

**PAGES
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The Farmer's Advocate and Home Magazine

"Persevere and
Succeed."

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EDITORIAL.

"The Farmer's Advocate" for 1907.

Some of us may remember being taught, in more youthful days, to look upon the evincing of any especial interest in making money as a manifestation of the work of the Evil One. "The love of money is the root of all evil," was solemnly preached to us, and, unable to distinguish between the inordinate love of money for its own sake, which marks the miser, and that healthful caring for a bank account or property, which must be an attribute of every independent, provident man or woman, we grew up looking askance at all who waxed unusually prosperous.

Nowadays a good deal of that old idea has gone up in thin smoke. The miser, the man who makes money by trickery, dishonesty, meanness, is as much despised as ever; the man who is so anxious for money that he will sell his vote for it, for instance, gets all the contempt that he deserves. Nevertheless, it has come to be recognized by every level-headed man or woman that it is right to make just as much money as one can by square, honest, honorable means. The bees lay up honey for the winter season; why should not every man lay up also for his winter season, or for the proverbial rainy day which may come either to him or to his children?

The right-minded man, too, does not look even to this only. He recognizes that the possession of money will enable him to do much good—to contribute to the occasional "charity" which may present itself, to help the township out at times, when some project requiring men of capital at the back of it comes up. Moreover, he is enabled to supply work and an honest living to men less favored or less capable of making money than he; to the young fellow just starting out in life penniless; to the poor "under dog," who has always come out beneath in the fight, and is glad enough to earn an honest dollar when he can be sure of his pay.

So we might go on; but why enumerate? We think it is clear that it is right to make and save money in the right way.

Now, to indicate, so far as in us lies, how this may be accomplished on the farm, is the business of "The Farmer's Advocate." We wish to help each individual reader how to make money and how to save money in one of the fairest and most honest ways ever devised—from old Mother Earth herself. This is not mere talk. We desire, of course, to extend our circulation and make somewhat ourselves, but to do that successfully we must have the interests of the country and the farmer in particular at heart.

Success on the farm depends on two things: first, The Man; and second, His Conditions, some of which he does not control. For the latter reason, we oppose the imposition of what we deem unjust burdens upon the fruits of the farmer's toil, or discriminations against him.

But, in Canada, more depends upon the man, what he knows and how he farms. Therefore, the services have been enlisted of experts on this subject to help carry out our programme. The best in science and in practice is what we aim to give. Matter does not go into this paper rashly. We do not recommend untried methods, work up sensations for mere sensational effect, or boom fads. We strive to teach common sense, up-to-date farming, live-stock husbandry, dairying, fruit-growing, et al., and the voices of thousands of readers declare that we are accomplishing this.

What of the future? Our purpose is to improve the paper, and make it more perfectly adapted to the real interests of the farmer and his home, and lay before the advanced student of agricultural science such material as will stimulate thinking and research and mark the episodes of real progress. We believe in teaching through the eye, so we shall continue to use good paper, presswork and illustrations.

Our readers have noticed the increasing attention we are paying to report fully and accurately the salient features of agricultural conventions, because of the rich stores of practical information there brought to light.

Beginning with the last issue, we laid before our readers the first instalment of a careful resume of the results of investigations being made into horticulture at the experiment stations, agricultural colleges and schools in Canada, the United States and elsewhere, and we have enlisted expert service to interpret in popular language the fruits of researches into other branches of agriculture, such as tillage, live-stock rearing, dairying and so on, being investigated and demonstrated at these progressive institutions.

We do not promise to change the general attitude of the paper. We shall aim to get at the truth, and state it frankly. Betimes, we may tread on somebody's toes, but we desire to be fair on all subjects and to all persons. The paper is not affiliated with any sect, party, institution or clique, and proposes to exercise its independence in publishing what it deems in the best interests of the farmer and his home. We shall not refuse insertion of articles if up to a proper standard otherwise, merely because the sentiments differ from ours, hence we are not to be held responsible for the views of correspondents, but we prefer them to write over their own signatures.

Taken all in all, we believe farming to be the best occupation in which the masses of our people can engage. We believe it can and ought to be made more profitable and enjoyable, and if that be done, the town will lose somewhat of its fascination. Whatever extends the technical knowledge of the farmer and relieves his burdens improves his chances of success, and whatever broadens his intellectual horizon and elevates his thinking makes him a better citizen. This, then, is our aim for 1907, and, believing in the real brotherhood of man, we ask our readers to co-operate in its fulfilment.

A Year of Dairy Progress.

The annual report of Dominion Dairy Commissioner, J. A. Ruddick, indicates that this important branch of Canadian agriculture continues to make the steady progress which has been its distinguishing characteristic during the past 40 years. Although no data are available to show the aggregate exports and home consumption, Mr. Ruddick believes the dairy industry is increasing. The quality of the product is improving, reports from all sources agreeing that Canadian export cheese has found increased favor with consumers, owing to better condition on arrival. Canadian butter, as yet, amounts to only six per cent. of Britain's total imports, but it made decided advance in the esteem of the British market last year, the difference between the best Canadian and some other lines having been less than ever before. This gain has been helped by the gradual improvement in storage and transportation methods. For the first time butter and cheese were properly protected from high temperatures when discharged from the steamers on the other side. This applies to the Port of London only, but London receives over one-third of our shipments of butter and cheese. The outlook

is bright. Canadian cheese, already the dominant factor in the Old Country market, is becoming still more popular, and prices promise to be satisfactory for some time to come.

Britain's increasing consumption of butter shows no abatement. Improvement in the quality of butter and facilities for preserving it in a fresh condition result in more liberal buttering of bread. Germany, once a butter-exporting country, is now an importer of this product, absorbing a portion of the supplies that used to reach the British market. There would seem to be a great future before the Canadian butter trade, and we are consoled with the assurance that we can compete successfully with the Danes.

For the future, efforts should be mainly directed to improvement in quality, primarily on the farm and next in the make-room, rather than mere increasing in volume of output. The next effort should be towards improvements in curing and transportation, so that the patron, whether of the cheese factory or the creamery, will derive the largest possible net return for the product of his herd.

Mr. Ruddick pays a well-deserved tribute to the cheese and butter makers of Canada, than whom no class have done more to improve the quality of Canadian dairy produce. A very large proportion of makers have voluntarily attended the dairy schools, at very considerable expense and outlay of time, and, through attendance at the annual conventions, district meetings and otherwise, lost no opportunity of improving their knowledge of the theory and practice of advanced dairying. Indeed, Mr. Ruddick goes on to declare that, in his judgment, patrons and factory owners have not, as a rule, kept pace with the makers, many of whom are handicapped in their efforts to produce a fine article by discouraging factory and other conditions. In so far as the conditions of the make and curing rooms are concerned, since the control of the factories has been passing, in so many cases, from the old joint-stock companies under which they were organized to the individual ownership and control of makers, improvements then can be more readily effected, provided the proprietor has correctly enlightened convictions and the requisite capital. Mr. Ruddick also takes the ground that it is not fair to hold the makers responsible for the consequences of bad-flavored milk, but he should be for defects in the process of manufacture. Makers, no doubt, often hesitate to reject milk not up to a proper standard of quality, and a little more uniform manifestation of backbone would have a salutary effect. We notice by our reports of the district cheese meetings in Western Ontario, that there is an earnest desire to grapple with this trouble, which, in some cases was so bad that milk rejected at one factory would be taken home and carted off to an adjacent rival. In an enlightened dairy country like this it should not be necessary to resort to drastic measures or combinations to stop such palpable folly. A concluding point, to which attention is very properly called is the prime importance to salesmen of possessing some expert knowledge themselves of the qualities of butter or cheese, as the case may be, as well as the necessary business knowledge and experience, in which case the well-managed factory rarely has any difficulty in selling its product to advantage.

"The Farmer's Advocate" is the medium for exchange of experience and ideas about farming. It makes the experience of our best farmers the valued property of all. The reading of other men's experience is a stimulating education of which no man should deprive himself.

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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Now is the Time.

Our subscribers attest the general reliability on all practical subjects, and the clean tone of "The Farmer's Advocate." Particularly do they appreciate the Home Magazine and its Literary Department as being the very best obtainable. The price of the paper for 1907 remains at the low rate of \$1.50 per year—a little over three cents per week—with a handsome Christmas Number to boot. Is "The Farmer's Advocate and Home Magazine" worth this to you? Then, may it not be worth as much to some of your friends. We wish to help you in every way, and we should like you to help us in spreading the gospel of good farming and promoting a better home-life. Show the paper to your neighbors and friends, and call their attention to its special merits. The more you help us, the more we can help you. The more subscribers we have, the more we will be warranted in spending upon improvements. If you are a subscriber now, by sending us two bona-fide new subscribers and \$3 you can get your own subscription extended for one year without further cost; or, for one new subscriber at \$1.50, we will extend your subscription for six months.

The Horse Discussion On.

Now that the Horse Commissioners appointed by the Ontario Government have concluded their inquiry and sent in their reports, the general public is waking up to a realization of its purport. Correspondence on the subject is pouring in briskly, voicing a great variety of opinions about the now widely-discussed idea of a Provincial stallion license and lien act. Always believing in the full and free discussion of such topics, we hold our columns open to all views, favorable or adverse, so long as they are creditably expressed and contribute some one or more points of consequence to the debate. In arriving at conclusions on the subject, personal interests should be subordinated

and a broad view taken, with the single aim of promoting or conserving the ultimate welfare of the horse-breeding industry. There is time yet for further consideration of the pros and cons, and we are certain the Minister of Agriculture, Hon. Nelson Monteith, will be disposed to attach due weight to all reasonable argument in framing whatever legislation he may see fit to introduce, based on the facts which the Commission were able to gather.

Our Maritime Letter.

"It strikes me, Father Burke, that this Province, as I see it, being so free from the very bad weeds which are everywhere noticeable in the Upper Provinces, should be the very best place to grow seeds of all sorts. It would make a grand seed nursery." 'Twas J. A. Ruddick, Dairy Commissioner for Canada, who spoke those words as we conferred together here in September, and they are certainly worth pondering over for a moment.

The movement for pure seed, which has spread through the land from Ottawa, whilst it has effected much good and gradually enlarged the circle of votaries, is not nearly widespread enough; nor can we rest satisfied with its extension until it includes every farmer in its ranks. We may labor incessantly to accommodate ourselves to the latest ideas in field culture—the proper system of tillage, the best sort of soil enrichment, the most economic rotation of crops—and if we have not good seed, the very bottom is out of our endeavor. Good seed is at the base of agronomic success; bad seed, even inferior seed, must rivet the chains of agricultural bondage.

We will leave it to statisticians and economists to approximate the gross toll which impure seeds impose. One can easily see that if the committing to the earth of good seed should cause an excess over ordinary return in grain of even a few bushels to the acre, the aggregate must be immense in a year's operating in a large agricultural community. The toll of the weeds, the toll of the insects, the toll of defective seeds, make it difficult for the sluggish farmer to prosper. The immense advantage which the alert, intelligent, industrious, persistent seed-selector possesses over his careless neighbor is so palpable as to awaken even him to the fallacy of its position, and instil into his sluggish heart a desire to emulate his brother. Then, special breeding and careful selection so much improve on the average work, so much advantage the specialists, that, scrutinizing the results, all within the range of observation become easily convinced; and the man convinced of the error of any industrial system, who refuses to correct it and put himself in the way of reaping better returns, is unworthy any profession, much less that of agriculture.

The Canadian Seed-grain Association, in offering generous prizes, in co-operation with the organizations which are formally pledged to advance husbandry, in any division of Canada, is doing an immense good in the land. Its membership is extending in all directions, and we find that its members are all enthusiastic in their work. Not only will they compete in the shows, but originate or select much valuable seed for the betterment of the crops in their settlements. The seed of good promise, planted in such a laudable cause, already produces excellent fruit, and, under present influences, it will be quickly increased a hundred-fold. Those competitions, and the didactic instruction accompanying them, are truly invaluable. If there is a promising note, more so than another, running through present-day organization, it is the perfection to which the good-seed movement reaches out so splendidly.

At Amherst, where we have the distinguished honor of chairmanship the work of the Seed Department, there will be every care given to the proper development of this important interest in the coming fair week. The exhibits, for two years past, whilst encouraging enough, have been largely tentative. This year a new department is created, and, working hand in hand with the sterling headmen of the Seed Division, Ottawa, it is to be expected that an enormous extension will have been effected, and a stimulus given to the good-seed movement which will arouse even the slowest coach in the land. Ontario has, under Zavitz and his experiments, done much for good seed. The Division and the men, whose hearts are fired with the desire to put every farmer in the line of sane seedling, will make our Maritime farmers growers of their own seed ultimately, and developers of something better in seeds than what they have now got to sow. Thus, we will do our duty—our little part in the great plan of extension in all scientific effort going on

about us. It is an entrancing occupation, too, this seed-selection; the man who commences it, and understands, as far as is permitted him, the matter in hand, feels conscious pleasure in his well-doing, and also possesses the knowledge that his time is being expended in profitable endeavor.

There were many entries in the general classes of grains, seeds and roots at Amherst—too few, however, from Prince Edward Island, this Province, of all others, which, as Commissioner Ruddick says, should raise peerless seeds. This defect must be remedied this year; we want to see the Island numerously represented. In the sections for the Canadian Seed-growers' Association alone, the entries were a tithe of what they should be last year. Let us hope to see a great increase this. Everybody will benefit by competition of this sort, for the good-seed movement reaches, in its beneficial results, every single soul in the land.

A. E. BURKE.

HORSES.

Stallion Inspection and Lien Act.

Editor "The Farmer's Advocate":

I have been reading with a good deal of interest the different articles in your paper on this subject. I heartily approve of the stallion inspection act. I think the tendency at least will be to improve the horses of Ontario; but I am opposed to the lien act. It goes without saying that the man who will take advantage of the stallion man will take advantage of any other man. Now, suppose A is the man who will take that advantage. He breeds his mare and gives a lien on her. The stallion man, in most cases, will not be in a great hurry to push him as long as the mare is a good, young, useful animal. The next year he breeds his mare to another horse, gives another lien to another man, and may repeat it a third time, and then sell her to B, and the result is trouble. The same might be said of a lien on a colt. I think it would be better to let the stallion man look out for his customers, the same as any business man.

I think that if the Government would buy a few good Clydesdale stallions, and place them here and there throughout the Province where they are needed, they might wonderfully improve the horse business, without being at any serious loss. I am sure if a good one of a ton weight, with good feet and legs, and carrying his head and neck in a way that made him look as if he were going some place, were placed in our locality, it would be highly appreciated and well patronized at of fee of, say, \$15.00.

Brant Co., Ont.

H. BUCHANAN.

Interference with Private Rights.

Editor "The Farmer's Advocate":

On the proposal to enact a lien and license law in regard to stallions, I would, by your permission, give my views, and the almost unanimous views of the farmers who are and have been breeding horseflesh in this county.

A meeting was held in the Village of Fisherville on Nov. 7th, in the evening, where the Commissioners appointed by the Government gave their views; also a number of owners of stallions who came from a long distance. Owing, however, to the insufficient advertising, only a small number of farmers were present. After some discussion, a vote was taken, which was carried by a small majority, while a number did not vote at all. The vote which carried was in favor of inspection, and the matter of licensing and a lien law was not put for a vote before the meeting. I have, since the meeting, made an honest effort to ascertain the feeling of the farmers on the subject, and have never met one who thinks such an act to be in the best interest of the farmer-breeder. Nearly every one seems to regard such a law as a direct interference in domestic affairs. They claim that, with long experience, aided by Institute lectures, and the aid of agricultural journals, the present generation is well able to take care of itself, and desire no law or supervision that is intended to restrict their liberties in matters which only concern themselves. Those views I heartily endorse. The weeding out of some sires would, no doubt, be welcomed by those whose horses successfully passed inspection; but is that fair? The farmers need a lot of horses for their own use, and they choose such stallions as, in their opinion, will be most likely to produce the class of colts they desire. Whatever may be said of the eventual benefit accruing from breeding from imported stock, liberty of action in such matters should not be denied to those thinking otherwise. "Eternal vigilance is the price of liberty." If a Government supervision of horse-breeding is enacted, why not also of cattle, sheep, swine, poultry, and all the rest? I oppose the proposed legislation because:

1. It is not in the best interest of farmer-breeder.

2. It is not in the best interest of farmer-breeder.

3. It is not in the best interest of farmer-breeder.

3. It would be sure to enhance the price of service.

4. It is a direct interference in affairs that are of a domestic nature, and concern only the individual.

There are other reasons, but let these suffice. I would ask my brother farmers to ponder well on the subject, and speak before it is too late. A law once enacted is usually very hard to repeal. I ask you: Are you competent to judge and select your sires for your mares, or are you not? If not, then have some official take you in hand and tell you what to breed from. For my part, I believe I can best judge for myself, and need no supervision.

HALDIMAND FARMER.

Wintering Stallions.

Everyone who has had much to do with horses must know that they are excessively intelligent and sensitive, and that they have most retentive memories, says a correspondent of an English journal. They never forget localities, and they resent injuries after years of absence from those who have been guilty of them. "The Druid," in his charming reminiscences, gives several examples of this. There was Don Jon, the winner of the St. Leger in 1838, and because "Bill" Scott hit him rather hard in one of his races, he became furious whenever he heard his voice. Jack Spigott was the same with regard to Scott also, and, for some reason or other, The Princess, the Oaks winner of 1841, took a violent dislike to John Scott, her trainer. Years afterwards, when he went to see her in the paddock at Brethly, she flew at him and chased him out of the enclosure. With such animals ruminating, as they must do, over the past, they may not be always treated naturally when leaving the excitement of the race-course or the show-yard for the monotony of the loose box. The stallion's life is much that of a recluse, if he does not travel. He is led out for exercise once a day, or, if particularly bad-tempered, that change in the day's doings is often dispensed with. In most cases it is the same box year after year, the same man to look after him, no change in the routine, and, as a rule, the stallion, under such treatment, becomes cunning and very dangerous. In other cases he shows age much before his time, and is as ancient-looking at 17 as others are at 27.

