chief Johnson, representing the Six Nations Indians, whose show is held at Oshweken, Brant Co. Their society had existed for 39 years, and was still prosperous.

Supt. Cowan, before bringing on the views of fairs and fair buildings, with which the programme for the evening closed, gave what he considered three requirements of purely agricultural shows: 1st, they should be located in country places; if otherwise, attractions were put on to draw city or town people, and the farm-

ers were shoved back. 2nd, section should have good stock. 3rd, community should be responsive, and there must be a good board of directors, some of them hustlers.

On Thursday morning, after Mr. Donly's address, a delegate from East Peterboro' reported that they had children's collections of injurious weeds and seeds. Mr. Laidlaw, of Guelph, said that as much as \$200 had been given by their society in prizes for children. Besides competitions already mentioned by others, they had the naming of fruits, birds, etc., and manual training exhibits. Had no trouble getting children to come, though 10 cents was charged.

S. B. McCredie, Instructor in Nature Study, Macdonald Institute, Guelph, said that harm can be done by unduly emphasizing special prizes. The presence of children at the fair should not be considered merely as a drawing card, a means of advertising. The first thing to be considered was the welfare of the child, next that of the school. Nature study does not consist in making collections. Competition in these things is keen, and other work is neglected because of it. The most important thing at any show is the child himself.

The various secretaries of societies, who had been invited to bring their books and exhibit their methods of preparing and keeping entry books, failed to respond when called on by the President, but at a private meeting of secretaries alone, held at 1.30 p.m., great eagerness was shown in explaining and having explained the different methods in use.

Mr. Lee, of Highgate, introduced a resolution, to the effect that where a society by reason of distance from place of meeting and consequent expense, sends only one delegate instead of the two to which it is entitled, such delegate shall have the voting power of two.—Carried.

A resolution was brought forward to memorialize the Government to have the clause in the Agriculture and Arts Act, which forbids horse races at fairs, eliminated from the Act. In support of this, it was pointed out that at present directors of fair boards were liable to be prosecuted for doing what was done at half the fairs in the Province. Government should not have a law on its books and wink at its violation.

Mr. Price, of Aylmer, told how their fair had been raised from a low ebb in 1897 to a popular and successful institution, by the judicious use of races and clean special attractions. Their increased gate and grand-stand receipts had been more than sufficient to pay the cost of these attractions, and add to the amount spent in prizes for agricultural products. If a fair such as the one at Simcoe was succeeding without such attractions, he would not advise them being taken up, but at Aylmer they had profited by them. Arguments were not wanting on the other side, showing that horse races had an evil and lowering effect, and might be classed as immoral. One delegate earnestly warned against supporting the resolution, saying, "I like a horse race as well as any man, but I know, and you know, of fellows that have come to ruin through horse-racing." On being put to the meeting, though it was stoutly opposed by several, the resolution carried by an overwhelming majority.

A motion, asking Government to issue a uniform set of account books, to be used by all societies, was lost; likewise another, calling for the appointment of a Provincial auditor. A motion by J. M. McCallum, asking for the prohibition of lewd and immoral side-shows, carried.

The officers were nearly all re-elected, and are as follows: President, J. W. Sheppard, Cayuga; 1st Vice-President, Jas. Mitchell, Goderich; 2nd Vice-President, Mr. Laidlaw, Guelph; Sec.-Treas., Alex. McFarlane, Ottawa; Corresponding Secretary, H. B. Cowan, Toronto.

## MARKETS.

### Montreal.

**Live Stock**—Receipts fair for time of year. Exporters have been in the market buying up most of the good cattle as soon as offered. Prices range; 4½c. to 5c. for finest cattle, 4½c. to 4¾c. for fine, around 4c. for good, 3½c. to 3¾c. for medium, and 2½c. to 3¼c. for common. Hogs, 7½c. to 7¾c. for selects, with occasionally a fraction more for specially nice stock. Sheep steady at 4½c., and lambs at 6c. Calves, \$3 to \$5 for ordinary, finest bringing as high as \$7 to \$9 each. Milch cows in good demand, and sales were made as high as \$70 each, in some cases, the range being down to about \$30 for common.

**Horses**—Evidently the glanders has been stamped out. Demand from out of town slow, but good demand from local sources, transport companies being ready to purchase considerable quantities. Prices are \$175 to \$225 each for coal-cart horses weighing 1,350 to 1,450, and for express horses weighing 1,100 to 1,300 lbs., \$150 to \$200 each; light-draft horses weighing 1,400 to 1,500 lbs., \$175 to \$225 each; heavy-draft horses weighing 1,500 to 1,700 lbs., \$250 to \$300 each; choice saddle or

carriage horses, \$300 to \$500 each, according to desirability, and old and inferior drivers, \$75 to \$125 each.

**Butter**—22c. to 23c. for good to fine creamery. Inferior grades of creamery sell as low as 21c., and dairy has a fairly-wide range at 18½c. to 19½c., according to quality.

**Cheese**—Asking prices, 13c. for finest, but buyers will not pay the figure. Sales of a few thousand have lately been reported.

**Poultry**—Merchants have been selling to grocers or butchers, in fair-sized lots, at 14c. to 15c. for turkeys, 11c. to 12½c. for choice chickens, 11c. for ducks and geese, and 9c. to 10c. for fine fowl.

**Dressed Hogs**—Fresh-killed abattoir stock, 10c. a lb.; country-dressed, 8½c. to 9½c.

**Potatoes**—Dealers offering .55c. to .60c. per 90-lb. bag for good to finest potatoes, on track; selling at 65c. to 75c., in jobbing lots.

**Seeds**—Market a shade firmer. Dealers paying \$6.50 to \$7.25 per bushel of 60 lbs., country points, for red clover; \$4 to \$6.50 for alsike. Timothy is \$2.25 to \$3.50 per 100 lbs. Flaxseed is \$1.20 per bushel, Montreal.

**Hay**—Steady, demand dull; \$8.50 per ton for No. 1 timothy, \$7 to \$7.50 for No. 2, \$6 to \$6.50 for clover-mixed and \$5.50 to \$6 for clover, on track, here

**Hides and Tallow**—The market continues on the easy side, and prices for beef hides are at the lowest point they have seen for some time past. Dealers paying shippers 11c. for No. 1 stock; 10c. for No. 2, and 9c. for No. 3, f. o. b., Montreal, and selling to tanners at ½c. advance per lb. Calf skins are very scarce yet, at 12c. for No. 1, and 10c. for No. 2 per lb. Lamb skins, also scarce, at \$1.10 each. Horse hides are at \$2 each for No. 1, and \$1.50 for No. 2. Rendered tallow is 4½c. per lb., rough being 1½c. to 2½c. per lb. Beef hides are beginning to show the grub.

**Eggs**—The market has had a few severe breaks recently. Fresh eggs, candled, were quoted last week at 17c. Lined eggs are quoted about 12c., and selected at 14c. to 15c. Under the circumstances, it is impossible to quote definite prices, the grades being so different.

**Grain**—Stocks of oats are now large here, and prices are steady at 39c. store, for No. 4, in car lots, 40c. for No. 3, and 41c. for No. 2. It looks as though prices were at the top for the moment, demand being so very dull.

### British Cattle Market.

London.—Cattle are quoted at 11½c. to 12½c. per lb.; beef and mutton, 10c. to 11c.

### Toronto.

#### LIVE STOCK.

**Export Cattle**—Demand brisk. Choice, \$4.60 to \$5.15; good to medium, \$4 to \$4.50; others, \$3.75 to \$4; bulls, \$3.50 to \$4, and cows at \$2.75 to \$3.50.

**Butchers' Cattle**—Picked lots, \$4.50 to \$4.75; good to choice, \$4.10 to \$4.40; fair to good, \$3.50 to \$4; common, \$2.50 to \$3; cows, \$3 to \$3.60; bulls, \$3 to \$4; canners, \$1.50 to \$2.

**Stockers and Feeders**—Demand for short-keep cattle and good feeders brisk. Short-keep feeders, \$4 to \$4.50; heavy feeders, \$3.85 to \$4.15; medium, \$2.50 to \$3.50; bulls, \$2 to \$2.75; good stockers, \$2.80 to \$3.50; rough to common, \$2 to \$2.75, and bulls, \$1.75 to \$2.50.

**Milch Cows**—Market active for good cows.

**Calves**—Quoted at 3½c. to 7c. a lb. Sheep and Lambs—Export ewes, \$4.60 to \$5.15 per cwt., and bucks, \$3.50 to \$4.50. Lambs, \$6.75 to \$7.15 for grain-fed, and \$5.50 to \$6.50 for mixed.

**Hogs**—\$3.75 for selects, and \$6.60 for lights and fats.

#### HORSES.

Unprecedented activity and an exceptional price level in regard to values have characterized the local horse market.

**Interest Paid Quarterly**

Means more than interest paid only half-yearly or yearly. You as a business man will see the advantage, be your account large or small.

Deposits of \$1.00 and upwards received.

**INTEREST PAID 4 TIMES A YEAR.**

**Sovereign Bank of Canada**

52 Branches throughout the Dominion.

This again applies particularly to animals of good quality, the demand for the poorer classes being very sluggish. Contractors are out in large numbers looking for supplies for heavy workers and drafters, and for the right stamp of horse dealers are falling over one another in their eagerness to secure supplies. There is also a healthy enquiry for delivery and general-purpose animals at good prices, and all the sale-rings have been well attended by buyers looking for suitable material. Drivers and saddle horses also find a fair sale, and carriage horses are also in excellent demand. The supply of these, however, is very limited. Several large shipments were sent out to Ontario points during last week, comprising workers and general-purpose horses picked up in the sale-rings, but the enquiry from the West has apparently eased off. The weekly range of prices follow: Single roadsters, 15 to 16 hands, \$125 to \$170; single cobs and carriage horses, 15 to 16.1 hands, \$140 to \$200; matched pairs and carriage horses, 15 to 16.1 hands, \$300 to \$550; delivery horses, 1,100 to 1,200 lbs., \$125 to \$175; general-purpose and expressers, 1,200 to 1,350 lbs., \$140 to \$190; drafters, 1,350 to 1,750 lbs., \$160 to \$225; serviceable second-hand workers, \$60 to \$75; serviceable second-hand drivers, \$60 to \$90.

**BREADSTUFFS.**

Wheat—Ontario grain markets are somewhat irregular. No. 2 white, 78c.; red, 77c.; mixed, 77c.; spring and goose, 74c., at outside points. Millfeed—Ontario bran, \$16.50 to \$17.4n bags, outside; shorts, \$17 to \$17.50; Manitoba bran, \$19; shorts, \$20, at Toronto and equal points. Oats—35c. for No. 2 white, and 33c. for No. 2 mixed, at outside points. Barley—49c. to 49c. for No. 2, 46c. to 46c. for No. 3 extra, and 44c. for No. 3, at outside points. Peas—77c. to 77c., outside. Rye—69c. to 70c., outside. Corn—Canadian—41c. to 42c., Chatham freights; American No. 3 yellow, 47c.; mixed, 47c., at Toronto. Buckwheat—50c. to 50c., outside.

**COUNTRY PRODUCE.**

Butter—Creamery, 24c. to 25c.; solids,

22c. to 23c. Dairy lb. rolls, good to choice, 18c. to 19c.; large rolls, 17c. to 18c.; medium, 16c. to 17c. Cheese—13c. for large, and 13c. for twins. Eggs—New-laid easy in tone at 16c. to 17c. per dozen, and storage at 14c. Poultry—Choice dry-plucked: Fat chickens, 10c. to 11c.; thin, 7c. to 8c. Fat hens, 7c. to 8c.; thin, 6c. to 7c. Ducks, 12c. to 13c.; thin, 6c. to 8c. Geese, 10c. to 11c. Turkeys, 14c. to 15c. for choice small lots. Potatoes—Ontario, 65c. to 75c. per bag, on track, here; 75c. to 85c., out of store; Eastern, 70c. to 80c., on track, and 80c. to 90c., out of store. Baled Hay—Car lots, \$8 per ton for No. 1 timothy, on track, here, and \$5.50 to \$6 for No. 2.

**FARMERS' MARKET.**

(Retail Prices.)

Dressed hogs, light, cwt., \$9.25 to \$9.50; heavy, \$9. Butter, 24c. to 26c. Eggs, 27c. to 30c. Spring chickens, dressed, 10c. to 11c.; live, 9c. to 10c. Old, dressed, 8c.; live, 8c. Turkeys, dressed, 15c. to 20c.; live, 12c. to 14c. Geese, live, 10c. to 11c.; dressed, 10c. to 11c. Potatoes, per bag, 85c. to \$1. Beef, hind quarters, 7c. to 8c.; fore quarters, 4c. to 5c.; carcasses, 6c. to 7c. Lambs, 10c. to 11c. Veal, 8c. to 10c. Mutton, 8c. to 9c.

**HIDES AND TALLOW.**

E. T. Carter & Co., 85 East Front St., wholesale dealers in wool, hides, calf skins and sheep skins, tallow, etc., quote: Inspected hides, No. 1 steers, 11c.; inspected hides, No. 2 steers, 10c.; inspected hides, No. 1 cows, 10c.; inspected hides, No. 2 cows, 9c.; country hides, flat, 9c.; calf skins, No. 1 selected, 18c.; sheep skins, \$1.25 to \$1.35; horse hides, \$3 to \$3.25; tallow, rendered, 4c. to 4c.; wool, unwashed fleece, 15c. to 16c.; wool, washed, 25c.

**Buffalo.**

Hogs—Heavy, mixed, Yorkers and pigs, \$6.45 to \$6.50; roughs, \$5.75 to \$5.90; stags, \$3.75 to \$4.25. Sheep and Lambs—Lambs, \$6.25 to \$7.40; yearlings, \$6.40 to \$6.50; wethers, \$5.75 to \$6.15; ewes, \$5.50 to \$5.75; sheep, mixed, \$3 to \$5.75; Western lambs, \$7.10 to \$7.15.

**Chicago.**

Cattle—Common to prime steers, \$3.75 to \$6.30; cows, \$3.10 to \$4.65; heifers, \$2.50 to \$5; bulls, \$2.25 to \$4.35; calves, \$3 to \$7.80; stockers and feeders, \$2.75 to \$4.65. Hogs—Choice to prime, heavy, \$6.15 to \$6.25; medium to good, heavy, \$6.10 to \$6.15; butchers' weight, \$6.15 to \$6.22; good to choice, heavy, mixed, \$6.10 to \$6.15; packing, \$5.75 to \$6.15. Sheep—Sheep, \$4 to \$6; yearlings, \$5.50 to \$6.25; lambs, \$6.25 to \$7.10.

W. S. Gilbert was lunching not long ago at a country hotel, when he found himself in company with three cycling clergymen, by whom he was drawn into conversation. When they discovered who he was, one of the party asked Mr. Gilbert how he felt "in such a grave and revered company." "I feel," said Mr. Gilbert, "like a lion in a den of Daniels."—[Transcript.]

**Contents of this Issue.**

**ILLUSTRATIONS.**

Mascot (imp.) ... 311  
A Poland-China Boar ... 312  
R. S. Stevenson, Ancaster, Ont. ... 317  
Registered Ayrshire Heifers ... 317  
J. G. Lethbridge, Strathburn, Ont. ... 321

**EDITORIAL.**

A Word to the Hired Man ... 309  
Judgment Needed in Selecting Cows by Performance ... 309  
Good Salaries to Good Men ... 309  
The Farmer is the Man ... 310

**HORSES.**

Horse Breeding ... 310  
How Shall we Mate our Draft Mares? ... 310  
Good Temper in Stallions ... 311

**LIVE STOCK.**

Feeding Sows ... 311  
The Sow at Farrowing ... 311  
A Good Prospect for Young Stock ... 311  
Care of Ewes and Lambs ... 311  
A Study of Breeds of Swine ... 312  
D. Lawrence's Pigeon (illustrated) ... 312  
The Value of "Imp." ... 312  
The Bacon Trade ... 313  
Steers Tied or Loose? ... 313  
Twenty-share Beef Ring (illustrated) ... 313

**THE FARM.**

Testing the Germination of Farm Seeds ... 313  
A Choice of Three Rotations ... 313  
Crop Rotation ... 313  
Windmill for Pumping Water ... 314  
Stabling for Ninety Head of Cattle (illustrated) ... 314  
The Effect of Humus on Soils ... 314  
Some Modern Ideas in Crop Rotation ... 315  
Well-satisfied Agents ... 315  
Farmhouse Plans (illustrated) ... 316

**THE DAIRY.**

A Daily Milk Record the First Step to Progress ... 317  
Silo for Winter Dairying ... 317  
Feed, Breed, Weed, to Improve the Dairy Cow ... 317

**POULTRY.**

How She Gets Winter Eggs ... 318  
Management of Incubators ... 318  
Simple Remedy for Roup ... 318

**APIARY.**

Out Apiaries ... 318

**GARDEN AND ORCHARD.**

Choosing Varieties of Fruits to Plant ... 319  
Leading Varieties of Vegetable Garden Crops ... 319  
Varieties of Fruits for Niagara District ... 319  
Varieties of Fruits for the Province of Quebec ... 319  
What to Plant in Algoma District ... 320  
Varieties of Fruits in Georgian Bay Region ... 320

**THE FARM BULLETIN.**

P. E. I. Notes and Conditions ... 320  
Glasgow Stallion Show; Eastern Ontario Live-stock and Poultry Show, Ottawa, March 5 to 9; Cow-testing Associations Organized; A Canadian Book on Swine; Ontario Association of Fairs and Exhibitions ... 321  
Slaughtering hogs ... 346

MARKETS ... 322  
HOME MAGAZINE ... 324 to 329

**QUESTIONS AND ANSWERS.**

Miscellaneous.  
Grapes on hillside; grafting Japan plums on Lombards ... 323  
What's Wanted; Clydesdale, Lord Brooklyn; feeding steers tied or loose ... 333  
Amount of cement required; running a traction engine; hens ailing ... 334  
Ducks dying; disappointed purchaser; corn bran vs. wheat bran ... 338  
Cubic capacity of a barrel of cement; roots for hogs—age of boar for service; lightning rods; distinguish goose from gander ... 340  
Ineligible for registration; life of engines; cows do not give milk; making cider vinegar; stanchions; qualifying for auctioneer; secretaries of draft-horse societies; Toulouse or Embden geese; fall or winter apples for market—oyster-shell bark-louse ... 341  
London Hackney Show; ringworm; holidays; in-and-inbreeding; oats

to sow with barley—land for flax; size of silos ... 348

**Veterinary.**

Swollen leg; breeding mare with heaves ... 323  
Young mare not thriving; pigs have worms; unthrifty mare; unthrifty calf; cow produced gangrenous calf ... 342  
Crippled pigs; mechanical bronchitis; calf with cough, etc.; hernia, etc. ... 343

**QUESTIONS AND ANSWERS.**

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

**Veterinary.**

**SWOLLEN LEG.**

Two weeks ago my horse's leg swelled from foot half way up. I used liniment. The swelling disappears when exercised, but returns when he stands.

Ans.—Give him a purgative of 8 drams aloes and 2 drams ginger. Feed bran only until purgation commences, and do not exercise until the bowels regain their normal condition. Then give 1 dram iodide of potash in damp food night and morning. Feed lightly, and give regular exercise or light work, and bandage the leg with a woollen bandage when he is in the stable.

**BREEDING MARE WITH HEAVES.**

Is it wise to breed a mare that is badly affected with heaves?

1. From a standpoint of heredity.  
2. From a standpoint of successful breeding.

Ans.—1. On general principles, it is unwise to breed an unsound mare. While it is possible such a mare might produce good foals, there is always a danger of hereditary predisposition to the disease from which the dam suffers. There is not the slightest doubt that the predisposition to heaves (due to a congenital weakness of the respiratory organs) is often transmitted by parents to offspring, although it is not necessarily so in all cases.

2. In case of difficult parturition, a mare affected with heaves will succumb more easily than a sound mare. Where parturition is normal, there is no reason why she should not breed successfully. There may be reasons why such a mare should be bred, but the prospects of profitable breeding are not bright, hence we say that with rare exceptions the practice is not to be recommended.

**Miscellaneous.**

**GRAPES ON HILLSIDE—GRAFTING JAPAN PLUMS ON LOMBARDS.**

"The Farmer's Advocate," Feb. 8th, came to hand, and I was very much interested in the article, "Pruning the Grape," by Mr. Woolverton. I planted a few hundred vines two years ago, and I am going to put out three or four hundred this spring, and this article will be of use to me.

1. I have a hill sloping toward the south that I want to plant grapevines on, and I am undecided whether to plant up and down the hill, or across. The hill is rather steep.

2. I have over 50 plum trees, about five years old, that I want to graft. They are mostly Lombards. Would it be right to graft some of the best Japan kinds on them, like the Red June or Burbank, or had I better keep to the European kinds?

Wentworth Co., Ont.  
Ans.—1. In planting a vineyard on a hillside, I would certainly plant the rows across the hill and not up and down. Pruning, gathering the fruit and cultivation would be more convenient crosswise, especially if something approaching a terrace could be worked out for each row.

2. The Japanese plums may be worked upon the Lombard, and will unite very well; though much more vigorous in habit, and might be in some danger of being broken off. Red June, Burbank and Satsuma are three of the best. Our advice is, however, to go slow in propagating the Japanese, because their popularity is on the wane.



## Life, Literature and Education.

### Our Prizewinners.

It is time again to announce the names of the prizewinners in a competition, and again we have to call the attention of contributors to the necessity of conforming to our rules. This time no fewer than four had to be ruled out for writing more than the allotted number of words. "A word to the wise is sufficient," so far as future competitions are concerned.

Answers grave and answers gay poured in on the subject of "The Best Method of Popping the Question." Just one poor, lone mortal advocated the writing method. He ought to see the storm of disapproval with which the suggestion of such a thing was forestalled by nearly all the women who wrote. Again, to this lone mortal, is "a word to the wise sufficient"?

Mr. G. T. Jenkinson is again a prizewinner; this time he carries off the first prize. To Fred Bachelor has been awarded the second prize. Also an extra award to Mr. W. J. Way, whose essay, though lacking in the originality of the other two, shows discrimination in illustration, a quality not to be despised.

In closing, we wish to say that, in future, two prizes will not be awarded consecutively to the same competitor. We think this will be fairer to the majority of our correspondents. If you wish the practice, write every time, if you like. A short honor-roll of, say, the names of six of those who have written the best essays, other than the prize-winning ones, will be published. But, don't expect to win a prize more than once in three competitions. Give the "other fellow" a chance.

### First-prize Essay.

There is a time to do everything, and there is a time and way to pop the question.

Poets tell us how, novelists also tell us. The old maxim, "Never do anything without first considering what the end might be," should be followed; but having considered, and concluding to do it, lose no time. Of course, I would not select a public meeting, and perhaps (if nervous) not daylight; but at a convenient time tell the girl of your choice (in a sincere manner, and in few words) the state of your mind. Do not stop in the middle because you fancy you see in her face a refusal, but be a man, talk like a man, and if refused act like a man, and not a coward. Do not put off this important step because you are poor, or even if you have in early life been unworthy of her; tell her of your poverty. It is no disgrace. "An honest man, though e'er so poor, is king of men for a' that." Tell her of your past life, repented of and lived down, conceal nothing, be a man. G. T. JENKINSON.  
Welland Co., Ont.

### Second-prize Essay.

The term popping the question is a slang phrase, meaning a proposal to marriage. It is a subject which demands serious consideration, because matrimony is a sacred rite, ordained by God, by which man is supplied with a helpmeet for his life-work on earth. The best method of popping the question is not in words alone, but in actions also. If a young man, by his honorable, upright bearing, industrious habits, and his intelligent interest in the affairs of this country, shows that he has some grand aim in life, he will build himself a character which will be an honor to his parents and a credit to his community. In his attentions to the girl of his choice, he must allow no other motive than that of true love to prompt them. When the time comes, which will almost invariably be the case, when one finds that another has entered the same hidden door of thought or fancy whose key they two in all the world possess, then will circumstances provide, in some form or other, a method of popping the question.  
FRED BACHELOR.  
Simcoe Co., Ont.

### Extra Award.

The best method for one man may not be the best for another, and yet each may be equally successful in winning the lady of his choice.

Daniel Webster popped the question to Miss Fletcher in a neat and poetic way. He was holding a skein of wool which the lady was unravelling. "Grace," said he, "we have been untying knots. Let us see if we can tie one which will not untie in a lifetime." With a piece of tape he formed half a true-lover's knot. Miss Fletcher com-

plained, answered "Pop." This gentle hint and encouragement seemed necessary in this instance.

Let me suggest that, in any event, the popping be done in propria persona, avoiding the fate of "Miles Standish" and others who have tried it by proxy. W. J. WAY.  
Kent Co., Ont.

### Our New Topic: "A Dream of Fair Women."

By the time this paper reaches you the time allotted for our debate will have expired. Next week we shall publish the four best essays, and leave it to the members of the Society to determine which side has won.

To-day we have much pleasure in presenting to you a new subject, one which is, perhaps, not as hard as it seems at first sight, and yet which is not so easy as to be unworthy of the attention of the most acute literary critic. You may, to be explicit, write a GOOD essay on to-day's subject, or, if you are clever enough, you may write a masterpiece. We do not, of course, expect a great many masterpieces, but we do look for a great many excellent essays. The patent result, however, as evidenced in prizewinning, is—and we think you will agree with us in this—the least important thing to be considered, interesting and instructive though it may be. The real importance in all this Literary Society work is the benefit accruing to YOU from the keen mental effort involved in your work. We trust you will fully recognize this fact, and that you will throw yourself into

picture. For convenience, you may number the women from left to right, 1, 2, 3, etc. We may suggest that you may find some assistance in an encyclopædia, to which, if you do not own one, you will probably find access in your town or village library, or in the library of someone whom you know. Agnes Strickland's "Queens of England," if accessible, may also be of some use, but is not a necessity.

As the subject is harder than the last one, we will give you until the last of March for the completion of your essay. Also, we will give you the privilege of writing 300 words, if you choose, but not more than this. For the first prize we give you choice of Faust, Idylls of the King, Burns' Poems, or a pin. For the second prize (slightly inferior in binding, though not in contents), Bacon's Essays, Discourses of Epictetus, Shakespeare's Comedy of Errors. Kindly state, when writing, which of these you prefer.

Now, we hope you will get to work at once. We are very much interested in this experiment, not only for the sake of the F. A. & H. M. L. S., but for your sake as well. Do your best, and help to make this the liveliest and most profitable competition we have had.

### Mr. Taylor's Letter Endorsed

I would like to say through the "L., L. & E." page that I was pleased with Mr. J. D. Taylor's answer, in your issue of the 8th inst., to Mr. McGregor's letter. In the matter of reading, my views are in almost complete agreement with those expressed by him. Possibly, however, I have a somewhat higher appreciation of fiction, but only of fiction in its purer and loftier forms. I would eliminate light fiction from the prescribed list of books, believing that biography, history, travels, etc., are better fitted to form worthy characters. I entirely disapprove of reading for mere pastime. I think the object and purpose of reading should be instruction and the moulding of character. The pleasure accruing need be none the less, but vastly more real and enduring.

"Not enjoyment, and not sorrow, is our destined end or way;  
But to act, that each to-morrow finds us farther than to-day."