Many owners of stallions of all kinds and degrees have considered all this, and various have been the ideas promulgated. Hackney stallions are frequently driven during the winter months; Shires, in some few instances, are given light carting work, and hunting sires are often hacked to cover, and sometimes even ridden to hounds. Foco, winner of the Great Metropolitan in 1864, was hunted generally twice a week in Berkshire during the time he was there as a sire, and, to quote one in more recent years, Savoy, a most successful hunting sire in Staffordshire, was hunted regularly every winter, and travelled in the spring and summer. A remarkable case, again, is that of First Lord, by Stockwell, out of Vlie, by Zuider Zee. He had run pretty well in the Derby, and was a winner of other races, until fate brought him into North Devon as a hunting sire. There he belonged to a publican at Bideford, and this practical owner had him broken to harness. As he got older he was sent to a moorland farm every winter, and there employed to draw out mangels and turnips for the bullocks, being fed at the time mostly on mangels and hay. The latter end of February he returned to his own quarters, was given plenty of oats, bran and linseed for six weeks, and was then fit for the season. It was asserted that he was the surest getter of any horse in the county. There was another there at the same time called Half-and-Half, by Armagnac, and his winter days were passed by carrying a lady with the Devon and Somerset staghounds. He got some extraordinarily good hunters, and was in better repute than First Lord.

The custom of riding stallions has become a more ordinary practice of late years. The Duke of Portland's Carbine was so managed before His Grace purchased him from Australia, and it was continued after his arrival in this country. This would be always easy enough if the horse was ridden from the time he was taken out of training, but even under different circumstances the practice can always be adopted. A gentleman residing in Sussex kept two Thoroughbred hunting stallions and an Arab, and having some difficulties with his men, applied to the War Office for a cavalry pensioner or a reserve man. He was provided with an ex-corporal of the 9th Lancers, who described himself as an able horseman, and that he did not care much what he rode. Interviewed by his new master the night before he commenced his duties, he was told that he would have to exercise the three stallions early in the morning, the owner meaning, of course, to have them led out; but the trooper mistook that view, and thought he meant ordinary riding. One was an old horse, 17 or 18 years old, and had not had a saddle on him for at least 11 years. The corporal recommended the operation, and acknowledged afterwards that he had a very rough seat on both

the Thoroughbreds, but as he had apparently conquered their objections in the first ride, nothing was said, and they were henceforth regularly ridden.

To give stallions the desired amount of exercise, a pony has been often brought into use for the man to ride and lead the stallion; but, although this has answered remarkably well with some horses of mannerly dispositions, it has not been altogether successful in regard to others that have shown an inclination to savage the man or the pony, or both. Such a plan adopted in the season for travelling Shires has answered admirably in many cases, and the horse has become so fond of the pony as to be fretful if separated at all, the small animal being always accommodated with a stall next to the stallion. Companionship in various forms has been recommended by stallion owners. The late Mr. Mytton, who had the successful sire "Flash in the Pan" for many years, insisted on his being turned out in a straw-yard every winter with the young bullocks and any old mares in foal, or such like, that would not hurt him, and he lived to a fairly good old age under this treatment. The companions, though, can be admitted without such undue risks, and a stallion will be wondrously fond of almost any sort of animal. Lanercost had a large dog, a cross between a sheep dog and a retriever, as his friend, and he was a bit of a guardian as well. When the horse took his racing circuits, they were inseparable, and Lanercost would not feed unless his canine attendant was with him. When this dog was lost, another of the same kind was procured, and in stud days Lanercost always had his dog with him. Vol-tigern's fondness was for a white cat, and to the day of his death he had one that used generally to sit on his back. Another frequent companion chosen is a goat. The late Mr. Forest Tod, in considering the excitable disposition of Satiety,

in all their stages of growth and maturity from a want of sympathy with their characters and natural requirements. A senseless lad may spoil a Thoroughbred two-year-old by one act of cruelty that has been unnoticed by the trainer or head lad, and a Shire may be rendered a savage because some ruffian has struck him unjustly. Then, there is the monotony of stable management, the hours of idleness in the limited-sized box, or, worse still, the small stall and the continual feeding on artificial food. Even the crack sire, worth thousands, with his box so arranged that he cannot hurt himself, looks a prisoner between four high walls; and does that sort of existence prolong his life or make him more prolific? It does not do to take the risks in regard to animals of so much value such as were advocated by the late Mr. Mytton, but there might be some modifications in that direction. There should be the summer residence and the winter for all stallions, if possible, and for those of very great value; special attention ought to be paid to the comfort of both. It might be that finer horses would be bred under better thought-out systems. There are more bad-tempered horses than there should be, and more stable vices, such as wind-sucking and crib-biting. Horses, as a rule, do not live out their natural terms of life, and there is less pleasure in keeping them if they are not regarded as sensible, intelligent animals, imbued with extraordinary powers of memory and of affection, if they are not eradicated by abuse or mismanagement.

Examining Horses for Soundness.

Some excerpts from a bulletin issued by Purdue University on the above subject, will be found interesting. They are:

Generally a balky horse is one that refuses to work. Some will work single only. Others will

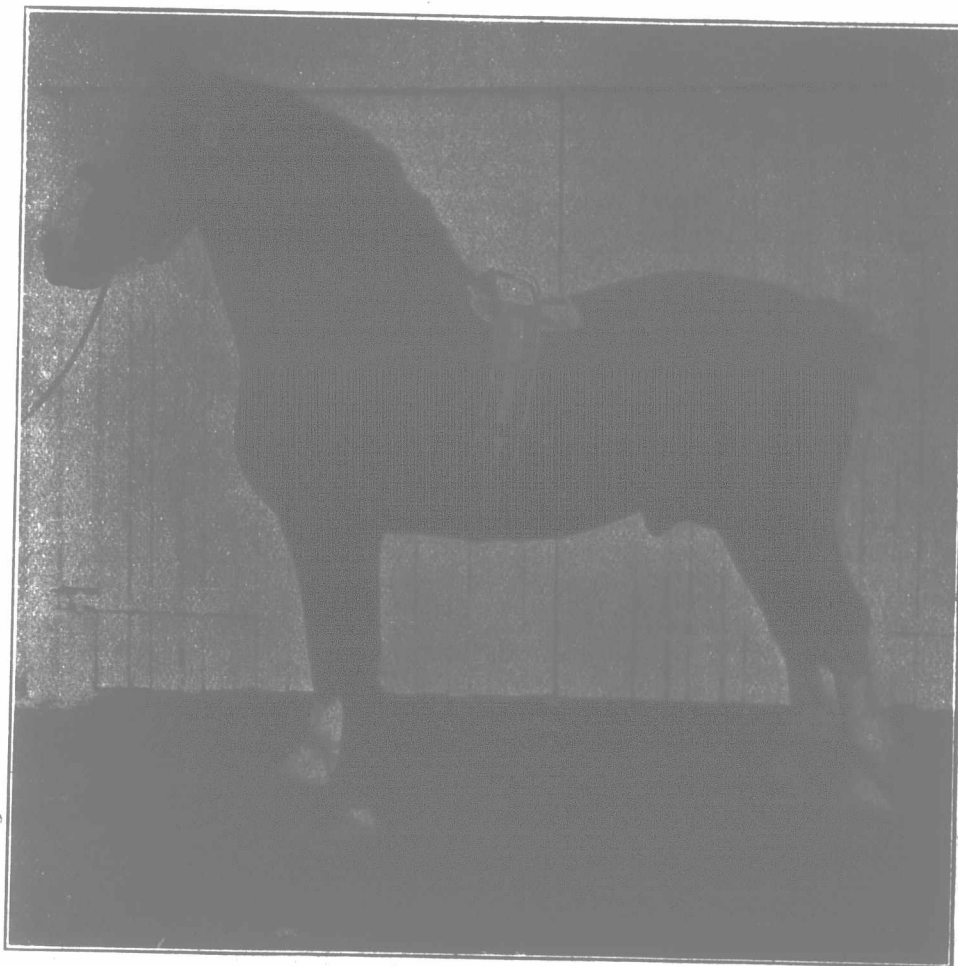
work only when harnessed with another horse. At public sales a horse is sold to work well double, but works a little green when worked singly, or vice versa. When this remark is made from the auctioneer's stand, one should always be on his guard and see that the animal is young enough to be unbroken. It is not generally from fear, but from stubbornness or determination to have his own way that he will not work. He is a very dangerous animal if he rears and plunges, as he may fall over backward, plunge forward sideways, sometimes throwing himself down. Animals that stand persistently, even with the fearful beating or whipping that is sometimes given, are the least dangerous. The balky horse should not be purchased at any price.

There are some horses that are so vicious and so dangerous that one should use the utmost care and caution in going about them. If they be

ticklish or shy, they are not as bad as those that bite and kick. If they cannot succeed in kicking or biting, they may strike with their front feet or attempt to squeeze one against the sides of the wall. While being groomed they may bite the halter strap. Some try to lie down, strike, and in many ways show their dislike of being curried.

Some horses may be perfectly tractable when being handled, but when approached with harness or saddle they begin to rear, plunge, kick, squeeze or bite. Others refuse to take the bit even after they are harnessed. Some will try to swell themselves up when the girth is fastened; others will object to the placing of the crupper. Again, we find horses that will object to being placed in shafts or being mounted.

The feet should receive special attention, not altogether from the disease point of view, but they should be taken up, one after the other, in order to be sure that they will permit shoeing.



Acme (10485)

Rated the 16th best breeding Clydesdale stallion in Scotland in 1905. First-prize and champion, Western Fair, London, 1906. Imported and owned by O. Sorby, Guelph, Ont.

though of a goat for him, and it quieted him immensely, the two, during the winter months, occupying a large loose box, with a yard to walk in and out of.

The most reasonable treatment for a stallion in the off season would be to give him a two- or three-acre paddock, well fenced, and a comfortable shed in one corner closed in on all sides, bar a very wide doorway; a thatched roof, if possible; and to be well away—a mile or two—from the breeding stud or stable. With a goat as a companion, time would pass away pleasantly. There would be no necessity to irritate the stallion by putting his tackle on or leading him out. He would exercise himself and be happy. The feeding should be changed, also, from quantities of hay and corn to a good share of roots in variety—carrots, mangels, swedes and kohlrabi. Horses like a difference of food as much as humans, and their whims and fancies should be all attended to. Numbers of horses are spoiled

without difficulty or danger to the smith. A horse that makes it necessary to be placed in stocks or to be thrown each time shoes are placed, is a very great annoyance.

Nothing should be left untried, in purchasing a horse, to determine whether this vicious habit be present or not. An animal with such a habit is always dangerous, either in approaching a strange animal or to the owner. He may be tested by leading close to another animal, noticing his behavior, whether he lays back his ears, dilates the nostrils, curls the upper lip, straightens out the head and shows the teeth. Some horses will plunge viciously upon their victim.

Approves a Stallion License Law.

Editor "The Farmer's Advocate":

You are desirous of getting the views of horse-men with regard to Government inspection and licensing of stallions. The move is in the right direction, and the steps taken so far are all proper. I feel satisfied that when the Commissioners report to the Government the kind of stallions they found in their travels throughout the Province, the Government will not hesitate in passing the desired act.

The question naturally arises, "What kind of horses are best suited to improve our common stock?" Are we prepared to discard all stallions that have not a registered pedigree? I think not, especially in Eastern Ontario. I think individuality is far ahead of pedigree where you cannot get both in the one animal. A good large horse of any breed, provided he is a good specimen of his breed, even though he may not be eligible for registry, should not be discarded. The class of horses most detrimental are the small, general-purpose sort, of no particular breeding, but generally called French; and the small, light trotter or pacer, of some American family. Next in the same list comes the broken-down race-horse, of Thoroughbred extraction. To get rid of the last three classes is what is wanted, which the proposed legislation will certainly do. After the scrubs are removed, in a few years we would be prepared for further restrictions making it compulsory that all stallions must have a registered pedigree and good conformation before being granted a license. With regard to the proposed lien act, I think it uncalled for; at least we don't need it in the good old County of Dundas. S. SMYTH.

About Feeding Horses.

Since the establishment of agricultural experiment stations, the feeding of live stock has resulted in the compounding of balanced rations for all classes of animals. The dependence of the prosperity of many of the great industries is based on the use of horses, and the maintenance of these animals in good working condition has resulted in widely-extended feeding operations.

As will be discovered, different quantities of the same kind of grain and hay enter the balanced ration of the different experiment stations. The fact that one particular ration is not universally adopted as the standard feed for horses at work, or in the pens undergoing the grand finishing preparation for market, demonstrated a wide difference in the individual temperament and assimilating ability of horses. There is a personality in each horse that must be understood and catered to in the maintenance of high condition when at work or during the fattening process.

Great corporations that employ a multitude of horses in conducting their business reduce their feeding operations to a system of so much grain and so many pounds of hay per hundredweight of the animal. But there is no uniformity even among the large feeding stables. The Virginia Express Company feeds 4.67 pounds of corn, 5.33 pounds of oats, .8 pounds of bran, 4.16 pounds of corn meal and 15 pounds of hay per thousand pounds of weight per day. The Jersey City Express Company feeds its horses 21.25 pounds of alfalfa, 3.2 pounds of corn, 19 pounds of oats, 1.15 pounds of bran, and 9.5 pounds of hay per thousand weight per day. The Boston Express Company feeds its horses 12 pounds of corn, 5.25 pounds of oats, and 20 pounds of hay. The United States Army feeds per thousand pounds of live weight its cavalry and artillery horses 12 pounds of oats and fourteen pounds of hay, and its mules 9 pounds of oats and 14 pounds of hay. The Utah Experiment Station feeds its farm horses 25 pounds of alfalfa and 10 pounds of bran, or 22.8 pounds of timothy and 10 pounds of bran. The Wyoming Station feeds 13.75 pounds of alfalfa and 2.25 pounds straw per day. In Omaha, Neb., 15 pounds of oats and 12 pounds of hay is the standard ration for a draft horse. At Chicago, the large companies feed 7.5 pounds of oats and 20 pounds of hay for a draft-horse ration. At the Iowa Experiment Station, a balanced ration is compounded in the proportion of 1 pound of hay and 1 pound of grain per hundred pounds of live weight of the horses used in the experiment work.

The ration of maintenance in the above cases

varies from the Wyoming combination of 13.75 pounds of alfalfa and 2.25 pounds of straw per day, to the Iowa Experiment Station ration of 15 pounds of grain and 15 pounds of hay for a 1,500-pound draft animal. If horses can be maintained in good condition at work on such a widely different ration, it demonstrates a wide difference in the nutrition necessary to maintain horses in different localities. The wide variation in the ration of maintenance practically compels every owner of horses to conduct his feeding operations according to the individuality and assimilating ability of each horse in his stable. Some animals require more grain than others, and an actual test will soon determine the proper amount of both grain and roughage requisite for each animal to maintain it in good condition or to fatten it for the market.—[Drover's Journal.]

Sand-crack in Horse's Feet.

The disease in question is called sand-crack, and is a cleft or fissure in the hoof, beginning at the coronet and extending downwards, frequently the whole length of the wall. This condition must, however, be differentiated from the cracks in the horn which have their beginning at the ground surface and extend upward, but do not involve the coronary band.

The causes of the condition are several. Probably the principal one is the dry condition of the horn. This renders the structure more brittle and liable to crack on violent concussion. Another common cause is an injury to the coronet. With a brittle hoof, such injury will cause a sand-crack, while where the horn is naturally elastic it will not crack so readily. The sudden evaporation of water from the horn which takes place when a horse is brought in from a moist pasture to a hot stable with a hard, dry floor, renders the horn extremely brittle and very liable to crack.

Sand-crack usually makes its appearance by way of a very slight crack in the hoof. Lameness is present in severe cases which have been produced suddenly, or when the crack has slowly advanced and has been in existence for some time. This lameness is caused by the pinching of the sensitive laminae by the crack as it opens and closes as the foot is in action.

The treatment of the case consists in arresting all movement of the edges of the crack. If the crack is well open, and any dirt or other foreign substance has got in, this must be removed before anything else is done, and the whole crack washed out with an antiseptic. The edges of the crack must then be brought together and fixed immovably. There are many methods adopted for effecting this, but probably the one most easily applied by the smith is to attach a brass plate on the hoof directly over the crack, attaching it with small screws. The edges of the crack must, of course, be forced as near together as possible before attaching the plate. A blister is also usually applied on the edges of the crack before putting on the plate.

Special attention is required in shoeing a foot affected with sand-crack. The shoe should be light, and in case of toe-crack should have two clips, one on either side of the crack, and at a slight distance from it. The horn directly under the crack should be cut out in a semi-circular fashion so as to remove all weight bearing at this point, and the entire foot must have a good solid bearing on the shoe. It is essential that the affected hoof be kept moist and elastic, and any good hoof ointment which has this end in view is recommended. As the horn tubes of the foot are open on the under surface of the hoof, it will be found possible to apply the hoof ointment on a piece of waste or oakum, and to keep this in place of the hoof by means of a leather pad or any other method with which most smiths are more or less acquainted.—[The American Blacksmith.]

Help a Friend.

Next year "The Farmer's Advocate and Home Magazine" will be better than ever before in every department. We therefore ask all our old friends not only to renew promptly, but, as a special inducement to extend its circulation, we make this special offer, good only till Dec. 31st.

Present subscribers who send us two bona-fide new subscriptions (enclosing \$3) will have their own subscription advanced one year; or, for sending one new subscription and \$1.50, we will advance the old subscription six months.

Changing the name from one member of the family to another is not "a new subscriber." Remember, that the new subscribers will get all the copies for the balance of this year, the beautiful Christmas Number and all of 1907 for the \$1.50. This is a splendid offer. Push it hard. Begin to-day.

It takes but little to ruin a good team when pushed beyond their strength.

LIVE STOCK.

How to Exercise Stock.

While there may be honest difference of opinion as to the necessity of allowing outdoor exercise to feeding cattle in the final months while in preparation for the block, there is no question whatever about the importance of seeing that breeding cattle are abundantly supplied with exercise and fresh air. Even in the case of feeders there are strong champions of the system of feeding loose in boxes rather than tied, the principal advantage claimed being that the exercise promotes digestion, thus insuring health and greater gains than possible in stall-feeding. Experimenters have claimed that feeding steers would make about one-sixth better gains loose than tied, and Thos. McMillan, of Huron Co., has torn out nearly all his stalls and become a strong advocate of loose feeding. Others, we are aware, have tried the plan of turning out their stalled cattle for a short time daily into the barnyard, though not with very striking results. Possibly some who have tried this plan may discover their mistake by perusing the succeeding paragraphs.

There is a lack of judgment used by most farmers in this matter of exercise. Usually we go to extremes, either keeping the cattle shut up altogether, or else turning them out to shiver in a bleak barnyard. Both practices are wrong. What would be the effect on boys turned out of a warm house to get fresh air on a frigid street? Unless they could find some mischief, they would stand around cold and utterly miserable. But give those boys a chance for skating or tobogganing and they will enjoy themselves to the full, strengthening their muscles and breathing in copious quantities of Nature's pure air to expand their lungs and vitalize their blood.

The same principle will apply to domestic live stock. To turn animals out into a bleak barnyard, expecting them to promenade back and forth for the good of their health, is absurd. Nature's method of exercising animals is to compel them to move about in search of food and drink. This is rational and wholesome. When man takes Nature's charges under his protecting care, he finds it advisable, for convenience and economy, to house and feed them at one place. This is all right, provided he does not forget exercise, but to make the exercise acceptable and beneficial he must take his cue from Mother Nature.

Animals, like boys, must be given a pleasurable incentive to exercise. Boys find this in games. Animals lack the means and inclination to organize foot-races, wrestling matches and fights (though the latter are sometimes attempted, with unfortunate results). They don't know enough to go for a walk, and if they did, the familiar scenery of barnyard and lane would not be found very interesting. Stock must be induced to take exercise getting feed and drink. One way of insuring this is the straw stack, round which the animals may rub, romp and eat. Another way is to provide a noonday feed of hay in a rack in a shed or other sheltered spot. Still another way—and not a bad one, either, when practicable—is to have the stock travel some distance to water, provided they can drink temperate water in a comfortable spot.

But perhaps the best idea of all, except for milch cows, is to have a piece of rape, whither the cattle or sheep may go daily after their morning feed. Of course, care must be observed not to turn them on it while hungry.

Mr. James Bowman, Aberdeen-Angus breeder, and probably one of the best herdsmen in Canada, is a strong advocate of the above system, and his ideas on the subject of exercise tally precisely with ours. Several years ago he found some of his calves troubled with colds and not doing so well as they should. He decided to try exercise and fresh air, and found it met the case exactly. For years now his practice has been to have a piece of rape at a distance from the buildings. In the morning, all through the winter, his cattle are turned out after a full feed to go to the rape feed if they will, except in wet weather when the trampling would injure the field. On rare days when they do not, they are put back into the stable, but Mr. Bowman says there is scarcely a day, even in February, when they will not go to the field; but he lets them be the judges. Neighbors say their cattle would not stand it, but, while something is due to good care and feed, the principal secret is that his cattle have been accustomed to it, and, having something to occupy them, they enjoy themselves immensely outdoors. When he has not enough rape, or when the ground is too soft to admit of pasturing, some other means is taken to give the cattle something to do outdoors. As a result, he has as hardy and thrifty a herd as one would wish to see.

We believe this is the rational way of exercising stock, and if more breeders would follow this sensible example, it would make for thriftier stock and less disease, especially tuberculosis. We be-

lieve it is unnatural and a grave mistake to attempt, in this climate, to keep live stock under hothouse conditions. We do not, of course, believe in reckless exposure for the sake of making animals tough, but in doing as the breeder aforementioned, letting the stock be the judge. A daily taste of our bracing winter air, together with good feed and a comfortable stable at night, is the way to breed a vigorous, profitable herd. Exercise, with judgment, is the word. Never turn stock out merely to stand in the yard. See that they have something agreeable to do.

Is Cattle-breeding a "Mystery?"

Writing, after half a century's connection with cattle-breeding, it seems to me that English farmers, Scotch farmers, Irish farmers and Welsh farmers, never had such facilities as they have at present of improving their cattle, no matter what the breed, and at so light an expense by means of progressive sires. Why is it that they have not availed themselves of the opportunity to its fullest practical extent? Sometimes I have thought that the glamour of the names of Bates and Booth, in place of proving an incentive, has been just the reverse, and limited enterprising effort. Ordinary farmer breeders have placed these men on a pedestal too high for the rank and file to emulate. They are held to have been men possessed with a speciality of acumen as to what blood and what forms of animals would nick with each other. They were giants in intellect on these points; they have accomplished all that could possibly be done, and they have absolutely left nothing for their successors to do. Folly, simple folly! They were men of sound common sense, and they used it in a sensible way. This recalls an incident of my youth. One of my fellow pupils (who, in a pecuniary sense, had what is styled "a father born before him") was told by the employer to whom his training had been entrusted that he was not making the necessary progress in his work. "Well, sir," said the lad, ingenuously, "you have learnt it all; what is there left for me to learn?" This seems to be the position of too many British farmers of today. Bates and Booth learnt and practiced all there was to be learnt in cattle-breeding; what is there left for present-day farmers to learn? With the materials they had then at hand, they accomplished wonderful results, and this leads to the reflection of what higher progress they would have evolved from present-day cattle. They recognized the preponderance of the sire on the outward structure, and that of the dam on the internal. This fact is illustrated in the human family, as well as in the bovine, for how few of our intellectual giants have transferred their gifts of intellect to their sons, unless when allied to an intellectual mother. In view of the present foreign competition in flesh meat, the apathy of so many of our farmers in not striving to perpetuate the work of past breeders is landing us in a most dangerous position. The late Mr. George Drewry realized in what might have proved a fatal turning-point in the world-famed Holker herd of Shorthorns, that some of his females were lacking in shoulder packing. He selected a sire strong in that particular point, of good blood, but otherwise not handsome. His choice underwent criticism, but it was justified by results. He used him only where and until the defect was remedied. The late Mr. Robert Thompson, of Inglewood, saw his herd deteriorating. The exclusiveness of Bates and Booth was then strong, and a cross between the two was anathema amongst breeders. He saw Beau Benedict; he took the plunge, and the result was the unique Nottingham "Royal" success, in which he won firsts in each of the female classes with animals of his own breeding, a feat no other breeder

has equalled, and followed this up by securing the Queen's massive gold medal at the Windsor Jubilee "Royal." Success such as this was mainly instrumental in breaking down the barrier of caste between Bates and Booth cattle, and other breeders more or less followed Mr. Thompson's example. Put the query to farmers generally, as to why so many coarse and indifferent cattle continue to be bred in the United Kingdom, and the reply is: "There have ever been good, bad, and indifferent cattle, and there will always continue to be such." Kismet! No reasons for the why or wherefore of such are forthcoming, and yet the foreign product is daily knocking louder at the doors of our markets with the improving flesh meat begotten by the superior animals they have purchased from us. They are breeding out their "weeds": why should not British farmers do the same? It is a truism that there is no beef to equal the British well-bred, grass-fed product, and yet there are complaints that foreign beef is palmed off on British consumers in our markets at English prices. No one, not even the veriest tyro, need be so deceived. Look at the deep, rich blood-red color of the beef on an English butcher's stall, and then glance at that on the stall of the purveyor of foreign meat, a pale, washed-out apology-red, in marked contrast to the other. To deceive a person of ordinary acumen, that person must be color-blind. The difference is produced by the superiority of British grass lands, just as the latter combined with our climate (our much-abused climate) give us the superiority over all other nations in live-stock breeding. Let, then, our farmers breed out the "weeds"; let our farm live stock be as uniformly superior as is our pedigree herd stock. There is no need to sacrifice either milk or flesh, and judgment only is needed to breed the best combination cattle; all the materials are at hand, and cheap; and so, and only so, aided by our grass and climate, we shall retain our flesh meat markets. In a wealthy nation like as is ours there is plenty of demand for the superior home product, but not for the inferior, at paying prices. We need not grudge the poorer members of the community the cheaper foreign flesh meat. What we have to do is to keep ahead in quality.—(Samson, in Live-stock Journal.)

Basement Stable Ventilation.

Editor "The Farmer's Advocate":
To my mind, the editorial, "Is the Basement Stable a Success?" in your paper of the 29th inst., opens a very important subject at the present time? There is no doubt that a large proportion of the stables in use in this Province are dark, damp and unsanitary. As you properly point out, it is difficult to maintain a dry atmosphere in a stone building where there is no dead-air space between the stone and the air of the stable. We all know how unsanitary were the old stone houses, plastered directly upon the wall, and the ordinary stone-basement stable possesses in an aggravated degree the faults of such houses. It seems to me that the planning of sanitary stables is a subject worthy of careful consideration by architects of farm buildings. Sanitation seems to be one of the last things considered in the average stable, and yet it is a matter of first importance. I firmly believe that it would pay us to sacrifice considerable in the way of convenience in order to secure the benefits derived from superior ventilation and absence from dampness, and the latter conditions are more easily obtained where wooden walls are used and where it is a comparatively short distance from the ceiling to the roof of the building. The wooden walls give dryness, and the low roof makes it possible to ventilate more thoroughly. You have certainly opened up a subject that is worthy of careful consideration, and I trust that it may be the means of bringing out a rational discussion of the whole problem.
G. E. DAY.

Scotch Feeders Lose.

A cable despatch from London, England, discloses the true reason for the demand for cattle embargo removal. In the Tariff Commission's report some Scotch witnesses, especially feeders of stock, meat salesmen and butchers, indicate the losses brought about by the exclusion of Canadian store cattle. In the absence of such store cattle, they say, feeding has been ruinous. Feeders in the east of Scotland say that when the supply of Canadian store cattle was cut off twelve years ago profits in cattle fell £3 per head.

THE FARM.

Use of the Road Drag.

Editor "The Farmer's Advocate":

The letter of your correspondent, H. R. M. D., in your issue of Nov. 22nd, is most interesting as showing one of the few cases in the Province in which individual property owners have so actively sought to improve the roads passing their own farms. It has been difficult for me to understand why landowners, energetic and painstaking within the limits of their line fences, can fail to see that their true interests do not end there, but that the roads to and passing their farms are essentially a part of their own property. No farmer ever looked its true value when viewed from a road axle-deep with mud or ruts. No farmer can do justice to its owner and his family when it has to be reached over a bad road.

The drag-scraper which your correspondent has used during the past season is an excellent implement to use as he describes. Where individual farmers cannot be induced to carry out the work themselves, the municipality, acting for the community, should undertake it.

The drag is a very simple implement, but it is applicable only to earth roads, however, and should not be used on gravel or stone roads, as it will draw in sod and earthy material from the shoulders, spreading it over the metal. One form of this implement is as follows:

A log, nine or ten feet long, is split in halves. The halves are placed parallel to one another, the edges down and flat face to the front, and are firmly braced together in this position with cross-bars. A chain hitch is attached in such a manner as to incline the machine at an angle of 45 degrees, the forward corner being near the outer edge of the road, and the rear corner at the center of the road. By weighting the machine and dragging it up one side of the road and down the other, making a number of circuits, using two or three horses, the edges of the logs plane off the tops of ridges and rough places, drawing the material sideways and forward to fill hollows and ruts, and crowning it at the center of the road.

The principle has been applied in using a steel scraper, a steel rail, or steel I-beam, and in even using ordinary fence rails fastened together. The results are excellent on earth and clay roads, but are not adapted to improved roads, where a more careful treatment of the metal is needed, and where a hardened roadbed of gravel or broken stone would be much injured by drawing over it the sod and earthy material from the shoulders of the road.

The clay or earth road, while it can be much improved for all seasons by the use of the drag, cannot be made to equal the macadamized road. The latter can be made to resist the severities of spring and fall, but clay will inevitably cut and rut under traffic, particularly when the frost is "coming out" in spring.

For strictly clay and earth roads, this method of repairing them in the spring, when the ground is moist, is inexpensive, and has much to commend it. The mileage of earth and clay roads in the Province is very great, and to bring them to a fit condition for summer travel is very important. By levelling them when moist in the spring



Prizewinning Shorthorns.

Representing the herd of Senator Edwards, Rockland, Ont. The yearling bull is Royal Favorite =56149=, grand champion Canadian National Exhibition, Toronto, 1906.

or early summer, they very quickly become smooth under traffic; and until cut up by fall rains, make a very serviceable road, where better cannot be obtained.

The drag should be used when the road is wet in the spring, and after rains, as it then "puddles" the surface of a clay road, and enables it to shed the water to the side ditches, instead of absorbing it.

To reach the best results with this method, presupposes the grading of the earth roadway with the modern grading machine. This forms the ditches or water-table; it crowns the roadway in a proper manner, leaving the grade such that good surface drainage is possible. The split-log and kindred scrapers are merely instruments of repair; the grading machine is the instrument of construction.

A. W. CAMPBELL,
Highway Commissioner for Ontario.

[Note.—It is very encouraging to find that parties who do take a special interest in the simple methods of roadmaking and have secured some practical information, are willing to communicate it to the public through our columns. It is to be hoped that more of our readers who are doing excellent work throughout Ontario will contribute good-roads literature in this way, and refer to some of their experience.—Editor.]

Roadmaking at Ste. Anne de Bellevue.

The road shown in the engraving, built over bog land on the Macdonald Agricultural College farm, Ste. Anne de Bellevue, was plowed about 4th July; it was then thoroughly worked with a disk and cultivator to kill the sod. After this it was graded with a road grader, the center was levelled out, and the sub-grade rolled with a 10-ton steam road roller. Stone picked off the fields was then spread about four or five inches thick and twelve feet wide; this was broken by hammers to what would be called a four-inch size. This coating of stone was then thoroughly rolled, the roller crushing and levelling it to a smooth surface. On top of this about four inches of crushed stone from the stone crusher, screened through a 2½-inch screen, was evenly spread with a Sawyer & Massey spreading wagon, and then well rolled. As a finishing coat, two inches of fine material was then applied with the spreading wagons, and rolled to a smooth, hard surface.

The stone used was a hard blue limestone. The coarser stone, as already mentioned, was mostly picked up off the fields. The stone crushed was quarried on the College grounds. A No. 2 Austin gyratory stone-crusher was used to break the stone into two sizes, by means of a revolving screen, manufactured by the Sawyer & Massey Company. This screen was six feet long, with perforations of 1½-inch and 2½-inch, in lengths of three feet each. The crusher broke everything fine enough to go through the screen. Two spreading wagons were used, and the rolling was done by a Case traction-engine roller weighing ten tons. The width of the road, as shown, is 12 feet, and the average depth of stone 9 inches. I can hardly estimate the cost of such a road, as that would depend largely on the cost of material, but if that did not cost more than \$2 to \$2.50 per cord for stone, the actual cost of construction (leaving out interest for machinery, etc.), should not exceed \$1,200.00 per mile.

We have also built some roads here with a metalled width of eight feet, following the same directions as given above. In the case of about 1,000 feet of road built over a bog, the width was 18 feet, and from 1 foot to 15 inches of stone was applied in the same proportions as given above. Of course a road metalled only eight feet would cost considerably less than one metalled 12 feet, as shown in the photograph.

JAMES SHEPPARD.

Little Effort.

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Notes from Ireland.

ARBOR DAY AND FORESTRY PROGRESS.

If the Irish Forestry Society achieved nothing else in its career, its existence has been fully justified by the successful way in which it has drawn public attention to the Arbor-day movement, and the extent to which observance of this tree-planting carnival has been secured through its instrumentality in many parts of the country. About two years ago, under its auspices, Arbor Day was officially inaugurated by the planting of half a dozen trees in a prominent part of the expansive Phoenix Park, near Dublin. After this initial effort had been accomplished amid great enthusiasm, it was thought that the movement was on a fair way towards general adoption in Ireland, but, alas, the country people, as a whole, (though there were notable exceptions), did not come into line so readily as could be wished. For a year or so, it must be confessed, the matter was permitted to lie somewhat in abeyance. This year, however, the Forestry Society determined "to do or die" (preferably the former, of course), and, when autumn approached, a valiant effort was made to impress with greater emphasis than ever the need of a more widespread appreciation of the necessity of tree preservation and planting, and the assistance which the general observance of Arbor Day would in many directions contribute towards the desired object. In this laudable aim, the Society found willing and useful allies in the agricultural and general press, and strong appeals on the subject appeared in most of the papers. In addition to these, however, direct circulars were sent to the county councils and other local authorities, explaining the idea embodied in Arbor Day, and asking for its institution in their respective districts. The closing week of October and the opening days of

matter of option for us in these countries to attend to existing forest areas and seek to extend them; rather, it is supremely important. Would that this aspect of the subject were more forcibly driven home and better appreciated by the State.

PURE-BRED STOCK BREEDING.

One of the most notable developments of recent years in Irish farming, but one which changing times and conditions have rendered necessary—not to say eminently advisable—has been the marked expansion that has taken place in the number of breeders of pedigreed stock in the country. Whereas ten or twenty years ago our pure-bred herds, flocks and studs could be pointed to as isolated examples, there have now sprung up dozens and hundreds of nurseries of high-class and well-bred pedigree stock, possessing in them the elements of success and progress. In no case, perhaps, has this development been more noticeable than with regard to the Shorthorn cattle, whose popularity here, as elsewhere, shows no signs of waning. By way of parenthesis, and as an example of the hold which the breed has obtained in this country, it may be mentioned that, of the 800 bulls subsidized by the Department of Agriculture during 1905 for service, to improve the country stock, no less proportion than 602 were of the Red, White and Roan breed, the remainder including only 104 Aberdeen-Angus and 69 Herefords. Or, again, even more striking are the estimated totals of bulls serving cows in Ireland during the same year, the respective figures being: Shorthorns, 10,689; Aberdeen-Angus, 769; Herefords, 390; Red Polls, 142; Kerries, 327; Dexters, 95; Channel-Island breeds, 67; cross-breeds, 4,250. As may be gleaned from such comparisons, Shorthorn herds are now quite numerous throughout the country, and a fact that affords special gratification is that our Irish

breeders are proving successful in obtaining a goodly share of the patronage of the South American and other foreign buyers whose operations have made the breeding business so profitable for our Scotch and English friends. As a case in point, reference may be made to the fact that, during the second quarter of this year—the three months ending with June 30th—over 80 Irish-bred Shorthorns were exported to South America. Irish-bred Kerries and Dexters have recently been sent to New Zealand and Australia, while one of our leading Irish flocks of Shropshire sheep, that owned by Mr. R. F. H. White, in the Queen's County, has lately had purchasers from such distant parts of the world as Tasmania and Chili. Other examples could be cited of the encouragement which this foreign demand, now being directed to our shores, gives to our Irish breeders—an encouragement which, it is to be hoped, will foster a striving to produce the highest-quality animals, and so to enjoy a merited and ever-expanding market for them.

THE STATUS OF THE AGRICULTURAL INSTRUCTOR.

Strange things happen everywhere now and again, and I am in a position to relate an occurrence that can only be described as strange, and which possesses as much interest for Canadians as for those people at home here who are aware of it. A certain agricultural instructor in the service of the Department of Agriculture, and one who has done excellent work in a progressive Irish county, recently decided to resign his position and repair forthwith to Canada—that magnetic land—where he purposes pursuing, in Alberta, I believe, the commonplace, but (as our mutual friend the Editor so forcibly emphasized in a recent issue) the dignified industry of farming. Of course, there is nothing very peculiar in a man setting out from the beaten track to make the most of his life, but the special circumstances under which this particular young gentleman has arrived at his decision are not altogether on a par with an average case. I think the announcement will have a curious effect on the farmers who have been accustomed to his advice on how to profitably manage their farms, and so remain at home to make a living instead of joining in the ever-flowing westward stream of emigration. Of course, every man knows his own business best, and no one has a right to blame any man for following the bent of his own inclinations, so our unnamed friend is free to bring his scientific and expert knowledge of agriculture to his own personal advantage under any skies he may desire, and may well wish to him in his enterprise and independence of thought and action.