Fictitious or ideal characters occupy a legitimate place in literature, and undoubtedly will continue to occupy a place as long as literature endures—the Bible itself abounds with them. This type expresses the sublimest truths, and the most sacred yearnings and noblest aspirations of humanity. The Prodigal Son, and the Good Samaritan, historically fictitious characters, will live immortal through the ages, accomplishing their high mission among men. The parables of Christ are ideals more realistic, more powerful, more effective than the realities of actual life. They all have a true basis in human experience, and will live

"As long as the heart has passions,  
As long as the life has woes."

Kent Co., Ont. W. J. WAY.



George W. Joy.

### A Dream of Fair Women

" . . . . . In every land I saw, wherever light illumineth,  
Beauty and anguish walking hand in hand the downward slope to death."

—Tennyson.

pleted it, and a kiss sealed the symbolical bargain.

A less romantic popping of the question was that of a Scotch youth: "I think I will marry thee, Jean." To which she replied, "Man, Jock, I wad be muckle obleeged to ye if ye wad!" And this, probably, was the "Best Method" for him.

A young lady, being asked by her bashful lover what was her favorite

this competition with all the enthusiasm that is in you.

The accompanying picture is a copy of one exhibited at the Royal Academy, London, Eng., last year. It represents Tennyson's "Dream of Fair Women." Now, we want you to get to work immediately, study up this poem, and write us a short essay on it, naming, in your essay, with reasons, each personage shown in the

Fiction Defended.

J. D. Taylor, in "The Farmer's Advocate" of Feb. 8, takes exception to the reading of fiction, advocating nature-study, biography, poetry, science and theology as a better course of reading.

Science and theology, to many minds, are like closed dark-lanterns when lighted—the light is there, but no rays shine out for them, and they have no power to move the slide. Those same people have quick sympathies, and, by judiciously-chosen books, will oftentimes climb higher in Christian graces than many a one who is highly versed in fine-spun theology.

Poetry and prose are both alike in this—they both are expressions of ideas more or less elevating; they both are the vehicles used to convey facts or fancies from the brain of the thinker to the eye of the reader.

Rhythmic utterances and beautiful words are not poetry. The human body, to be a body, must have its skeleton; so poetry, to be poetry, must contain "a story."

The man who understands his fellows, being able to see their virtues as well as their frailties, and loving them in spite of all, is greater far than he who can grasp the most abstruse subject man ever battled with.

Be of Good Courage.

Be of good courage, and let us play the men for our people, and for the cities of our God: and the LORD do that which seemeth Him good.—2 Sam. x: 12.

I like the man who faces what he must, With step triumphant and a heart of cheer;

Who fights the daily battle without fear; Sees his hopes fail, yet keeps unfaltering trust That God is God; that, somehow, true and just, His plans work out for mortals; not a tear

It is rather a puzzling thing to make a choice among the many texts which set on the servants of God to be of good courage. Over and over again, the command is given to be strong and very courageous, fearing nothing.

so vividly that they become veritable flesh and blood.

To many life is rather gray, and if they can gather—as the earth does from the sun—light and warmth from a well-told story by a master, such reading surely cannot be called a waste of time.

Nature-study is charming, but not amusing, and, however sadly the English take their pleasures, we are simply Colonials, and not all of English extraction at that.

Fiction is often educative. Where, outside of real history, can one get a better idea of French brutality and the horrors of the French Revolution than in Dickens' "Tale of Two Cities"?

Do not think that I approve of fiction as a daily diet; but it has its uses and its work, and is no more to be condemned than other forms of literature.

As for ranking the poets, I have nothing to say, but cannot forbear quoting Longfellow on Bobbie Burns:

"For now he haunts his native land As an immortal youth; his hand Guides every plow; He sits beside each ingle nook, His voice is in each rushing brook, Each rustling bough."

The foregoing ought to be a great enough place for anyone to hold. Elgin Co., Ont. M. J. T.

[We publish the two foregoing letters with much pleasure, but are prevented by want of space from further comment. We may just say that, after reading M. J. T.'s, in many respects charming, essay, we have been inspired to suggest the topic, "What is Poetry?" as a suitable one for someone interested to discuss.

"Made in Canada."

It is a matter of common observation how little the average American seems to know about Canada, its extent and its resources, its people or their aspirations.

to Marian Keith's fresh, clean, wholesome story, "Duncan Polite," issued by the Revells, went on to say, "In accordance with a curious custom, which seems to control the topography of such literature during recent years, the scene is laid in Canada."

News of the Day.

British and Foreign.

Peru is having two powerful iron-clads built in Italy, and two fast cruisers in England. It is believed that these warlike preparations foretell future operations against Chili.

Prince Arthur of Connaught, who is at present in Japan, and will pass through Canada on his return, has invested the Mikado with the British Order of the Garter.

Manifestations of volcanic disturbance seem to be advancing northward on the American continent. Mount Sutton, Col., has now developed into an active volcano, and is belching forth flames and smoke.

A scene resembling somewhat the famous turning out of the "Rump" Parliament was recently enacted in the Hungarian House, where Parliament was dissolved, and the Opposition driven out by the militia and police.

Notwithstanding the assertion of recent despatches from China that anti-foreign manifestations of the past few weeks have been confined to a few extremists, and are indicative of no general spirit of unrest in the Chinese people, it looks somewhat

significant that Chinamen are being summoned home from all parts of America. San Francisco has already furnished her quota, and a movement toward a similar end is afoot in Montreal and Toronto.

The second Parliament of King Edward's reign was opened at Westminster on Feb. 20. In the speech from the throne, after the usual platitudes upon Great Britain's relations toward other nations, and desire for peace with them, especial reference was made to the coming controversy in regard to the Government of the Transvaal.

Affairs in the Russian Cabinet have reached a crisis at which a break seems inevitable. Premier Witte and Minister of the Interior, Durnovo have long been at variance, Witte holding out for a liberal policy, Durnovo for a thoroughgoing system of repression.

The deadlock still holds fast at Algeiras. Even the delegates are becoming impatient, while some of the British papers come out-and-out with the opinion that Germany had little excuse for calling a conference upon a subject on which she had no intention of making any concessions.

says the London Times, "no regard for British sensibilities, friendships or interests. On the contrary, we see a stirring up of strife, for no intelligible reason; a menace to European tranquility, which is our first interest; a causeless menace to a nation with whom we are on terms of close friendship, and a flat refusal to allow our fellow-countrymen in Morocco the most ordinary guarantee for their lives and property."

not very long since a fire occurred in a city theatre, and the civilized world was horrified to hear that strong men trampled women and little children to death in a mad panic of fear.

That is, as I said, an extreme case; but dare any of us say that we should behave better under similar circumstances? Though we cannot help condemning the cowardice, we have no right to say that we ourselves could face a terrible death more bravely.



excusable in ourselves. An easy, comfortable life is not a life to be desired, we should rather aim at a victorious life, feeling it a high honor to be sent forward by our Captain to the forefront of the battle, instead of trying to secure a safe retreat where there is no fighting to be done.

POOR COPY

to untie the fastenings, determined to save her patient or die with him.

God only knows the strength or weakness of our character—the character which we are steadily strengthening by enduring little trials, or steadily weakening by small acts of self-indulgence, every day we live. Some day we may suddenly be tested, and therefore it is our business to prepare for that testing-time by making sure that our courage is not merely a matter of temperament, or of constitution, but is an inspiration straight from the Heart of God. A wonderful fearlessness can spring from faith in God's abiding Presence. Bishop Ingram says that he once knew a woman who was so terrified at the prospect of undergoing an operation that it seemed impossible to operate. Twenty-four hours later, with firm step, clear faith, and without a tremor, she walked from her room to the operating table, and the great London surgeons asked: "What has been done to you?" And she replied, frankly, looking into their faces: "Something, my friends, that none of you could have done." As the bishop says: "It was a miracle, worked by Christ. It was the revival, by prayer and recalling His strength and power to her, of her faith." Christ Himself put His power within her, and in His hope, in His strength, she lived through that tremendous hour. Whether you believe in miracles or not, no one can contradict the fact that such courage has been displayed by weak women innumerable times, and that at least ninety-nine times out of every hundred it is the direct outcome of a living faith in God. Is any infidel daring enough to say that such faith is not a grand thing—a possession worth everything in this world of difficulty and danger?

One who leans always upon the Most High God rests always in a sense of perfect safety. He fears no terror by night, nor the arrow that flieth by day, neither the pestilence that walketh in darkness nor the destruction that wasteth at noonday. He knows there is no reason to fear, though a thousand should fall by his side and ten thousand at his right hand. This is not reckless foolhardiness or stoical indifference, but the trustfulness of a little child that feels perfectly secure in a loving father's arms. One who can say confidently, "The Lord is on my side; I will not fear; what can man do unto me?" and who keeps his eyes fixed on the unseen God, will not trouble himself to count or measure the forces arrayed against him. What does it matter though he have one enemy or a million, whether he stand like Athanasius, alone against the world, or is surrounded by an army of friends? "There is no restraint to the LORD to save by many or by few;" with God on his side no weapon can really injure him, though

—If God will—it may touch his body. Countless martyrs have shown utter fearlessness in the face of awful danger, and there are plenty of the noble army of myrtirs in the world to-day who are facing victoriously, with triumphant heart, severe pain of mind or body, disappointment and difficulty. It is well to remember that what a man would show himself to be if he were put to the test, that he is now in deepest, truest fact. A man who would trample children to death in order to save himself is just as certainly a coward now, though he may not have the faintest idea that he is capable of such a deed. To put him to the test may be a merciful way of opening his eyes. On the other hand, a man who would show himself a hero under such an ordeal is really just as much a hero now, though very probably he would laugh at the idea. To put such an one

The great Coliseum was packed with an excited crowd of people, eagerly watching one of the terrible gladiatorial combats—a fight to the death. The emperor had issued an edict against these murderous games, and many eloquent Christian orators had publicly denounced them, but it seemed hopeless to try to stop such popular spectacles. But, where emperor and orators proved helpless, one man, armed only with determined courage, conquered by a silent act of noble self-sacrifice which will never be forgotten. Telemachus had travelled a long way with one object in view—to stop, at any cost to himself, this wicked, purposeless waste of life. The gladiators were fighting furiously, and the vast crowd watched the conflict breathlessly. Suddenly this strange man rushed into the arena and flung himself between the combatants. The angry crowd howled with rage, curses

Speak, History! Who are life's victors? Unroll thy long annals, and say:—Are they those whom the world calls the victors, who won the success of a day?

The Martyrs or Nero? The Spartans who fell at Thermopylae's trust, Or the Persians and Xerxes? His judges or Socrates? Pilate or Christ? "HOPE."

### The Message.

"Which hope we have as an Anchor of the Soul, both sure and steadfast."—Hebrews 6: 19.

Faint-hearted, and sad, and weary, care-burdened and sore distressed,  
I had raised my head from my pillow with a feeling of dire unrest,  
A sense of utter failure, of being conquered in the fight,  
Of being out in a gathering darkness, with scarce a glimmer of light.  
Life's bitter mistakes and misleadings, soul-battles fought and unwon,  
Kindly words I had left unspoken, and kindly deeds left undone!  
All these, ay! and more such recollections, "Mea culpas," with cruel refrain,  
Had driven all sleep from my eyelids, and madly tortured my brain.  
Dimmed and blurred seemed both "Precept and Promise," I could only look within,  
And weep at my sense of failure in the fight I so needed to win.  
Should light never dawn on this darkness, and the struggle but end with my life,  
I had better just lay down my weapons, and coward-like flee from the strife!  
Then a cry from my soul I sent upwards: "A message, dear Master, I pray!  
By the lips of Thy servant send me, when I enter Thy gates to-day!"

Came that message with balm and healing, of the "hope so steadfast and sure,"  
Of the "Anchor," with seal attested, which would "hold" for evermore.  
Tho' billows might beat around it, tho' waves roll mountains high,  
There was nought could prevail against it, in time or eternity!  
Storm-lashed my bark and battered, but held by that cable true,  
Though I had forgotten my watchword, my Captain had guided me through,  
Safe though my faint heart had doubted, held fast by that grace-wrought strand,  
Secure from all fear of shipwreck! within haven-sight of land!

H. A. B.



FIG. 1.—The Wildwood Garden.

into a position that would reveal his heroism to himself might only result in spoiling its unconscious beauty. Perhaps that is one reason God puts most people into a commonplace school. There they have plenty of opportunity for cultivating strength and courage, but very little chance of making a display of their heroism. But how often we try to slip out of an unpleasant or dangerous duty, leaving other people to face it. We may even venture to say that they are throwing away their lives and talents foolishly. But, as Christ by dying won the victory over death, so His followers find that they can only taste life in its full splendor when they stand ready to lay it down at His feet.

The world is constantly celebrating the victory of the vanquished. May I tell you of one of these victorious victims? It was about 1,500 years ago, but the vanquished victor is not forgotten yet.

and stones rained down on the devoted head of Telemachus. He laid his life down on the bloody sand of the amphitheatre, and the gladiators, apparently unmoved, continued their interrupted conflict. But, though he did not stay in this world to see it, Telemachus had conquered after all, for he accomplished his heart's desire. By God's grace, that one act of apparently useless self-sacrifice stopped forever the cruel gladiatorial games. Did Telemachus know it? Can we doubt it?

They only the victory win  
Who have fought the good fight, and have vanquished the demons that tempt us within;  
Who have held to their faith, unswayed by the prize that the world holds on high;  
Who have dared for a high cause to suffer, resist, fight—if need be, to die!

## Children's Corner.

### A Smart Donkey.

The donkey is a sort of relative of the horse, being much like it, only smaller. The owner of a clever one tells this story:

"His lodging-place at night was a shed from which he had free access to a yard, but not, of course, to the kitchen garden, which adjoined it. This garden was separated from the yard by a wall, in which was a door or gate, fastened by two bolts and a latch. But soon we were surprised to find that the gate had been opened in the night, and there were footprints of the donkey on the walks and beds. How this could be we could not imagine, especially as the top bolt was high. So I watched at my window and saw Mr. Donkey, reared up on his hind legs, unfasten the upper with his mouth. Then he drew back the lower one, lifted the latch and walked into the garden. In a few moments he came back, bringing a large bunch of carrots, which he put in his shed, and then went to latch the gate, after which he leisurely set about it, munching up his booty."

(Copied by) MARY MORRIS.  
Staffa, Ont.

### Our Letter-writers.

Dear Cousin Dorothy—I have for some time been silently enjoying the "Children's Corner" of "The Farmer's Advocate," and now I have decided to write to you. Several times I have intended entering your competitions, but

when I thought of the excellent compositions written in former competitions, I decided that a composition I would write would simply be tossed in the waste-paper basket.

I live in a very pretty, thickly-settled part of the country, near the quiet little town of Thanesville. There is a good store and a post office quite close to us. The church is on the corner of our farm. I have about one and three-fourths miles to go to school. It would not be so

far, if the river did not wind around the back of our farm. I do not go much now though, for I am fourteen years old, and got my leaving last summer.

ESTELLA McCUTCHEON.  
Croton, Ont.

As I see you can write a good letter, I don't think you need be afraid to try one of our competitions. I hope your next letter will be answered more promptly.

C. D.  
Dear Cousin Dorothy,—I thought I



Three of a Kind.

would write a letter. It is the first time I have written for the Corner. I think I will tell you what I got for Christmas. I got a dear little cabinet, also a pair of skates, and two bags, a work-bag and a work-box, six books, a doll, and a bed for the doll, a cup and saucer, two little pomade pots. I like the "Glengarry School Days." I like "The Farmer's Advocate" very much. We have a dog and a bird. I have some cousins that go to school with me; one of my girl cousins is with me in everything. We are in the Third Book.

MARY MACDONALD (age 9).  
Guelph.

Ans.—I thank you, Mary, for your nice little letter. You must have had a very big Christmas-stocking.  
C. D.

### Riddles.

(Jennie Claus, Vineland, Ont.)

1. What is the most bashful thing in the world?
2. Why is an egg like a colt?
3. What is it that is neither fish, flesh nor fowl, and yet has four fingers and a thumb?
4. What stands on one foot, and has its heart in its head?
5. What goes up hill and down hill, and yet never moves?

### ANSWERS.

1. A clock, for it holds its hands before its face.
2. Because it is no use till it is broken.
3. A clove.
4. A cabbage.
5. A road.

What Species of Garden Will You Have?

We were quite delighted this afternoon, when reading a bit from that delightful book, "Mrs. Ely's Hardy Garden," to come upon the following: "A craze for Italian gardens is seizing upon people generally, regardless of the architecture of their houses. To my mind, an Italian garden, with its balustrades, terraces, fountains and statues, is as inappropriate for surrounding a colonial or an ordinary country house as would be a Louis XV. drawing-room in a farmhouse." . . . Now, can you tell me why we were delighted? Why but that, as a rule, people are always pleased when they come upon their own ideas expressed by those universally recognized as authorities. We had, a couple of issues ago, expressed disapproval of the Italian clipped-trees style of gardening for the farm, and it was satisfying to find the point pressed home by so celebrated an authority as the author of "Hardy Garden."

Mrs. Ely goes on to say: "The simple, formal gardens of 100 years ago, with box-edged paths, borders, and regular box-edged beds, are always beautiful, never become tiresome, and have the additional merit of being appropriate either to the fine country place or the simple cottage." . . . This assertion we accept, with modifications. We would not recommend the English garden as the universal farm garden. There are some situations in which Nature's own method, a free, careless alternation of grove, and woodland rift, and dipping hollow, with a carpet of wild flowers below—*hepatica*, *dog's-tooth violet*, *trillium*, *aquilegia*, *Dutchman's breeches*, *wood violets*, *white snakeroot*, *Cardinal flowers*, *asters*, and *goldem-rod* in season, with ferns everywhere—would be most appropriate; while in others, where conditions are not so favorable, and



space is limited, and time, perhaps, too, a simple grass plot, with a border all round, crowded with flowers, would be most satisfactory. We have one in mind now, an oblong garden at the back of a house where a chip-yard had once been, with a

able variation from the burst of color all about—*nasturtiums* climbing over the fence and shooting their flame-like blossoms everywhere; sweet peas, dainty in white and pink and purple; *asters* in clumps like woolly *chrysanthemums*; *snap-dragons* and



FIG. 2.—The Bordered Grass-plot.

wire-net fence all round, a grass plot in the center, and a simple border, riotous with bloom, just inside the fence. Outside of all a cornfield, with lush-green leaves waving seven feet high, formed a pleasing background of green that added materially to the effect of the whole. This garden was eminently satisfactory. It left a space in the center where the children might romp and play croquet, or where the clothes might be bleached. The uninterrupted green space, too, formed an agree-

zinnias glowing defiantly, with four-o'clocks massing in clumps four feet high. We had never before this time cared for four-o'clocks. When we saw these, we concluded that we had never seen them before. The proud gardener said that the chip-yard had something to do with it, and several generous loads of manure which had been brought in to enrich the border. However that may be, we fell in love with four-o'clocks at once.

So we would say, if you have a delightful grove close to your house,

as in Fig. 1, don't let any one persuade you into cluttering it up with zinnias and golden-glow. Get your wild flowers and ferns in, and as many of them as possible. . . . If you have just a little space fenced in—hard-pan at that—and not too much time to spend on flowers, try the scheme shown at Fig. 2. . . . But if you have a mania for flowers, and plenty of time, by all means have an English garden, which is quite suitable as an adjunct to a large lawn, if placed either at the side or back of the house, or if you care all for flowers and nothing for grass, as the complete plan for a garden of limited space. . . . Only, remember this, DON'T cut up a lawn into flower beds. Either have a little garden, all beds, with walks between, or unbroken spaces of grass with flowers in borders. A grass plot cut up into flower-beds always reminds one of a 'ten-pin' alley, and one wishes for a few magic bowls with which to shoot the flower-beds away.

The illustration, Fig. 3, will give you a very good idea of the formal, English garden. It requires a good deal of time in the first making, for the walks must be gravelled and the beds constructed with care; but, when once in shape, it will do with but little remaking for years, and will require only the ordinary weeding, cultivation, etc., to keep it in order. In this country, such plants as feverfew, dusty miller, *alyssum* and *ageratum* are substituted for the regulation "Box" edging.

Choose now what the style of your garden is to be—the wild wood, convenient and artistic (such as shown in the second illustration of two weeks ago), simple bordered plot, or English garden. It will pay you to have all arranged long before spring opens and it is time to plant. Next time we hope to give a few hints as to height and duration of bloom of some of our most popular flowers.

Boston Beans.

Dear Dame Durden,—I have been enjoying the Ingle Nook chats, so thought I would draw up my chair too. I am sending my recipe for chocolate pie for the benefit of the readers of the Ingle Nook chats, hoping someone will try it. Will someone kindly send me a recipe for Boston baked beans?

CHOCOLATE PIE.

Line a piepan with rich pie-crust, and bake in a quick oven. Grate 1/2 teacup of chocolate; place in a saucepan, with 1 cup hot water, butter the size of an egg, 1 tablespoon vanilla, 1/2 cup sugar, the beaten yolks of 2 eggs, and 2 table-spoons cornstarch (dissolved in water). Mix well. Cook until thick, stirring constantly. Pour into the pie-shell, and let cool. Make a meringue of the 2 egg whites, beaten stiff, with 1 teaspoon powdered sugar, spread over the pie. Slightly brown in the oven. POLLY. Bruce Co., Ont.

I have a recipe for Boston baked beans, which I think you will find very good. I got it one day at a picnic, away up among the Laurentians, sitting beside the little lake at Kingsmere. I wonder if any of you have ever been there; if you have gone, as we did, on a beautiful 24th of May, in a big side-seated wagon, up and up and up, by gentle gradations along roads that seemed just country lanes, with grass growing between the wheel ruts, and the fences all overgrown with berry bushes and Juneherry; and, oh! what glimpses everywhere of delightful valleys in which nestled the homes of the habitants. I remember one village—was it Chelsea?—where the little homes clustered around a church of cathedral-like vastness, as so many of the villages in Quebec do, and where the round rosy faces of little French children were turned to us from their play, and French signs appeared over the doorways and in the shop windows. After that another upward climb, and we were at Kingsmere, where a stone cottage has been set aside for the use of the Governor-General and his family.

We were a little disappointed with the scene itself. It seemed tame after the stuporous—yes, I think that word is not



amiss—lakes of our north country; but the little pergola at the pump-house, with big purple violets growing in thousands around it, was delightful, and the flowers growing all through the wood leading to the peak were a constant surprise. I remember finding a pale-purple clematis, a stray one, perhaps, and a sort of *dicentra* (*Dutchman's breeches*), with pink flowers, somewhat resembling the bleeding heart of our gardens, but much smaller.

Then after a stiff climb, the first glimpse of the big wooden cross placed there by a Jesuit priest over a hundred

years ago; the scramble out upon the flat rock beside it, and the gasp of delight as we caught our first glimpse of the magnificent view below: hill, and valley, and wood, with rivers winding like silver threads, and, immediately below us, the pink cliffs all ablaze with the scarlet of wild columbine! There was no disappointment there. Even the rocks, the oldest on the American continent—hard, pink-mottled, igneous, not stratified like those of our western limestone formations—were a source of wonder and interest.

After that the climb down again to



FIG. 3.—The English Garden.

supper and—Boston beans! Dear ma! I had forgotten all about them. Here, however, is the recipe, as I wrote it down that day on a bit of birch bark, losing my bit of bark afterwards, so that I had to have the recipe sent me again, a good testimonial as to its value:

Soak over night 1 quart of beans and 1/2 lb. (or 3/4 lb, if preferred) salt pork. In the morning, add 1/2 cup molasses, and put in a crock with a tight lid. Bake in the oven all day, adding water as required. If you don't like the molasses, you may leave it out, and eat your beans with tomato catsup.

I hope you will pardon this long digression; but Boston beans are invariably connected in my mind with Kingsmere, and I just had to let you "have it." In closing, I would like to say that if any of that merry party—teachers in the Chinese school—happen to read this, perhaps they will feel like sending a line or two to Dame Durden.

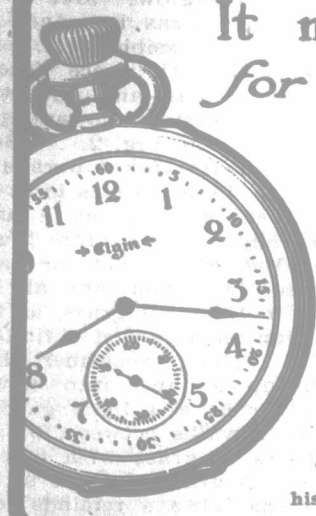
Banbury Cakes.

Dear Dame Durden,—I enclose a recipe for Banbury cakes, which, I think, is the one "A Young Housekeeper" is asking for. We are readers of "The Farmer's Advocate," and appreciate very much the helpfulness of the Ingle Nook.

Grey Co., Ont.

LILIAN.

Roll your paste about half an inch thick, and cut it into pieces, then roll again till each piece becomes twice the size; put some "Banbury meat" in the middle of one side, fold the other over it, and pinch it up into a somewhat oval shape; flatten it with your hand at the top, letting the seam be quite at the bottom; rub the tops over with the white of an egg, laid on with a brush, and dust loaf-sugar over them. Bake in a moderate oven. The "meat" for these cakes is made thus: Beat up a quarter of a pound of butter until it becomes of the consistency of cream; then mix it with half a pound of candied orange and lemon peel, cut fine, one pound of currants, a quarter of an ounce of ground cinnamon, and a quarter of an ounce of allspice; mix all well together, and keep in a jar till wanted for use.



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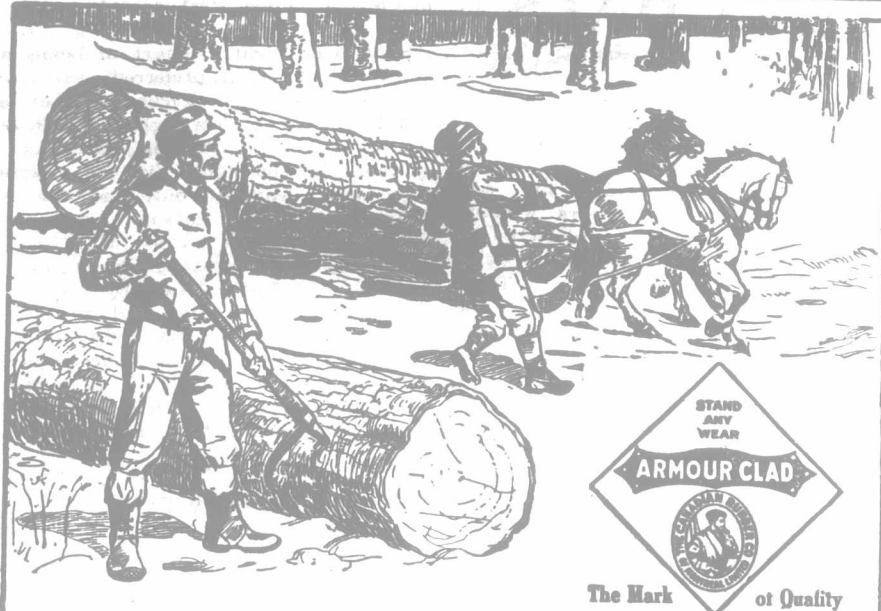
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### Banbury Tarts.