But, incidentally, however, opens up what I regard



Road Over Bog Land.

as a matter worthy of comment. Every county in Ireland, with the exception of a few, has now its agricultural instructor. At first these men had, and in many cases still have, to bear the brunt of the actual—and sometimes not too pleasant or encouraging—intercourse with the farmers. Their itinerant work is, consequently, of no easy nature, while the average salary attached to the office is £200 a year. The unsatisfactory feature of the matter, however, is that none of them, as instructors, notwithstanding the importance of their work, can count on promotion or material advancement, while up at headquarters in Dublin the most humble and indolent Government Clerk can go up a sure scale of promotion, and at the end retire on his comfortable pension. The hard-working and industrious instructor is put on a different level, and a few months' notice is sufficient to bring his services to a close. True, a few promotions have been made to the permanent staff from the ranks of the instructors, but these openings are not to be relied on, and hence, notwithstanding the possible inconsistency indicated, it is only natural, after all, that a man of developed intellect and practical and scientific training should seek an outlet for his abilities in a direction that affords more prospect for their fullest and best reward.

ADVERTISING CANADA.

Incidentally, the foregoing leads me on to another subject. It will not, I presume, be news to many readers of "The Farmer's Advocate" to learn that the Canadian Government authorities have long been keeping the resources and possibilities of your country well before the Irish people, with the object of encouraging emigration. During the summer, at most of the principal Northern shows, it is customary to see an attractively-arranged stand exhibited and presided over by the Government representative, Mr. O'Kelly, Queen's Square, Belfast, and containing specimens of grain and other products of Canadian origin. Literature of an interesting and instructive character is freely distributed, and in this way the attractions of the Dominion are impressed on such of our people as have thought of trying their luck across the seas. The very large number of Irish men and Irish women that have adopted Canada as their new home within the past few years, shows how successful have been the results of this method of advertisement. In Dublin, also, the Government of Canada have centrally-situated and comfortably-fitted-up apartments, where I have seen from time to time many interesting specimens of Canadian fruits and other products. This branch has been in charge of Mr. John Webster, who has been keenly alive to the important character of his work, and has always been willing to supply such information as his position enabled him to give to enquirers. As a lecturer on Canadian life and prospects, Mr. Webster has frequently been heard in Dublin and surrounding centers. It may be of interest to record that Mr. Webster has lately been transferred to Glasgow, and the rumor has been afloat that this will be followed by the closing of the Dublin office. No official announcement has been made, but it is believed in the best-informed quarters that this is most improbable, and that when Mr. Webster's successor is appointed, the work of the office will be carried on as before. It would, I fancy, be obviously injudicious that things should be otherwise, especially at the present juncture, when we are practically on the eve of a year which is to witness what I may boldly describe as the most important International Exhibition that has ever been held in Ireland, and the great likelihood is that the rumor above referred to is altogether unfounded. Of the exhibition in question I hope to have something to say in a coming letter. "EMERALD ISLE."

Grain for Seed Improvement.

Editor "The Farmer's Advocate":
By instruction of the Hon. Minister of Agriculture, a distribution will be made this season of samples of superior sorts of grain to Canadian farmers for the improvement of seed. The stock for distribution is of the very best, and has been secured mainly from the excellent crops recently had at the branch Experimental Farms at Indian Head, Sask., and at Brandon, Man. The distribution will consist of samples of oats, spring wheat, barley, Indian corn (for ensilage only) and potatoes. The quantity of oats to be sent will be four pounds, and of wheat or barley 5 pounds, sufficient in each case to sow one-twentieth of an acre. The samples of Indian corn and potatoes will weigh 3 pounds each. A quantity of each of the following varieties has been secured for this distribution:

- OATS.—Banner, Wide-awake, White Giant, Danish Island, Thousand Dollar, Improved Ligowo (white varieties), and Goldfinder (yellow).
- WHEAT.—Red Fife, Preston, Pringle's Champion, Percy, Stanley, Huron and White Fife.
- BARLEY.—Six-rowed: Mensury, Odessa, Mansfield and Claude. Two-rowed: Standwell, Invincible, Canadian Thorpe and Sidney.
- INDIAN CORN (for ensilage).—Early sorts:

Angel of Midnight, Compton's Early and Long-fellow. Later varieties: Selected Leaming, Early Mastodon and White Cap Yellow Dent.

POTATOES.—Carman No. 1, Early White Prize, Rochester Rose, Moneymaker, and Late Puritan.

Only one sample can be sent to each applicant, hence if an individual receives a sample of oats he cannot also receive one of wheat, barley or potatoes. Lists of names from one individual, or applications for more than one sample for one household, cannot be entertained. The samples will be sent free of charge through the mail.

Applications should be addressed to the Director of Experimental Farms, Ottawa, and may be sent in any time before the 15th of February, after which the lists will be closed, so that the samples asked for may be sent out in good time for sowing. Applicants should mention the variety they prefer, with a second sort as an alternative. Applications will be filed in the order in which they are received, so long as the supply of seed lasts. Farmers are advised to apply early, to avoid possible disappointment. Those applying for Indian corn or potatoes will please bear in mind that the corn is not usually distributed until March, and that potatoes cannot be mailed from here until danger from frost in transit is over. No postage is required on mail matter addressed to the Central Experimental Farm, Ottawa. WM. SAUNDERS, Director.

THE DAIRY.

Feeding for Winter Milk.

With the increased price being paid for milk for town and city use, and the higher value of dairy produce in general, the question of making milk in winter is one of greater importance. It also adds to the solution of the labor problem, by giving profitable work to farm labor at a time when, otherwise, it would be impossible. With the disappearance of the woods and therefore that sort of work, other employment must be found, because no laborers can live in idleness four or five months of the year, unless they are paid a proportionately higher wage when they do work (but that is another story). Under proper conditions and businesslike management, winter dairying is very profitable. The degree of profit is, however, in proportion to the way things are managed, and to this end several things are requisite, such as good, comfortable stables, well lighted and well ventilated, with water inside. Cows must be kept in nearly all the time. Good cows, a good supply of suitable feed of a succulent nature, such as ensilage and roots, bran and meal, are required, but a great saving in this costly part of the ration can be made by having a plentiful supply of ensilage and roots, that can be grown on the farm, and are therefore had at first cost. All these things are absolutely necessary before the best of dairymen should undertake having the larger part of their cows freshen in winter. A poor caretaker—one who is not methodical and regular—is of little use in winter dairying.

Having laid down the law for winter dairying, I will proceed to give some of the whys and wherefores for these requirements.

Under proper conditions as to feed and care, November and December are the very best months of the whole year to have cows freshen. Freshen-

ing during these months, they will, under proper management, give more milk than the same cows would freshening at any other time. September and October are not nearly so good. The weather is too changeable, and they are part of the time on grass, and during cold spells on other feed, or should be. August is a good month to dry a cow up or start her that way, and September will finish her going dry, if she is, say, six or seven months with calf. The changeable weather of fall, though unsuitable to a new-milk cow, does not so injuriously affect a dry cow, and if feed is fairly plentiful, the cow will get in good condition for her next year's work, and the production of the cow for the following year is greatly influenced by her condition before freshening. If she gets a poor start, either on account of lack of feed or wrongful handling, or accident at the beginning of her milk period, she will not do so well, and may not give half as much milk during the year as she would under a favorable start. January and February are also good months to have cows freshen, but cows due to freshen in these months are likely to go dry any time after August; in fact, just about as soon as those cows that freshen in November and December, and are consequently out of production longer. A cow that freshens in November and December—that is, if she is worthy the name of a dairy cow—and is fed and cared for as I purpose telling, will give a lot of milk during the winter; then, when she goes to grass she will freshen up again and increase her flow. Practically, we will get two freshenings in one year. I can get more milk from a cow in the stable in winter than I can from the same cow on grass, especially for a two-months or longer period. Grass is too stimulating and not sustaining enough for heavy milkers; but because it is stimulating, it is just what a cow needs after she has been milking four to six months. But if a cow is to be stimulated to an increased milk flow in turning to pasture, she must not be allowed to run down too much during the winter. If her milk production gets below a certain amount, she is likely, when she goes to grass, to start to go dry, and make beef rather than milk.

It is, therefore, necessary to feed a succulent ration during the whole winter, and it is also the most economical, as ensilage is far and away the cheapest feed we can supply. Mangels and cow beets are A 1 for milk production, but it would take a very large space to store a sufficient quantity to carry a reasonably large herd through the winter. There is danger from frost, as well as rot. They cannot be stored as easily as ensilage. With me it is not a question of ensilage OR roots, but silage AND roots. That is the basis of an economical feeding ration. Silage is fed in as large quantities as the animal will eat up clean; roots are fed in conjunction to the heaviest milkers, and in proportion to our supply. It is well to feed fairly liberally of roots in the early winter, as the cows have been used to a very succulent ration, and, not being long off grass, violent changes are not desired. Another reason why we desire to feed roots in fall and early winter is that we are enabled to work into the ration a lot of straw, which has the most feeding value early, as towards spring straw is not so good, and it is necessary to feed hay. If there are any cornstalks to be fed, they, also, should be fed early, as they lose in nutrient and digestibility every day, and are of very little value after, say, the first of March. Now,



An English Dairymilk.

with ensilage and straw, and some roots, we have a cheap maintenance ration and more. The amount of meal and bran will depend upon the individual cow, and may vary from ten to twenty pounds daily. A cow producing fifty pounds milk daily will require fifteen pounds daily, while a cow can and has produced over 80 pounds on eighteen to twenty pounds. When feeding the eighteen to twenty pounds of, say, two pounds oil cake, twelve pounds bran and six pounds oat chop, less ensilage is fed. A cow does well on a bulky ration, but there is a limit to her capacity, and it becomes sometimes necessary to reduce the bulk.

It is important to be methodical and regular in feeding, as well as milking; the nearer the day can be divided as to milking hours, the better. We will, therefore, plan to milk at 5.30 a.m., and take one hour to finish. Then ensilage is fed, and whatever meal is fed is put upon it. The attendants will then want some breakfast, also. After that is disposed of, the roots are fed to those cows that get roots. There is no advantage in cutting them, and the labor might better be saved. The mangers are then filled with straw, if it is good. Stables are cleaned, and bedding shaken up. Cows lie down, and take things comfortable. After dinner a small feed of hay is given, the straw that is left being put under for bedding. At 4 p.m. feeding is commenced—ensilage, and the meal on it. At 5 p.m. milking; and if there are roots to be fed, it can be either done after milking or just before. That finishes up the day.

Why should water be inside and where the cows can get it at any time? Because a milk cow requires a very large quantity of water to properly assimilate and digest her feed—from 125 to 200 pounds water daily. I have weighed out the latter amount to a cow giving 85 pounds milk testing 3.6 per cent. fat, daily for a week. It will thus be seen how necessary the water question becomes. Further, it is the "nater of the baste" to want to drink after she has eaten. Too much cold water given at one time chills the cow, and acts as a physic, even if not cold. Knowing this, when a cow is constipated after parturition, by giving her a big drink of warm water or a very wet bran mash soon after parturition, it moves the bowels, and is an aid; at other times it is an injury. Common sense will, therefore, tell us that, owing to the nature of the cow's feed, its succulency, and the large quantity of water required, the cow should not be out in the cold. Standing around a yard is not exercise, and a cow don't want exercise, anyway. Very little motion when a cow is full of feed will start her scouring. When a cow is not on full feed, just before parturition, then half a mile, or even a mile walk will do her good, keep the bowels moving, stir her blood, and soften up her udder. After parturition, exercise is harmful; she wants to be then treated like any mother. Like a patient, her stomach is weak, and she requires less feed, and that of an easily-digestible and light nature until her stomach regains strength and tone. It may be ten days, two weeks or three weeks before she is gradually worked up to a regular ration.

There is no such thing as "forcing" a cow for a record. Just as soon as the stomach is overworked then it interferes with her doing her best. A cow may not be fed enough, and she may be fed too much. Hard-and-fast rules cannot be laid down when it comes to fine work in feeding, but much depends upon the judgment and common sense of the feeder. Exercising common sense, considering cow habits, the nature of her feed, water required, etc., are the requirements. Brains are valuable nowhere more than in dairying.

I should perhaps add that, whilst a cow should not be out in the cold, it is not necessary nor advisable to keep her too warm. We cannot lay down any certain temperature, but cows will do very well in a stable in winter with the temperature at 50 degrees, or even 40, if the air is fairly dry. A draught is bad for cow or man. Dampness also shows lack of ventilation. Owing to the large quantity of rough feed which she reduces to a concentrated product, and for other reasons, she requires plenty of air. Salt is an aid to digestion. Too much salt is a physic. Some cows require more than others; about two tablespoonfuls once a day will suit most cows, thrown on the feed or after feeding, but the state of the excrement will be the best guide. If too loose, less salt, and vice versa. In fact, the hind end tells the feeder the effect of feeding more than the other end; and the experienced feeder watches both ends. GEO. RICE.

Good Feeding for a Good Test.

In the eighth 30-day cow test at Cowansville, Que., under the Dominion Department of Agriculture, 205 cows were tested; average yield of milk, 383 lbs.; average test, 4.3%; average yield of fat, 16.5 lbs. Herd No. 27, containing 16 cows, gave 425 lbs. of milk, averaging 4.7 per cent. fat; the highest individual yield being 925 lbs., testing 4.4 per cent. fat. All through the season one of

the best averages was made by herd 27. This month it is again one of the best. The owner writes: "I feed grain practically the year round, except for a short time when cows are dry, in quantity what their milk yield and condition seem to warrant. In summer I use bran and corn meal. In winter, in addition, I use gluten meal, linseed, oil meal, and ground barley. In winter I have ensilage, with early cut clover and mixed hay. In summer, in addition to pasture, which is very poor, I use soiling crops for them; first clover, then peas, oats, vetches, and then second-crop clover, and last of all green corn."

Cold Storage for Cheese.

On Nov. 22nd a District Dairy meeting was held at Listowel, about 30 persons being present.

Mr. Thos. Ballantyne Jr., President of the Dairymen's Association of Western Ontario, acted as chairman. Twenty factories out of twenty-six in the district received instruction. The instructor made 110 visits and 81 calls. During the season, \$1,630 was spent in improvements.

Chief Instructor Barr complimented the cheesemakers and instructor upon the splendid quality of cheese turned out during the season, especially during the fall months.

Considerable interest was taken in discussing cool-curing rooms, following the able address on this subject by Mr. A. T. Bell, of Tavistock, who remodelled his curing-room during the past season. The room is now 25½x32½ feet, with 9 ft. 8 in. ceiling, and will hold 750 cheese on the shelves, with room at one side to store a carload of cheese when boxed. The icehouse is 10½ x 24 ft. 10 in. The repairs were not completed until June, when the ice was taken out of another icehouse and put into the new one, only filling it about half full. Notwithstanding this,

not safe to return a patron's milk, as they would be likely to go to another factory next day.

Quite a number of patrons were present and took part in the discussions. Everybody seemed well pleased with the past season's dairy business, and well they might be, as nearly all the Listowel factories sold their October cheese for 13 cents. GEO. H. BARR.

POULTRY.

Poultry Houses.

W. R. Graham, B. S. A.

The poultry houses I have seen on many of the farms in Ontario are mostly of two kinds—those that are small, poorly lighted, and seldom cleaned; and those that are well built, well lighted, and frequently kept moderately clean. The last-mentioned houses are not much more satisfactory than the first.

The essential points in a poultry house are light, dryness and good ventilation. The houses that have been built warm and tight, with the idea of keeping the water from freezing, have the objection that in nearly all cases the ceilings and walls coat with frost during very cold weather. When the weather moderates the frost melts, and you have a very damp house. The house smells of chickens, or, in other words, is poorly ventilated, and in many instances the chickens are unhealthy. Sometimes they lay well during the winter, but the eggs are very poor for hatching purposes.

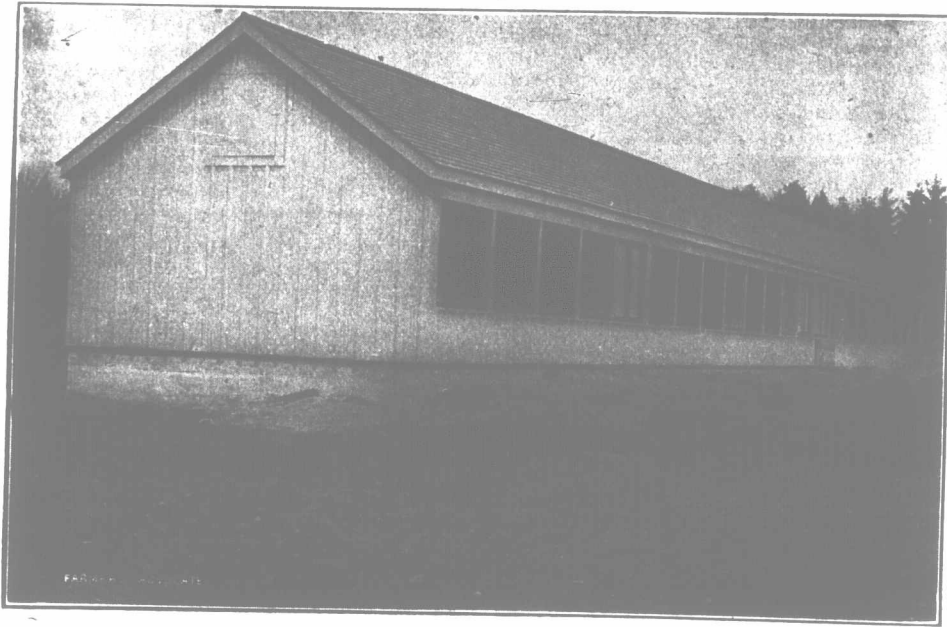
For a number of years we have been trying to find some way to overcome these difficulties. The best means of ventilating a house that I know of is by using cloth screens, and to keep a house perfectly dry I have found nothing better than

a straw loft; i.e., the ceiling is covered with straw, the straw being placed on boards or rails which are some six or eight inches apart. The straw should be about one foot or more in depth. The straw, which is exposed to the air of the pen, will absorb the majority of the moisture and keep the house fairly dry; at least, we have had no difficulty whatever in keeping houses perfectly dry by using straw lofts. Where we have not used these lofts, even where there was ample ventilation, there has been some little difficulty with frosted walls and ceilings.

The use of the curtain front is coming more into favor. Under ordinary circumstances, a house needs to be one-third of the front of glass, in order to have the pen well lighted. There should be about as much more of the front of cotton. The cotton may be put on frames which can be closed or opened, according to weather conditions. On nice bright days the cotton is either rolled up, or, if the curtain is put on frames it can be hung up. This makes the pen very nice, bright and airy. On nearly all days the cotton screens should be opened for a short time. On days which are very windy and dull, it is advisable to only open one screen. If more draughts throughout the pen. As far as we can tell, cotton will keep out almost as much cold as ordinary glass frame or sash. At least, in the houses where we have cotton fronts we get a slightly higher minimum temperature than where we have a similar house with all glass front and no cotton. It must be borne in mind, however, that in these houses of ours, where the tests are made, the windows are not fitted extremely tight.

Where floors are made of cement, boards or ground, at least four to six inches of fresh earth taken to keep the floors well cleaned, otherwise the ground becomes tainted and the common epidemic among fowls more prevalent. The ground once or twice a year. The land, too, needs best thing is to apply lime and work the same into the soil.

All poultry houses should be whitewashed and disinfected at least once a year. The present practice of whitewashing, as it is



Up-to-date Poultry House at the Ontario Agricultural College.

Erected last summer. Three compartments. Walls one-ply of battened boards, with extra protection along the north wall behind the roosts. Straw loft overhead. Note the glass and curtain fronts.

he was able to keep the temperature constantly at 58 degrees during July and August. The total cost of changing his ordinary frame curing-room into an up-to-date cool room was \$810. Mr. Bell is greatly pleased with the results in quality of the cheese, more especially in the texture. He thought it better to have a proper curing-room at the factory than central curing-rooms.

Mr. Ballantyne emphasized the necessity of cool-curing rooms by giving the results of some shipments of cheese from the Woodstock Government cool-curing room. He said we must have even temperatures.

Mr. Jas. R. Burgess, who has been instructor in the Listowel district for the past two years, stated that in the condition of the factories in regard to cleanliness, tidiness, and equipment, there was a great improvement; also in the uniform methods of making cheese. Overripe and tainted milk were the greatest defects in the district, he said.

Considerable interest was taken in the proposed change regarding instruction work for 1907, and, after discussing the question thoroughly, the following resolution was passed:

"That the proposed change in the Dairy Law making the Instructors Sanitary Inspectors, as explained by Mr. Barr, meets with the approval of this meeting, on the understanding that no one but thoroughly-qualified dairymen be eligible for the position, and are approved by the Dairymen's Association of Western Ontario."

It seemed to be the feeling of those present that something should be done to discourage the practice of factories interfering with one another's patrons and territory. In some instances it was

apt to leave the house entirely too damp for the coming season. It would be better done in the spring or summer.

Egg-eating and Its Cause.

How often are we apt, in our short-sighted way, to blame our stock for certain bad practices or condition, when the fault really lies in our own defective management. No greater instance of this occurs than in the case of egg-eating, for, although a bird may in time become a confirmed egg-eater, and no amount of attention will prevent the habit, except abstracting the eggs from the nest immediately they are laid, yet in the first case it is invariably induced by a natural craving for something which is not within the bird's reach.

Now, this craving, says an Australian exchange, is, in most cases, for lime, with which to form the shell of the egg. Lime is found in both animal and vegetable foods consumed by birds when in a wild state, and possibly under such conditions sufficient is obtained, or nearly sufficient, without recourse to mineral matter, for the original wild hen laid, perhaps, 25 to 30 eggs per annum, instead of the six or eight times as many which we would fain have her produce now. And even then she could roam over a large extent of ground, where she could pick up numberless bits of limestone, quartz, or broken shells, which helped to supply the small drain on her system. But our hens have a limited field, which has, in most cases, been searched and searched again for shell material, which is, therefore, hard to obtain, and the consequence is that we find soft or thin shelled eggs, that such eggs are involuntarily dropped, or—worse of all—that some are picked, or are altogether destroyed.

In most cases the real evil begins before this stage is reached. Just as the frame of the cow becomes weakened to provide the lime constituent in milk for her offspring, so does the constitution of the hen become exhausted to provide material for coating the egg; and is it any wonder that she endeavors to satisfy her craving for this constituent by attacking the egg itself? Then she finds out that the contents are appetizing; that they also supply protein—of which she may also be in need—and so the habit grows upon her of picking at her own and other eggs, and she becomes a confirmed egg-eater.

We cannot tell exactly when the hens are first in want of lime, nor can we gauge the exact quantity they require. More is required with some kinds of food than with others, and especially is there a great demand when the hen is in full laying, or just before she commences to lay. A tin or box, rather deep than flat, so as to prevent scratching, can be attached to the fence or side of the house, and a good supply of grit always kept in it. It will want looking to very frequently at this time of year, for it is wonderful how it will disappear when hens are in full laying.

Grit, as grit—that is, an aid to digestion—always plays its part in the formation of egg-

shell, even when, as in the case of flint, glass or crockery, it contains no lime. But though silicon has no place in the shell, it is often a mechanical aid to digestion, and enables the hen to extract from other food the lime constituents that she so much needs. In fact, the first essential to sound eggs is good digestion, and the next the necessary material for formation of the egg-shell.

The Sheffield Egg Market.

Eggs are from 2s. to 3s. a great hundred (10 dozen) dearer than they were at the corresponding period last year. The best foreign eggs are larger than the same kind of eggs produced in this country. The recently-issued returns show that the imports for the first nine months of this year were 1,631,418,120 single eggs, costing £4,855,720. English eggs, as a rule, are cheaper than foreign eggs of the same quality, the latter being larger and more carefully graded.

A very large part of the Canadian eggs shipped into north England go to Sheffield, which is one of the best egg markets in Great Britain; in fact, there are many more eggs sold in Sheffield annually than in any town in Great Britain (outside of London).

This has long been taken advantage of by English egg-shippers, and it is said that there is no home firm of any repute which is not represented in Sheffield. The popular demand in Sheffield is for small-sized eggs, either glycerined or direct from cold storage. Sheffield's working classes form such a large proportion of the population that it makes it an excellent market for small-sized eggs of good quality at cheap prices.

Fresh Air for Turkeys.

Editor "The Farmer's Advocate":

The scarcity of our great festive birds should stimulate all producers to do their best to overcome the difficulties in their culture, for they are very profitable at present prices. Even at a considerable reduction in prices they would pay, but the probability of lower prices is not very great. One thing turkeys can endure is fresh air—outdoor roosting; the higher the wind and the lower the temperature, the more inclined are they to roost upon the highest object in sight. When permitted to roost in the open and receive their food in a shed, breeding stock seldom have any troubles. If the breeders are hardened and sound in constitution, half the battle is won in raising the young, for they will be sound and strong to begin life.

It is a bad practice to allow turkeys to frequent the henhouse, and especially to roost therein. Besides being too cramped and confined for their health, they are objectionable where one is trying to obtain a profit from the hens. The latter will not do well where they are constantly disturbed and fought back by the turkeys.

In Manitoba turkeys winter well and maintain excellent health in an old straw shed where the thermometer ranges as low as 30 or 40 de-

grees below zero. This I had the privilege of observing during more than one winter. In fact, on the coldest night the old tom would insist upon roosting on the ridge-board of the highest roof on the place. So we need not be afraid, in this country, of their freezing, but, on the contrary, all the exposure they can get here is no more than a tonic to the constitution, which is so indispensable.

The only thing to guard against is irregularity. For instance, if they are housed during fall, and become accustomed to indoor life, it would be unsafe to permit of them being out in a cold storm. The better way is not to let them become used to housing, but to preserve their natural hardiness. In their native haunts they have no warm and fancy houses.

J. R. H.

GARDEN ORCHARD.

Ornamental Hedges: What to Plant.

The two best evergreens for a hedge are White Cedar or American Arbor Vitæ and Hemlock (Abies Canadensis). These make a fine hedge, and are close and compact when well and properly pruned, and far superior to Norway Spruce, which so many attempt to make into a hedge. Norway Spruce is excellent for a wind-break, but does not stand pruning well. The California Privet and also the Chinese Privet are both very suitable for hedges, and in some respects more desirable. These can be kept to any height, and cut back if necessary, or down even to the ground, and they will immediately come up again. You cannot do this with either the cedar or hemlock. The foliage of both these Privets is very fine, and remains fresh and green well on into the winter. In planting a hedge, set the plants nine inches to a foot apart, preparing a good bed before planting, so that they will be thrifty. We often see hedges that are starving for plant food. A well-kept hedge should be pruned every year. The evergreens should be allowed to grow just a little higher and wider every year. When pruning, use a pair of pruning shears, and don't attempt to prune without a line to guide you. Don't let them get too wide, and give the top a roof shape, slanting each way about the same as one-third to one-fourth pitch for a roof. A neat, well-kept hedge adds very much to the appearance of a farmhouse or town property. A neat and tasty combination would be cedar or hemlock for the sides and Privet for the front or along the roadside. The plants can be bought very reasonably from any good nurseryman. In ordering, get your plants about a foot to fifteen inches high, and, if well planted and cared for, you will soon have a nice hedge. Don't fail to mulch well after planting with strawy manure, and keep well mulched for a couple of years. After that they will take care of themselves. J. S. PEARCE. London, Ont. Parks Supt.



Standard Grand Trunk Railway Train. Longest Double-track Railway in the World Under One Management.

Maine Fruit-growers in Session.

The thirty-third annual meeting of the Maine State Pomological Society was held at Harrison, Nov. 13th to 15th. Hon. Z. A. Gilbert, its president, occupied the chair. First, reviewing briefly the history of the Society, he said that but three of the pioneers in pomological work were alive at the present day. The \$1,000 annually appropriated was judiciously used, and the Society was enabled to carry on its work. The apple industry had developed from limited production thirty-three years ago, to a million and a half barrels a season of market apples. The attention given the instruction of the Society was manifested by the greater number of orchards under cultivation, the increased yields of the bearing trees in all parts of the State, and the fact that making the orchard a leading feature of the farm, instead of a side adjunct, would materially increase the farmer's income. The brown-tail moth and gypsy-moth situation continued about the same as last year. He advised continued activity against their encroachments, and commended the work of Commissioner Gilman.

Secretary Knowlton called attention to a box of apples from Hood River, Oregon, procured for an object-lesson in packing and grading, and to the collection of injurious insects, mounted and named, exhibited by Miss Bernice Watson, and specimen mounts of brown-tail and gypsy moths which told the life-history of the pests, by Prof. Wm. Powers.

In order to make the meetings and exhibits of the Society of the greatest educational value, E. L. White, of Bowdoinham, would extend the educational work into the State, rather than confine it to the meetings. In giving premiums, he would like to see fruit judged by a standard of perfection, and would give the preference to fruit from well-pruned trees that was free from scab or worm-holes. He was in favor of a standard package.

That one should always be trying to find something better, was the idea of J. W. True, of New Gloucester. He was looking for a better apple than the Baldwin.

Several speakers declared in favor of more State funds to advance the fruit interests.

"Worn-out and Abandoned Farms in Maine," was a paper written by Prof. Munson. An extended trip in the West had only confirmed his faith in Maine as an orchard State. Abandoned farms in New England became numerous because of the opening up of the West, the selection of sites that proved unsuited to agricultural purposes, or the unfitness for the business of the person running it. These abandoned holdings were not worn out; there was plenty of plant food, if properly treated. Lack of humus, lack of plant food, acidity, need of tillage, need of drainage, were assigned as reasons for land being worn out.

The ladies of Lakeside Grange held a banquet Wednesday evening, attended by nearly all the pomologists.

In the election of officers, the only change made was the choice of C. D. Wheeler, Chester-ville, as member of the Executive Committee, in the place of C. A. Arnold. E. L. Lincoln reported \$700 in the treasury.

D. H. Knowlton, secretary, spoke of the high prices of apples kept in storage, and the general increase of the apple industry.

The subject of a standard packing-box came in for discussion. Mr. Lincoln recommended one 10 x 11 inches and 20 inches deep, which would hold about 44 pounds. The President questioned if the growers were ready yet to perform the extra work necessary to grade and pack, and the question was tabled.

The President, Secretary and Executive Committee were appointed a committee to confer with representatives from other societies to bring before the Legislature a request that money be appropriated to purchase a farm for experimental orchard work and the raising of corn.

Dr. G. M. Twitchell had charge of the matter relative to securing a fruit marks act similar to that of Canada. Agitation of the matter in different States had strengthened his opinion that the move was needed; more education was necessary before any decisive action could hope to secure hearty co-operation, and the same committee was continued.

Prof. Alfred G. Gulley, who had practiced in five States, advocated spraying with power, rather than the hand-pump, recommending the gas sprayer recently introduced, and did not think the work was kept up long enough; he predicted the entrance of the San Jose scale unless rigid watch were kept, as it is a most insidious pest; he did not think our climate cold enough to act as a preventive of its introduction. Experiments in thinning had shown that efforts to change the bearing year of the Baldwin, or to make it an annual bearer, had been unsuccessful; with the Nonsuch the result was fairly satisfactory, and the Fall Pippin had been made to change its bearing year. He advocated thinning from a financial standpoint. The characteristics of the tree upon which grafts were placed did not in any

way affect the individuality of the fruit. In setting an orchard, Prof. Gulley advocated nursery rows, resetting every two years until the tree was ten years old, when it should be placed in its permanent position. As "fillers" for the orchard, he would use the McIntosh Red or the Wealthy, never peaches or plums. The trees could easily be reset, rather than cut out, or he would lop off a limb at a time as it interfered with the growth of the permanent tree. He believed in boxed fruit as a moneymaker.

"The Massachusetts Man on a Maine Farm," W. O. Breed, praised the outlook for Maine fruit-raising, especially for the young. Apples and grass cannot grow together on the same land. The best apples come from orchards where hogs work. Windfalls must be destroyed, else trypeta will infest the fruit. If no hogs are pastured in the orchard, the land should be cultivated.

"Why Not Grow More and Better Fruit in Maine?" was answered by William Craig. Much land well adapted to growing apples was running to waste, and trees already set were not properly cared for. He wondered why, in view of the fact of liberal financial returns for the work necessary, and advocated missionary work among the young to increase the orchard area in Maine.

Dr. Twitchell had for his topic, "What a Tree Told Me." First, that it was hungry; second, overtaxed; and third, lonesome. Feed it, thin its load of fruit, and give it hogs for company—not too many; it will bear well, and store up vitality for future growth and production.

Prof. M. J. Dorsey, of Maine University Chair of Horticulture, handled the cold-storage problem. By figures from personally-conducted experiments, he showed the better keeping of cold-storage as compared with the cellar; set forth the advantages of not having to market when the "glut" is on, the lengthening of the consumption period, and the special adaptability of the apple to cold storage. He showed that delay in storing after fruit was gathered, and delay in picking after it was ripe, entailed great loss, as did also carting long distances, and pouring into boxes or barrels. Another point in its favor was that fruit could be put in temporary receptacles, and sorted and graded at the time of sale. It had been demonstrated that co-operation in building and maintaining cold storage was feasible in other States, and he recommended it for Maine.

The evening was devoted to the ladies, the subjects considered being Nature Studies, Growing Choice Dahlias in Maine, and Home Industries for the Farmers' Daughters. The latter paper was designed to help the girls become self-supporting, and the lines suggested were, greenhouse work, raising small fruits, poultry-raising, and putting up jellies, fruits and pickles.

The fruit exhibit was better and better arranged than that of last year. There were over 100 competitors in all departments, and over 400 plates. Three competed for State exhibits, the first prize falling to S. H. Dawes, Harrison, 45 plates; the second to C. A. Arnold, 20 plates. Over 200 specimens in jellies, preserves and pickles were shown. Besides his apple exhibit, Mr. Dawes showed 21 plates pears, 10 of grapes, 2 of plums, 1 of peaches, and 1 of English walnuts.

Horticultural Progress.

TWO USEFUL HORTICULTURAL REPORTS.

Owing to the change in the date of closing the fiscal year and the early session of Parliament, it became necessary to prepare an interim report of the Experimental Farms. This report has just been published, and contains very valuable information, being, in a large measure, a summary, by the director and officers, of the work done in the different departments, and of the results of experiments since the experimental farms system was organized, about twenty years ago, until the present time. The report of the Horticulturist, Mr. W. T. Macoun, occupies 21 pages, in which are included an account of the experiments which have been conducted with fruits, vegetables, forest trees, and ornamental plants, with the results obtained and the conclusions reached. This report should prove very useful for reference, as the experiments cover a wide field, and touch upon many of the problems met with in horticultural practice. The lists of varieties of fruits and vegetables recommended will be of considerable aid to intending planters.

The annual report of the Chief of the Fruit Division, Department of Agriculture, Ottawa, Mr. Alex. McNeill, is included in the report of the 1906, which has recently been published. Mr. McNeill's report is one of the best expositions of industry in Canada that has ever been published. The varied conditions which prevail in the different fruit centers from the Atlantic to the Pacific, are vividly described in connection with the work of the fruit inspectors, and when the report has been read one realizes over what a vast area fruit is grown in Canada, and how by the judicious enactment and enforcement of laws, fruit

in the extreme East and West must now be packed according to the same standard of quality and shipped in packages of uniform size, and, while the convictions which were made last year are 50 in number, showing that Canadian fruit-packing is not yet perfect, there is good evidence to prove that it is rapidly improving. Some of the most important chapters in this report are: "Method of Inspection," "Statistics of Inspection," "Transshipment from Cars to Steamships," "Barrels," "Boxes," "Marking," "Overpressing," "Grading," "Storehouses," "Co-operative Handling of Apples," "Local Inspection," "Convictions and Fruit-crop Reports."

The Fruit-growers' Meeting.

Editor "The Farmer's Advocate":

I was very much pleased with your very full and accurate report of the meeting of the Fruit-growers' Association of Ontario, in your issue of Nov. 15th. The only point that I take exception to is that in reference to the effect of the recent amendments to the Constitution.