Dame Durden.—In the last issue of "The Farmer's Advocate," "A Young Housekeeper" asks for a recipe for Banbury tarts. I send this recipe for Banbury filling, which may be used in tarts: Two cups chopped raisins, 1 cup hot water, grated rind and juice of one lemon, 1 cup sugar, 1 teaspoon cornstarch. Cook until thick. Let cool before using.

Ontario Co., Ont. **ETHYL WREN.**

### Bologna—Canning Beef.

Dear Dame Durden.—I have been an interested reader of "The Farmer's Advocate" for a number of years, and especially the Ingle Nook chats. I enjoy them very much. As this is my first attempt, I hope you will find a few recipes I am about to send of use to someone.

Homemade bologna for summer use: Sixty-six lbs. of beef; 34 lbs. pork; 5 lbs. salt; 1 lb. black pepper; 3 lbs. of granulated sugar; ½ lb. cloves; ½ lb. salt-petre. Put meat all through a good chopper, and put all together and work well. Make cotton sacks about 12 inches long by 5 inches wide; pack the meat in sacks; hang up; dry well. Smoke slowly for three days. I have found this splendid for summer use. Also, for canning beef or sausage, I cook well, place in glass jars, pour over it half a pint of melted lard, have all very hot, and seal. Then, I turn the jars upside down, allowing all the lard to go to top of jar, and let cool. Beef or sausage will save well in this way. Hoping I have not wearied you, I remain,

INTERESTED READER.

Oxford Co., Ont.

We thank all of the above most heartily for their letters. Several are still held over, but will appear soon. D. D.

### Songs Wanted.

Dear Dame Durden.—I have taken much interest in your Ingle Nook chats, but I have never seen any songs published. I am on the watch for three songs, and I have been thinking that you might be able to help me in getting them.

The songs are three old ones, viz.: "Nellie Grey," "The Burning of the Brooklyn Theatre," the third one I do not know the name of, but the first verse is: "There's a beautiful island that lies in the West,

Where the science of bravery grows;  
That green-crested island is Erin, the blest,

Where Aurora of Paradise glows."  
Peterborough Co., Ont. **KITTY.**

Can anyone send the words of these songs? Many thanks for your interest, Kitty.

## About the House.

### Aunt Patsy's Meat Pie.

May I be allowed a few minutes' time, just for once, in "About the House?" The reason of my coming in this: A week or so ago I received a letter from Miss Reba Mills, Stratford, Ont., which ran as follows: "Dear Dame Durden.—If it is upon your invitation that Aunt Patsy comes to 'The Farmer's Advocate,' please have her every week. She is the very person for whom I have long been looking." Of course, I started out at once to interview Aunt Patsy. What a time I have, to be sure, running about on errands for those Ingle people of mine! And yet, what a pleasant time, too! I found her as plump, and rosy, and good-natured as ever, and just as much interested in her housekeeping. But what a fluster she was in, when I stated my errand. You should really have seen the dear soul, when she sat down, quite overcome, and wiped away a tear with the corner of her apron.

"Good sakes alive!" said she, all in a flutter, "to think they should ha' thought so much o' my little way o' bakin' things! 'N' do you know, I felt kind o' bad when them two first letters came out in yer paper—seemed kind o' like givin' Tottie away. But then, these poor young things! 't isn't to be expected they'd know just how to git the turn o' things like us that 's had a twenty years or more at it." And then she fell to

staring a hole in the carpet, and twisting at her apron-string.

I didn't say anything, because I knew Aunt Patsy was reaching a conclusion, and that when she had once given her word, it was to be depended on, rain or shine.

Presently she looked up, her countenance still full of perplexity.

"Ye'll not expect me to write them things?" she said.

"Oh no," I said, smiling in spite of myself, "I'll write them if you just tell me what to say."

Instantly the puckers cleared away, as clear the clouds after rain, to use a hackneyed simile, and Aunt Patsy's face shone again as bright as a sunflower; her face usually reminds me of a sunflower.

"I'm glad o' that," she said, getting up, "because, you know, the spellin' 'ud be dreadful. I'd rather git a dinner than write a letter any day. Well, how will a meat pie do to begin on? I've got one started in the kitchen, 'n' if ye'll follow me out, we'll jist finish it up. Meat pies is good in cold weather, 'n' savin'." Economy was always a strong point with Aunt Patsy.

We found the kitchen already filled with a savory smell which issued from a saucepan simmering on the lack of the stove. Aunt Patsy took off the lid, and the stew certainly looked very appetizing, and brown, with bits of red carrot here and there, not thin and pale and sloppy-looking, as so many stews do.

"This has been simmerin' here an hour and a half," she said, "an' here 's how I made it: First I put a dessertspoonful o' dripping in the pan 'n' let it git jist smokin' hot, with a blue smoke comin' off of it. Then I turned into that half a pound o' round beefsteak, cut into bits, 'n' a bit of onion, cut fine—these, of course, I had all ready waitin'—'n' swished them both around with a spoon till they were nice 'n' brown. After that I shook in a tablespoon o' flour, 'n' stirred that around, too, until 'twas nice 'n' brown. Then I added slowly a couple o' pints o' water, 'n' put in some bits o' potato 'n' carrot—some likes turnip in too—'n' let the whole jist come to a boil. Then I set the saucepan back with a close cover on to simmer. Now I'm goin' to make the pastry." And she proceeded, without saying a word more, to mix up the dough.

"Hadn't I better write this down?" I said.

"Oh no," she said, "It 's made the very same as that paste fer apple pie in the January 18th 'Advocate'; only tell 'em not to roll it out with a pin, jist pat it out like this, 'n' lay it on top o' the stew."

So saying, she first seasoned the stew with salt and pepper, then placed the sheet on, brushed it over quickly with a curl of white paper dipped in milk, and put the pie into the oven. "Sometimes I jist make a pan o' biscuits, 'n' split 'em, lay the bottom parts on a platter 'n' pour the stew over, then put the nice brown tops all round fer a garnish," she added.

I was still dubious. "I wonder if I shouldn't write down that pastry again," I said.

"No, my dear; jist let 'em keep their Farmer's Advocates, 'n' then they'll have things," she said. "I never did see the use o' wastin' 'specially lettin' books git tore up. Books is great things; I know that, even if I can't spell. . . . Now, my dear, I'm glad to be able to help yer people. Tell that Miss Mills that. . . . But every week! My sakes alive, they'd be gettin' tired of Aunt Patsy! Come again in a month er six weeks, 'n' I'll see what we can do. . . . Ye won't stay to dinner, 'n' hev' some o' that meat pie? Well, some other day."

And so I left her, still smiling, in the doorway, with the prospect of another visit in the not-far-away future. D. D.

### Recipes.

**Currant Cookies.**—One lb. "Five Roses" flour, ½ lb. butter, ½ lb. sugar, 4 eggs, ½ lb. currants, ½ teaspoon soda dissolved in hot water, ½ lemon (grated rind and juice), 1 teaspoonful cinnamon. Drop in spoonfuls, and bake quickly.

**Useful Cake.**—One-third cup butter, 2 cups light brown sugar, 2 eggs. Beat all together. One cup new milk, 3 cups sifted "Five Roses" flour, 2 teaspoons baking powder. Beat well, and bake in layers.

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A Correction.—Teacher: "What is The Hague tribunal?"

Willie: "The Hague tribunal ar—"

Teacher: "Don't say 'The Hague tribunal are,' Willie; use is."

Willie: "The Hague tribunal isbrates national controversies."—[Judge.

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## Glengarry School Days.

A STORY OF EARLY DAYS IN GLENGARRY. By Ralph Connor—Rev. C. W. Gordon. CHAPTER IX.—Continued.

"Well," said Thomas, catching sight of those worthies through the trees, "let them come, too."

"Fusie was promptly willing, but Davie was doubtful. He certainly would not go to the manse, where he might meet the minister, and meeting the minister's wife under the present circumstances was a little worse.

"Well, you can wait at the gate with Fusie," suggested Hughie, and so the matter was settled.

Fortunately for Hughie, his father was not at home. But not Thomas's earnest entreaties nor Hughie's eager pleading would have availed with the mother, for attendance at school was a sacred duty in her eyes, had it not been that her boy's face, paler than usual, and with the dawning of a new defiance in it, startled her, and confirmed in her the fear that all was not well with him.

"Well, Thomas, he may go with you to Cameron's for the potatoes, but as to going with you to the planting, that is another thing. Your mother is not fit to be troubled with another boy, and especially a boy like Hughie. And how is she to-day, Thomas?" continued Mrs. Murray, as Thomas stood in dull silence before her.

"She's better," said Thomas, answering more quickly than usual, and with a certain eagerness in his voice. "She's a great deal better, and Hughie will do her no harm, but good."

Mrs. Murray looked at Thomas as he spoke, wondering at the change in his voice and manner. The heavy, stolid face had changed since she had last seen it. It was finer, keener than before. The eyes, so often dull, were lighted up with a new, strange fire.

"She's much better," said Thomas again, as if insisting against Mrs. Murray's unbelief.

"I'm glad to hear it, Thomas," she said, gently. "She will soon be quite well again, I hope, for she has had a long, long time of suffering."

"Yes, a long, long time," replied Thomas. His face was pale, and in his eyes was a look of pain, almost of fear.

"And you will come to see her soon," he added. There was almost a piteous entreaty in his tone.

"Yes, Thomas, surely next week. And meantime, I shall let Hughie go with you."

A look of such utter devotion poured itself into Thomas's eyes that Mrs. Murray was greatly moved, and putting her hand on his shoulder, she said, gently, "He will give His angels charge." Don't be afraid, Thomas.

"Afraid!" said Thomas, with a kind of gasp, his face going white.

"Afraid! No. Why?" But Mrs. Murray turned from him to hide the tears that she could not keep out of her eyes, for she knew what was before Thomas and them all.

Meantime Hughie was busy putting into his little carpet-bag what he considered the necessary equipment for his visit.

"You must wear your shoes, Hughie."

"Oh, mother, shoes are such an awful bother planting potatoes. They get full of ground and everything."

"Well, put them in your bag, at any rate, and your stockings, too. You may need them."

By degrees Hughie's very moderate necessities were satisfied, and with a hurried farewell to his mother he went off with Thomas. At the gate they picked up Fusie and Davie Scotch, and went off to the Cameron's for the seed potatoes, Hughie's heart lighter than it had been for many a day. And all through the afternoon, and as he drove home with Thomas on the loaded bags, his

heart kept singing back to the birds in the trees overhead.

It was late in the afternoon when they drove into the yard, for the roads were still bad in the swamp, where the corduroy had been broken up by the spring floods.

Thomas hurried through unhitching, and without waiting to unharness he stood the horses in their stalls, saying, "We may feed them this afternoon again," and took Hughie off to the house straightway.

The usual beautiful order pervaded the house and its surroundings. The back yard, through which the boys came from the barn, was free of litter; the chips were raked into neat little piles close to the wood-pile, for summer use. On a bench beside the "stoop" door was a row of milk-pans, lapping each other like scales on a fish, glittering in the sun. The large summer kitchen, with its spotless floor and whitewashed walls, stood with both its doors open to the sweet air that came in from the fields above, and was as pleasant a room to look in upon as one could desire. On the sill of the open window stood a sweet-scented geranium and a tall fuchsia with white and crimson blossoms hanging in clusters. Bunches of wild flowers stood on the table, on the dresser, and up beside the clock, and the whole room breathed of sweet scents of fields and flowers, and "the name of the chamber was peace."

Beside the open window sat the little mother in an arm-chair, the embodiment of all the peaceful beauty and sweet fragrance of the room.

"Well, mother," said Thomas, crossing the floor to her and laying his hand upon her shoulder, "have I been long away? I have brought Hughie back with me, you see."

"Not so very long, Thomas," said the mother, her dark face lighting with a look of love as she glanced up at her big son. "And I am glad to see Hughie. He will excuse me from rising," she added, with fine courtesy.

Hughie hurried toward her.

"Yes, indeed, Mrs. Finch. Don't think of rising." But he could get no further. Boy as he was, and at the age when boys are most heartless and regardless, he found it hard to keep his lip and his voice steady and to swallow the lump in his throat, and in spite of all he could do his eyes were filling up with tears as he looked into the little woman's face, so worn and weary, so pathetically bright.

It was months since he had seen her, and during these months a great change had come to her and to the Finch household. After suffering long in secret, the mother had been forced to confess to a severe pain in her breast and under her arm. Upon examination the doctor pronounced the case to be malignant cancer, and there was nothing for it but removal. It was what Dr. Grant called "a very beautiful operation, indeed," and now she was recovering her strength, but only slowly, so slowly that Thomas at times found his heart sink with a vague fear. But it was not the pain of the wound that had wrought that sweet, pathetic look into the little woman's face, but the deeper pain she carried in her heart for those she loved better than herself.

(To be continued.)

### Get a Move On.

"All things come round to him who waits." Oh, nonsense, rubbish, stuff! All things come round to someone else, if we wait long enough.

—Argus.

## DON'T SPOIL IT. Use Wells, Richardson & Co.'s Improved Butter Color.

Don't spoil the rich, pure cream that you have gathered for buttermaking by using a common and impure butter color when you do your churning.

Wells, Richardson & Co.'s Improved Butter Color will give your butter the natural golden June tint at this time of the year, and it never fades from the butter. Do not accept or use vile and worthless substitutes. At all times insist upon getting the kind that makes prize butter. Sold by all druggists and general dealers.

## DRILLING MACHINERY



FOR Drilling water wells, or testing mineral land. Run by steam, gasoline or traction engine. Drills wells from two to sixteen inches in diameter.

THE EDWARD CHRISTMAN CO. Maasillon, Ohio.

## LEARN TO MOUNT BIRDS



and animals. Taxidermy, the fascinating art long-kept secret, can now be learned by mail in your own home during spare time. Fifteen complete lessons, standard methods, reasonable tuition. Thousands of successful students. Very profitable. All men, women and boys interested in nature should send for full particulars.

New Catalogue and Taxidermy Magazine all Free This Month. SEND TO-DAY.

N. W. SCHOOL OF TAXIDERM, 48M St., Omaha, Neb.

## The Quincy Incubator THE WATCHER YOU WANT



It is the only one that is easy to operate, being self-regulating, self-maintaining and self-cleaning. The ventilation is positive. Nothing left to chance. Normalized in the use of it.

### 30 DAYS TRIAL

Don't fail to investigate the Quincy. It's different from others and our offer is the most liberal. Price low. Send for Free Catalogue. It will help make some poultry profit.

QUINCY INCUBATOR CO., Box 91, QUINCY, ILL.

## SHOEMAKER'S BOOK ON POULTRY



and Almanac for 1906 contains 224 pages, with many fine colored plates of fowls true to life. It tells all about chickens, their care, diseases and remedies. All about incubators and how to operate them. All about poultry houses and how to build them. It's really an encyclopedia of chickendom. You need it. Price only \$5.00. CLOSBROOKER, Box 190, FREEDPORT, ILL.

## \$12.50 For 200 Eggs INCUBATOR



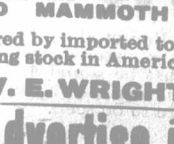
Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day. GEO. H. STAHL, Quincy, Ill.

## \$9,000 Poultry Catalogue



40 kinds Turkeys, Geese, Ducks, Chickens, Poultry and eggs cheap. 100 grand pictures. 25 House Plans. We make best lay, care diagrams, etc. Send for mailing catalog. Incubators 30 Days Free Trial. J. E. Brabason Jr. & Co., Box 51, Delavan, Wis.

## Portrait of the Late Bishop Baldwin



11x15, on heavy plate paper, suitable for framing, together with memoir, the funeral service and sermon on the occasion; price for the two, \$5.00; 5 sets, one address, \$1.00; each with order.

The London Printing and Lithographing Co. LONDON, ONTARIO.

## 50 MAMMOTH BRONZE TURKEYS



sired by imported toms from the best prize-winning stock in America. Write for prices.

W. E. WRIGHT, Glenworth, Ont.

## Advertise in the Advocate



**Sunny Southern Alberta.**

THE COLORADO OF CANADA.

**The Alberta Railway & Irrigation Company**

has 850,000 acres Choice Fall or Winter Wheat Lands for sale. These lands are situated in Alberta's warm belt, a short distance north of the Montana boundary, and at the east base of the Rocky Mountains.

Price: \$7.50 per acre near railway; \$6.50 per acre back from railway; in blocks of 5,000 acres and over a special price of \$5.50 per acre is given.

Terms: One-sixth cash, and the balance in five equal annual payments, with interest at 6 per cent.

Attractions: Rich soil, mild climate, good markets, good railroad facilities, cheap fuel, etc.

For maps, printed matter, and other information, address:

**C.A. Magrath, Land Commissioner**

Lethbridge, Alberta,

or

**Oslar, Hammond & Nanton,**

Winnipeg, Man.

NOTE—In 1905 the first car of winter wheat was shipped from Lethbridge on August 19th.

**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 30 cents.

**FEW ONLY**—Select Barred Rock cockerels. Prices right. Emily Spilsbury, Colborne, Ontario.

**BUFF Orpingtons**—Eggs from the best strain of imported stock; \$3 per 13. H. A. Stevenson, London, Ont.

**BARRED ROCKS**—Heavy winter layers; standard-bred. Order eggs now. Delivery from April. Every egg a chick or replaced free. \$1; \$3; \$5. Fred Styles, Box 300, Port Arthur, Ont.

**COCKERELS FOR SALE**—Barred Rocks, Silver and White Wyandottes and Buff Orpingtons. \$3 each. Eggs, \$1 per 15. F. W. Krouse, Guelph.

**CHOICE BARRED PLYMOUTH ROCKS**. Winter layers. Eggs \$1 setting. Incubator settings: 10 dozen for \$5. Mrs. Howard, St. Julian's, Sutton West, Ont.

**EGGS FOR HATCHING**—Barred Rocks and Br. Leghorns. Prize birds. \$1 per 15 eggs. John A. Govenlock, Forest.

**FOR SALE**—at Elm Grove Poultry Farm—Eggs for hatching from prizewinners, consisting of one hundred females mated with thirteen choice males for best results from Barred and White Plymouth Rocks, Buff and White Wyandottes, Buff Orpington, Rose-combed White Leghorns, Black Minorcas, Houdan and Pekin Ducks. \$1.50 per setting; 10 eggs guaranteed or replace at half price. Incubator lots special. J. B. Cowieson, Queensville.

**FANCY FOWLS**—Eight-page price list free. Address: G. G. Shoemaker, P. O. box 61, York, Pa.

**FOR SALE**—Mammoth Bronze Turkeys, heavy birds, bred from prizewinning imported toms, stock from the first-prize Pan-American winners. Pairs and trio mated not skin. B. G. Rose, Glanworth, Ont.

**SPECIALTY**—Buff Orpingtons only. Sittings of 15 fertile eggs from my choice stock, at \$2. A. Cole, Grafton, Ont.

**SUPPLIES** and books on all kinds of poultry: pigeons, pheasants, birds, dogs, cats and rabbits. Catalogue free. Morgan's Incubator Works, London, Ont.

**WHITE Wyandottes** exclusively. Choice quality and fine winter layers. W. D. Monkman, Bond Head, Ont.

**WHITE Wyandotte** stock for sale, bred from second Ontario cockerel, good laying strain. Eggs in season. A. Witmer, Berlin, Ont.

**187 EGG STRAIN** Buff Orpingtons. Bred from England's greatest layers. Five years' experience breeding and importing. \$1 per 15; \$5 per 100. Everard Brown, Haysville, Ont.

**MEN WANTED** to advertise and introduce our stock and poultry compounds to farmers and dealers. Work during spare time or permanently. This is an exceptional opening for a hustler. Write for particulars.

**GOLDEN CREST CO.**, 48 Bathurst St., London, Can.

**FARM FOR SALE** or rent. 160 acres—all cleared. Good buildings. Good soil. Fine lying farm. Well watered. Three miles from Kenilworth station. Richard Wright, Kenilworth.

**Wanted to Buy**

Imported and Canadian-bred Clydesdale or Shire mares, registered, from 4 to 8 years old. Must be sound and from 1,450 to 1,650 pounds. Name cash price and where to be seen.

Trotter & Trotter, Brandon, Manitoba.

**GOSSIP.**

Dundonald, a registered Clydesdale stallion, rising three years old, is advertised for sale in this paper by S. G. Carlyle, Chesterville, Dundas Co., Ont.

Read the announcement in this number of the Farmers' Manufacturing & Supply Co., Ltd., of Durham, Ont. Their proposition is worth looking into, and may be the means of profitable investment as well as saving your money.

Watch the advertisement of the Metal Shingle & Siding Co., of Preston, Ont., next issue; copy for change of advertisement arrived too late to run this time. What the Metal Shingle & Siding Co. are telling through our advertising columns is information that it pays to read.

Our readers are again reminded of the extensive sale by auction, on March 6th, of imported Shire and Coach horses, and the entire herd of 50 registered Holstein cattle, property of Mr. Joseph Fletcher, Oxford Mills, Ont., at his farm, near Kemptville Junction (C. P. R.). Work horses, colts and pigs are also included in the sale.

The World's Fair premium Coach stallion, a gold-medal and champion Hackney stallion, and a second-prize Toronto three-year-old carriage stallion, owing to ill health of owner, are advertised for sale in this issue of "The Farmer's Advocate." Look up the advertisement, and write Joseph Manarey, Markdale, for particulars.

Alfred Rice, Currie's Crossing, Oxford Co., Ont., who has been breeding Holstein cattle for several years, is retiring from farming, and having rented his farm, will close out his entire stock of registered Holsteins on the 21st of March. Particulars will appear in "The Farmer's Advocate" advertising columns later, and catalogues in due time.

Attention is directed to the advertisement in this issue of the auction sale of dual-purpose Shorthorns, the property of Mr. Thos. Mighton, of Elora, Ont., to take place at his farm, near Elora (G. T. R.), 12 miles from Guelph, on Friday, March 9th. This herd is bred from deep-milking strains, and has been kept in useful breeding condition, to produce best results for the general farmer, the cows milking well when in lactation, and feeding fast when dry. The stock bull is a son of Imp. Lord Durno, bred by Mr. James Durno, Scotland, breeder of the \$7,000 bull, Choice Goods (imp.), at present the greatest breeding bull in America. Lord Durno was by King of Hearts, and out of Aggie Douglas, by Lord Douglas, than which there is no better breeding.

**JOHN A. BRUCE'S CATALOGUE.**—If there is a more reliable seed firm in the Dominion of Canada than John A. Bruce & Co., of Hamilton, Ont., we have yet to find it. Established over half a century, they have been conducting a thoroughly honorable business, handling seeds of the best quality, and conducting their business on principles of progress and integrity. Just to hand is their 1906 annual catalogue, which we recommend to the perusal of our subscribers, not merely as a price list, but as a useful compendium of information regarding varieties, etc. Write for it at once, mentioning "The Farmer's Advocate."

**THE NATIONAL DAIRY SHOW AT CHICAGO.**

An intensely interesting report of the National Dairy Show, held in the Coliseum, at the Union Stock-yards, Chicago, last week, in which Canadian herds scored high, is received too late to appear in this issue, but will be seen in next week's issue. In Ayrshires, a Canadian-bred cow won first, and Annie Laurie, the first-prize Ayrshire in dairy test at Guelph in Dec. last, exhibited by H. McKee, Norwich, Ont., was second. Mr. McKee also won first on two-year-old heifer, yearling heifer, yearling bull and herd.

In Holsteins, Geo. Rice, Tillsonburg, Ont., won first and second for cows, and the championship with Daisy Texal 2nd, not unknown to fame in Canada. The second-prize cow is Faultless Queen De Kol. There was no milking trial at this show, the awards being made by inspection only.

**ALBERTA LANDS**



Good water, rich soil, splendid climate. That is what we offer. Have you written us about that farm near Airdrie; and remember, **we have** others. Full particulars for the asking.

**BENSON & HOULTON,**  
CALGARY.

The Pioneer Seed House of Canada. Established 1850.

**WHY TAKE ANY CHANCE?**

It costs as much in labor, time and trouble to plant poor seeds as to plant good, and look at the results. Money wasted, land wasted, labor wasted, and no crop, or one of little value.

We have been in the seed business in Canada for 56 years. Is not that experience worth a lot to you? Our business reputation is the best guarantee you can get.

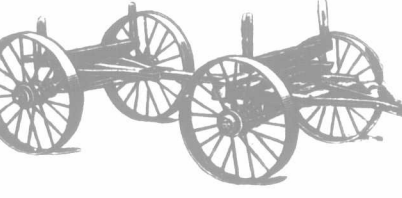
To those who do not know us, or are not our customers, we would say: **GIVE US A TRIAL.** We are satisfied you will be a regular customer after.

**FREE CATALOGUE**, now ready, mailed free, handsomely illustrated; 96 pages of Vegetable, Flower and Farm Seeds. Bulbs, Plants, Fertilizers, Insecticides, Implements, Sprayers, and Poultry Supplies.

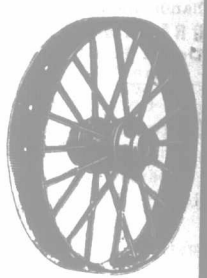
Government standard Clovers and Timothy Seeds now ready.

**John A. Bruce & Co., Hamilton, Ont.**

**HANDY WAGONS and WIDE-TIRE IRON WHEELS FOR THE FARM**



Made low to facilitate loading. They run easy, and carry a heavy load. Guaranteed to give satisfaction. Write for illustrated catalogue to



**DOMINION WROUGHT IRON WHEEL CO., Limited, O'PILLIA, ONTARIO.**

**Queenston Cement**

Successfully used by the farmers of Ontario for over 20 years. Direct from manufacturer to consumer. Positively the best and cheapest cement you can buy. Get our prices, etc., before purchasing for 1906. All information cheerfully given. Write us.

**Isaac Usher, Queenston, Ont.**

**Pulls Stumps or Standing Trees.**

Clears a two-acre circle with one sitting—pulls anything the wire rope will reach; stumps, trees, grubs, rocks, hedges, etc. A man and a boy with one or two horses can run the **COMBINATION STUMP PULLER**, Stump Anchored or Self Anchoring.

A minute and a half is all it takes for the ordinary stump. No heavy chains or rods. Note the strong wire rope with patent coupler—grips the rope at any point. Does not chafe rope; far ahead of old-style "take-ups." Smallest rope we furnish stands 40,000 lbs. strain. It generates immense power and it's made to stand die strain. We also make the Iron Giant Grub and Stump Machine, the L. X. L. Grubber and Hawkeye Grub and Stump Machine. Write for free illustrated catalogue. Largest manufacturers of Stump Pullers in the World. Established 1884.

**MILNE MFG. CO.,** 886 8th St., Monmouth, Ill.



**SHOEMAKER'S BOOK ON POULTRY**

AND CALENDAR FOR 1906. CONTAINS 100 PAGES, MANY COLORED PLATES TRUE TO LIFE. All about chickens, their care, diseases and remedies, INCUBATORS and how to operate them, poultry houses and how to build them. PRICE ONLY 10c. G. G. SHOEMAKER, Box 61, York, Pa., U.S.A.

**For Sale: Two Ayrshire Bulls**

9 and 15 months old, of choice breeding and quality. Price and terms easy.