You state that the amendment placing the financial year at Dec. 31st will tend to make the Association a closer corporation than before. Our reasons for asking for this change were, we considered, sufficiently strong to warrant the change. The directors have, in the past, held but one meeting during the year, viz., at the time of the annual meeting in the fall; consequently, not only had they then to close up one year's work, but also to plan for the entire year following. This is practically an impossibility at such a busy time, and, as a result, almost the entire work of the Association has fallen on the Executive, which is not as it should be. Again, the finances of the Association are falsely represented by the statement presented at this season of the year, as the heaviest expenditure is now incurred immediately following the annual meeting and the fruit show. A large balance has to be held over to meet this outlay, and the finances of the Association then seem to be in an exceedingly flourishing condition, while really we have not the funds to carry on the work that we consider necessary.

The intention of this revision was not to do away with the fall business meeting, but to have an additional directors' business meeting in January, when the work for a new year can be properly planned. At the full Association meeting in the fall the reports of the committees will be presented as usual. The President will deliver his annual address on the work of the year, and all other usual business will be transacted as in the past. But the books of the Treasurer will not be audited by the expert auditor appointed by the Minister of Agriculture until December 31st, so that the new Board, at its first meeting, will be in a position to know the exact financial condition of the funds of the Association, and plan their work accordingly.

I trust that this explanation will clear matters. P. W. HODGETTS, Secretary.

THE FARM BULLETIN.

Montreal's 1906 Trade.

By Our Montreal Market Correspondent.

The season of navigation has now closed, and the last ship has gone. The records compare favorably, in some respects, and unfavorably in others, with those of previous years. Exact returns of shipments from port are not yet fully available, but the results shown below are within a very short distance of the mark. It will be observed that cheese shipments are considerably larger than hitherto, and that butter shows a falling off, as compared with last year. Wheat and flaxseed show large increases, but there is a marked decrease in barley. The number of ocean-going ships entering port was 815, against 833 the previous season, but the tonnage was 1,962,694 against 1,940,056. On the whole, the port makes a good showing, but it has not much to spare when compared with the previous season. The following approximately represents the shipments, as compiled to date by the Montreal Board of Trade:

	1906.	1905.	1904.
Wheat, bushels	13,410,218	9,916,687	7,507,266
Corn, bushels	4,210,504	5,883,842	3,721,582
Peas, bushels	78,539	47,996	173,869
Oats, bushels	3,303,763	2,623,767	1,206,307
Barley, bushels	762,721	2,424,324	816,882
Rye, bushels	134,287	121,021	2,105
Buckwheat, bushels	169,006	83,770	112,997
Flaxseed, bushels	3,015,174	270,453
Flour, barrels	638,189	538,307	840,005
Meal, barrels	56,634	49,592	125,669
Eggs, cases	55,065	79,227	80,117
Butter, kegs	355,758	656,041	525,281
Cheese, boxes	2,104,855	2,083,715	2,069,089
Hams and bacon, pkgs.	223,294	334,071	221,046
Leather, rolls	13,983	15,414	10,095
Tobacco, packages	367	1,531	510
Apples, barrels	306,412	540,234	348,907
Hay, bales	438,178	507,913
Cattle	420,127	115,180	112,147

Canada's New Tariff Moderate.

On Nov. 20th Hon. W. S. Fielding, Minister of Finance, presented his eleventh annual budget to the Dominion Parliament, and submitted his second important general tariff revision, the first having been in 1897. After setting forth a most encouraging financial statement, in the course of which he predicted for the abbreviated nine-month fiscal year, ending March 31st, 1907, a revenue of \$65,000,000, a consolidated fund expenditure of \$52,000,000, and a capital expenditure of \$12,500,000, leaving a surplus of \$1,060,000 over ordinary expenditure, and \$1,500,000 to apply on reduction of national debt, he proceeded to discuss his newly-revised tariff.

The new tariff, like the one it supersedes, is moderate, and slightly relieves the burden on farmers by several judicious reductions. The attitude of its framers towards manufacturers was happily expressed by the Minister in the words, "We all agree that we should like manufacturing industries to prosper in Canada, always provided it does not cost too much."

The first noteworthy feature of the new tariff is that it prescribes three distinct and separate schedules of duty. The lowest is the British preferential one. The highest is the general tariff, to come at once into force against the products of all countries not enjoying the British preference. The third schedule is an intermediate one, and does not come immediately into operation. It is merely a proposition to hold up to foreign countries, who are invited to enjoy its privilege by offering to Canada a quid pro quo. The Governor-in-Council is to have authority to negotiate such arrangements informally (therefore but temporarily), as occasion arises. More permanent arrangement on the same basis may be effected by Imperial treaty, in which, of course, Canada would be represented.

The British preference, which used to consist of a flat one-third reduction off the general schedule, is now provided for by a column setting forth the precise amount of duty on each article. This is simpler than the old plan, and avoids the fractional calculations, as well as other complications that have arisen in practice.

The wording has been simplified somewhat and the various schedules more systematically grouped. Following is the new classification:

1. Animals, agricultural products, fish, food products.
2. Sugar, molasses, and manufactures thereof.
3. Tobacco and manufactures thereof.
4. Spirits, wine and other beverages.
5. Pulp, paper and books.
6. Chemicals, drugs, oils and paints.
7. Earths, earthenware and stoneware.
8. Metals and manufactures thereof.
9. Wood and manufactures thereof.
10. Cotton, flax, hemp, jutes and other fibres, silk, wool, and manufactures thereof.
11. Miscellaneous.

A restriction has been placed on the free importation of certain goods for special purposes. To prevent abuse of the privilege in cases of articles which might be used for other purposes than purposed, it is provided that the duty on such will be collected, and a drawback of 95 per cent. refunded on proof that the article has been used for the purpose intended.

The new dumping clause provides that the dumping or special duty shall equal the difference between the selling price to the importer and the current price in the country of export, but not to exceed 15 per cent. of such market value.

A slight change is announced in the anti-combine regulations.

Coming to alterations in the schedules, one of the more important is an increase in the duty on raw sugar of 12 cents per cwt., under the general tariff, and 7 cents per cwt. under the preferential. As the duty on refined sugar remains as before, the effect will be to lessen the protection enjoyed by the sugar refiner, thus increasing the revenue to the Dominion treasury without appreciably increasing prices of refined sugar to the consumer. The duties on glucose and syrup are reduced from 50 cents to 35 cents under the preferential, the general tariff being 45 cents. Gasoline and naphtha have been placed on the free list, and the duty on mowers, binders, etc., has been reduced from 20 to 17½ per cent., and the manufacturers of these articles are compensated by a drawback of 95 per cent. of the duty they pay on pig iron and rolled iron or steel used in the manufacture of such articles sold in Canada. The duty on windmills is reduced from 25 to 20 per cent., and there are trifling reductions in several unimportant articles. Something of a grand-stand play was the placing of oranges, lemons and limes on the free list. This is held up as a boon to the farmers of the West. As a matter of fact, these fruits are of the nature of luxuries, and might better bear the

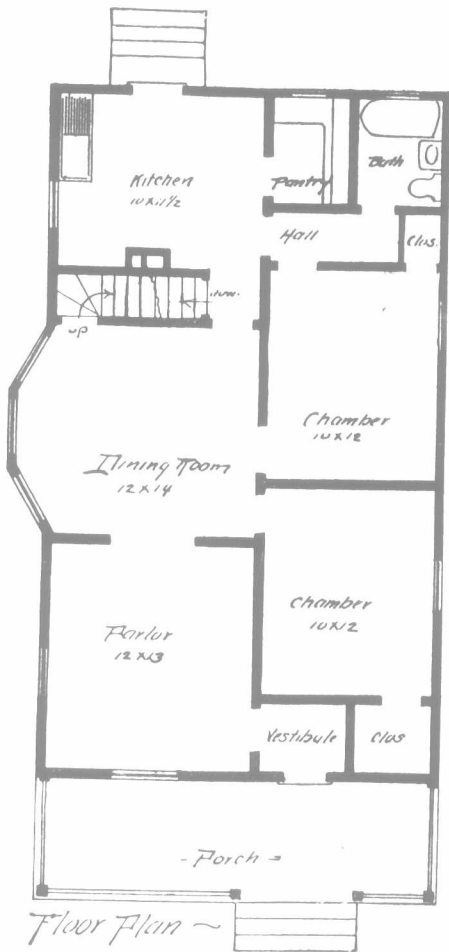
\$200,000 of revenue they yielded last year than many other articles on which stiff imposts are maintained. The notorious application for a thirty-per-cent. duty on tin plate was wisely turned down. A provision of more or less general interest is one making for a continuation of the iron and steel bounties on more liberal terms.

A One-story Cottage.

An artistic cottage, with all the rooms on one floor, is shown in the illustrations of this issue. Such an arrangement makes housekeeping easy, as there are no stairs to climb, thereby saving a



good many steps in the course of a day's work. A small stairway has been provided, however, to attic, and the stairway to basement is directly underneath it. If bedrooms were constructed in attic at any future time, the stairway would be already in position, and no alterations would be required on the first floor. The bay window on the side is a pleasing feature, and makes three large windows possible in the dining-room. A house of this character can be easily heated by a furnace, and at considerable less expense than a two-story house, as there will be no need of forcing the furnace to heat second-story rooms. The porch in the front forms another very attractive feature, as well as a useful one. It is extra large



in size, and nicely proportioned. I would suggest that the parlor be finished in birch, and stained to imitate mahogany, and that the dining-room be finished in oak and stained very dark, either in Flemish or Mission style. White enamel makes a very suitable finish for bedrooms, especially if the doors, window stools, and base-board, quarter round, are stained to imitate mahogany. Plain oak floors should be used if the above finishes are adopted. My estimate of the cost of this house, if built along the above lines, including plumbing and furnace, is \$1,300; but this will vary, according to localities. GEO. S. KINGSLEY.

Fair Dates for 1906.

International, Chicago	Dec. 1-8
Maritime Winter Fair, Amherst, N. S.	Dec. 8-6
Ontario Provincial Winter Fair, Guelph	Dec. 10-14

The "Bones" of the Binder.

Now that the season for using implements for soil tillage and harvesting crops is over, the thrifty man will see that all such machinery is well cared for. It is an indisputable fact that more farm outfits are destroyed by neglect than by actual use. There is no good reason why the majority of our farm implements should not last the owner a lifetime. Of course, abuse will send any machine to the rubbish heap in short order, to the farmer's loss and vexation. Many a farmer who would not leave his cow to the tender mercies of the straw stack fails to see that

he is losing good money every winter or fall day that his binder is left protected only by an apple tree. It is no unusual sight, of an evening, on any of our main-travelled roads, to see the wide-awake Jew conveying to the city large loads of old iron, prominent in which may be seen the "bones" of the farmer's binder or hay rake or mower. One witnessing such a spectacle, is compelled to muse upon how many Jews make their living out of the farmer's neglect. It is our duty, here and now, to see to the careful housing

of the implements. Each implement should be gone over in detail, and either repaired now or placed both in position and memory in such a way that the repairs may be all made long before the implement is needed next season. Rust, the foe of all machinery, must be guarded against at any cost. Worn-out paint should be applied where needed, weak parts should be replaced, and everything done to make the implement as nearly as good as new as can be.

There are some who will tell you that they believe in all this, but that they haven't the time. Let those who talk in this way ask themselves if they can afford to lose at least twenty per cent. of the value of their chattels every winter. Yet, if they will but stop and think, they will see that that amount is not an extravagant estimate to place upon the deterioration overtaking their implements through their oversight. There's no use saving at the tap while wasting at the bung. Many of us wonder why we don't get on. The reason is that profits are allowed to slip away on account of carelessness and neglect. Wentworth Co., Ont. J. C.

Shorthorn or Durham.

Editor "The Farmer's Advocate":

Some time ago I read an article in your valuable paper commenting on some people persisting in calling Shorthorn cattle Durhams, when all that breed should be called Shorthorns.

Now, if such is the case, how are we to distinguish between the two distinct types (or color)? Now, I think it would be proper to have a name for each color. Take, for instance, my own case. In reading over the advertisements of Shorthorn breeders, I see they all advertise Shorthorn cattle, and I can't tell to which type any one breeder's cattle belong; and I like the red stock so well, I would not buy a roan Shorthorn at all. And yet I can't tell where they are, and might write to many breeders before I found the man of my opinions in stock-breeding. Now, I would like to have your opinion on this question, and if it is the same as mine we might get the Shorthorn Breeders' Association to settle on some way to distinguish, at least in advertisements, between the two types. I am only a young farmer, and have not yet much experience. I purchased last spring a beautiful young red "Durham" bull, with which I expect to start an improvement in my stock, and when I can afford it I intend purchasing a red "Durham" heifer. W. H. M. Simcoe Co., Ont.

[Note.—If our correspondent had studied the history of the breed in question in the light of the herdbooks (English or American), he should know that there never was a time when the standard color required of the cattle formerly known as Durhams, but now designated Shorthorns, was either red or white exclusively, or roan. Of the twelve portraits of animals appearing in the first volume of the English Herdbook, published in 1846, ten are roan in color, including "The Durham Ox," and two are red-and-white. There might be some sense in a complaint against the act of changing the name of the breed from Durham to Shorthorn, since there are other breeds that carry quite as short horns, and the name Durham would have been more distinctive; but red as a color does not describe the breed or the type any more than does white or roan. If W. H. M. prefers a red to a roan or a white beast, he may be thankful that his favorite breed pro-

vides for his preference, and if he prefers to call his red Shorthorns "Durhams," there is no law to prevent him indulging his fancy.—Editor.]

A Trotting Register Proposed.

In the first place, let it be understood that the agitation for official inspection and compulsory laws in regard to horse-breeding is not an appeal on the part of farmers generally for protection or remedial legislation. The average farmer may not possibly be an expert on horse-flesh, but he generally feels capable of depending upon his own judgment in the selection of a horse for service. The horse owners are the men interested, and it is quite natural that the man who possesses all that can be required in a horse, should think that it would add to the general welfare of the country if the fellow with the other horse was put out of business, and everybody placed under obligations to patronize his. The intelligent farmer's sympathy is certainly with the man who has the No. 1 horse, but he is content to let horses, like everything else, go on their merits; and the horse trade, like all other

trades, be regulated by the law of supply and demand. The farmer who breeds to a scrub horse has, invariably, a scrub mare; and, in this free country, he, no doubt, feels that it would be interfering with his personal liberty if the State were to hamper him in the propagation of his scrub ideals. Nevertheless, it would be better for the horse industry if both the scrub horse and the scrub mare were discriminated against. But, in either case, it must not be done with a vengeance. Government inspectorship is suggested as a means of weeding out the unworthy ones on the side of the sires. Much may be said in its favor. The bogus certificate should be exploded, and if a horse has a blemish that is hereditary, it is right and proper that the public should be made aware of it. But who can tell what wire-pulling the system will lead to? What inspector without his prejudices in favor of or against a certain type or breed? The expert has not always given satisfaction in the show-ring to the ringside talent, but that matters little, as it only involves the prestige of a prize; but it is a different thing when it comes to putting a worthy horse out of business. It would be a mistake to invest the inspector with the unlimited power pro-

posed, without some provision in the law for appeal. The people of a section of country have a right to say what horse is to be used in that section, and where fifty or more prospective users appeal against the retiring of a horse, that should be considered sufficient reason for granting a license. Now, a word about the road horse, in particular. The race-track is ruining the road horse. In the craze for speed, size, style and action are not considered. The gait for the roadster is the trotting gait. The Hackney has this, but he will never fill the place of the Standard-bred Roadster. Under the proposed law, the Standard-bred will require to be registered. In order for a horse to be eligible for registration, whose dam and sire are not both Standard-bred, he must be submitted to the test of the Jockey Associations, and his owner must necessarily submit to being considered a "sport." The racing business has become disreputable, and before we have any compulsory regulations touching Standard-bred stallions or mares, the Government should first establish a Canadian National Trotting Register, and institute speed trials under the supervision of Government officers. R. D. Grey Co., Ont.

MARKETS.

Toronto.

LIVE STOCK.

Receipts of live stock have been light at both the City and Junction markets. The quality of fat cattle generally was not good, being composed of odds and ends—the finishing up of the grass season. Trade dull, with prices about the same for the best lots of cattle, but lower for the inferior and common.

Exporters.—Some disappointment in obtaining shipping space on account of boats not sailing as expected, owing to changing from summer to winter ports, caused trade in export cattle to be dull and slow of sale. Prices ranged from \$4.25 to \$4.65, with only one load at \$4.70, the bulk going at \$4.30 to \$4.50 per cwt. Export bulls sold at \$3.50 to \$4.25 per cwt.

Butchers.—The best butchers' sold from \$4.25 to \$4.50, few bringing the latter price; loads of good sold at \$4 to \$4.25; medium mixed loads at \$3.60 to \$3.90; common, \$3.25 to \$3.50; cows, \$2.25 to \$3.30; canners, \$1 to \$2 per cwt.

Feeders and Stockers.—The demand is not nearly so great, owing to the buyers for the distilleries having got nearly all they want. The quality of feeders offered was not up to requirements. Farmers are not willing to buy as poor quality as some bought last year. A few choice, heavy steers, 1,150 to 1,300 lbs., sold around \$4 to \$4.15, but these were short-keeps; steers, 1,000 to 1,150 lbs., sold at \$4.25 to \$4.75, the bulk going from \$4.40 to \$4.60 per cwt.; stockers of good quality sold around \$3, and common from \$2.25 to \$2.75 per cwt.

Milch Cows and Springers.—The quality of the cows offered was not as good, nor were there as many buyers as usual, which caused the market to be easier than for some time. Prices ranged from \$25 for common and inferior to \$50 for the best, and there were few that brought the latter figure.

Veal Calves.—Receipts not large, quality generally not good, and prices easy, owing to there being more plentiful supplies of poultry coming forward.

Sheep and Lambs.—Receipts large; trade fair for all of good quality. Export ewes sold from \$4.50 to \$4.85; rams and culls at \$3 to \$3.50; lambs from \$5.25 to \$6 per cwt., the latter price being paid for choice, picked lots of ewes and wethers.

Hogs.—The run of hogs was light for this season of the year. Prices are higher, selects selling at \$6.40, with lights and fats at \$6.15 per cwt. Sows sold from \$4 to \$5 per cwt.; stags, \$2.50 to \$3. All of these quotations are on the fed-and-watered basis.

Horses.—There is still a good demand for fair to good-quality draft and express horses, and the sale at the Repository was reported as being a good one, considering the quality of horses offered, but prices were easier. At the Canadian Horse Exchange, there were a lot of useful horses offered, which brought fair prices, but there is not as much vim displayed by purchasers as there was for a few weeks past. Burns & Sheppard report the following prices: Single roadsters, 15 to 16 hands, \$125 to \$150; single cobs and carriage horses,

The Sovereign Bank of Canada

Chartered by Dominion Parliament.

... A NEW CANADIAN RECORD. ...

31st October	Capital Paid up	Reserve Fund and Undivided Profits	Sovereign Bank Notes in Circulation	Deposits.	Excess of Assets over Liabilities to the Public
1902	\$1,173,478	\$ 240,000	\$ 759,995	\$1,681,730	\$1,413,478
1903	1,300,000	362,838	1,237,650	4,309,432	1,662,838
1904	1,300,000	420,373	1,284,840	7,196,741	1,720,373
1905	1,610,478	523,461	1,559,790	10,134,209	2,133,939
1906	3,942,710	1,335,847	2,850,675	15,578,920	5,278,557

31st October	Cash on hand and at Bankers	Bonds, Debentures, etc.	Loans at Call	Commercial Loans and Discounts	Total Assets.
1902	\$ 383,097	\$ 439,363	\$1,630,199	\$1,358,469	\$3,855,203
1903	622,774	713,397	1,747,342	4,074,048	7,209,920
1904	1,214,822	672,034	1,179,540	7,014,123	10,201,954
1905	1,491,398	791,153	1,566,144	9,578,850	13,818,938
1906	3,916,842	1,612,831	4,614,067	14,640,510	25,343,401

Savings Department at all Offices Deposits of \$1.00 and Upwards Received. Interest Paid Four Times a Year.

THE CANADIAN BANK OF COMMERCE

Paid-up Capital, \$10,000,000. Reserve Fund, \$4,500,000

HEAD OFFICE, TORONTO

R. E. WALKER, General Manager ALEX. LAIRD, Asst. Gen'l Manager

BRANCHES THROUGHOUT CANADA, AND IN THE UNITED STATES AND ENGLAND

A general Banking business transacted. Accounts may be opened and conducted by mail with all branches of this Bank.

SAVINGS BANK DEPARTMENT

Deposits of \$1 and upwards received, and interest allowed at current rates. The depositor is subject to no delay whatever in the withdrawal of the whole or any portion of the deposit

15 to 16.1 hands, \$125 to \$160; matched pairs of carriage horses, 15 to 16.1 hands, \$250 to \$450; delivery horses, 1,100 to 1,200 lbs., \$125 to \$160; general-purpose and express horses, 1,200 to 1,300 lbs., \$135 to \$175; draft horses, 1,350 to 1,750 lbs., \$150 to \$200; second-hand workers, \$50 to \$80; second-hand drivers, \$55 to \$75.

COUNTRY PRODUCE.

Butter.—Receipts moderate; market strong at unchanged prices. Creamery prints, 27c. to 29c.; creamery boxes, 25c. to 26c.; dairy pound rolls, 25c. to 26c.; tub, 23c. to 24c.; bakers' tub, 17c. to 18c.

Cheese.—Supplies moderate; prices firm. Large, 13 1/2c. to 14c.; twins, 11c. to 11 1/2c.

Eggs.—New laid, 30c. to 35c.; cold-storage, 22c. to 23c. New laid eggs on the farm's market sold at 40c. to 45c.

Poultry.—Receipts large; market steady. Turkeys, 12c. to 16c. per lb.; geese, 9c. to 10c.; ducks, 9c. to 10c.; chickens, 9c. to 10c. per lb. fowl, 7c. to 8c. These are average prices. Choice lots will bring 1c. to 2c. per lb. more, and an

ferior, badly-dressed, 1c. to 2c. per lb. less prices.

Potatoes.—Prices are a little easier. Ontario potatoes, car lots, on track, at Toronto, 65c. to 70c. per bag; New Brunswick Delawares, on track, at Toronto, 80c. per bag.

Hay.—Baled scarce at \$12 per ton for No. 1 timothy, for car lots, on track, at Toronto; No. 2 timothy, \$10 to \$11.

Straw.—Baled car lots, on track, at Toronto, \$6.

Bran.—Dealers report bran as being scarce at \$17 to 17.50, at Toronto; shorts, \$20 to \$21.

Honey.—Market strong, owing to light supplies. Strained, 12c. per lb.; comb, per dozen sections, \$1.75 to \$2.60.

BREADSTUFFS.

Grain.—Wheat, red and white winter, 70 1/2c.; No. 2, mixed, 70c.; Manitoba, No. 1 Hard, 83c.; No. 1 Northern, 80c.

Barley.—No. 2, 51c.; No. 3X, 49c.

Rye.—74c.

Oats.—No. 2 white, 36 1/2c.; No. 2, mixed, 35c.

Corn.—No. 2, American yellow, 54 1/2c. at Toronto.

Flour.—Manitoba patent, \$3.75, on track, Toronto, Ontario, 90 per cent. patents, \$2.70 bid for export; Manitoba, special patents, \$4.50; strong bakers', \$4.

HIDES AND WOOL.

E. T. Carter & Co., 85 Front St., Toronto, have been paying the following prices: Inspected hides, No. 1 steers, 11 1/2c.; inspected hides, No. 2 steers, 10 1/2c.; inspected hides, No. 1 cows, 11 1/2c.; inspected hides, No. 2 cows, 10 1/2c.; country hides, cured, 10 1/2c.; calf skins, No. 1, city, 12c.; calf skins, No. 1, country, 11c.; lamb skins, 9c. to \$1.00; horse hides, \$3.50 to \$3.75; horse hair, per lb., 30c.; tallow, 5 1/2c. per lb.

SEEDS.

The clover seed market is quiet, with no change in prices. The following figures are being paid at country points: Alsike, fancy, \$6.30 to \$6.60; alsike, No. 1, \$6 to \$6.20; alsike, No. 2, \$5.25 to \$5.40; alsike, No. 3, \$4.50 to \$4.80; red clover, No. 1, \$7.20 to \$7.50; red, No. 2, \$6.50 to \$6.90; timothy, No. 1, \$1.50 to \$1.80; timothy, No. 2, \$1.20 to \$1.40.

FRUIT MARKET.

Fall apples are quoted at \$2 to \$3 per bbl., the latter price being for table Snows. Winter apples, No. 1, are selling from \$3 to \$4 per bbl., at the commission houses. Grapes are still being offered at 35c. to 45c. per small basket; winter pears, 50c. to 75c. per basket.

FARMERS' MARKET.

Hay.—From farmers' wagons is selling at \$13 to \$16.50 per ton for timothy; mixed clover and timothy, \$11 to \$13 ton.

Straw.—Bundled straw, \$16 per ton; loose straw, \$9 per ton.

Dressed Hogs.—Market firm at \$8.50 to \$9 per cwt.

Montreal.

Live Stock.—Feature, locally, was the increased strength of the hog market. Though receipts were fairly large, the increased demand advanced prices. The demand was occasioned by the improved tone of the English bacon market. The packers bid prices up to 6 1/2c., 6 1/4c., and, possibly, 6 1/2c. Feeling was strong. Supplies of other kinds of stock rather light. The offerings of cattle were only moderate, and the quality not at all choice. Best sold at 4c. to 4 1/2c., and occasionally 4 1/2c.; good, 3 1/2c. to 4c.; medium, 3c. to 3 1/2c.; common, 2 1/2c. to 2 3/4c., and inferior, under 2c. Demand for lambs, for export across the border, as well as for other purposes, was good, and prices firm at 5c. to 5 1/2c. for best; sheep being in fair demand at 3 1/2c. to 4 1/2c. Grass calves, 2 1/2c. to 3 1/2c., and choice, 4c. to 5 1/2c. Milch cows were offering at \$10 to \$60 for best, and down to \$30 for inferior.

Dressed Hogs.—This line advanced in sympathy with live hogs. Fresh-killed, abattoir, 9c. to 9 1/2c. per pound, and country-dressed, 8c. to 8 1/2c. Lard is 8 1/2c. for compound, and 12 1/2c. to 13 1/2c. for pure.

Horses.—Slight improvement in this market of late. The demand from lumber camps is making itself felt, and quite a few animals were sent out. The offerings have been more liberal also.

Prices weighin \$300.00 horses \$200.00 1,300 drivers, \$50 to driving Poultry favorabl poultry Really yet, b sells a 13 1/2c. to 9c. to Venison 8 1/2c. qu Hides, com mand h are stea Montreal for Nos. selling t per lb. 2, 11c. Horse hi No. 1, at 1 1/2c. to 5c. f sales 7 opened 7 This has it has nothing Pulled la lb., and washed, 2 18c. to 2 and unl Merinos, Cheese. 24th, 2 2,119,920 last year. were only 1905. 7 55,000 bu that busin fowing t tically n tembers, v hands of cheese, Q had at tarios at would bri Butter.— shipments season ha 361,400 p the corres stocks he ing to all of the to this. are selling fine would bring 26c. for the o makes. 5 ter from good dema The latter time of y Eggs.—T son have ments mu season, ye talk of f 21c. to 2 22c. these being quality an 20c. to 2 sufficient at 30c. to Potatoes, track, for Quebecs. paid shippe over in car 3c., and in store, at 7 Grain.—B three-pound 86c. for toba, in st white winte dear, at 91 buckwheat Oats are so No. 2, 41 40 1/2c. to \$13 Hay.—\$13 timothy, \$ \$11 to \$ mixture. Hayseed.— fair, and p to \$ 50 per

Prices are steady, at: Heavy-draft, weighing 1,500 to 1,700 lbs., \$250 to \$300 each; light-draft or coal-cart horses, weighing 1,400 to 1,500 lbs., \$200 to \$250; express horses, 1,100 to 1,300 lbs., \$150 to \$200; common drivers, \$100 to \$150 each; old animals, \$50 to \$100, and choice saddle and driving horses, \$350 to \$500 each.

Poultry and Venison.—Cool weather has favorably affected the market, though the poultry trade is still light in volume. Really choice stock is hardly arriving yet, but nice, fat, dry-plucked stock sells as follows: Turkeys and ducks, 13c. to 15c. per lb.; geese and chickens, 9c. to 10c., and fowl, about 7c. to 8c. Venison carcasses are selling at 7c. to 8c.; quite a few offerings.

Hides, Tallow and Wool.—Receipts of hides continue fairly large, but the demand has fallen off quite a little. Prices are steady: Dealers are offering, f. o. b., Montreal, 10c., 11c. and 12c. per lb. for Nos. 3, 2 and 1, respectively, and selling to tanners at an advance of 1c. per lb. No. 1 calf skins, 13c., and No. 2, 11c. per lb. Sheep skins, 90c. each. Horse hides, \$1.50 for No. 2, and \$2 for No. 1, each. Tallow is selling slowly at 1c. to 3c. per lb. for rough, and 3c. to 5c. for rendered. The London wool sales are now on, and the market has opened 7 1/2 per cent. higher than the last. This has little influence here, but what it has is firming. There is almost nothing doing locally, prices being still: Pulled lambs, brushed, 30c. to 32c. per lb., and unbrushed, 30c.; Can. fleece, tub-washed, 25c. to 28c., and in the grease, 18c. to 20c.; Can. pulled, brushed, 30c., and unbrushed, 27c. to 29c.; N.-W. Merinos, 18c. to 20c.

Cheese.—Season's shipments to Nov. 24th, 2,202,496 boxes, as against, 2,119,920 for the corresponding period last year. Shipments, via Portland, Me., were only 2,012, as against 27,562 for 1905. This leaves a net increase of 55,000 boxes. It is likely, however, that business will be quiet for a time following the close of navigation. Practically no demand for Octobers or Septembers, which are believed to be in the hands of a few exporters. November cheese, Quebecs and Townships, may be had at about 11c. to 11 1/2c., and Ontarios at 12c. to 12 1/2c. October makes would bring 1c. more.

Butter.—Notwithstanding the fact that shipments from Canada during the past season have been very light, being but 361,400 packages, against 554,041 for the corresponding period of last year, stocks here are very light also, according to all accounts. The great strength of the market is doubtless due to this. Really fancy Townships are selling at 25c., and anything at all fine would bring 25c. Small tubs would bring 26c. Dairies sell at around 21c. for the old, and 22c. to 23c. for fresh makes. There is a big call for the latter from points up the Ottawa, and a good demand from Ontario for creamery. The latter is very exceptional at this time of year.

Eggs.—Though receipts during the season have been much heavier, and shipments much lighter than the previous season, yet prices are higher, and many talk of further advances. Prices are: 21c. to 22c. for summer-gathered eggs, and 22c. to 23c. for full, selects from these being 24c. to 26c., according to quality and quantity. Picked stock is 20c. to 21c. A few fresh-laid, hardly sufficient to call for remark, are selling at 30c. to 32c.

Potatoes.—75c. per 90 lbs., carloads, on track, for Green Mountains, and 65c. for Quebecs. These are the prices being paid shippers. Dealers are turning them over in carloads at an advance of about 3c., and in a jobbing way, bagged, in store, at 75c. to 85c.

Grain.—Beans, \$1.30 for jobbing lots of three-pound picklers, per bushel. Wheat, 86c. for No. 1 Northern, Manitoba, in store, and 79c. for No. 2 white winter, Ontario. Peas, scarce and dear, at 91c. per bushel, for No. 2; and buckwheat is steady and dull, at 56c. Oats are scarce and firmer, at 41c. for No. 2, 41 1/2c. to 42c. for No. 3, and 40 1/2c. to 41c. for No. 4.

Hay.—\$13 to \$13.50 per ton for No. 1 timothy; \$12 to \$12.50 for No. 2, and \$11 to \$11.50 for clover and clover-mixture.

Hayseed.—Receipts of alsike have been fair, and prices, country points, are \$5 to \$5.50 per bushel, according to quality.

There is just a light movement commencing in red clover, prices being \$6.75 to \$7.75 per bushel. Lately, the movement in seeds has been rather lighter than previously, deliveries probably waiting an improvement in the country roads.

Chicago.

Cattle.—Common to prime steers, \$4 to \$7.40; cows, \$2.65 to \$4.75; heifers, \$2.60 to \$5; bulls, \$2.40 to \$4.50; calves, \$3 to \$8; stockers and feeders, \$2.40 to \$4.50.

Hogs.—Choice to prime heavy, \$6.20 to \$6.40; medium to good heavy, \$6.10 to \$6.25; butchers' weights, \$6.30 to \$6.40; good to choice, mixed, \$6.15 to \$6.30; packing, \$5.75 to \$6.20; pigs, \$5.50 to \$6.20.

Sheep and Lambs.—Sheep, \$3.25 to \$5.75; yearlings, \$5.00 to \$6.50; lambs, \$5.25 to \$7.65.

Buffalo.

Cattle.—Prime steers, \$5.65 to \$6.25; shipping, \$4.75 to \$5.66; butchers', \$4.35 to \$5.25.

Veals.—\$5.25 to \$5. Hogs.—Yorkers a shade lower; others about steady; Yorkers, \$6.45 to \$6.50; roughs, \$5.75 to \$6.65.

Sheep and Lambs.—Lambs, \$5 to \$7.85; ewes, \$5.50 to \$5.75; Canada lambs, \$7.20 to \$7.75.

British Cattle Market.

London.—Canadian cattle in the British markets are quoted at 11c. to 12c. per lb.; refrigerator beef, 8c. to 9c. per lb.

GOSSIP.

The annual meeting of the Aberdeen-Angus Breeders' Society of Canada will be held at the Commercial Hotel, Guelph, at the hour of 2.30 o'clock, on Wednesday, December 12th, 1906.

Prof. J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa, writes: "I find that we are short of parts III. and IV. of the Swine Herd-book, Vol. 14, and have thought that some of your readers might happen to have extra copies with which they could part, or might even be willing to part with their original copies, supposing they are not much use to them."

The eighteenth annual meeting of the American Leicester Breeders' Association will be held in the City Hall, Guelph, Ont., on Tuesday evening, December 11th, at 7 p. m. As this is during the week of the Winter Fair, a great number of the members and breeders of Leicesters are expected to be in attendance. The reports of the officers will show this to have been one of the best years in the history of the association. A cordial invitation is extended to all breeders of Leicesters and to any others that may desire to attend this meeting.—A. J. Temple, Secretary.

AN IMPORTANT SALE OF SHIRES.

On Tuesday, December 11th, as advertised in this paper, an important auction sale of imported Shire stallions, mares and fillies, the property of Messrs. John Chambers & Sons, Holdenby, Northampton, England, will be held at the Canadian Horse Exchange, Jarvis St., Toronto. The catalogue comprises 23 registered Shire mares and fillies, from one to six years old, most of them having been served by high-class, prize-winning sires in England; and seven stallions from one to six years old. Messrs. Chambers' former consignments of Shires to this country have been of a very desirable class, combining size with quality in a high degree, and they pledge their word that this is the best shipment they have yet sent across the Atlantic, and that the sale will be without reserve. This will be a rare opportunity to secure brood mares and stud horses suitable to produce the highest-selling class of draft horses. Remember the date, December 11th.

Choice lambs at \$7.85 per 100 lbs. in Chicago last week.

SALE DATES CLAIMED.

Dec. 14th.—Col. J. A. McGillivray, Bedford Park, Ont., Shorthorns, Clydesdales and Dorset sheep.

Dec. 20th.—J. B. Hogate, Weston, Ont., imported Clydesdale fillies.

Dec. 27th.—M. Richardson & Son, Caledonia, Ont., 65 Holstein-Friesians.

Jan. 8th.—G. A. Brodie, Bethesda, Ont., imported Clydesdale fillies.

Jan. 9th.—W. C. Edwards & Co., Rockland, Ont., Shorthorns, annual sale.

Jan. 1907 (date to be named later).—W. Doherty, Clinton, and A. H. Jacobs, Blyth, Ont., dispersion sale of Shorthorns, at Clinton.

COACH HORSES HIGH.

Prices for good coach horses in the country are \$100 to \$150 per head higher than they ought to be.

So high are good coachers that many people who would really prefer them are driven to the consideration of automobiles.

There is a surplus of common to fair and pretty good animals, and at the rate farmers are breeding scrub mares to stallions of cheap (?) service fees, such stock will continue plentiful for an indefinite time.

The country is in great need of more horses of all good kinds, and especially of good coachers. Is there any legitimate business that would pay better than the production of really good coachers at about \$175 to \$225 per head?

In the present situation, however, the kinds of horses nobody wants are abundant, while the other kinds are so scarce and high as to drive would-be purchasers into the chug-wagon class.

What is going to be the outcome?—[Live-stock World.]

HICKORY HILL AYRSHIRES.