**Geo. McCormack, Rockton, Ontario.**

"One's every day life is a surer revealer of character than one's public acts."—J. Miller. "We should correct our own faults by seeing how uncomely they appear in others."—Beaumont.



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

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

**BEEKEEPING**—Young man wanted to spend summer of 1906 with experienced beekeeper and learn the business. Apply to Morley Pettit, Villa Nova, Ont.

**EASY MONEY**—Make waste space in cellar or barn pay your rent—with our instructions and Special Mushroom Spawn. This is guaranteed. We buy your crop. For information address: "Fungus," Tecumseh House, London, Ont.

**FOR SALE**—Creamery outfit, nearly new, at a bargain. Address: Henry Lypps, Leamington, Ont.

**FARM FOR SALE**—150 acres. Choice clay loam. Well located for stock or dairying. Good buildings. Good well and windmill. Box 7, Putnam, Ontario.

**FARM for Sale**—100 or 50 acres; under good cultivation. Geo. M. Smith, Haysville, Ont.

**FARM to rent** in Red River Valley—640 acres: all fenced; 300 in cultivation; good buildings, good water, plenty of wood; within three miles of railroad station. Tenant must provide all his own equipment. Long lease to satisfactory tenant. Apply Box 44, Farmer's Advocate, Winnipeg, Man.

**FARM FOR SALE**—200 acres. County Wellington. Two miles from Belwood. Brick house; bank barn; silo; orchard; well fenced; soil rich loam; good wells. Terms reasonable. Immediate possession. Apply: James Mathieson, Belwood, Ont.

**FIFTY acres**, clay loam, tile drained; barn, stables, brick house, two wells, large orchard, schools, churches and post offices (Staffa and Dublin). T. J. Murphy, Barrister, London, Ont.

**IMPROVED farms** for sale in the Edmonton district. Candy & Co., Edmonton, Alta.

**THOROUGHbred** Scotch collie brood bitch, also puppies. Best breeding. Ask for prices and particulars. F. Medd, Millbrook, Ont.

**WANTED**—Three good farm hands on dairy farm. Must be good milkers. Wages, \$250 a year and board. Apply to G. T. Corfield, Corfield, B. C.

**WANTED—MEN**—Railroads in Canada, passenger brakemen, firemen, electric motormen, conductors. Experience unnecessary. Particulars for stamp. Dept. 75, Inter. Ry. Inst., Indianapolis, Ind., U. S. A.

**WANTED**—Practical man to take charge of horticultural and garden work on gentleman's farm. Orchard, 3,000 young trees; garden and experiment department. Rare chance for young man with experience and brains. Thirty dollars per month; free house, fuel, vegetables, milk, and to specially qualified man possibly share of profits. Teetotaler preferred. State experience, references, age, whether married, number of children. M., box 2407, Montreal.

**640 ACRE FARM** to rent; 50 acres broken and fit for crop. Will pay \$3.50 per acre for breaking balance. Write for particulars. C. F. Williams, Wapella, Sask.

**Help Wanted**

**"Prospect Farm."**  
An active, intelligent young man to milk, work in cow barn and do general farm work. Here is a good chance for a man to get a practical training in successful dairy farming, and at the same time get the highest wages for good service. Please state in first letter, age, experience (if any), and wages wanted for one year. One who does not use either liquor or tobacco preferred. Address—

**R. & A. H. BAIRD,**  
CHESTERFIELD P. O., ONTARIO.

**J. A. GOTH,**  
602 Main St., Winnipeg, Man.

Western lands in large or small quantities, as well as desirable Winnipeg city investments and real estate. Write me. Here are some snags: Section seventeen miles north Winnipeg. Three hundred and fifty acres cultivated. One hundred and fifty more good wheat land; balance hay; and fifty acres wood. Splendid farm for mixed farming. Twenty-five per acre. Will sell half or all. Two hundred and forty acres fifteen miles west of Winnipeg. Choice prairie wheat land, unimproved, for thirty days at twenty-five per acre. Adjoining farms improved forty per acre. Splendid locality.

Laziness grows on people. It begins in cowwebs, and ends in iron chains.—Hale.

**WANTED**—Wanted persons to grow Mushrooms for us at their own homes. Waste cellar space during winter, and out-house or shed room during spring and summer, can be made to yield an income of \$5 to \$20 per week. No earth required, only manure, which, when treated according to instructions, emits absolutely no odor. Stamp for illustrated booklet and full particulars. **MONTREAL SUPPLY CO., Montreal.**

**GOSSIP.**

**W. G. PETTIT & SONS' SHORTHORNS.**

A Farmer's Advocate representative recently had the pleasure of inspecting the great herd of over 110 head of high-class Scotch Shorthorns belonging to Messrs. W. G. Pettit & Sons, of Freeman, Ont., whose fine farms are conveniently situated a mile from Burlington Junction, which is 8 miles east of Hamilton, and 30 miles west of Toronto, on the G. T. R. The leading Cruickshank and other notable Scotch families are represented in this herd, in which are over 40 imported animals, and over 50 bred directly from imported sire and dam. The senior member of the firm, who is the honored and esteemed President of the Dominion Shorthorn Breeders' Association, and is regarded as one of the best judges in Canada, has been breeding Shorthorns for 35 years, and has made several large importations in the last five years, personally selected from leading Scottish herds.

The up-to-date private catalogue of the herd just issued, and which will be mailed to those applying for it, gives the pedigrees of 109 animals, while several recent births have added to the number. The chief herd bull, the roan three-year-old, Prime Favorite (imp.) (84353), bred by the late Mr. W. S. Marr, of Uppermill, from his Princess Royal family, and sired by Bapton Favorite, sold at the Uppermill dispersion for \$6,300 (now at the head of the noted herd of Mr. Duthie, of Collynie), ranks as one of the few very best bulls in Canada, and is making his mark as a high-class sire, as his get in the herd amply attests. This is a natural result, for, besides being a first-class individual, he is backed at the top of his pedigree by the great quartette of sires: Bapton Favorite; Sea King, bred at Sittytou; Athabasca, and Heir of Englishman, a combination good enough to ensure prepotency of a high order, even if there were nothing of note behind it. True to the approved type, with a first-class head, smoothly-fitting shoulders, full crops, well-sprung ribs, a strong, well-fleshed back, level quarters, a mellow-handling hide, great heart-girth (measuring 8 feet 3 inches around the waist), and standing four square on his underpinning, Prime Favorite is of the sort one feels safe in tying to as a sire, while as a show bull, if well brought out, it is doubtful if there are two in the Dominion that could down him, if there is one. The red imported bull, Scottish Pride, now in his five-year-old form, a son of the Princess Royal bull, Scottish Prince, and of the Marr Roan Lady family on his dam's side, though making no pretensions to showing qualifications, has proved the potency of his breeding in the many excellent young things in the herd sired by him, and as many of his daughters are now of breeding age, his services may be secured for some other herd for a moderate price, and his usefulness may be reckoned on for as many more years as he has lived. Though kept in ordinary breeding condition, he has the true outline, levelness, and fine-handling quality that goes with a good sire. There are several strong, sappy, deep-bodied young bulls of serviceable age for sale, sired by Scottish Pride, and several very promising youngsters, by Prime Favorite, coming a year old this spring, that should find places as herd headers before many moons. Royal Champion, red, 14 months old, by Scottish Pride, and out of Imp. Lady Ann 14th, is a massive, deep-ribbed, good-handling bull, with level quarters and of good size. Clara's Pride, a red 13 months' son of Scottish Pride, out of Imp. Claret 3rd, a Marr Clara, is another big, growthy, deep-ribbed bull, of fine handling quality, and with level quarters. He is richly bred, and should do someone lots of good. Balmoral Pride, red, coming a year in April, by the same sire, and out of Imp. Countess of Balmoral 4th (an extra milker), is a nice straight calf, and should suit well for a dual-purpose sire. Clementina's Prince, a red-and-white May calf, by Scottish Pride, and out of Imp. Pride 5th, of the favorite Clementina tribe, is a model in form and quality, with a sweet head and fine handling quality. Proud Favorite, by Imp. Prime Favorite, a roan, 13 months old, out of Imp. Lustre 43rd, is a blocky, strong-backed, good type bull, and Royal Sunset, another roan, the

(Continued on next page.)

**Your Egg Book**

DATE	NO.	PR.	CH.	JULY	AUG.	SEP.
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TOTAL						

Feed Dr. Hess Poultry Pan-a-ce-a according to directions to one lot of hens, keeping an equal number on the same feed, omitting the Pan-a-ce-a, and make a careful account in the egg-book of the eggs produced by each lot. If the Pan-a-ce-a fed hens do not show a big profit on the investment, return the empty package and your money will be refunded. Pan-a-ce-a acts directly on the organs of digestion; it supplies iron for the blood, cleanses the liver, arouses the egg-producing organs, reddens the comb and brightens the feathers; in fact, it produces eggs in the only reasonable way without stimulants that are injurious.

**DR. HESS Poultry PAN-A-CE-A**

is the prescription of Dr. Hess (M.D., D.V.S.). Besides making hens lay it cures and prevents cholera, roup, indigestion, etc., and all forms of diseases due to digestive troubles or infection. It bears the indorsement of leading poultry associations in the United States and Canada, costs but a penny a day for about thirty fowls, and is sold on a written guarantee.

**1 1-2 lb. package, 35 cents; 5-lb., 85 cents; 12-lb., \$1.75; 25-lb. pall, \$3.50.**

Send 2 cents for Dr. Hess 48-page Poultry Book, free.

**DR. HESS & CLARK,**  
Ashland, Ohio, U. S. A.

Instant Louse Killer      Kills Lice

**A Big Difference**

One Minute's Washing as compared to at least fifteen. Wouldn't you like to save at least fourteen minutes twice a day? One minute with a cloth and brush cleans the absolutely simple Sharples Dairy Tubular Cream Separator bowl shown in the upper picture. It takes fifteen minutes to half an hour with a cloth and something to dig out dents, grooves, corners and holes to clean other bowls—one of which is shown in lower picture.

Washed in 1 minute

Count the pieces—notice the difference—and you'll understand why the one who has to do the cleaning prefers the simple Sharples Tubular.

There are other advantages just as much in favor of the Tubular. Write today for catalog V-193—it tells you all about the gain, use, and choice of a separator.

**The Sharples Separator Co.**  
West Chester, Pa.  
Toronto, Can.      Chicago, Ill.

Washed in 15 to 30 minutes

**SWENSON'S MALLEABLE STUMP PULLER**  
WARRANTED FLAW OR NO FLAW  
CANADIAN SWENSONS LIMITED

Bobcaygeon, Ont., June 30, 1905.

This is to certify that I have a No. 3 Swenson's Malleable Stump Puller, bought a few days ago. I am pulling everything I hitch to. We pulled thirteen stumps in one hour and thirty minutes, the first time we tried it, including a hemlock stump nearly three feet in diameter. This machine, with its Stump Hook, is so far ahead of machines in this country that there is no comparison. If I had known of this machine years ago I would have bought one and been thousands of dollars ahead.

(Signed) ROBERT STEELE.

Why not let us demonstrate to you, as we have to thousands, that we have the only successful Stump Puller made: large or small stumps or trees, we take them all. Write to day, as this ad. may not appear again.

**CANADIAN SWENSON'S LIMITED, Kent St., Lindsay, Ont.**

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# Heart Trouble

The heart itself has no power—no self-control. It is made to beat by a tender nerve so tiny that it is scarcely visible to the naked eye. Yet ten thousand times a day this delicate nerve must assist the heart to expand and contract.

This nerve is only one of the branches of the great sympathetic, or INSIDE, nerve system. Each branch of this system is so closely allied with the others that weakness or irregularity at any point is apt to spread. Heart trouble frequently arises from Stomach trouble through sympathy, and Kidney trouble may also follow. For each of these organs is operated by a branch of these same sympathetic nerves—the INSIDE NERVES.

In Heart, Kidney or Stomach troubles, it is of but little use to attempt to doctor the organ itself—the most permanent relief lies in restoring the INSIDE NERVES. Dr. Shoop regards these nerves to be the real cause of such troubles. The remedy—known by physicians and druggists everywhere as Dr. Shoop's Restorative—is the result of years of endeavor along this very line. It does not dose the organ to deaden the pain—but it aims to go at once to the nerve—the inside nerve—the power nerve—and builds it up, and strengthens it and makes it well.

Every heart sufferer may have Dr. Shoop's book on the Heart. It will be sent free, and with it you will receive the "Health Token," an intended passport to good health.

For the free book and the "Health Token" you must address Dr. Shoop, Box 52, Racine, Wis. State which book you want.

- Book 1 on Dyspepsia.
- Book 2 on the Heart.
- Book 3 on the Kidneys.
- Book 4 for Women.
- Book 5 for Men.
- Book 6 on Rheumatism.

Dr. Shoop's Restorative Tablets—give full three weeks' treatment. Each form—liquid or tablet—have equal merit. Druggists everywhere.

## Dr. Shoop's Restorative.

CANADIAN PACIFIC

### REDUCED RATES

\$42.25

VANCOUVER  
VICTORIA  
SEATTLE  
TACOMA  
PORTLAND

\$39.75

NELSON  
ROSSLAND  
SPOKANE

From LONDON.

Second-class one-way, on sale daily until April 7th.

Proportionately low rates to and from other points.

Full information at London offices:

W. Fulton, 161 Dundas St.,  
J. Houston, C.P.R. Station,  
or write C. E. Foster, D.P.A., C.P.R., Toronto.

PURE SCOTCH

## SHORTHORNS

Herd bulls: Imp. Prime Favorite = 45214 =,  
a Marr Princess Royal.

Imp. Scottish Pride = 36106 =, a Marr Roan Lady.

Present offering:  
20 young bulls.  
10 imported cows with heifer calves at foot and bred again.  
20 one- and two-year-old heifers.

Visitors welcome. New catalogue just issued.

W. G. PETTIT & SONS, Freeman, Ont.

Burlington Jct. Sta. Long-distance telephone in residence.

### Registered Ayrshires

Having rented my farm, I offer for sale cow, Bright Smile of Maple Grove—16593—, 5 years old; gave 40 lbs. a day last year on grass alone; sire Carlisle of Lessnessock, Imp.; dam Bright Smile of Alticiane, Imp. Due to calve April 1st. Persistent milker. Large teats. Lady Clare; rising two years; sire Signal of Maple Grove; dam Bright Smile, as above; in calf. Ten others, all registered and in calf. Berkshire sow, 10 months; boar, 5 months. Joseph Hudson, Lyn, Ont.

### 23 Imported Clydesdale Stallions

for sale; also 6 Hackney Stallions. Inspection invited and prices right.

O. SORBY, GUELPH, ONTARIO.

### GOSSIP.

(Continued from page 331.)

same age. By the same sire, and from the Roan Lady dam, Rosetta 14th (imp.), is much like his sire in type, and a very promising young bull.

Of the many excellent females, space does not permit individual mention. Suffice it to say, they are generally of uniform type, the early-maturing sort, and representing many of the leading Scottish tribes, and among them are a number of real good milking cows, as their large and well-shaped udders indicate, while the reduced condition of these and the lusty appearance of their calves show them capable of doing good work in the dairy, if they were put to that test. A bevy of beautiful heifer calves, coming a year old this spring, that ran out with their dams last summer, are in fine, thrifty condition to go on well, and some capital heifers of breeding age are also available to anyone requiring such for foundation stock. Any such will do well to send for the catalogue, and study its contents.

Messrs. A. Kennedy & Son, Vernon, Russel County, Ont., in ordering a change of advertisement, write: "Our herd of Ayrshire cattle have come through the winter season in excellent condition. While the demand has been unusually strong, we still have a few nice young things for sale at very reasonable prices. During the next six weeks we will be in a position to sell several well-bred bulls and heifer calves from three to five weeks of age. These calves are all sired by our prizewinning herd bull, George Brown, and out of heavy-milking dams. In order to avoid inbreeding, we will be compelled to sell both of our herd bulls. George Brown, the five-year-old, was third at the Central Canada Exposition, at Ottawa, and the two-year-old was first in the yearling class. The bull calf was 3rd in class at the same show, and is a good one. These bulls are right in every respect, and should be at the head of the best herds in the country. Our herd won the second largest number of prizes at the recent Central Canada Exposition."

Mr. Lew W. Cochran, Crawfordsville, Indiana, who advertises Percherons, Shires and Hackneys, writes: "So far, my trade this winter was never so good on stallions and mares, especially on my brood mares. I have simply been flooded with inquiries for brood mares in foal, and have sold them to go to all parts of the United States and Canada, and it is a fact that nine-tenths of my inquiries are for America-bred stallions and mares. The only way I can account for so great a demand for the American-bred animals is the fact, which I have demonstrated to the public for the past five years at the leading shows of America, that the American-bred horses are outstanding winners in almost every instance. At the leading shows of America, during the past ten years, I have shown in Indiana, Ohio, New York, Wisconsin, Minnesota, Iowa, Michigan, Missouri, State Fairs, World's Fair at St. Louis, and International at Chicago, and have won over 80 per cent. of all prizes shown for. At the World's Fair at St. Louis, on 24 head of my own breeding, I won 46 prizes, including 7 gold medals, 7 diplomas, 3 premier championships, 4 reserved championships, 1 championship, 1 reserved grand championship. In fact, I won more premier championships than any other exhibitor."

Once more attention is called to the auction sale, advertised to take place on March 7th, of 37 head of registered Shorthorn cattle (23 females and 14 bulls), property of Fitzgerald Bros., Mt. St. Louis, Simcoe Co., Ont., at their farm, near Phepston and Coldwater Stations (G. T. R.), where conveyances will meet trains morning of sale. First-class imported Scotch-bred bulls have been used in the herd for many years, and most of the animals are from good-milking strains.

Note the advertisement in "Want" column by R. & A. H. Baird, Chesterfield, Brant Co., Ont., wishing to engage a young man interested in the care of cows and having knowledge of up-to-date dairy farming. A good place is open for a suitable man.

# Shorthorns

AT AUCTION

The property of THOS. MIGHTON, Elora, Ont., Lot 17, Con. 5, Township of Pilkington, west side of Grand River, on

FRIDAY, MARCH 9, 1906.

A profitable dual-purpose herd, bred from deep-milking strains. Kept in moderate breeding condition, but flesh rapidly when dry. The best kind for the general farmer.

Conveyances will meet morning and noon G. T. R. trains at Elora day of sale.

Catalogue on application.

THOS. MIGHTON, - Elora, Ont.

CAPITAL, \$100,000.

SHARES, \$20 each.

## The Farmers' Mfg. & Supply Company, Ltd.

Are you a shareholder in the Farmers' Mfg. & Supply Co., Limited? If not, you should become one at once, and participate in the benefits of organization. We already have about 2,000 farmers who have learned of the value of association and of the added weight which co-operation for a set purpose brings by becoming shareholders in this practical Co-operative Co. What we do not manufacture we buy direct from the manufacturers, and do away with the middleman's profits, which profits do not add to the value of the article. You save from 15 to 40% on your household goods, implements, wire fence, and feed corn, etc. Last week we had three cars of feed corn go to some of our shareholders, and they saved 5c. per bushel. One shareholder got 300 bushels, and saved \$15. The benefits are too numerous to mention here. Write to Head Office.

FARMERS' MANUFACTURING & SUPPLY COMPANY, LIMITED  
Durham, Ontario.

# WANTED

Every farmer in Canada, who has not already done so, to PROVE for HIMSELF that CARNEFAC is an absolute necessity for the SUCCESSFUL raising of CALVES and PIGS, as well as the BEST TONIC on earth for horses or cattle that are NOT THRIVING properly. These are cold, solid facts, and we invite you to prove them. We offer no gifts or premiums, just CARNEFAC, the tonic used by all good feeders. See our dealers, or write us direct, at once.

THE CARNEFAC STOCK FOOD CO.,  
Winnipeg, Man. Toronto, Ont.

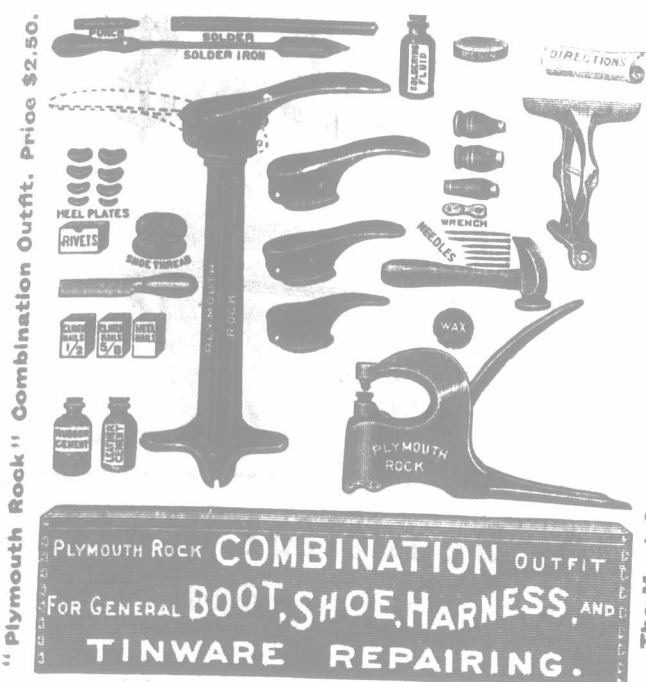
## 2nd ANNUAL AUCTION SALE

### SHORTHORN CATTLE

To be held at FITZGERALD BROS., Mount St. Louis, on Wednesday, March 7, 1906,

consisting of 37 head of pure-bred Shorthorns, 23 females and 14 bulls. Cows are in calf to Loyal Duke (imp.) = 55026 =, or with calf at foot. Conveyances will meet trains at Phepston and Coldwater on day of sale. Sale will commence at 1.30. Terms: Nine months' credit will be given on furnishing approved joint notes; 5 per cent. discount for cash. A lunch will be provided. Catalogues on application.

FITZGERALD BROS., Mt. St. Louis, Simcoe Co.



**"Plymouth Rock" Combination Outfit.**

We cannot too highly recommend our Plymouth Rock Combination Cobbler. The head of every household in the Dominion can save many times its cost the first winter repairing shoes alone, to say nothing of the saving in repairing harness, tinware, etc. By all means order one of these outfits AT ONCE. We guarantee that you will be more than pleased with it. We give herewith the opinions of a few who purchased these Home Repairing Outfits.

**CONSISTING OF 42 FIRST-CLASS TOOLS AND MATERIALS SHOWN IN CUT, VIZ.:**  
1 Men's Revolving Last. 1 Boys' Revolving Last. 1 Women's Revolving Last. 1 Child's Revolving Last. 1 Heel Last. 1 15-in. Stand. 1 Shoe Hammer. 1 Steel Shoe Knife. 1 Leather Top Peg Haft. 1 Wrench for same. 2 Sewing Awl Hafts. 1 Peg Awl. 1 Sewing Hammer. 1 Stabbing Awl. 1 Bottle Leather Cement. 1 Bottle Rubber Cement. 1 Bunch Bristles. 1 Ball Shoe Thread. 1 Ball Wax. 1 Paper Clinch Nails, 4-8 in. 1 Paper Clinch Nails, 5-9 in. 1 Riveter. 1 Harness and Saw Clamp. 1 Box Tubular Rivets. 4 pairs Heel Plates. 6 Harness Needles. 1 "Plymouth Rock" Solder. 1 Box Resin. 1 Bott Soldering Fluid. Directions for Using.  
**EACH SET PACKED IN A NEAT WOOD BOX WITH LOCKED CORNERS AND HINGED COVER. A COMPLETE OUTFIT OF TOOLS FOR GENERAL BOOT, SHOE RUBBER, HARNESS AND TINWARE REPAIRING.**

We have spared no pains or expense to make this the most complete and desirable outfit made. The Lasts and Stand are extra strong and heavy, and every article is strictly first-class, the best there is made, and the same as practical mechanics use. The special feature of this outfit is that it contains one of our latest improved "Plymouth Rock" Automatic Riveting Machines, for setting tubular rivets. With it any one can do all their own harness, strap and belt repairing. The saving on these items alone will pay the rubbers, and tinware.

**Price, only \$2.50.**

**"FOUND IT ALL WE SAID IT WAS."**  
Coldstream East, N.B., Jan. 1st, 1906.  
Windsor Supply Co., Windsor, Ont.  
Dear Sirs,—I received my Home Repairing Outfit, and found it was all you said it was. Yours truly, **ARTHUR LUND.**

Smith's Falls, Ont., December 22nd, 1905.  
Windsor Supply Co., Windsor, Ont.  
Dear Sirs,—I received the "Plymouth Rock" Combination Cobbler Outfit, and am very much pleased with it. Yours truly, **ROBERT L. PORTER.**

**"CAN REPAIR SHOES FOR LESS THAN HALF PRICE."**  
Gentlemen,—I would highly recommend the Home Repairing Outfit which I bought from you last summer. You can repair shoes for less than half price. **GEORGE COLE.**  
Breslau, Ont., April 5th, 1903.

**"VERY MUCH PLEASSED WITH HOME REPAIRING OUTFIT."**  
The Windsor Supply Co., Windsor, Ont.  
Dear Sirs,—I received your Home Repairing Outfit No. 1 last night, and I am very much pleased with it. Yours truly, **P. CRAWFORD.**  
Petrolia, Ont., Jan. 17th, 1905.

Gentlemen,—Yesterday I received the "Plymouth Rock" Cobbling Outfit. It looks all right. I have not used it yet. I think there are many other orders I could get for you. We will be sending in another order coming on spring. Yours truly, **HARRY M. BLAKE.**  
Roseberry, P. E. I., October 27th, 1905.

We also sell books on Electricity, Blacksmithing, Bricklaying and many other subjects. Our large catalogue gives prices and all particulars. **WRITE FOR IT.**

**The Windsor Stock Feed Cooker.**

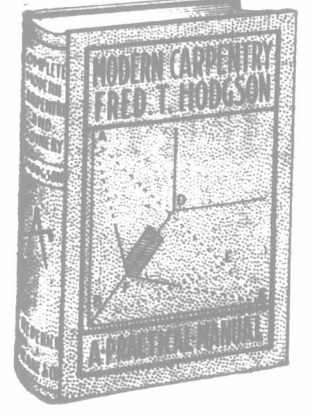
Every intelligent farmer knows that it pays to cook feed for live stock. It is not the amount that is eaten that fattens; it is the amount that is digested. All grains contain large quantities of starch, and starch is not digestible until cooked. The heat of the stomach is not sufficient to make the starchy substances digestible, and so a considerable portion of the grain eaten raw does not benefit the animal as it should.

OUR WINDSOR COOKER supplies a safe, simple, cheap means of cooking feed. The outside casing or jacket is made of strong cold rolled boiler steel, supported at the bottom with a heavy wrought iron band. Inside the casing is a cast iron flue, which protects the steel jackets so that it lasts indefinitely and throws the fire and smoke up around the kettle enabling the user to cook the food in the shortest possible time.

The fire door is 12 x 15 inches—the largest of any cooker made, enabling the use of wood up to 3 ft. in length. The entire height is only 30 inches, making it convenient for filling and emptying. The kettle is made of very smooth cast iron, which neither rusts nor burns out. In addition to being a feed cooker, you can also use it for heating water on wash day, for rendering lard, making soap, boiling maple sugar, scalding hogs, washing milk cans and pails, etc.

**PRICES.**

American Gals.	Cap. in Imperial Gals.	Weight.	Price.
15	12 1-2	100	\$9 00
20	16 2-3	130	10 00
30	25	225	12 00
40	33 1-3	250	14 00
50	41 2-3	275	15 00
63	54 1-2	300	16 50
75	62 1-2	375	20 00



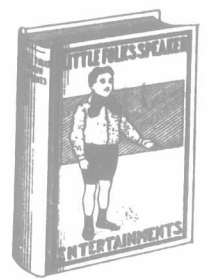
\$1. Prepaid. 2 Vols. Prepaid, \$2.

Regina, Sask., Feb. 2, 1906.  
Windsor Supply Co., Windsor, Ont.  
Gentlemen,—We received the Sewing Machine in good condition two weeks after shipping, and as far as we have used it it has given the best of satisfaction. We also received the Shoemaker's Outfits, which we have sold, and are sending the money for same with this letter. **THOMAS GARDNER.**

Clarence, Ont., Jan. 31, 1906.  
Windsor Supply Co., Windsor, Ont.  
Gentlemen,—I received my Home Repairing Outfit all O. K., and am well pleased with it. I would not be without it for twice the price; it is so handy to repair either harness or boots or tinware. It saves both time and money as well. Ever yours, **FRANK W. ROE.**

Arcola, Sask., Jan. 18, 1906.  
Windsor Supply Co., Windsor, Ont.  
Dear Sirs,—I received your "Plymouth Rock" Combination Cobbler's Outfit in good shape. I had to pay \$1.75 express, but I think it is cheap at that price. Yours truly, **W. H. SELLARS.**

Waneta, B. C., February 5th, 1906.  
Windsor Supply Co., Windsor, Ont.  
Dear Sirs,—I duly received yours of January 17th, and thank you for your trouble re freight charges. In regard to the merits of the Feed Cooker itself, it does its work splendidly; altogether, it is all you claim for it. Yours truly, **MATTHEW HILL.**



Cloth, Gold Titles, Postpaid 50c. Sewing Machines from \$14.75 up. The best book published for beginners, only \$1.00 Postpaid.

**Windsor Supply Company, Windsor, Ont.**

**QUESTIONS AND ANSWERS. Miscellaneous.**

**WHAT'S WANTED.**  
Please give studbook number of Imported Clydesdale stallion named What's Wanted. **A. J. Y.**  
Ans.—What's Wanted [47], foaled 1875, imported 1877, by T. J. Bell, Londesborough Station Co., Ont. Second owner, Jas. Moore, Clinton. This is the only horse of the name we find in the studbook.

**THE EASTERN ONTARIO LIVE-STOCK AND POULTRY SHOW**  
Will be held at **OTTAWA, ONT.,** on **March 5th to 9th, 1906**  
Large prize lists in all departments. Entries for live stock close Feb. 24th. Entries for poultry close Feb. 24th. Practical lectures delivered on live-stock subjects. For programmes, price lists, entry forms, etc., apply to  
**J. C. SMITH, President. A. P. WESTERVELT, Sec.,**  
Parliament Buildings, **TORONTO, ONT.**

**CLYDESDALE, LORD BROOKLYN.**  
Please give number of Clydesdale station, Lord Brooklyn. **C. L. H.**  
Ans.—Lord Brooklyn (imp.) [2474] (10793), foaled 1895, imported 1899 by Dalgety Bros.  
**FEEDING STEERS TIED OR LOOSE.**  
"Young Farmer," Lambton, would like to hear the experience of those who have tried feeding export cattle in loose boxes. Is it a better way than to have them tied up?  
Ans.—We add our invitation to the request of "Young Farmer."

**QUESTIONS AND ANSWERS.**  
Miscellaneous.

**AMOUNT OF CEMENT REQUIRED.**

1. I intend putting a cement foundation under my barn this summer, and would like to know how many barrels of Samson brand, Portland cement, will it require to build 60 rods of wall 12 in. thick.

2. It is clay ground, with good natural fall from all sides of wall. Will I require a trench under the wall, and if I do, what width and depth? As small stones are very hard to get, would there be any other way of making it secure without a trench? I intend putting in cement floors in entire building, so there would be no soakage from inside. Barn will have eavestroughing.

D. W.  
Ans.—1. We understand "a rod of wall" to mean a portion containing 16½ cubic feet. Sixty rods, then, would be nearly 1,000 feet, which of any good Portland cement would require from thirty to thirty-five barrels. The amount of cement needed could be lessened by imbedding in the concrete stones or old bricks.

2. From what is said about situation of barn, we cannot see that there will be any need of drainage under wall.

T. B.

**RUNNING A TRACTION ENGINE.**

A short time ago we received a letter from F. H. W., inquiring for some firm from whom a certificate to run a traction engine could be secured:

"Would you kindly answer the following questions (I have never run a traction engine): Cost to get a certificate? About what time will it take? Will this certificate be good in the Canadian Northwest?"

Ans.—The letter was forwarded to the Geo. White & Sons Co., Ltd., of London, Ont., who returned it with the subjoined reply: "We do not know of any Board of Examiners who give certificates for traction-engine operating. We give our own customers the privilege of coming into our shops for two or three months, we give them a course in traction-engine operating, and when we think they are competent we give them a certificate that in our opinion they are competent to run and handle traction engines. We do not charge our own customers anything for this tuition. We could not, however, throw it open to the general public, or we would have our shops full. If Mr. W. is a customer of ours, or could get a customer of ours to send him in, we would be pleased to give him the course."

**HENS AILING.**

Kindly tell me what is the matter with my hens. They are mostly White Leghorns, are fine-looking, and in good condition, and their combs begin to dry up and become a pale color; the hens get lame, and dwindle away, and in a month or so die. Upon examination, the liver is found to be full of little white spots. Our fowls are well taken care of, and as far as we know there is nothing lacking that they need. They die in summer as well as winter. There are a number just getting lame now. SUBSCRIBER.

Ans.—My impression is that it is simply a case of tuberculosis. If the correspondent will be good enough to send one or two sick ones to the Bacteriological Laboratory here, they will examine it free of charge, he, of course, paying express charges on the birds. They will report whether or not it is a case of tuberculosis, but from the symptoms given in your letter, I am of the opinion that the trouble is as above indicated. If it is a case of tuberculosis, there is no use doctoring. As soon as a chicken is noticed sick, kill it, and burn the carcass. Clean the henhouse out, and use lime and carbolic acid on the dropping-board, or where the droppings fall. Take a bushel of lime and add a pint of crude carbolic acid to it, stir the two together, afterwards sprinkle it freely where the droppings fall. Of course, it would be wise to disinfect the henhouse, but I doubt if this could be done satisfactorily at this season of the year. It would be better to wait until spring, when it should be thoroughly whitewashed, fresh ground put on the floor. At present all that can be done is to keep the henhouse clean, use the lime as above indicated, and kill every bird upon the least indication of disease.

W. R. GRAHAM.

Sadie Mac's height was 15 hands 1 inch.

**REGULAR PRICE \$1**

**Read Our Offer.**



**Everybody Knows**

that the name of Joseph Rodgers & Sons has long been recognized as a guarantee of quality when applied to cutlery.

They have a universal reputation as the leading cutlery manufacturers of the world.

We consider ourselves fortunate in being able to offer such a high-class premium to our subscribers.

**A Beautiful Knife**

with nickel handle, finest steel blades, strong and durable. Should last a lifetime.

**REGULAR PRICE, \$1.00.**

If you want it, send us **ONE** new subscriber at \$1.50 per year and it is yours.

**Only 1 New Subscriber**

FILL OUT THE FOLLOWING BLANKS, AND RETURN TO US WITH \$1.50.

New Subscriber .....

P. O. .... Province .....

Name of Sender .....

Date ..... P. O. .... Province .....

**THE WILLIAM WELD CO., LIMITED,**  
LONDON, ONTARIO, CANADA.

**EWING'S**

**Seed Book for 1906**

**EVERYTHING FOR GARDEN & FARM**

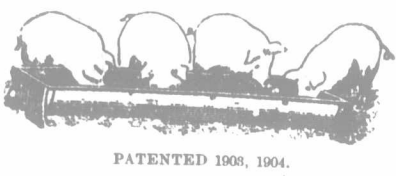
A beautifully illustrated and instructive catalogue of the **EWING-QUALITY SEEDS.** Write for it now. Results for the past thirty-eight years have been proving them "**The Best.**" A trial would prove to you convincingly their quality.

**William Ewing & Co.,**  
142-146 McGill St., MONTREAL, CANADA.

**Gray & Hamilton**  
REAL ESTATE  
Regina, - Saskatchewan.  
Box 317.

We make it a point to handle only the Best Land in the West Country.  
Buy on reasonable rates. Wild lands & Valley.

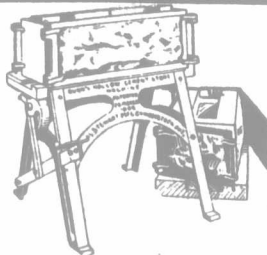
## "Tweed" Steel Troughs



PATENTED 1908, 1904.

Your ear, please—for 1906. The "Tweed" Steel Hog Trough made better, improved much, finished slicker, and the price reduced. "Quality up and price down." How is it? That magic word, "machinery," explains it. We have allowed no expense to hinder us making a perfect article at a low price. **50c. per ft.**—we should have more—**50c.** is even money, and it goes. It's the price you wanted. Send order and money, and we do the rest. Every trough guaranteed.

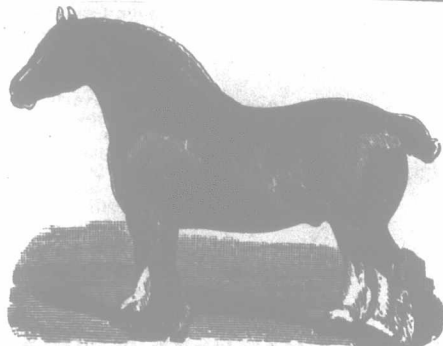
The Steel Trough & Machine Co., Ltd.,  
TWEED, ONTARIO.



**DUNN HOLLOW CONCRETE BLOCK MACHINES** are in use from coast to coast, and every one giving the best of satisfaction. Concrete blocks make the handsomest, most durable and cheapest building material. They are simply and quickly made on the **Dunn Machine**; and the cost of outfit is very moderate. Full directions furnished.

Write for catalogue to Dept. O.

THE JAS. STEWART MFG. CO., LIMITED, Woodstock, Ont.



## Clydesdales and Hackneys

**DALGETY BROS., Dundee, Scotland, and London, Ont.,** have on hand just now at their stables, London, Ont., a choice selection of above, including several prizewinners in this country and Scotland. All combining size and quality. Come and see them.

**JAMES DALGETY, Glencoe, Ont.**

## HODGKINSON & TISDALE

Breeders of High-Class Clydesdales and Hackneys  
**BEAVERTON, ONT.**

Our present stock of mares and fillies are the best lot we ever had together. Among them are championship, first, second and third prizewinners at Toronto. Our prices are consistent with quality. We have something that will suit you.

**BEAVERTON P. O. & STATION. Long Distance Telephone.**

## J. B. HOGATE'S Shires, Clydes, Percherons, Hackneys and Spanish Jacks.



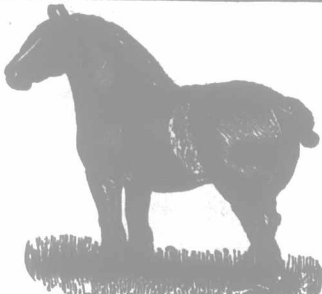
My latest importation includes 45 head of Shire stallions and fillies, Clyde stallions and fillies, Hackney and Percheron stallions and Spanish Jacks, many of them prizewinners in England, Scotland and France. This is a gilt-edged lot and the best we ever imported, combining size and quality.

Stables at **WESTON, ONT.** Telephone connection.

**J. B. HOGATE, Proprietor.**

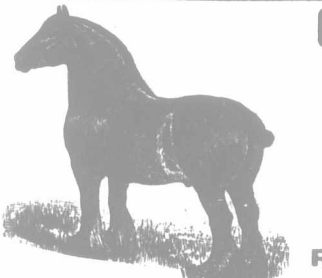
## GRAHAM BROS.

"Cairnbrogie," CLAREMONT,  
IMPORTERS OF  
**HACKNEYS and CLYDESDALES**



Established 30 years, and winners at all large shows in Canada and United States. Best of stock always on hand for sale. New importation of Royal winners just arrived.

## Clydesdales and French Coachers, Imp.

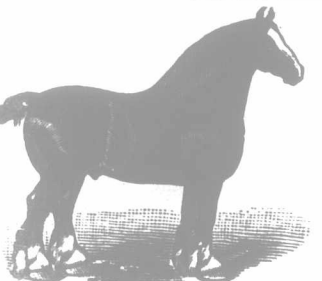


Scottish and Canadian winners at the leading shows of both countries. The Clydes represent the blood of such noted sires as Baron's Pride, Up-to-Time, Royal Favorite, Ethiopia and Acme. They combine size, quality and action. The French Coachers are a big, flashy, high-stepping lot, and are winners in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

**ROBT. NESS & SON, Howick, Quebec.**  
Long-distance Telephone.

## GRAHAM & RENFREW'S

**CLYDESDALES and HACKNEYS**



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

**GRAHAM & RENFREW, Bedford Park.**

### GOSSIP.

The annual report of the Clydesdale Horse Society of Great Britain and Ireland, for 1905, shows that during the year export certificates were issued for horses and mares to the number of 653, distributed as follows: Canada, 485; United States, 61; Argentina, 53; Russia, 16; Italy, 17; Austria, 12; New Zealand, 4; South Africa, 5.

### A YORKSHIRE CLUB.

On Feb. 8th, during the week of the annual meetings of live-stock associations in Toronto, breeders of Yorkshire swine present provisionally organized a breed society, with the title "The Canadian Yorkshire Club," the object being the preparing a constitution and by-laws for its Government, securing incorporation under the Dominion Act in that behalf, and generally furthering the interests of the breed. Mr. J. E. Brethour, Burford, Ont., was appointed chairman, with the following directors: D. C. Flatt, Millgrove; J. G. Clark, Ottawa; Wm. Jones, Zenda, and G. B. Hood, Guelph.

### \$4,000 FOR SHORTHORNS.

At a meeting of the cattle committee of the Canadian National Association, Toronto, held last month, the association decided to duplicate the grant of \$2,000 made by the Dominion Short-horn Breeders' Association for prizes for Shorthorns, thus making a total of \$4,000 to be given in prizes for Shorthorns at the coming Toronto Exhibition. This is a total increase of \$1,000 over 1905, and the largest amount given in America at any annual fair for Shorthorns, if not in the world. It is expected that a number of American Short-horn breeders will exhibit at Toronto next fall, and Canadian breeders should prepare in good time to hold their own in the competition.

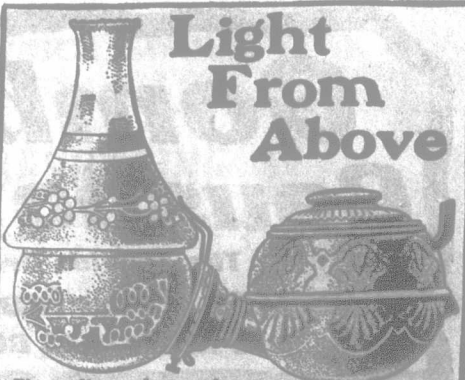
### O. SORBY'S CLYDES, SHIRES AND HACKNEYS.

In our advertising columns will be found the advertisement of Mr. O. Sorby, of Guelph, Ont., the well-known importer of high-class Clydesdales, Shires and Hackneys. At the present time he has on hand 17 imported Clyde stallions, the get of Baron's Pride and other noted sires, including the grand-quality four-year-old horse, Prince of London, winner of third prize at the late Toronto Stallion Show; Baron MacEachran, another Toronto winner, a four-year-old; Peerless Pride, rising three, also a winner at Toronto, and others of equal excellence. There are two imported Shire stallions, of which Bramhope Blackthorn, winner of first and championship at Toronto, since sold to go to Lord Aberdeen's farm in British Columbia, is one, and the other, in our opinion, is not far behind. Six imported Hackney stallions, nearly all the get of such noted sires as the great Rosodor and Garton Duke of Connaught, and eight Hackney mares are also in these stables, the whole composing one of the choicest lots of high-class horses in Canada. It is well known that Mr. Sorby is a great lover of "quality" in horses, and the present lot shows an abundance of this. Clean, flat bone, nice, sloping ankles, good hoof heads, and splendid open, free action, characterizes the whole lot. Parties in want of something good should look after these at once, as Mr. Sorby has sold 14 in the last few weeks, and the rest are sure to go, as they are the kind wanted.

### BOOK REVIEW.

Any book reviewed in this department may be ordered through this office.

**EIGHTH EDITION OF "SOILING."**  
We are in receipt of a copy of the eighth revised edition of F. S. Peer's book on soiling. As most of our readers are aware, this book treats not only of soiling, but of ensilage, and of barn, stable and silo construction. This book has already been recommended in our columns as a reliable and up-to-date authority on the subjects of which it treats, and we can only repeat our previous commendation.



## Light From Above

The ordinary lamp wherever used spoils all lighting effects by its downward shadow. Replace it with

## The Angle Lamp

and the improvement will surpass belief. "No under-shadow" is a great feature. But for the quality of its light alone it is superseding gas and electricity in city and country homes. Its light has all of their power with none of their glare and unsteadiness—soft, mellow, eye resting, and absolutely free of the smoking and offensive odors of ordinary lamps, either. There is nothing like it for convenience. It lights and extinguishes like gas, without removing globe—one fitting burn is 16 to 18 hours, costing about 18 cents a month for oil. Compare that with the monthly gas and electric bills, or even the cost of that troublesome, smoky, smelly lamp you are using. For quality of the light, economy and satisfaction for all lighting purposes, there can be no comparison. It is the cheapest and the best kind of illumination.

**50 DAYS FREE TRIAL** to show its superiority. You are sure to buy it if you know it. Write at once for our book which explains all. Ask for catalogue No. 90.

**THE BACH SPECIALTY CO.,**  
355 1/2 Yonge Street, - Toronto, Ont.

## Didsbury

The Famous WINTER WHEAT COUNTRY of CENTRAL ALBERTA.

Here is a sample of what we are offering in **High-grade Lands:**

330 acres, 145 broken, the balance clear and ready to break; 17 acres in fall wheat; good buildings; only six miles from a bustling town. This is a comfortable farm home. Let us tell you more about it. And, remember, we have others, all kinds, raw and improved.

**COLLISON & REED**  
Didsbury, Alta.



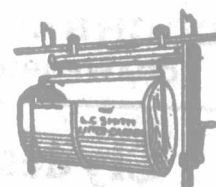
## A GOOD PICTURE

Of your fancy stock is the best advertisement you can have. To bring out the "points" requires the assistance of an artist who knows. The best stock artist in Canada is with

**TORONTO ENGRAVING & PRINTING CO.**  
92 BAY ST. TORONTO

**THE L. C. SMITH**

## FEED and LITTER CARRIERS



Patented June 16, 1903. Can be adapted to any barn or farm building.

Write us for particulars. **L. C. SMITH, Ottawa, Ont.**

## HANDSOME TROTTER STALLION

No mark; no training; has trotted quarters in 35 seconds; a prizewinner and a great stock-getter; cheap; and a Standard entire colt, eligible to Review Stakes for 1907 and 1908, for two and three year olds.

**DR. R. G. COATES, Thamesville, Ont.**

# Gombault's Caustic Balsam

The Worlds Greatest and Surest  
Veterinary Remedy  
HAS IMITATORS BUT NO COMPETITORS!

SAFE, SPEEDY AND POSITIVE.

Supersedes All Caustery or Firing. Invaluable as a CURE for

FOUNDER, WIND PUFFS, THRUSH, DIPHTHERIA, SKIN DISEASES, RINGBONE, PINK EYE, SWEENEY, BONY TUMORS, LAMENESS FROM SPAVIN, QUARTER CRACKS, SCRATCHES, POLL EVIL, PARASITES.

REMOVES BUNCHES or BLEMISHES, SPLINTS, CAPPED HOCK, STRAINED TENDONS.

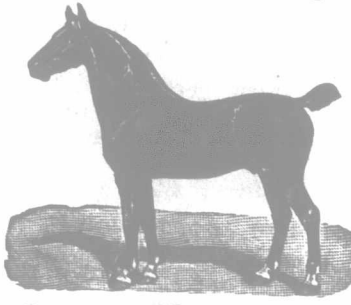
SAFE FOR ANYONE TO USE.

THE BEST FOR BLISTERING.

I have used GOMBULT'S CAUSTIC BALSAM quite a good deal, and for a blister it's the best I ever used. I wish your remedy every success. CHAS. MOTT, Manager, Mayfield Stud Farm, Leesburg, Va.

We guarantee that one tablespoonful of Caustic Balsam will produce more actual results than a whole bottle of any liniment or spavin mixture ever made. Every bottle sold is warranted to give satisfaction. Write for testimonials showing what the most prominent horsemen say of it. Price, \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use.

The Accepted Standard VETERINARY REMEDY  
Always Reliable. Sure In Results.



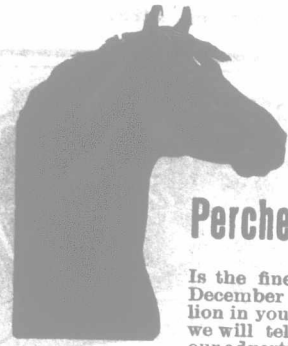
None genuine without the signature of The Lawrence-Williams Co. Sole Importers for the U.S. & CANADA. CLEVELAND, O.

CURED CURB WITH TWO APPLICATIONS.

Have used your GOMBULT'S CAUSTIC BALSAM to cure curb. I blistered it twice, and there is no sign of it any more. The horse is as good as ever.—DAN SCHWAB, Evergreen, Ill.

Sole Agents for the United States and Canada.  
**The Lawrence-Williams Co.**  
TORONTO, ONT. CLEVELAND, OHIO.

## OAKLAWN'S PRICES



Are right. Special advantages in buying and caring for our stallions, and large and quick sales, enable us to offer first-class horses at most reasonable prices, and at the same time to show you some which cannot be duplicated elsewhere at any price. If you consult your own interests by investigating before you buy you should visit us, for here, and here only, can you find the best horses, most reasonable prices, liberal terms and the safest guarantee for you given anywhere. We are well within the facts in assuring you that our collection of

Percherons, Belgians and French Coachers

is the finest to be found anywhere. Our last importation arrived December 1st, 1905. Send for catalogue. If there is no first-class stallion in your locality and you would like to breed to one, write us, and we will tell you how to get one there at a reasonable expense. Read our advertisement next week.

DUNHAM & FLETCHER,  
WAYNE, DuPage Co., Illinois.

## 125 Percheron, Shire and Hackney Stallions & Mares

At the World's Fair at St. Louis I won more Premier Championships than any other exhibitor.

At the Chicago International, 1905, I won more first prizes than any other exhibitor.

For the next 90 days I will sell the best in America at prices below competition.

LEW W. COCHRAN, 109 1/2 South Washington Street, CRAWFORDSVILLE, IND. OFFICE:



## Clydesdales & Hackneys

Our new importation of Clydes (stallions and fillies) combine size and quality to a marked degree. Their breeding is unsurpassed. Their individuality cannot be duplicated on the continent. Come and see them. We sell cheaper than any other importer. Also, we have a few gill-edged Hackneys on hand.

G. & J. HAY, Lachute, Que.

A few miles from Ottawa.

### GOSSIP.

Mr. W. R. Graham, Kincardine, Ont., importer of Percheron, Belgian and Standard-bred horses and Spanish jacks, reports the sale of the Percheron stallion, Romeo, to Mr. W. Pollock, near Kincardine, and a Spanish jack to a company of farmers at Thamesford, Ont. Mr. Graham has just received the two-year-old Standard-bred stallion, Cooksbury 42233, American Trotting Register. Mr. Graham reports numerous enquiries received in response to his advertisement in "The Farmer's Advocate."

A barn in Middlesex County, Ont., was lately destroyed by fire, which was started by an oil lantern exploding. As a knot of farmers were discussing the loss, and some of them were questioning in their own minds whether lanterns ever do explode, one man went on to say: "A lantern exploded with me one day, but, luckily, I was outside, so no harm was done." In response to questions, he said: "I was just carrying it, when it blew up." A real danger surely lurks here. What the cause of such explosions is, we leave our readers to enquire. In the meantime, it would be well to keep burners in good order.

The British Columbia Stock-breeders' Association have issued a pamphlet, containing rules and regulations for an auction sale of pure-bred stock, which is to be held at New Westminster, March 21st and 22nd, 1906. Prizes of \$15, \$10 and \$5 are offered to the seller of the two cattle of any one of the best breeds realizing the highest price of the sale, and the same prizes in the dairy breeds. To the seller of three swine of any one breed, prizes of \$10, \$6 and \$4 are offered, and the same prizes to the seller of three sheep, as in the swine section. Write F. M. Logan, Sec., Victoria, B. C., for particulars.

The four Ayrshire heifers shown in the cut on another page are good representatives of the herd of Senator Owens, consisting of eighty head of registered Ayrshires at his dairy farm at Montebello, P. Q. This herd is headed by that splendid Ayrshire bull, Not Likely 19740, first in his class at the Central Exhibition, at Ottawa, last fall. The females are all good, strong-constituted animals, showing grand dairy development, and have good records as milkers. There are a number of young bulls from one to two years old, bred from the above sire and dams, that are fit to head any Ayrshire herd, and will, no doubt, be heard from later, and are offered at commercial prices within the reach of any farmer who approves good stock.

### TRADE TOPIC.

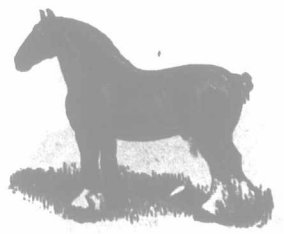
THE ANGLE LAMP.—Oculists report the number of people suffering from eye troubles is ever increasing. This is due, without doubt, in some measure to the use of the glaring artificial lights, such as are produced by gas, gasoline, acetylene, and electric lights. To those desiring a beautiful, soft, mellow light that rests the eyes, The Angle Lamp, advertised in the present issue, presents great attraction. It burns kerosene, and owing to the horizontal position of the wicks, the light is always the same in quality and brilliancy. There is no under shadow, no trace of odor, whether burned at full height or turned low, and there is a great saving in oil as compared with the ordinary kerosene lamp. The lamp is lighted and extinguished like gas, without removing the glassware, and as the lamp has perfect combustion, the glassware only needs to be cleaned three or four times a month. It is fed on the student-lamp principle, so that it can be filled with perfect safety, even when lighted. These lamps are manufactured with from one to six burners, and vary in price according to design and finish. They are used with the greatest satisfaction in churches, public halls, stores, banks, offices, etc., as well as in private houses. Faith that will offer a free trial of an article for 30 days must be pretty strongly founded. This, however, is the offer which The Bach Specialty Co., 355 1/2 Yonge St., Toronto, make, and if you will write them asking for a copy of their catalogue No. 20, mentioning "The Farmer's Advocate," they will send you an illustrated catalogue and full particulars.

## Dr. Page's English Spavin Cure.

For the cure of Spavins, Ringbone, Curbs, Splints, Windgalls, Capped Hock, Strains or Bruises, Thick Neck from Distemper, Ringworm on Cattle, and to remove all unnatural enlargements. This preparation (unlike others) acts by absorbing rather than blistering. This is the only preparation in the world guaranteed to kill a Ringbone or any Spavin, or money refunded, and will not kill the hair. Manufactured by Dr. Fredrick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: om

J. A. JOHNSTON & CO., Druggists, 171 King St. E., Toronto, Ont.

## Shire Horses



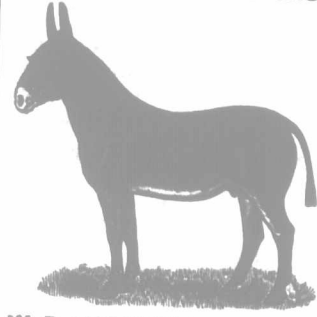
We breed the very best and soundest, which from birth are kept in their natural condition, neither forcing nor overfeeding for showing purposes. Canadian buyers visiting England are invited to call and see what we have.

No fancy prices, and all delivered free Liverpool landing stage. Correspondence invited. om

Station: Athorp Park, L. & N.-W. Ry.

JOHN CHAMBERS & SONS, Holdenby, Northampton, England

Shire, Percheron, Clyde, Belgian, Standard-bred and Coach Horses, also SPANISH-BRED JACKS, for Sale.



Specialty made of forming companies, if desired.

W. R. GRAHAM, Box 33, Kincardine, Ont

## CLYDESDALES

Imp. Stallions and Fillies.

The get of such notables as Baron's Pride, Prince Alexander, Monroffe's Marquis, The Dean, Montrave Mac and Battle Axe; they combine size and quality, their breeding is unsurpassed, and I will sell them cheap.

GEORGE STEWART, Howick, Que Long-distance Phone.

J. A. LATTIMER, box 16, Woodstock, Ont.

## Clydesdales and Shorthorns

Has now to offer some good young bulls, sired by Imp. Bapton Chancellor, Speak quick if in need of such, as they will soon go at the price asked.

## BOYS FOR FARM HELP

The managers of Dr. Barnardo's Homes invite applications from farmers, or others, for the boys who are arriving periodically from England to be placed in this country. The young immigrants are mostly between 12 and 13 years of age; all will have passed through a period of training in Dr. Barnardo's English Institutions, and will have been carefully selected with a view to their moral and physical suitability for Canadian life. Full particulars as to the terms and conditions upon which the boys are placed may be obtained upon application to Mr. Alfred B. Owen, Agent Dr. Barnardo's Homes, 214 Farley Ave., Toronto. o

## CLYDESDALES

Imported late stallions for sale. The choicest and best of the breed. Prices low for quality.

ALEX. MCGREGOR, Uxbridge, Ontario.

## For Sale Two choice imported Clydesdale Stallions

one 2,100 lbs. Both sure getters. W. A. Harey, Russell, Ontario

Two more blind horses—For Specific Moon Blindness and other sore eyes. W. A. Harey, Russell, Ontario, Iowa City, Iowa, have sure cure.

# Trumans' Champion Stud

Bushnell, Illinois.

## SHIRE, PERCHERON, BELGIAN AND HACKNEY STALLIONS

Read our record at the great International Show recently held in Chicago. We won the following prizes on Shire and Hackney stallions:

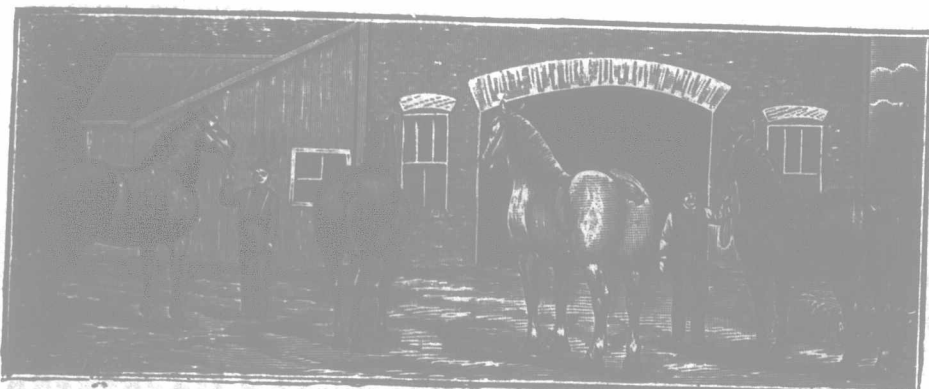
4-year-olds	-	-	1st, 3rd and 4th
3-year-olds	-	-	1st, 2nd, 3rd and 5th
2-year-olds	-	-	1st and 4th

### Also Champion and Reserve Champion Hackney Stallions

Our stallions were admired by all who saw them. Before buying a stallion of either breed, we respectfully ask that you write and let us know your wants. We can save you money. Our prices and liberal guarantee will astonish you. Our record in the show-rings is evidence that we keep nothing but the best. Our barns are full of prizewinners, and they are all for sale. We insure stallions against death from any cause, if desired.

Write for illustrated catalogue of our horses. Importations arrived, July, September and November.

**TRUMANS' PIONEER STUD FARM**  
H. W. TRUMAN, Manager, LONDON, ONT.



## 25 Percherons, also French Coachers, Hackney and Clyde Stallions

Have just arrived, Aug. 16, 1905, from Great Britain and France with our new importation of high-class stallions, many of them prizewinners in their native lands, bred by the best breeders. The Percherons are large blocky fellows, 3 to 5 years old, descendants of such noted champions as Brilliant, Besique and Romulus. Blacks and dark dapple greys, weighing from 1,600 to 2,100 lbs., with the right kind of legs and feet, and can go like trotters. We personally selected every horse ourselves, using extraordinary caution to select nothing but good sound serviceable horses that will do our customers and the country good. The French Coachers, Hackneys and Clydes are also of the best breeding, some of them prizewinners in England, Ireland and Paris. We will sell you a better stallion for less money than any other importers in America, with a guarantee as good as gold. Intending purchasers should visit our stables before buying elsewhere. Inspect our stock and get our prices. Terms made to suit purchasers.

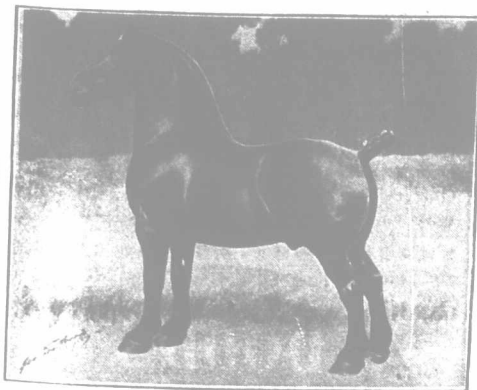
Hamilton & Hawthorne, Simcoe, Ont. 83 miles S.W. of Toronto, on G.T.R. & Wabash

## WHEN BUYING HACKNEY AND SHIRE STALLIONS BUY DIRECT



From a well-known breeder and save the middleman's commission. A select lot of newly-imported prize-winning Hackney and Shire stallions and pedigreed colts from Clement Keevil's world-renowned Blagdon Shire Horse Stud, Billington, Beds, Eng., will be found at Crampton, Ont. These horses are of the best blood that has reached this country, being sired by such noted champions as Prince William, Lincolnshire Lad, Harold, Harleston Royal Harold, Premier, Bushcot Harold, Royal Albert, etc. Horses from this stud have won champion and premier prizes at the principal shows of England, America and Germany. Now is the time to pay us a visit and select your sires for the coming season. Our stallions are sound, and are sure stock-getters. Shires from 1,800 to 2,000 lbs. in weight. Come and see them.

**R. KEEVIL, Crampton, Ontario.** Two miles from Putnam, C. P. R.



## LaFayette Stock Farm

J. Crouch & Son, Proprietors.

Largest importers in America of Oldenburg German Coach, Percheron and Belgian stallions. Have imported over 400 in the last eighteen months. Won more prizes in 1904 and 1905 than all others combined. Our prices are right, and guarantee gilt-edged, and terms to suit buyers. Our Belgians and Percherons weigh from 1,900 to 2,350 pounds. All from three to five years old. The German Coach horses are the leading coach-horses of the world.

**J. Crouch & Son, LaFayette, Ind.**

Sedalia, Mo. Nashville, Tenn.  
San Jose, Cal. Portland, Ore.

Write us at London, Ont., or LaFayette, Ind.



## INNIS & PROUSE

New importation of CLYDESDALE STALLIONS represent such noted blood as: Baron's Pride, Hiawatha, Sir Everard, Up-to-time, Pride of Blacon, The Dean, Prince Fauntleroy and Lord Stewart. They were selected with great care; combine size and quality. They are an A1 lot. 21 head to choose from.

**INNIS & PROUSE,**  
Woodstock and Ingersoll.

### GOSSIP.

Mr. Christian Rassmann, of Stratford, Ontario, has lately purchased from J. Crouch & Son, of the LaFayette Stock Farm, LaFayette, Indiana, the four-year-old bay Belgian stallion, Galopen. This fine horse is one of the best ever brought over from Belgium, and is a horse of great style, quality and action, a model to look at, and weighs 2,100 pounds. Price paid was \$3,000.

### FLETCHER'S DISPERSION SALE.

The auction sale of the entire stock of Shire and Coach horses, Holstein cattle and Yorkshire pigs, property of Mr. Joseph Fletcher, Oxford Mills, Ont., advertised to take place at his farm, near Kemptville Junction (C. P. R.), on March 6th, includes an imported Shire stallion, rising four, 16 hands 3 inches, 1,750 lbs., smooth, flat bone, the best of feet and long, silky feather, imported in 1904. The Shire mares are rising five, weigh about 1,600 lbs. each, with good bone and feet, and best of action. The Cleveland Bay stallion stands 16.2 hands, weighs 1,500 lbs., has a grand top, with best of legs and feet, is a good actor, and sure foal-getter; took fourth prize in Toronto in 1905. The cattle will include Feany, milk record 103 lbs. 11 ozs. in one day, her five daughters and two granddaughters with records of from 40 lbs. at two years old to 75 lbs. at five years old; Rhoda, milk record 72 lbs. in a day, and her five daughters; Kitty Marlin 3rd, milk record 1,867 lbs. in thirty days in April. The young things are sired by Sir Wilfrid De Kol 2118, he sired by Homestead De Kol Belle Boy 1298, dam Pietertje Josephine Abbekirk 2196, first prize at Pan-American. All the cows and heifers are supposed to be in calf to the imported bull, Sir Admiral Ormsby, A. H. B. 36568, by Duchess of Ormsby's Butter King 80190, dam Alta 3rd, record over 80 lbs. of milk in a day, when four years old.

During the period from Jan. 16 to Feb. 7, 1906, records of 82 Holstein-Friesian cows have been accepted by the Holstein-Friesian Association of America. This herd of 82 animals of all ages produced in 7 consecutive days, during the fifth week from calving, 32,840.4 lbs. milk, containing 1,095.867 lbs. butter-fat; thus showing an average of 3.34 per cent. fat. The average for each animal is 400.5 lbs. milk, containing 13.864 lbs. fat; equivalent to 37 quarts of 18 per cent. cream or 15.6 lbs. of best creamery butter. The daily average is 87.2 lbs. milk; equivalent to 26 quarts or 2 1/2 lbs. best butter.

As the dual-purpose problem is held by most authorities as impossible of solution, they have taught that we must specialize for both milk and beef production, using the dairy breeds for the one, and the beef breeds for the other; and some, either from taking a superficial view or because of interest in some special breed, have taught that the farmer dairyman must still further specialize among the dairy breeds, using that breed which is specially adapted to his needs.

The Holstein-Friesian breed is an all-round dairy breed, and the owner is never at a loss to dispose of its products. The special point of interest in this issue is the remarkable record of the cow Changeling; 23,383 lbs. fat from 668.9 lbs. milk, in seven days, and 45,268 lbs. fat from 1,333.5 lbs. milk in fourteen days. For forty-eight hours, while under test, this cow was constantly watched night and day by special supervisors, during which time she did not vary 3 per cent. from average. Her best day's milk was 99.1 lbs., containing 3,399 lbs. fat; and her best day's fat was 3,469 lbs. from 97.6 lbs. milk. Her best milking was 38.3 lbs.; which shows that she should have been milked four times per day, instead of three times. This cow, yielding so finely, is simply one cow in the herd supplying with milk the Northern Michigan Asylum for the Insane. She had no specially-prepared stall at the country place of some wealthy man, but, like the everyday working cow that she is, stood in her usual place in the line attending strictly to business. With a daily average of nearly 47 quarts of milk, averaging 3.52 per cent. fat, for a cow at a public institution, is it any wonder that the charitable institutions in many of the States are turning to the H-F. cow to solve the milk problem?

### THICK, SWOLLEN GLANDS

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

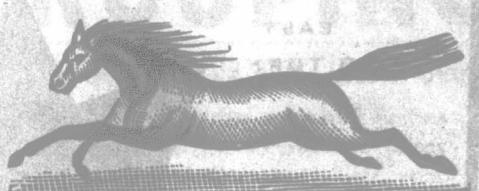
## ABSORBINE

or any Bunch or Swelling caused by strain or inflammation. No blister. No hair gone and horse kept at work. \$2.00 per bottle, delivered. Book \$2 free. ABSORBINE, for man, horse, dog, cat, etc. Cures Colic, Tumors, Varicose Veins, Etc. Book free. Made only by W. F. Young, P. O. Box 79, Monmouth St., Springfield, Mass. Canadian Agents, Lyman, Sons & Co., Montreal.



## The Repository

BURNS & SHEPPARD, Props.



Cor. Simcoe and Nelson Sts., Toronto

Auction Sales of

Horses, Carriages, Buggies, Harness, etc., every Tuesday and Friday, at 11 o'clock.

Special Sales of Thoroughbred Stock conducted

Consignments solicited. Correspondence will receive prompt attention.

This is the best market in Canada for either buyer or seller. Nearly two hundred horses sold each week.

## Hackney Stallion

Ridgewood Danegelt -160-, rising four years, first at Western Fair, London, 1904 and 1905, sire Langton's Danegelt, dam by Barthes Performer (imp.).

## Shire Stallion

Desford Marquis (imp.), first at Western Fair, 1904 and 1905, a proved sire of quick-selling stock at highest prices.

These will be sold well worth the money, as the owner, Mr. E. C. Attrill, is giving up farming. For prices, apply to

**Mr. Chas. Garrow, Agent,** Goderich, Ont.

## NEW IMPORTATION

I have landed one of the best importations of

**CLYDESDALES, SHIRES**

and

**HACKNEY STALLIONS,**

males and fillies ever landed in America. They are got by such sires as Baron's Pride, Everlasting, Up-to-Time, Mast-cellus, Pride of Blacon and others, Scotland's greatest sires. Mares and fillies all bred in Scotland to the best

sires obtainable. Have size and quantity, and I am offering these at just one half less than other importers are asking for theirs. For full particulars write

**DUGALD ROSS, Streetsville, Ontario.**

## For Sale: Three High-class Stallions

The World's Fair premium Coach stallion, Prince Arthur, and the gold and silver medalist and sweetest imported Hackney stallion, Kilwick Fireway. Both warranted sure and sound. Also the young Carriage stallion, Performer, rising three years old, and winner of second prize at the National Exhibition at Toronto in 1905. Owing to ill health, these horses will be sold at reasonable prices. If you want a moneymaker, come and see them or apply to

**Joseph Manarey,** Markdale, Ont.

## FOR SALE!

The Pure-bred Clydesdale Stallion,

**Dundonald (4854)**

Foaled May 28, 1903. Color, bay; face and hind feet white. Splendid style and action. Price reasonable.

**S. G. Carlyle, Chesterville, Ont.**

My motto: "The Best is None too Good." Imported and home-bred Clydesdale and Shire Horses, Scotch Shorthorn Cattle, Leicester Sheep.

A choice lot of reg. fillies and Shorthorn calves to choose from. Our stock exhibited have won the highest honors at the largest shows in America.

**WESTON P.O., C.P.R. and G.T.R. 10 miles west Toronto.** Telephone at house and farm.

**J. M. GARDEHOUSE.**

For Sale: Clydesdale Stallion, Seafield Pure-bred Clydesdale, Sentinel, No. 11524, Vol. XXIV., foaled July 1, 1898. Come and see, or write.

**ROBERT ANDERSON,** 5 miles from Ingersoll Sta. Salford P.O., Ont.



# DON'T WAIT!

BUY ONE OF THE CELEBRATED

## Uneeda Cream Separators

NOW AND BE PREPARED FOR THE SPRING TRADE

EASY  
TO WASH

EASY  
TO TURN

EASY  
PAYMENTS

AUTOMATIC  
OILER

HANDSOME IN  
APPEARANCE

MADE IN  
CANADA

MADE BY  
CANADIANS

**A GUARANTEED MACHINE**

### The National Mfg. Co., Ltd.

Head Office and Factories: **PEMBROKE, ONT.**      Western Branch: **151 Bannatyne Ave. East, WINNIPEG, MAN.**

DISTRIBUTING CENTRES:

London, Ont.  
Calgary, N.-W. T.

Sherbrooke, Que.  
New Westminster, B. C.

St. John, N. B.

**QUESTIONS AND ANSWERS.**  
Miscellaneous.

**DUCKS DYING**

Last year I had a lot of young ducks, they did well for a time, and then something went wrong with them. They would start and run and fall over on their backs, and kick as if they were going to die. I would put them in water, and they would revive; but after a short time would die. Can you tell me what was wrong, and what is the best food for them? Mine ate well all the time.

**SUBSCRIBER.**

Ans.—In all probability these ducks lacked shade or grit, perhaps both. A duck requires, to be well grown, a mash composed of about equal parts of bran, shorts and corn meal. This mash would require to be wet with skim milk, or else have added to it 10 to 15 per cent. of animal meal; in addition to the above, to every peck of food there should be used one pint of grit. It becomes necessary often to feed the grit in the mash, as they frequently will not take it of their own accord. If a duck is allowed to run in the hot sun with no protection in the way of shade, they sometimes become affected with the heat of the sun and will topple over backwards. A duck requires water to drink at each time it is fed; shade, exercise, green feed and grit in addition to the ordinary meals. They are very easily grown, and are seldom troubled with any sickness.

**W. R. GRAHAM.**

**DISAPPOINTED PURCHASER.**

A bought 10 steers and heifers at B's sale. Clerk did not mention steers or heifers after A's name, simply A, \$50; A, \$64, and so on. Cattle sold in pairs. It was night when sale closed. A signed note, but too dark to see to get cattle. Agreed with other man, who bought young cattle, one and two years old, same as A, to leave cattle till morning, so every man could tell his own. A could only find 9. B said cattle could be left till next day. Now, B does not seem to know anything about the last animal, simply stating that they must have sold one alone. A did not keep account of the kind of cattle, whether they were steers or heifers. A paid note, and wanted \$5 back, which B refused.

1. Is a clerk of sale supposed to name the article as well as the price of the article at a sale? A has witness to prove that the cattle were sold in pairs.

2. Can A do anything, or what steps should he take in the case? A is not desirous of trouble.

**CONSTANT READER.**

Laurier, Ont.  
Ans.—1. Yes; that is to say, he should in some way provide for the convenient identification of the thing sold.

2. We do not see that he is in a position to act effectively in the matter, as, apparently, he is not able to trace the missing animal.

**CORN BRAN VS WHEAT BRAN.**

1. How does corn bran compare with wheat bran as a feed?

2. Calves receive timothy and red top. Would you feed wheat bran rather than corn bran?

3. Corn bran would seem to cause dryness of hair. Is this the result you would look for?

Ans.—1. Corn bran has not a particularly high feeding value. In analysis, Henry, in "Feeds and Feeding," thus compares it with wheat bran:

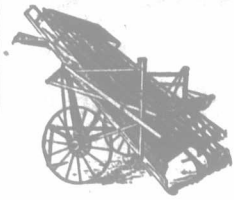
	Carbo- hydrates.	Ether. extract.
Corn bran...	7.4	59.8
Wheat bran...	12.2	39.2

From the above it will be seen that corn bran, though richer than wheat bran in carbohydrates and fat, contains little more than half as much protein, which is the bone and muscle-builder, and which is usually deficient in farm roughage, excepting clover, alfalfa, and a few minor fodders. On the whole, wheat bran should be counted the more valuable feed.

2. Wheat bran is very much preferable to corn bran for calves getting timothy and red top.

3. We do not think the dryness of the hair can be ascribed to any specific action of the corn bran, but is rather due to a lack of protein in the ration. Substitution of wheat for corn bran, or the addition of a little oil meal to the ration, would supply the deficiency, making the animals more thrifty and improving their handling qualities.

**THE DAIN HAY LOADER**



The machine that does the good work.

Loads out of the swath or winrow.

No weight to lift in attaching to the wagon.

Pushes the hay forward on the wagon.

The one-man machine.

Send for circular.

**THE DAIN MFG. CO.,**  
Preston, Ontario.

For **ABERDEEN-ANGUS CATTLE** or a two-year-old **GLYDESDALE STALLION**, write

**JAMES BOWMAN**, Elm Park, Guelph, Ontario.

**TWEEDHILL ABERDEEN-ANGUS**

Some good bulls for sale from ten to twenty-one months.

**JAMES SHARP, ROCKSIDE, ONTARIO.**  
Cheltenham stations, G. T. R. and C. P. R.

We are offering **Durham Bulls**, roan and red, three yearling **Royal Sailor** bulls, sired by imported and Royal Sailor bulls. Cheap for quick sale. A limited number of **Shropshire ewes**, bred to our Chicago winner, **Proific (imp.)**, bred to **W. R. BOWMAN, Mt. Forest, Ont.**



**ROCK SALT** for horses and cattle, in ton and car lots. **Toronto Salt Works, Toronto**

**Broxwood Herefords**

Young bulls for sale from 6 to 18 months old, all from imported sire and dams, prizewinning stock at Royal and leading English shows.

**R. J. Penhall, Nover P. O., Ont.**  
**HEREFORD CATTLE**  
FOR SALE.

A number of nice young bulls, from 6 to 24 months old, low-down, beefy fellows. At rock-bottom prices.

**W. BENNETT,**

Box 428, Chatham, Ont.

**THE SUNNYSIDE HEREFORDS**

Twelve high-class bull calves and 4 yearling and 2-year-old bull, we will place at a price that will move them quick. Some choice cows and heifers are yet left for sale. Address: **A. F. O'NEIL, Maple Grove P.O., or M. H. O'NEIL, Southgate P.O., Alderton Sta., L. H. & B.; Lucan Sta., G. T.**

**Aberdeen-Angus** cattle and **Chester White Hogs**. Principal prizewinners at Ottawa and Sherbrooke. Breeding stock and young things for sale. Write for prices.

**A. G. SPAFFORD, Compton, Que.**

**HEREFORDS**—We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If you want of something extra good, correspond with us. We can please you.

**J. A. LOVERING, Coldwater P.O. and Sta.,**

**Holyrood Production 70786**, is offered at the small fee of \$5 to a limited number of approved bitches for a short time. Send for stud card, free. **R. E. CLARK, West Lorne, Ont.**

Perfection consists not in doing extraordinary things, but in doing ordinary things extraordinarily well. If Christian charity be in your heart your whole life may be a continual exercise of it.

**DODD'S KIDNEY PILLS**

CURES RHEUMATISM BRIGHT'S DISEASE DIABETES BACKACHE

CORALL KIDNEY DISEASES

## SHORTHORNS

3 imported bulls of gilt-edged breeding and of the finest quality.

3 bulls from imported sires and dams; thick, sappy, good feeders, from my best cows.

4 bulls from imported sires and from straight Scotch cows of the best breeding.

4 imported cows with calves at foot, nearly due, on which I am making an interesting proposition.

6 cows and heifers, bred here from straight Scotch parents, a grand lot.

No man has ever been in such form in Canada to offer such **Shorthorns** as the above at such a moderate price. Ask for catalogue and prices, they say a lot, but the cattle will speak for themselves if you come and see them.

Am taking orders now for **SHOW or BREEDING SHEEP** of the following breeds: Shropshires, Oxfords, Cotswolds, Southdowns, Dorsets or Hampshire, to be imported in time for the coming show season.

Telephone, telegraph, post office and railway address:

**ROBERT MILLER,**      **Stouffville, Ontario.**

## DISPERSION SALE

OF

### IMPORTED HORSES, REGISTERED HOLSTEIN CATTLE and YORKSHIRE PIGS.

**JOSEPH FLETCHER, of Kemptville Junction Sta. (C.P.R.), Oxford Mills P.O., Ont., will offer for sale by public auction on**

**TUESDAY, MARCH 6th, 1906,**

His entire herd of 50 head of registered Holstein cattle, imported Shire and Coach horses, work horses, colts and pigs. Also his dairy utensils and 300-acre farm. Reserve bid on farm. **Terms of sale:** On imported horses half cash, remainder same as cattle; six months' credit on approved joint notes at 4%, or 5% per annum off for cash. **Sale commences at 12 o'clock.**

**THOS. IRVING, Auctioneer.**      **JOSEPH FLETCHER, Prop., Oxford Mills, Ont.**

## Joseph Rodgers & Sons

Limited,  
SHEFFIELD, ENGLAND.

Please see that this EXACT MARK is on each blade.

**James Hutton & Co., Montreal, SOLE AGENTS IN CANADA.**



## Our Daisy Rubbers



This Trade Mark on a pair of rubbers is an absolute guarantee that they

**Possess the good old time wearing quality**

**Will hold their bright, clean appearance to the end**

**Cost no more than ordinary rubbers**

601 See that this Trade Mark is on the rubbers you buy

## Sparamotor for WHITEWASHING or PAINTING

Two men with a Sparamotor and a ladder will paint the largest barn in half a day. It will apply any kind of paint or white-wash and spreads evenly and thoroughly. It is a strictly high grade, high pressure machine, and will save its cost in the first operation. Made in four styles and 36 sizes, at from \$10 to \$300. Sparamotor, as shown, with cash complete ready to operate, \$22. Shipped on approval to responsible parties. Gold Medal at the Worlds Fair and highest awards everywhere. Awarded first place at Government Spraying Contest. Send for booklet C.

**SPARAMOTOR CO.,**  
BUFFALO, N. Y. LONDON, ENGL.



## DON'T WASTE CREAM

U. S. Cream Separator is biggest money maker—gets more cream than any other. Holds **WORLD'S RECORD** for clean skimming. Cream represents cash—you waste cream every day if you are not using a

### U.S. Cream Separator.

Has only 2 parts inside bowl—easily and quickly washed. Low supply tank—easy to pour milk into—see picture. All working parts enclosed, keeping out dirt and protecting the operator. Many other *exclusive* advantages fully described in large free catalogue—write for copy now. A. dress.

**VERMONT FARM MACHINE CO., BELLOWS FALLS, VT.**  
Eighteen centrally located distributing warehouses throughout the United States and Canada



## Valley Farm Shorthorns

**WM. HENDRIE, Hamilton, Ont.**

For sale, at reasonable prices, four yearling bulls, four yearling heifers, and cows in calf and with calves at foot. This stock by our imported bull, Magstrand. This stock, strong-boned, hardy constitution, and have just lately been taken up from pasture field.

Fifty fall-farrowed **Large Yorkshires**, three months, young sows. Your choice, three for \$15.00. Above stock reasonable in price to an early purchaser.

**WM. HENDRIE, JR.,** Manager, Hamilton. **A. SUMMERS,** Supt., Aldershot P.O.

## SASKATCHEWAN FARM LANDS

Have you heard of Regina lands, the virgin soil, the hard red wheat, the home comforts of this splendid district? Write for particulars.

**CLARK & SEBALT, REGINA, SASK.**

### QUESTIONS AND ANSWERS. Miscellaneous.

#### CUBIC CAPACITY OF A BARREL OF CEMENT.

What is the cubic capacity of a barrel of cement? READER.

Ans.—Our cement barrel contains just 4 cubic feet. That is just about the size of all cement barrels. Queenston cement is not so dense as Portland, and does not weigh so much, but our barrels are the same size. ISAAC USHER.

#### ROOTS FOR HOGS—AGE OF BOAR FOR SERVICE

1. What size of building would it take to keep 50 or 60 pigs over winter, and what is best way to lay it out? Please give a plan of it.
2. What quantity of roots per pig for September pigs would it take to winter a pig for say 200 days?
3. What quantity of grain should be fed along with the roots, say mangels?
4. How old, or how long, should a hog be kept for service?

A SUBSCRIBER.

Ans.—1. We shall publish next week a plan of hog-pen from which you, and the many others who have asked for plans, may get hints.

2 and 3. It has, by experiments in hog feeding, conducted both in this country and in Denmark, been found that six or seven pounds of roots equal in feeding value one pound of grain. During the fattening period, equal weights of grain and roots may be fed with advantage, while in the growing stage one-third the weight of grain to roots will answer. Twenty-five bushels of roots per pig would be sufficient for the winter.

4. Some boars will be useful until five or six years of age, or even older.

#### LIGHTNING RODS.

During the past summer a large number of barns and other buildings in this district were struck by lightning, and nearly all burned to the ground, consequently many farmers are having lightning rods put on. We would like to know if they are really a protection or not? It is an important question, and we would like to see it discussed.

Bruce Co. R. H. R.

Ans.—That buildings equipped with lightning rods are occasionally struck and destroyed by lightning cannot be denied; but that the danger is very much greater when buildings are unprotected is beyond question. This subject has been discussed at various times in "The Farmer's Advocate," and we have advised farmers putting up their own rods, making them out of number nine wire, nine strands twisted together. Such a rod is very inexpensive, anybody can make it, and it is more effective than most lightning rods sold at high prices by agents. We quote an opinion of J. Howard Hunter, Inspector of Insurance for Ontario, on such homemade lightning rods, which appeared in our columns years ago: "If our farmers would thus rod their buildings, the present deplorable and wholly unnecessary destruction of farm property will soon be at an end."

#### DISTINGUISH GOOSE FROM GANDER.

How can you distinguish a goose from a gander? We have bought, as we thought, a pair, but as last year we kept two ganders all summer without knowing it, we would like to know how to distinguish them?

A SUBSCRIBER.

Ans.—Until geese are about full-grown, the sexes can scarcely be distinguished; after that time, differences can be noticed in three respects:

- 1st. In form. The goose is rounder-bodied and plumper-looking than the gander. The gander not only seems the longer-bodied of the two, but his head and bill are larger.
- 2nd. In voice. The gander's call is shriller (he screams more), and is generally, though not always, set on a higher pitch.
- 3rd. In carriage. This is probably the most readily-noticed distinction of the three. When going about, the point of the gander's bill is slightly elevated, he appears to be looking rather upward than on the level. The bill of the goose, on the other hand, points slightly downward, she seems more demure, and, in general, is not so fussy and aggressive. The above relative distinctions apply, of course, to individuals of the same breed.

## LIVER COMPLAINT.

The liver is the largest gland in the body; its office is to take from the blood the properties which form bile. When the liver is torpid and inflamed it cannot furnish bile to the bowels, causing them to become bound and costive. The symptoms are a feeling of fullness or weight in the right side, and shooting pains in the same region, pains between the shoulders, yellowness of the skin and eyes, bowels irregular, coated tongue, bad taste in the morning, etc.

## MILBURN'S LAXA-LIVER PILLS

are pleasant and easy to take, do not gripe, weaken or sicken, never fail in their effects, and are by far the safest and quickest remedy for all diseases or disorders of the liver.

Price 25 cents, or 5 bottles for \$1.00, all dealers or mailed direct on receipt of price by The T. Milburn Co., Limited, Toronto, Ont.

## 6 Shorthorn Bulls 6

One two-year-old from imported Mayflower cow, and by an imported Archer bull. Also **BERKSHIRES**, 4 to 5 months old, bred from large show stock and prolific strains.

**S. J. PEARSON, SON & CO.,**  
Meadowvale, Ont.  
Stations: Streetsville and Meadowvale, C. P. R.

## BELMAR PARO SHORTHORNS

Bulls in service: Merryman, imp. (77968) -39075-; Pride of Windsor, imp. (Vol. 50)-50071-; Nonpareil Archer, imp. (61778)-45202-. Our females have been carefully selected and are of the best Scotch breeding, many of them imported. Address correspondence to

**PETER WHITE, Jr., Pembroke, Ont.**

## PLEASANT VALLEY SHORTHORNS

Herd headed by imp. Old Lancaster =50068-. Grand champion, Toronto, 1905, and consisting of females of the leading Scotch families; can spare a few young cows bred to imp. Old Lancaster.

**GEO. AMOS & SON, Moffat Stn. and P.O., C.P.R.**

## Glen Gow Shorthorns

Our present offering is 9 bulls, from 6 to 14 months of age, sired by Imp. Ben Loman 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 telephone. **WM. SMITH, Columbus, P.O.** Brooklin and Myrtle Stns.

## OAK GROVE SHORTHORNS

Several imp. females, several heifers and several young bulls, all sired by Imp. Nonpareil Duke and out of imp. dams; also the stock bull, Imp. Nonpareil Duke, a choice offering. Prices right.

**W. J. ISAAC, Cobourg Sta., Harwood P. O., C. Northumberland.**

## SCOTCH-TOPPED SHORTHORNS.

Three young bulls, from nine to thirteen months old; also several young heifers by Scottish Baron (Imp.) for sale. Prices reasonable.

**H. GOLDING & SONS, Thamesford, Ont.**  
Stations, Thamesford, C.P.R.; Ingersoll, G.T.R.

## SPRING VALLEY SHORTHORNS.

Imp. Bapton Chancellor =40350- (78286) heads the herd. We have for sale a choice lot of young bulls of the very best breeding and prices right. Inspection and correspondence invited.

Address: **KYLE BROS., Ayr, C.P.R.; Paris, G.T.R.**

## Shorthorns For Sale

Two choice red yearling bulls, from imported sire and dams; also females of all ages. Scotland's Fame (imp.) at head of herd.

**ALEX. BURNS, Rockwood P. O. and Station, G.T.R.**

## MAPLE HILL SCOTCH SHORTHORNS

of best families. Herd headed by the grandly bred Lavender bull, Wanderer's Star =48565-. A few choice young bulls.

**Box 426. WM. R. ELLIOTT & SONS, Guelph, Ont.**

## BONNIE BURN STOCK FARM

Offers Scotch and Scotch-topped bulls, cows and heifers, 50 Shropshire rams and ewes, and Berkshire pigs, from imp. dams and sires, not skin. A bargain for quick sale.

**D. H. RUSSELL, Stouffville, Ont.**

## Willow Bank Stock Farm | Established 1856

Shorthorn Cattle, Leicester Sheep.

Imp. Rosierneian of Dalmeny =45220- at head of herd. Choice young stock for sale.

**JAMES DOUGLAS, Caledonia, Ont.**

## SHORTHORNS AND DORSETS.

3 bulls, seven to nine months old; also a few ewe lambs and ewes in lamb for sale. Prices reasonable.

**R. H. HARDING, Madleyview Farm, Thorndale, Ont.**



## On the Fence

Any Dairyman who is—on the Separator question—should be sure to climb down on the right side.

### CHEAPNESS

and inferiority is boggy ground, and you find it out when you put your foot in it. Paint and promises are catchy things, but don't skim milk.

### De LAVAL

superiority insures complete satisfaction and the difference in cost is earned for you hundreds of times during the lifetime of the DeLAVAL. It does the business.

CATALOG FREE

It is better to chuckle with satisfaction than to cuss with remorse.

The DeLaval Separator Co.  
Winnipeg 77 York St., Toronto Montreal

## THINGS WORTH KNOWING

If you are going to buy  
A MANURE SPREADER

NO machine within his reach is capable of doing so much for the farmer as the modern manure spreader.

But then it must be a machine with features—features of economy and efficiency.

The I. H. C. Manure Spreader has such features. Any man of experience knows that a spreader only works perfectly when the load is level.

The I. H. C. Spreader is the only spreader with a vibrating rake in front of the beater or cylinder which levels every load and any load of manure.

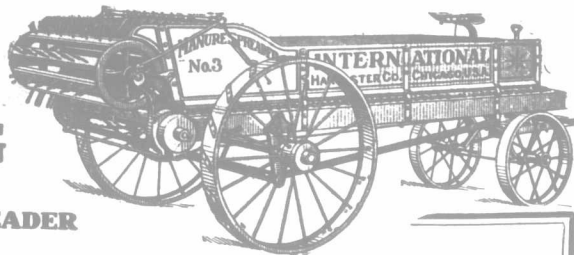
Any man knows that the apron operates better when power is applied at both sides.

The I. H. C. spreader apron is driven at both sides from both hind wheels.

This saves all torsion, binding, friction and undue strain, and consequently saves breakages and results in lighter draft.

One lever is better than many levers in operating any machine.

The I. H. C. spreader is the only spreader which is controlled and operated entirely with one lever.



It has ten different feeds—can be adjusted instantly while in motion to spread three to thirty loads per acre.

Large, solid, steel axles front and rear—front wheels cut under—turns very short.

Steel wheels—no rotting or drying out. Broad faced tires with turned in flange to keep out dirt, mud, etc. Lightest and strongest.

Provided with traction lugs on rear wheels—will work perfectly on hard, frozen or wet ground.

Made in various sizes to suit all requirements.

The I. H. C. spreader will distribute perfectly manure of all kinds—wet, dry, mixed, stawy, full of stalks, frozen, caked, etc.

It may be equipped with special features known as lime and drill attachments for distributing broadcast, or in drills, fine manure, commercial fertilizers, lime, ashes, salt, cotton seed hulls, land plasters, etc.

Remember what we have told you—it is the manure spreader with special features which all make for success.

Call on the International Agent for information or write nearest branch house for catalog.

CANADIAN BRANCHES: Calgary, London, Montreal, Ottawa, Regina, St. John, Toronto, Winnipeg.  
INTERNATIONAL HARVESTER COMPANY OF AMERICA, CHICAGO, U. S. A.  
(INCORPORATED)

## IDEAL Woven Wire FENCE

Best Hog Fence Made.

HERE ARE SOME OF THE REASONS:

It is eight wires high and every one of these wires is No. 9, hard steel. It is strong enough and close enough and high enough to turn any hog that lives. You know No. 9 is pretty near the heaviest wire ever used in fencing. Most manufacturers cannot use it at all. Their machines won't weave it. Ideal fence is all made of No. 9 wire. It has no small upright wires to weaken it. If you have had experience with fence, you know what this means. Wire all heavily galvanized and cannot rust. Locked at every crossing so firmly that it cannot be rooted or pulled or twisted out of place. It will fit perfectly all level or hilly ground. The wires are spaced from 3 to 7 inches apart, fencing in the little ones as well as the big ones. You can have the same style fence a couple wires higher, making the best all-purpose fence made. While you are buying fence, why not buy for good? Why not buy a good, heavy, permanent fence like the Ideal, and end your fence trouble? We would like to tell you more about this Ideal fence. We have prepared a little book to send out. It shows a style for every purpose. If you are interested in fencing, it will pay you to get it. Write for it to-day.

**THE MCGREGOR-BANWELL FENCE CO., Limited,**  
Dept. B, WALKERVILLE, ONTARIO.

### QUESTIONS AND ANSWERS. Veterinary.

#### YOUNG MARE NOT THRIVING.

Five-year-old mare is not thriving. She will not eat sufficient hay or grain.

J. S. E.

Ans.—It is probable her teeth require dressing. Have your veterinarian attend to this, and then give her one dram each of sulphate of iron and gentian three times daily to improve both appetite and digestion.

#### PIGS HAVE WORMS.

Pigs about two months old have worms about eight inches long and as thick as a wheat straw.

W. A.

Ans.—After starving for twelve hours, give each three drams of turpentine in six ounces of sweet milk. Repeat treatment in ten days, and again, if necessary.

#### UNTHRIFTY MARE.

Mare, eighteen years old, is not doing well. I had her teeth dressed, and she eats well, but she does not digest her food properly. She voids a good deal of gas, and the feces are soft.

A. D.

Ans.—In some cases the digestive organs of old horses are very hard to regulate. Take three ounces each of sulphate of iron, gentian, ginger, nux vomica and bicarbonate of soda. Mix, and make into twenty-four powders. Give a powder night and morning. Repeat the prescription as often as necessary.

#### UNTHRIFTY CALF.

I turned my calves on alsike clover last fall. In a few days one began to slaver and shiver. I put it in the stable. Its appetite has been good, but it has not done well. The manger is usually covered with a greenish froth, with a foul odor.

J. L.

Ans.—The calf has chronic indigestion, probably caused by the alsike clover. Purge with eight ounces Epsom salt. Follow up with half a dram each of gentian and nux vomica three times daily, and add to the drinking water about one-sixth of its volume of lime water. Feed a little at a time, and often.

#### COW PRODUCED GANGRENOUS CALF.

1. I bred cow Dec. 17th, 1904. She produced a rotten calf on Feb. 15th, 1906, just fourteen months after service. Is there danger of other cows becoming infected? How shall I treat her? I would like to breed her again.

2. I have another cow, which was bred about the same time, and while she has not showed oestrus since, I do not think she is in calf, unless she is in the same condition as No. 1.

3. Do you recommend the use of "Barren Cow Cure," advertised in "The Farmer's Advocate"?

J. B.

Ans.—1. This is not abortion. The abnormal length of gestation was due to the calf dying in the womb, probably the result of some accident or injury of which you were not aware. Cases of this kind are not uncommon. There is little danger of infection, at the same time it is wise to observe precautions, and not allow the discharge from this cow's vulva to gain admission to the genital organs of others. Flush her womb out every third day, until the opening into it closes so that the nozzle of syringe will not enter easily, with about a gallon of a two-per-cent. solution of Zenoleum heated to 100 degrees, Fahr. This can be introduced into the womb with a veterinarian's injection pump or a large syringe with a long nozzle; the first mentioned instrument, the best. Give her, internally, 40 drops carbolic acid, mixed with a pint of water, and sprinkled on her food twice daily until all discharge ceases. Disinfect the stable by giving a thorough coat of hot lime wash, with five-per-cent. carbolic acid or Zenoleum. You may breed her the first period after all discharge has ceased.

2. It is not probable, at the same time it is possible this cow is the same as No. 1. If she shows signs of parturition, send for your veterinarian at once and he will deliver her. It is probable the periods of oestrus will return when the weather becomes warmer.

3. I have not used this preparation, but it may be worthy of a trial.

### A Feeder's Opinion.

Last winter I fed 18 steers. I had previously used Herbageum, and was satisfied that there was good profit in its regular use. However, in order that there should be no possible doubt about the matter, I fed 17 of the steers Herbageum in addition to their regular food, and to the one remaining steer, which was a good one, I gave exactly the same food without the addition of Herbageum.

The 17 steers gained rapidly, and at the end of two months' feeding were greatly in advance of the one steer that had been getting no Herbageum. I then began giving him Herbageum also, and in short time his improvement became as rapid as the others.

My experience shows me that when stall cattle get Herbageum, there is never any trouble from indigestion, or waste of food through lack of assimilation.

(Signed) JOHN GIBBS.

Fordyce, Dec. 15th.

### A Dealer's Opinion.

D. Macgregor, dealer in dry goods, boots and shoes, flour and feed, groceries, crockery, full line of furniture, undertaking, etc.

Morewood, Ont., Jan. 26th, 1906.

Messrs. Beaver Mfg. Co., Galt, Ont.: Gentlemen,—I am sending you herewith a further order for Herbageum. It is now some eight years that I have been selling it, and although during that time I have handled different Stock Foods, I have yet failed to find anything that holds the confidence of my customers so continuously as Herbageum. My experience in this regard convinces me that amongst all the Stock Foods now on the market, nothing equals Herbageum. It is a staple article.

Yours truly,  
(Signed) D. MACGREGOR.



## ARTHUR JOHNSTON

Greenwood, Ont.

Offers for sale, at moderate prices, 12 high-class yearling bulls, all sired by imported bulls, and most of them from imported dams. Also imported and home-bred cows and heifers of all ages.

## SCOTCH SHORTHORNS

9 heifers, yearlings.  
29 heifers, calves.  
4 bulls, yearlings.  
26 bulls, calves.

All out of imported sires and dams.

Prices easy. Catalogue.

John Clancy, H. CARGILL & SON,  
Manager. Cargill, Ont.

## Maple Shade



Cruickshank  
Shorthorns and  
Shropshire Sheep

16 choice young bulls of Cruickshank breeding, from which you can select high-class herd-headers. If you wish to see the breeding we shall be pleased to mail a catalogue.

JOHN DRYDEN & SON,  
Brooklin, Ont.

Stations { Brooklin, G.T.R. Long-distance  
Myrtle, C.P.R. telephone.

## Maple Lodge Stock Farm.

1854.

An excellent lot of Shorthorn bulls and heifers for sale now. Have choice milking strains. Have a few Leicesters left yet. Bargains in ewes.

A. W. SMITH, Maple Lodge, Ont.



CURED HER BOY OF PNEUMONIA

Newmarket Mother is Loud in Her Praises for the Great Consumption Preventative.

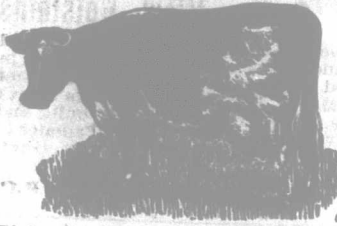
"My son, Laurence, was taken down with Pneumonia," says Mrs. A. O. Fisher, of Newmarket, Ont. "Two doctors attended him. He lay for three months almost like a dead child. His lungs became so swollen, his heart was pressed over to the right side. Altogether I think we paid \$140 to the doctors, and all the time he was getting worse. Then we commenced the Dr. Slocum treatment. The effect was wonderful. We saw a difference in two days. Our boy was soon strong and well."

Here is a positive proof that Psychine will cure Pneumonia. But why wait till Pneumonia comes. It always starts with a Cold. Cure the Cold, and the Cold will never develop into Pneumonia, nor the Pneumonia into Consumption. The one sure way to clear out Cold, root and branch, and to build up the body so that the Cold won't come back is to use

PSYCHINE

(Pronounced Si-keen.)

REMEMBER—Psychine cures Consumption, but its greatest work is the cure of those diseases that lead to Consumption. Psychine cures Colds, LaGrippe, Pneumonia, Bronchitis and Catarrh. \$1 per bottle at all druggists, or Dr. T. A. Slocum, Limited, Toronto.



HOLSTEIN BULL

to head your herd, sired by such noted sires as... Pietsche De Kol, whose dam and sire's dam records average 619.3 lbs. milk, 37.31 lbs. butter in 7 days, or "Duchess Aggie De Kol Beryl Wayne," grandson of the famous "Beryl Wayne," 92 lbs. milk in one day, 7 days, 86 lbs. milk in one day, 3.6 per cent. fat. Also a prizewinner at Toronto and Ottawa.

H. E. GEORGE, Crampton, Ont. Seven miles from Ingersoll.

ANNANDALE HOLSTEIN HERD

are the greatest of the breed individually, and backed by great records, viz.:

Brookbank Butter Baron, dam and sire's dam average 25 lbs. butter in 7 days, 4.5 per cent. fat. First-prize bull at Ottawa and Toronto, 1905.

Prince Posch Calamity, dam and sire's dam average 25.1 lbs. butter in 7 days, 86 lbs. milk in one day, 3.6 per cent. fat. Also a prizewinner at Toronto and Ottawa.

Wopke Posma, imported in dam from Holland. Sire Wopke, his dam Boas, greatest cow in Holland. Record: 17,160 lbs. milk in 336 days, 734 lbs. butter, 3.97 per cent. fat.

You don't draw a blank in purchasing a bull from such sires and such dams as are kept at Annandale Stock Farm, Tillsonburg, Ont.

GEO. RICE, Prop.

RIVERSIDE HOLSTEINS

80 head to select from. Six young bulls, from 4 to 7 months old, whose dams have official weekly records from 16 to 21 lbs. butter; sired by Johanna Rue 4th's Lad, a son of Sarcastic Lad, Grand Champion prize bull at World's Fair, St. Louis, 1904.

MATT. RICHARDSON & SON, Ontario, Canada.

Lyndale Holsteins.

For Sale A number of bull calves from one to four months old, out of Record of Merit cows, and sired by Beryl Wayne Paul Concordia, whose four nearest dams have official butter records averaging 22 lbs. 11 ozs. each. We also have three young bulls fit for service.

BROWN BROS., LYN, ONT.

MAPLE GROVE HOLSTEIN-FRIESIANS

For Sale: Three bull calves, sired by Lord Wayne Mechtildie Calamity, and all out of Advanced Registry cows.

Apply WALBURN RIVERS, Folders' Corners.

Grove Hill Holsteins

Herd contains 55 head, a number of which are in the advanced registry. Our stock bulls have all been backed up by high records. Present offering: Several young bulls and a few females.

F. R. MALLORY, Frankford P. O. and Sta., C.O.R.

GOSSIP.

Mr. Geo. Rice, Tillsonburg, Ont., writes: "Sales from the Annandale Holstein Herd have been very numerous of late. Mr. Fred Abbott, Harrietsville, Ont., purchased a right good young bull, whose dam is Bouwtje Q. Pietertje DeKol, that won first in the heifer class at Guelph Dairy Test in December last. She made, there, over 103 lbs. milk, averaging 3.38 per cent. fat, in 48 hours, she having been in milk 109 days then. I believe she will make one of the great cows of the breed. She was first prize as a two-year-old at Toronto and Ottawa. The sire of Mr. Abbott's bull is Prince Posch Calamity, a son of Calamity Jane, whose work in public and official tests fully justifies Prof. Curtiss in saying he considered her one of the finest cows he ever saw. Prince Posch Calamity's sire is Sir Pietertje Posch, whose dam, Alta Posch, has still the world's record for two- and three-year-olds, having made 27 lbs. butter a week when under three years old. It will thus be seen that Mr. Abbott has a promising young bull to place at the head of the herd he is building up. We sold to the Ontario Agricultural College this great heifer just mentioned, Bouwtje Q. Pietertje DeKol, winner of first and Provincial test for heifers, and the College also has that right good cow, Adelaide Brooks DeKol, that won the first in the Provincial Dairy Test, 1905, and sweepstakes over all. The previous week she made an official test of 21 lbs. butter a week. I consider her, though, a wonderfully great cow, having a great production, keeping up her milk flow for a long while, and I have not the least doubt that these cows that have gone to the College will be heard from in the future. Mr. Jas. Hotson, Innerkip, got a good young bull in Canary Calamity Chief. His sire, Brookbank Butter Baron, was first-prize bull at Toronto and Ottawa last September. His dam and sire's dam have an official test of 22 lbs. butter a week, with an average weekly butter test of 4.3 per cent. The dam of Mr. Hotson's bull, Canary Calamity Queen, at two years old, made over 12 lbs. butter a week. She is a daughter of that great cow, Canary Starlight, with a record of 21 lbs. butter a week at four years old, with an average test of 4.57 per cent. fat. Mr. Thos. Ellis, also of Innerkip, got another son of Brookbank Butter Baron, whose dam is Howell Queen DeKol. She is a good young cow, with large official test, and a sister to Queen Pietertje Mercedes, that was sweepstake cow at Ottawa this year. The dam of these two cows, Springbrook Queen A., died of milk fever, after getting wet, at eight years old, but left five daughters, all of which are in the Advanced Registry. Mr. Jno. Dearing, Palermo, Ont., got the fine young bull, Calamity Jane 2nd's Butter Baron, a son of Brookbank Butter Baron, and Calamity Jane 2nd, that has an official test of over 20 lbs. butter a week, and is one of the four daughters of Calamity Jane that have made official tests. He also got Belle Dewdrop 4th, a daughter of Belle Dewdrop, 20 lbs. butter a week at four years old, sired by Prince Posch Calamity. Mr. Richard McNamara, Stratford, got another son of Brookbank Butter Baron, whose dam is that good cow, Josie Aggie Bewunde; and still another son of this great bull went to Mr. Geo. Weaver, Avon, Ont. We expect to make a very large record from the granddam of this last bull before the grass grows green. Mr. M. H. Haley, Springford, got a well-bred cow in Eunice Clay's Agnes, that is sired by Eunice Clay's Paul, a son of that ever-to-be-remembered cow, Eunice Clay, the winner of Toronto and Ohio milk tests some years ago. The young cow has herself made an official test of 10 lbs. butter a week at two years old, and her dam has official test of 18 lbs. butter a week, averaging 4.2 per cent. fat for the week. Mr. M. L. Haley, Springford, gets Calamity Jane Duchess Posch. This is the two-year-old daughter of Calamity Jane Duchess, with a good Advanced Registry record, and she is sired by that great bull, Sir Pietertje Posch. It will thus be seen that we have had numerous calls upon our herd, but when Mr. Ed. Laidlaw, of Aylmer, came with his enterprising son,

he was not long in selecting five good cows, namely: Aaggie Bewunde Posch, a two-year-old heifer, sired by Sir Pietertje Posch; Howutje Mana, a promising young cow, and an aged cow, Emma Wayne, whose udder, when fresh, has measured 5 feet 3 inches. As she was with calf to Prince Posch Calamity, I would look for something extra from this mating. Mr. Laidlaw also got Belle Dewdrop, that good little cow that made, at two years old, 10 lbs. butter a week, dropped her second calf eleven months later, made an official test of 16.8 lbs. butter a week; third calf twelve months later, and made 20 lbs. butter a week at four years old. She is a wonderfully good cow from year to year, as is also another one he gets in Faultless Queen DeKol. This cow was giving up to 75 lbs. a day, and she is one of the sisters of Queen Pietertje Mercedes, the sweepstake cow at Ottawa, and is herself a show cow, and fine in form. Our sales have been so very numerous that in order to keep up our numbers for the herd, we have had to get 22 head in one importation from the U. S., all females, and all well-bred, which we expect to develop into something good."

SCOTTISH STUDENTS' JUDGING CLASS.

The students of the Aberdeen and North of Scotland College of Agriculture, says the Aberdeen Free Press, recently visited the farm of Mr. James Durno, Westerton, to have a trial of judging animals, selected from the stock of Shorthorn cattle and Clydesdale horses on this noted farm, including the choice stock bull, Diamond Mine, bred by the late Mr. W. S. Marr, and sired by Bapton Diamond. After the students had passed judgment upon a class of bull calves, sons of this excellent sire, and others, Mr. Duthie and Mr. Geo. Hendry placed them in order of merit in their opinion, and Mr. Duthie went over them, explaining reasons for the placing. After luncheon, provided by Mr. and Mrs. Durno, Mr. Duthie, in an address to the students, said, in part:

"In these times of agricultural depression, they had to most carefully consider everything, and there they had not a few fancy Shorthorns only and a few well-fed and well-kept Clydesdales, which did little during the year in the way of work, but they had seen that day an excellent herd of Shorthorns, a number of capital Clydesdales, good sheep, and moreover, a magnificent poultry-yard. They had there a capital illustration of the farmer and the farmer's wife—an excellent illustration of plain, practical, paying agriculture in spite of the bad times. He thought, therefore, that it was of very great advantage to them as agricultural students to be privileged to come to such a place, and it gave him a very great deal of pleasure to meet them. There was nothing more interesting for older people like himself than to feel that agriculture was not to go to the bad, and that when they moved on it would be taken up by intelligent, willing young fellows, like them. It was of the greatest importance that they should unite a knowledge of the philosophy of agriculture, if he might call it, with the practical work of agriculture. Agriculture was no sinecure. It meant hard work, getting up early in the morning, and attending to everything, but then they got a splendid sleep at night. Another thing he was delighted to see was that the old 'guzzling' days were gone. He was glad to see that. He was struck with this while travelling in America and Canada, where he found a very temperate and very successful class of people; and he was sure there was not one of their elders who would not recommend to their young men for their benefit that they should practice temperance in all things. He urged upon them that the agricultural college depended as much upon them as it did upon the staff. If the practical, plain men of the country saw that the students stuck into their work, and showed that they had not 'gone in storks and come out asses,' but come out of some use, that would recommend the college more than anything others could say about it. He asked them, therefore, to consider that they had the honor of the agricultural college in their hands very much indeed, to encourage their professors, and the latter on their part would be able to help them much."

Southdown Sheep

Unequalled for fine quality of both mutton and wool, hardness of constitution, and earliness of maturity. STRIDE & SON will sell by auction at CHICHESTER, on THURSDAY, AUG. 9th, 1906 (the day after the dispersal of the whole of Mr. Edwin Ellis's world-renowned prizewinning flock of Southdowns, which will be sold by Messrs. Stride at Summersbury, Guildford, on Wednesday, August 8th) about 6,000 PURE-BRED SOUTHDOWN EWES 450 PURE-BRED SOUTHDOWN RAMS and RAM LAMBS, Including consignments from nearly all the leading registered flocks in England. Commissions carefully executed. Telegrams, STRIDE, Chichester. Postal address: STRIDE & SON, Chichester, Sussex, England.

HAMPSHIRE SHEEP

"Reserve" for Champion in the Short-wool Classes, Smithfield, London, 1904. SPLINDID MUTTON GOOD WOOL GREAT WEIGHT This highly valuable English Breed of Sheep is unrivalled in its Wonderful Early Maturity. Hardiness of constitution, adapted to all climates whilst in the quality of mutton and large proportion of lean meat it is unsurpassed, and for crossing purposes with any other breed unequalled. Full information of JAMES E. RAWLENCE, Secretary Hampshire Down Sheep Breeders' Association, Salisbury, England.

W.W. CHAPMAN, Secretary of the National Sheep Breeders' Association. Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society. Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered. Address: MOWBRAY HOUSE, Norfolk St. LONDON, W. C., ENGLAND. Cables—Sheepcote, London.

The Riby Herd and Flock of Shorthorn Cattle and Lincoln Sheep

The largest of each in England. Established 150 years, with world-wide reputation both in the show ring and sale yard. Holders of the 100-guineas champion prize at Smithfield Show, London, 1902, against all breeds, and breeder of the two 1,000-guineas rams, and also the heaviest sheep at Chicago Show, 1903. Selections for sale. Cables—DUDDING, KEELBY, ENG. O

Lincolns are Booming

We have only a few more ewes and ram lambs and breeding ewes for sale. We have seven choice young bulls, Scotch-topped, and a grand lot of heifers and young cows for sale at reasonable prices. Write or come and see us.

F. H. NEIL & SONS, LUCAN, ONT. Telegraph & R.R. station.

Leicester Sheep Choice ram and ewe lambs; also a few yearlings for sale. For particulars write to CHAS. F. MAW, Milton St. and Tel. O. Omagh P.O.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs. Present offering: Lambs of either sex, For prices, etc. write to John Cousins & Sons, Buena Vista Farm, Harriston, Ont.

SHROPSHIRE

Choice ram and ewe lambs for sale; also a few aged ewes. GEO. HINDMARSH, Ailsa Craig Ont.

Asthma. Climate wear out. Smokes, fumes and "Spedick" relieve only temporarily the symptoms. Our CONSTITUTIONAL treatment, and "Spedick" permanently eliminates the CAUSE of Asthma and its effects, so that nothing brings back the old symptoms or attacks. Write for 2002 57 P, containing many interesting illustrative cases that have STAYED CURED forever. Mailed FREE. Write P. HAROLD LAYTON, Buffalo, N. Y.

GOSSIP.

Mr. John Miller, Brougham, Ont., writes: "I have on hand at present 20 extra good shearing and two-shear Shropshire ewes that will be sold at very reasonable prices. They are all safe in lamb to first-class rams. I have sold a large number of both ewes and rams this fall and winter, and think any farmer would be safe to invest in a few breeding ewes, as sheep are sure to pay well for the next few years."

WHO'S PROSPEROUS NOW?

Some minor statistics of an immensely prosperous year throw an interesting sidelight upon the drift of things in the business world. Prices of staples advanced in 1905; but the average gain in the three big staples that the people produce—breadstuffs, live stock and fruit—was very small. You have to go to the third decimal point before it appears. Prices of the big staples that are controlled by efficient organization—provisions, hides and leather, metals—advanced decidedly more. The average gain appears at the first decimal point. The average liability in each commercial failure of the year in the United States was \$8,912, against \$11,820 in 1904 and \$12,074 in 1903. In short, proportionately it is more and more the small man who fails. The number of commercial failures with liabilities exceeding \$100,000 was only 154, against 215 in 1904—a decrease of nearly thirty per cent.—and the number of failures with liabilities under \$100,000 was 11,866, against 11,984 the preceding year—a decrease of five per cent. The profit and security of business are being found more and more in combining into big units. Taking all the sales of stocks in New York, the average price per share in 1905 was \$87.30, against \$69.90 the year before. Practically all of these stocks represent big consolidations in transportation or manufacture. There is no doubt that combination is the real prosperity bandwagon.—Saturday Evening Post.

A CONVENIENT EARTH CLOSET.

A correspondent wrote to T. B. Terry lately: "Do you still use pails in your closet? If so, what size, and how do you manage about emptying in freezing weather?" Mr. Terry replied, in the Practical Farmer: "We still use them, and always expect to, as it is a convenient and safe way of disposing of the waste. The pails are 14 inches deep, 14 across the top, and 11 across bottom. They are made of heavy galvanized iron, and have strong bails. Years ago we usually emptied them, in winter, on warm days, when above freezing, so the air would thaw the outside of contents slightly. At other times, the pails were set in some water a few minutes. Freshly-drawn well water will do. One can have a small tub, a little larger than pail. You notice the pails are made larger at the top to make it easy to empty in winter. They were used in this way many years. Dry muck is put on to cover up the droppings in summer and prevent bad odor. Any dry soil or road dust will do, but muck is the lightest. The contents of pails are scattered on field close by in winter, and carried to manure shed in summer. One end of closet is fixed as a bin to hold the absorbing material, with a shelf at the level of seat, where it can be dipped up with a little scoop. The bin holds a year's supply. The arrangement works nicely all round, if everything is attended to properly. In freezing weather, it is not necessary to use absorbent, unless one wishes to. The cold will prevent odor from coming out. But it is nicer to put on a little soil each time. Since we put in a furnace and grate we have a single seat in the cellar, with pail in a closed box under it, and use this as long as there are fires. A 3-inch pipe connects seat-box with chimney flue. The draft up chimney draws all odor up, even when lid is open. In this respect it beats any water-closet made. No absorbent or deodorizer need be used. It is a cheap, simple, perfect plan for cold weather. The room in cellar where this seat is, is always comfortably warm and light. Once a week, when I take out the hard coal ashes to sift them, I empty the pail. Understand that no odor whatever can get out in the room from the pail, except for a few seconds when I am carrying it out-doors. The odor goes up the chimney, along with impure air and dust from our home."

We make few claims of what Liquozone will do. And no testimonials are published to show what it has done. We prefer that each sick one should learn its power by a test. That is the quickest way to convince you.

So we offer to buy the first bottle and give it to you to try. Compare it with common remedies; see how much more it does. Don't cling to the old treatments blindly. The scores of diseases which are due to germs call for a germicide. Please learn what Liquozone can do.

What Liquozone Is.

The virtues of Liquozone are derived solely from gases, by a process requiring large apparatus, and from 8 to 14 days' time. No alcohol, no narcotics are in it. Chemists of the highest class direct the making. The result is to obtain from these harmless gases a powerful tonic-germicide.

The great value of Liquozone lies in the fact that it is deadly to germs, yet harmless to you. Germs are of vegetable origin; and this gas-made product, when absorbed by them, stops their activities. We publish an offer of \$1,000 for a disease germ that it cannot kill. But to the body, Liquozone is exhilarating, vitalizing, purifying. It is helpful in the extreme.

That is its main distinction. Common germicides are poisons when taken internally. That is why medicine proves so nearly helpless in a germ disease. Liquozone is a tonic.

We Will Buy

You a Bottle of Liquozone, and Give It to You to Try.

We Paid \$100,000

For the American rights to Liquozone, after hundreds of tests had been made with it. After its power had been demonstrated, again and again, in the most difficult germ diseases. Then we spent, in two years, more than ten times that sum to let others test it at our expense. The result is that millions of people, scattered everywhere, have shared in the benefits of this invention.

We make the same offer to you. We ask you to prove, at our cost, how much this product means to you. Let Liquozone itself show how wrong it is to suffer from a trouble that it cures.

Germ Diseases.

Most of our sickness has, in late years, been traced to germ attacks. The list of known germ diseases now numbers about one hundred.

Some germs—as in skin troubles—directly attack the tissues. Some create toxins, causing such troubles as Rheumatism, Blood Poison, Kidney Disease and nerve weakness. Some destroy vital organs, as in Consumption. Some—like the germs of Catarrh—create inflammation; some cause indigestion. Directly or indirectly, nearly every serious ailment is a germ result. Such diseases call for Liquozone—not drugs, which can't kill germs.

Every germ attack, no matter what its symptoms, calls for a germicide. The mildness of Liquozone makes some of its

results seem almost incredible. But in that mildness lies the power that germ diseases need. And diseases which have resisted medicine for years often yield at once to it.

50c. Bottle Free.

If you need Liquozone, and have never tried it, please send us this coupon. We will then mail you an order on a local druggist for a full-size bottle, and will pay the druggist ourselves for it. This is our free gift, made to convince you; to let the product itself show you what it can do. In justice to yourself, please accept it to-day, for it places you under no obligations whatever. Liquozone costs 50c. and \$1.

CUT OUT THIS COUPON.

Fill it out and mail it to The Liquozone Company, 458-464 Wabash Ave., Chicago.

My disease is..... I have never tried Liquozone, but if you will supply me a 50c. bottle free I will take it.

Note that this offer applies to new users only. Any physician or hospital not yet using Liquozone, will be gladly supplied for a test.

Special 30-Day Offer

For thirty days we will send, absolutely free of charge, one regular pint size of New Zealand Dip and Disinfectant with every pail of

WORTHINGTON'S STOCK TONIC

Ordered at regular price. We are making this offer in order that all may have a chance to try New Zealand Dip and Disinfectant, one of the best non-poisonous dips known to chemical science. In offering Worthington's Stock Tonic we feel that it is the greatest digestive agent known to the stock-raiser of to-day. Not only does it insure perfect assimilation of all the food, but keeps the animal in the best of health, causing it to eat its food with a relish that cannot be obtained in any other way. Do not miss this opportunity, send in your order to-day. We pay freight.

25-lb. pails, \$2.00; 50-lb. pails, \$3.75.

MANUFACTURED BY

BOGARDUS & CO., Chemists, GUELPH, ONT.

BROAD LEA OXFORDS.

Present offerings are: Ram and ewe lambs of the low-down, blocky type. Also Yorkshire boar and sows five months old, of improved bacon type. A number of nice Banded Plymouth Rock cockerels at reasonable prices. Correspondence promptly answered.

R. R. Stations: Mildmay, G. T. R. | W. H. ARKELL, Teeswater, C.P.E. | Teeswater, Ont.

DORSET HORN SHEEP and SCOTCH SHORTHORNS

The latter representing the Nonpareil, Miss Ramsden, Missie and Gloster families exclusively, and the former comprising more Royal winners and more St. Louis prizewinners than any other flock in the world. Stock for sale always on hand.

JOHN A. MCGILLIVRAY, North Toronto, Ontario

Sheep Breeders' Associations.

American Shropshire Registry Association, the largest live-stock organization in the world. Hon. John Dryden, President, Toronto, Can. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.



Sheep and Cattle Labels. If you are putting stock out this spring you will need them. Sample and circular free. F. G. JAMES, Bowmanville, Ont.

HIDES SHEEPSKINS, FURS

Consignments Solicited. Top Prices. E. T. CARTER & CO., TORONTO

SOUTHDOWNS

For Sale: 25 ewes in lamb to the imported rams, Babraham Hodge, Pattern and Glory.

COLLIES

Puppies by imported New York Show winner, Wishaw Hero, out of noted prizewinning dams.

ROBERT McEWEN, Byron, Ontario

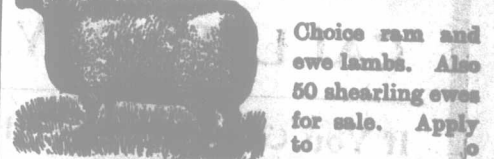
FAIRVIEW SHROPSHIRE Nearly sold out. Now offer 4 good quality, medium size shearing ewes, 6 choice ewes, 3 to 6 yrs. old, Imp. and home-bred 15 real good ewe lambs; best of breeding. Young ewes, were bred to St. Louis champion ram and Altamont, a proved excellent sire. Aged ewes were bred to Fair Star Rose, the sire of more winners than any ram in America. Great bargains offered to clear out season's offerings. JOHN CAMPBELL, Fairview Farm, Woodville, Ont.

COTSWOLDS

Some good shearing ewes and ewe lambs, and a few choice ram lambs, right type, for sale. Prices moderate. E. F. PARK, Burgessville, Ont.

Shropshire & Cotswold Sheep SCOTCH SHORTHORNS and

CLYDESDALES



Choice ram and ewe lambs. Also 50 shearing ewes for sale. Apply to

JOHN BRIGHT, Myrtle Station, Ontario.

100 Shropshires & Cotswolds 100

One hundred head for sale. Ten shearing rams, fifty ram lambs, and sixty shearing ewes. Rams are good enough to head any flock. The ewes are a choice lot and will be bred to imp. ram.

John Miller, - Brougham, Ont

Seed Grains and Dorset Horn Rams

Emmer and Tarter King oats. All grains well cleaned. Write for samples and prices. Glenair Farm. JAMES DICKSON, Oran, Ont.

NEWCASTLE HERD OF Tamworth Swine and Shorthorn Cattle

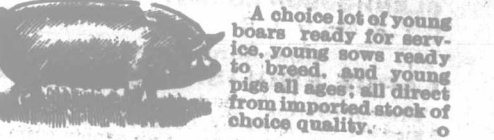
Still have a lot of beauties to offer in Tamworths of both sexes, from 2 months to 2 years old; a half-dozen March sows that will be bred in October and November. All for sale at moderate prices. Also four young Shorthorn bulls ready for service, and a half-dozen beautiful heifers.

COLWILL BROS., Newcastle, Ontario.

Mount Pleasant Herd of Tamworths and Holsteins.

A large herd of choice pigs of all ages on hand. Mount Pleasant type of hogs are profitable breeders and ideal bacon hogs. Pairs not akin. Herd headed by Colwill's Choice No. 1348. Won sweepstakes and silver medal at Toronto, 1901-2-3. Also a few bulls. Bertram Hoskin, The Gully

Large White Yorkshires



A choice lot of young boars ready for service, young sows ready to breed, and young pigs all ages; all direct from imported stock of choice quality. H. J. DAVIS, Importer & Breeder of Shorthorns & Yorkshires C.P.R. and G.T.R. Woodstock, Ont



# I WANT YOU TO COME TO ME.



I want you, if that means you, to come to me, and if I say I have a cure for you I will prove it to you before you agree to use it. It won't cost you anything to satisfy yourself regarding my claim.

**IMPROVEMENT IN TWO MONTHS. SORRY HE DID NOT GET BELT TEN YEARS AGO.**

**Dr. McLaughlin:** Chance Harbor, St. John Co., N.B., November 24, 1905.

Dear Sir,—Since wearing your Belt these two months, I am glad to say that my back is ever so much better, my stomach and bowels are also improving. The suspensory has done wonderful things for me. I am sorry I did not get one of your Belts ten years ago. I am gaining flesh every day, and feel more like a man. I am stronger mentally and physically. I shall ever speak well of your Belt. Yours truly,—WINSLOW H. BELDING.

**MR. G. W. PRICE, Madoc, Ont.,** has this to say: — "As regards my health, I am improving every day, and I am not sorry I invested. My nerves are getting all right, and I am feeling much better every way, and the varicocele is decreasing."

Weakness of any kind, whether in the Stomach, Kidneys, Back or other organs of the body, cannot exist where my Electric Belt is used. Don't spend your money for worthless drugs, which only stimulate, but never cure. Don't continue to dose yourself when you can see that it is only a waste of time and money, and that sooner or later your poor, overworked, worn-out stomach will force you to give up taking the nasty stuff. Electricity applied in the right way is the only remedy which will ever cure you. I have cured thousands of men and women after they had given up all hopes of ever again becoming strong and healthy. I know I can cure you if you will give me a chance. If you will call at my office I'll give you a free test and show you how you can regain your lost strength. My way of curing weakness is to restore by Nature's own remedy, what has been lost and wasted through mistakes, over work or dissipation. My

## DR. McLAUGHLIN'S ELECTRIC BELT

does this while you sleep. You can feel the life-giving current the minute you place the Belt on your body. There is no burning or blistering, but a gentle, soothing warmth, which fills the nerves and muscles with new life. It is a real pleasure to wear it. My Belt will cure you. I have devoted over twenty-four years of my life to the study of Electricity as a cure, and know I have the cure. I have testimonials of thousands of cured people to back my assertions.

The confidence I have in the wonderful curative powers of my Belt allows me to offer any man or woman who can give me reasonable security the use of the Belt at my risk, and they can

## PAY WHEN CURED

Wherever you are, I think I can give you the name of a man in your town that I have cured. Just send me your address and let me try. This is my twenty-fourth year in the business of pumping new vim into worn-out humanity, and I've got cures in nearly every town on the map. All I ask is that you secure me and pay me only when your cure is complete.

Come and see me if you can, and I'll fix you up, or if you can't call, write to me. I've got a nice book on men that I'll send sealed free.

Write To-day for my Free Illustrated Book and Full Information.

**CALL TO-DAY.**

If You Can't Call Send Coupon for Free Book.

O G ST. TOR ONT.

Dear Sir,—Please forward me one of your books as advertised.

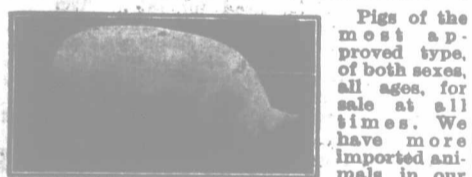
Name .....

Address .....

Office Hours—9 a.m. to 6 p.m.; Wednesday and Saturday till 9 p.m.

Write Plain.

### LARGE ENGLISH YORKSHIRES



Pigs of the most improved type, of both sexes, all ages, for sale at all times. We have more imported animals in our herd than all other breeders in Canada combined. We won more first prizes at the large shows this year than all other breeders combined. We won every first but one and all silver medals and Bacon prizes at Toronto and London, and at St. Louis we furnished all the first-prize hogs in the breeding classes except two; also supplied both champion and grand champions. Prices reasonable.

**D. C. FLATT & SON, Millgrove, Ont.**

### MONKLAND YORKSHIRES

Imported and Canadian-bred. We keep 35 brood sows, and have constantly on hand between 100 and 200 to choose from. Can supply pairs and trios not akin. Quality and type unsurpassed. Prices right.

**JAS. WILSON & SONS, FERGUS, ONT.**  
G. T. R. and C. P. R. Long-distance Phone

### YORKSHIRES

Young boars fit for service. Sows bred or ready to breed from choice imported stock. Also young pigs for sale—reasonable.

For particulars apply to

**GLENHOBSON CO., Myrtle Station, Ont.**  
C. P. R. and G. T. R. **LORNE FOSTER, Mgr.**

### Rosebank Herd of LARGE ENGLISH BERKSHIRES

Present offering: Choice stock from 6 weeks to 6 months old, sired by Concord Professor and Willow Lodge Crown Sth. Can supply pairs and trios not akin. Satisfaction guaranteed. Express prepaid.

**JOHN BOYES, Jr., Churohill, Ont.**

## BERKSHIRES

Imported and Canadian-bred  
**H. M. VANDERLIP, Gainsville,**  
on T. H. & B. and B. & G. division of Grand Trunk. Telephone and telegraph, Gainsville Ont.

### HILLGREST HERD OF ENGLISH BERKSHIRES

For Sale: A lot of very choice young things of various ages. We prepay express charges and guarantee satisfaction. Enquiries promptly answered.

Vine Sta., G. T. R., near Barrie. **JOHN LAHMER, Vine P.O., Ont.**

### FOR SALE: IMPROVED CHESTER WHITES

Of the long, deep, heavy sort. Breeding stock selected from the most noted families, with a view to size and quality. Booking orders for choice spring pigs; also a few fall pigs for sale. Pairs furnished not akin. Express charges prepaid. Pedigrees and safe arrival guaranteed.

**H. E. GEORGE, Crampton, Ont.**

### Oakdale Berkshires

Of the largest strains. Imported fresh from England. The produce of these and other noted winners for sale reasonable. Let me book your order for a pair or trio not akin.

**L. E. MORGAN, Milliken Stn. and P. O.**

### Blindfield Yorkshires

Young stock, both sexes, by imp. sire and dam, and the get of imp. sire and dam; up-to-date type with plenty of bone; also one 13-months-old Short-horn bull, dual-purpose bred. A good one. **G. B. MUMA, Afr P.O., Afr and Paris stations.**

**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; pedigree and safe delivery guaranteed. Address: **E. D. GEORGE, Putnam, Ont.**

### WOODSTOCK HERD OF BERKSHIRES

A few fall pigs left, sired by Imp. Polgate Doctor. Also am booking orders for spring pigs, for which I can supply pairs not akin at reasonable prices.

**Imp. Polgate Doctor.**  
**DOUGLAS THOMSON, Woodstock, Ont.**

### ORCHARD HOME HERD OF LARGE ENGLISH YORKSHIRES

Now on hand, Feb. 8th: A choice lot of boars and sows, 3 to 4 months old. We furnish stock of most approved type and high quality. Our record for 1905: Every customer pleased and satisfied. Place orders now for spring pigs.

Address,  
**S. D. CRANDALL & SONS, Cherry Valley, Ont.**

### Glenburn Herd of YORKSHIRES

Now on hand, a number of sows, 5 and 8 months old, for spring farrow; also a large number of September sows and boars. Booking orders for spring pigs.

**DAVID BARR, JR., Box 3, Renfrew, Ont.**

### YORKSHIRES

My offering is: young stock of both sexes and all ages; bred from imp. stock and the get of imp. stock, they are true to type and first-class in every particular. Write me for what you want. **L. HOEY, Powle's Corners P.O. Fenelon Falls Station.**

### Slaughtering Hogs.

The following description, by A. S. Alexander, in the Farmers' Review, of how hogs are disposed of in the packing plants in Packingtown, will be of especial interest to those who have witnessed the rapid conversion of pig into pork in a modern pork factory:

When hogs arrive in the Chicago market and have been weighed and assigned to pens, the next step is to find a buyer, and the purchase is speedily concluded. The doom of the hog now confronts him, and it is remarkable how quickly, skillfully and perfectly his demise and disposal are attended to by the thousands of experts employed for the business. Up a chute he climbs to the roof of a packing-house, and, as he passes along, cold water is showered upon him to reduce his temperature. In lots of fifty, he enters the slaughter-house. A hind leg is grabbed, hooked to a chain, which is forthwith fastened to a solid wheel which turns, and Mr. Pig is thereby whisked upward until the chain, by a mechanical contrivance, is slipped off the wheel and onto an iron trolley which slides the hog toward the executioner, the knife is thrust into his throat, and he passes along some twenty-five feet, his blood running out of him into a tank. At the end of the tank, he is slipped from the rail, carried by endless chains through a tank of boiling water to loosen his bristles. By a turn of a large wheel the carcass is next scooped out of the water, thrown upon endless chains again, and by their means carried upward through a low cylinder lined with scrapers, on spring attachments, by means of which the bulk of his hair is removed, and he enters the room above divested of most of his covering. There he is let down onto a long table, where he passes numerous men quickly in succession, and each of them gives him a scrape as he passes until he is perfectly denuded of hair. Now he is washed again, and passing along one fell sweep of a cleaver removes his head, which goes to an allotted place. No stop is made in the journey along the endless, chain-fitted table. As he passes, each man attends to his particular item of the work. One slits his abdomen, another the entrails, gradually every act is performed and finally the clean hog, headless and split in two lengthwise, arrives in the cooling-room, where his flesh is chilled to prepare him for the cutting-up process. And all of this time he is but one in an endless procession of hogs undergoing the same operations. Thousands pass the same band of men daily, and each workman is perfectly expert and performs his duties with apparent ease and evident precision. Nowhere is this more apparent and striking than in the cutting-up rooms. Here hundreds of men stand at their blocks and with great, keen-edged cleavers and knives instantly dissect half hogs into numerous segments. The cutter of hams is a past-master of his art. Instantly he decides what sort of ham each hog will make, and there are many different varieties to be remembered, and each has its peculiar size, weight and shape. But the cleaver and knife hesitate not a moment, and the slashes and cuts are made swiftly, surely and correctly. No mistakes are made. The curves are perfect in outline. The scraps are not wasted. Every scrap finds its way to its proper place. The work of one man may be to deliver a single blow with his cleaver on each section of hog, but he does this work on thousands of hogs each hour of the working day. His practice has made him perfect, and he certainly earns every cent of his wages. All of the good fat goes to the rendering kettles, and the clear, red hot, pure liquid lard runs through pipes from many places to final collecting and packing rooms, where tidy, skillful men and women run it into pails, bladders, cans, buckets, tins, etc., which are weighed, packed, stamped and hurried down to the shipping room. A speck is lost, a pound is short, and a detailed account of the perfection of dispatch and accuracy of the great packing-plant is not complete until the simply perfect and thoroughness and efficiency of the business wherever material commodities