Three miles from Dundas, Ont., and 7 miles from Hamilton is Hickory Hill Stock Farm, the property of Mr. N. Dymont, the well-known breeder of Ayrshire cattle. The Hickory Hill herd is one of the most noted producing herds in Ontario, their show record being entirely confined to Provincial Dairy Show tests, where they have to their credit the honorable record of 11 first, 7 second, 5 third and 4 fourth prizes, a record that speaks volumes for their superiority as a herd of profitable producers. Mr. Dymont, being a firm believer in the sensible adage, production first, then style, with a combination where possible, the result is that the herd is made up of exceptionally large animals, carrying large, even udders, and what is of vital importance, good-sized teats. Founded on the progeny of Morton's importations, with a careful selection of sires, the herd has been brought to its present high state of efficiency. The present stock bull is Dairyman of Glenora 13475, bred by W. W. Ogilvie, sired by Imp. Comrade of Garlaff, dam Imp. Mayflower 2nd of Drumside, with a milk record of 75 lbs. a day, and, as would be inevitable from a bull so richly bred, his heifers are an ideal lot, and several now in the yearly official test are showing up remarkably well. Susie of Hickory Hill 22336, two years old, gave 908 1/2 lbs. milk in 30 days, that tested 5 per cent. butter-fat. Maggie Brown of Hickory Hill 176494, at four years, gave 50 lbs. a day, and 1,459 1/2 lbs. in 30 days. This cow is a granddaughter of the great cow, Nellie Grey. Jubilee of Hickory Hill is another two-year-old whose milk tested 4.4 per cent., and several others equally as good that will certainly make a grand record at the end of the test. Mr. Dymont reports the demand for Ayrshires as the best in his experience, and sales numerous and satisfactory. In fact, he has had to refuse several very tempting orders for females. In bulls, he has for sale two fit for service, and some younger ones, all sired by the stock bull, Dairyman of Glenora, and out of producers, some of which have won dairy tests. Write Mr. Dymont, to Clappison P. O., Ont., and rest assured that if you purchase Ayrshires from him, you will be getting gilt-edged producing stock.

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Life, Literature and Education.

[Contributions on all subjects of popular interest, whether relating to the Literary Society discussions or not, are always welcome in this Department.]

Our Literary Society. Answers to Study II.

Whether it be that prose is not as popular with our members as poetry, whether the fault lay in our giving studies I. and II. in too rapid succession, or whether our prose study was too easy, we know not. What we do know is that "A Furious Parisian" did not elicit nearly as much interest as "The Three Fishers." Fewer papers were sent in, and, although the answers of questions 1 to 9 (inclusive) were quite creditable, the essays (question 10), with the exception of just one, failed to come up to the 75-per-cent. mark requisite for publication.

Perhaps, however, the fault rested with ourselves. Nearly all of our students seemed to think that we required essays modelled closely on the "Furious Parisian"—a stirring, exciting introduction, followed by a sudden lapse almost into the ridiculous—and, as a result, the straining after this precise effect was evident.

We had not meant this at all. What we wanted was an essay, written upon any subject whatever, and in the style best suited to bring out the writer's literary talents. We are sorry for the mistake, and in future will try to explain the conditions that may be set more clearly.

The answers to the questions, however, gave evidence of considerable study, and we are, therefore, pleased to give the best of them a place in the columns of the L. L. E. In order to save space, we will not reprint the "study," but will ask our readers to provide themselves for reference with our issue of Nov. 1st, in which both selection and questions appeared.

SELECTED ANSWERS TO QUESTIONS.

1. Nearly all answered this question very well. We quote from "Aunt Mirandy," Perth Co., Ont.: "Probably the author's aim in describing this incident was to illustrate how easily, on receiving a first impression, we may be seized by a delusion which grows on us until we are quite sure that what from our point of view appears to be a fact, is indeed so."

2. Hilda J. Nevanas, Chelsea, Que., and Marie Agnean, Lambton Co., Ont., both gave terse, comprehensive answers to this question. "The scenery was not the salient part of the story, hence the description of it is not forced unduly upon the reader's notice."—Miss Nevanas. "Because the scenery in no way affected the incident, and a description of it would detract the reader's attention from the story."—Marie Agnean.

3. Miss Nevanas, Marie Agnean, "Hayseed," Oxford Co., Ont.; Farmer John, Waterloo Co., Ont., and

Aunt Mirandy were especially happy in their answers to Question 3.

"The 'man' is the principal person involved in the incident. It was he who, by his strange appearance, first drew Souvestre's attention; he who, on being observed more closely, was the cause of the Attic Philosopher's indignant moralizings; and upon him, when the real cause of his actions became known, depended the change in the whole face of the incident. Consequently, a minute description of him is necessary."—Aunt Mirandy.

"He gives a minute description of the man because the whole narrative hinges on him, or, in other words, the writer's mistakenness as to the man's character is the central thought."—Farmer John.

M. Agnean notes, in addition to this, that the minute description has been undertaken to bring the mind of the reader into sympathy with the author in his first impression of the Parisian.

4. This question was answered very fully by Dorothy Lock, W. J. S., Lambton Co., Ont., and others. We give the list submitted by W. J. S.

"Great coat of shaggy cloth," "Resemblance to a tawny beast," "Held a thick stick," "Spoke very loud," "Convulsed with passion," "Spasmodic loud talk," "Savage Harshness," "Threatening whirlings of his stick." To this list others added, "Described bold arabesques."

5. Best answers were received from Kitty, Peterboro Co., Ont.; Aunt Mirandy, and Miss Nevanas.

"The climax is the point at which the interest is greatest. In this extract that point comes at the end of paragraph 3. In the first place, the title at once draws our attention, giving us the idea that the story which follows will be a very tragic one, and the first paragraph continues in that strain, with increasing interest. Paragraph 2 increases our sympathy with the writer, and leads us to expect—when we have read the third—not only some further revelation concerning the two, but some interference on the part of the onlooker. After paragraph 3, the immediate explanation, giving the affair a different aspect, causes a falling away of our interest. At the end of paragraph 3, therefore, our interest is at its height."—Aunt Mirandy.

6. Several have noted the slight peculiarities incidental to the translation from the French. Miss Nevanas says:

"The language is picturesque and in good English, though one or two sentences are long and complicated, and occasionally a French idiomatic phrase creeps in: 'He spoke very loud,' 'felt indignant that his crimes could not receive,' etc."

Mary Agnean observes that the story "appears to have been translated quite literally." "The thought movement," she continues, "would be easier and quicker if the longer sentences were each divided into two or three shorter ones, long sentences being used, as a rule, to express deep thoughts, not in light or humorous writing." . . . In general this is true, yet, perhaps, the use of short, crisp sentences would have done away with the easy, reflective style so distinctive of Souvestre.

"Bob," Perth Co., Ont., and others note the use of the word "loud," in "he spoke very loud." "Loudly" would have been better English form.

The peculiar construction in lines 6 and 7, where "upon whom my gaze was fixed" succeeds the verb "were ascending," is also worthy of note, as is also the peculiarity noted by Hayseed of placing "spasmodic" before rather than after "loud."

Aunt Mirandy thinks paragraph 2 would read better thus: "I had evidently just seen one of those domestic tyrants whose sullen tempers are excited by the patience of their victims," etc. The "number" in this has certainly been improved. A careful translator would, however, be likely to change even this sentence around to avoid its hissing repetition of "s" sounds, a fault always avoided by the best writers.

7. Nearly all of our students, while finding it hard, evidently, to express their reasons for recognizing it, appreciated the humor in the selection. W. J. S. observes, with charming naivete, that when the Philosopher found, instead of a rough savage and his victim, only an honest citizen talking about silkworms to his daughter, "it must have been a great surprise, and also quite a joke." "Bob" says that he does not see any trace of humor. "Oh, Bob, Bob! Didn't you smile even a little bit when you found out that the fat, furious-looking old gentleman was only talking about silkworms?"

8. Practically all of our students answered this question correctly. "Bob's" answer is terse: "The moral Souvestre found for himself was not to judge always by appearances." "A Friend," Prince Edward, Ont., observes that the lesson to us is that we should be slow to judge. "Many condemned ones are often the praiseworthy ones," she says, "and, by this story, broader views and kinder, more sympathetic feelings towards all are encouraged."

9. "A Friend," Marie Agnean and Aunt Mirandy sent in the most satisfactory answers to this question.

"He was a close observer of details. He had a habit of studying character. He was fair-minded and sympathetic; also quite willing to see and admit his own mistakes. He was intolerant of injustice and wrong."—Marie Agnean.

He is very observing. Many people in the same position would not have noticed enough to have formed any ideas or judgments at all. He has a strong imagination, and is quick to reach conclusions. He shows a noble disposition in at once denouncing the man when he considered him imposing on the weak. He also has a fine perception of home, and the love, peace and happiness that should reign there."—A Friend.

Dorothy Lock observes very forcefully that "he was not a woman-hater, or he would not pity the girls." This is delightful. Good for you, Dorothy!

Farmer John and others add that the Philosopher was evidently possessed of a sense of humor.

OUR BEST ESSAY.
Congratulations, Farmer John! This is a very well written essay.

The Handle Turned the Wrong Way.

It was a pleasure of the writer's, one frosty winter's morning, at a date within easy recollection, to board an electric car plying between two thriving Ontario towns. The seating accommodation was heavily taxed, and your scribe, when seated, found himself wedged in between a young man fumbling over a bunch of letters and a somewhat older personage of rather girthy proportions, who was scanning the pages of a prominent daily. The passengers, with the exception of two elderly ladies, who occupied opposite seats at one end of the car, and indulged occasionally in conversation, were unusually non-talkative, and, for the most part, gazed placidly at the partially frost-covered windows opposite them. An occasional jolt served to break any monotony which might be experienced.

After what seemed a short ride, consisting of a succession of slight grades, slowing around curves and past switches, first one building and then another was sighted in close proximity to the track. Presently we swerved out on a switch for a short wait.

We had been stationary for some little time. Not a word was spoken. The newspaper and letters had long since disappeared in the inner pockets of their respective owners, and the silence was so intense that a pin dropped on the floor might almost be heard throughout the car.

Suddenly the suspense was relieved by a slim, intelligent-looking young man, dressed in a smart-cut, gray-tweed suit, whose general appearance and exceedingly resigned bearing betrayed him almost unmistakably as a commercial traveller.

"You are a minister, are you not?" he asked of an elderly, refined-looking gentleman who sat facing him on the opposite side of the aisle. The gentleman addressed replied in the affirmative.

"I would like to ask you a few questions on certain parts of the Scripture," continued the young man, in rather easy tones. "What do you think of the Prodigal Son?"

By this time a slight shuffling of feet had taken place, and the atmosphere seemed to take on a new lease of life. All eyes were turned toward the minister and the young man, the owners evidently being intent on watching the drift of the conversation.

It was quite discernible, from his manner of speech and the almost imperceptible trace of a suppressed grin on his countenance, that the young man's object was to draw his clerical friend into a discussion, when, by employing some well-prepared witticism, he would throw the laugh on him. He was, however, completely lifted from the defensive when the reverend gentleman, after not more than a moment's deliberation, gravely raised his eyes, and without even the suggestion of a smile upon his face, replied quite solemnly: "Do you know, I always thought he was rather hard on the calf."

During the roar of laughter which followed, in which the witty clergyman participated freely, the smart young man quietly drew his suitcase

out from the seat and took his departure, walking to his destination, some one or two blocks distant. We were soon again speeding merrily along, while the loud guffaw and restrained chuckle still continued to emanate, at intervals, from different parts of the car.

FARMER JOHN,
Waterloo Co., Ont.

NOTE.

In sending MSS. for the printers, do not write on both sides of the paper, and, if possible, do not roll. Fold papers flat and put them in an envelope.

"Life."

Life, as we observe it, inheres in

certain organisms, which perform certain functions, and which are governed by fixed laws. We know something of the visible forms of the phenomena of life. Inherent in, and animating those visible and tangible forms, is the principle called "life," which we know not.

Regarding the origin of life, we may hold that the first plant, or the first animal, or that man himself, was formed by the Creator instantaneously, or we may adopt the theory of evolution, that life was existent in "germ cells" ages before organized living forms appeared; that the order of creation is gradual and progressive; that the forms of life about us—that we ourselves—are expressions or creations which have been progressively evolved.

Whatever view may be taken as to the order of creation, the true scientist, no less than the philosopher, recognizes above material forces, the source of life and all things—God. No arrangement of matter, no fortuitous concourse of atoms ever produced life. Scientists assert that there exists no evidences of spontaneous generation of life. Creation is equally stupendous, equally unsearchable to us, whether the act be instantaneous or progressive. Even Prof. Tyndall, a pronounced evolutionist, makes this assertion: "The whole process of evolution is the manifestation of a Power absolutely inscrutable to man."

Though we cannot solve life's mysteries, we can discharge life's obligations, for the Author of our life

enjoins no more arduous work and lays upon us no heavier tasks than we can perform. The Scriptures and our inner consciousness admonish us to employ our powers in active service, to "do with our might" the work we are fitted to do—devoted, faithful work, constituting not only life's duty, but a condition in which life is best developed; for indolence means degradation, dissolution—death.

Life! a heritage sublime,
Heaven-bestowed, gift divine,
Mysterious, measureless and vast,
Time-born, eternally shall last.

W. J. WAY.

Kent Co., Ont.

Current Events.

The Niagara Frontier Bridge Co. is applying for a charter to bridge Niagara.

Earthquake shocks, followed by immense tidal waves, have been reported from New Guinea.

Another portion of the crater of Mt. Vesuvius collapsed, with loud detonations, on Nov. 24th.

Forty thousand square miles of crops in China have been destroyed by floods, and 10,000,000 people are on the point of starvation.

The Canadian Pacific management is about to introduce Japanese attendants in the through-train service between Montreal and Vancouver.

An international compact, guaranteeing the individuality of Norway against territorial aggression by any power, is on the verge of completion.

An explosion at the "roburit" factory, Annen, Germany, on Nov. 25th, practically annihilated the town, about 300 people being killed or wounded. Roburit is an explosive whose power is only second to that of dynamite.

The Bulgarian Government has addressed a note to the representatives of the Powers in regard to the recent massacre of Bulgarians near Seres, by a Turco-Greek band. The Greek Consul has, in consequence of the disturbance, been driven from the town.

Among the shipping casualties of the past fortnight were the wreck of the Norwegian barque Magda, in the Lower St. Lawrence, with a loss of 16 lives, and the wreck of the J. H. Jones, near the Christian Islands, Georgian Bay, 25 lives being lost as a result of the latter casualty.

Public feeling in regard to the Education Bill never ran higher than of late. Upon Nov. 27, an emergency meeting of the General Committee of the National Liberal Federation was called in London, and a resolution unanimously adopted urging the Government to reject the Lords' amendments to the bill, and to determine that the present Parliament "shall not come to an end until steps are taken to bring to a final arbitrament the question whether the House of Peers shall any longer possess the right to veto the will of the people, as declared by the House of Commons." A letter from Sir Henry Campbell-Bannerman was read, in which the Premier said that it was realized by all Liberals "that the House of Lords would hasten to assert itself as the instrument of Unionism as soon as the country rendered a verdict against the Unionist Government and the Unionist pol-

icy." Continuing, the letter said: "Still, we may plead guilty to a certain sense of surprise at the violence of the manifestation, now that it has come. The education bill, as passed by the House of Commons, was a bill which the country demanded in unmistakable terms at the general election. It now seems to have been turned into a travesty of its original form. As amended, it perpetuates, if it does not extend, the very grievances and wrongs fixed upon the country by the act of 1902. Of one thing you may rest assured: We will have no tampering with the main principles upon which our bill is founded. If within those limits an arrangement can be reached, all well and good. If not, it will be for us to see that on this question of education, and on others, a way is found by which the wishes of the country may be made to prevail."

Health in the Home

Advisability of Eating More Fruit.

Recent experiments conducted under the auspices of the Department of Agriculture at Washington throw interesting light on the food value of fruit. From an editorial review in The Medical Record (New York), we learn that the data contained in the

official report show that fresh fruits are in general dilute foods containing a large proportion of water compared with the total amount of nutritive material. The carbohydrates are the chief food constituents, and the proportions of sugars and acids vary greatly. For instance, there is only one or two per cent. of acid in such fruits as apples, pears, plums, strawberries, etc., and as high as seven per cent. or more in lemon juice. Says the writer:

"Studies were made with persons who had subsisted on a fruit diet for many years, and with persons who were accustomed to a vegetarian and to an ordinary diet. The individuals were of different sexes and ages. The results obtained from the first series of studies, which were made on women and children, show that, while they were too limited to warrant the foundation of any very definite conclusions, the statement might be confidently made that fruits and nuts should not be looked upon simply as food accessories, but should be considered a fairly economical source of nutritive material."

Experiments conducted by Professor Jaffa, of the California Experiment Station, to determine the digestibility of fruit, show clearly, he thinks, that they are thoroughly digested, and have a higher nutritive value

than is popularly attributed to them. Apparently stomach digestion is influenced by the nature of the fruit and its stage of ripeness. Apples are viewed, from an economical and nutritive standpoint, as the best of all fresh fruits, especially when uncooked, while of dried fruits dates and raisins rank the highest. To resume the quotation:

"The conclusions reached as a result of the studies were that in general it may be said that fruits are wholesome, palatable and attractive additions to our diet, and may be readily made to furnish a considerable part of the nutrients and energy required in the daily fare. Fresh fruits are dilute foods, and closely resemble green vegetables in total nutritive value, but dried fruits and many preserves are much more concentrated, comparing favorably with some of the cereals and other dry vegetable foods in the amount of total nutrients and energy which they supply per pound. Characteristic chemical constituents of fruits are carbohydrates, and so they are naturally and properly used in a well-balanced diet to supplement foods richer in protein, such, for example, as cereal grains, legumes, nuts, eggs, dairy products, meats and fish. Intelligently used, fruits constitute a most valuable part of a well-balanced diet, and may profitably be eaten in even larger quantities than they are at present by the majority of mankind."—[Literary Digest.



Canadian Views. Valley of the Ten Peaks, Laggan, Alta. On the Canadian Pacific Railway.

The Quiet Hour.

A Secret Source of Power.

Enter into thy closet, and when thou hast shut thy door, pray to thy Father which is in secret; and thy Father which seeth in secret shall reward thee openly. —St. Matt. vi.: 6.

The monk was preaching: strong his earnest word,
From the abundance of his heart he spoke,
And the flame spread—in every soul that heard,
Sorrow and love and good resolve awoke:—
The poor lay-brother, ignorant and old,
Thanked God that he had heard such words of gold.

"Still let the glory, Lord, be Thine alone,"
So prayed the monk; his heart absorbed in praise:
"Thine be the glory: if my hands have sown
The harvest ripened in Thy mercy's rays,
It was Thy blessing, Lord, that made my word
Bring light and love to every soul that heard.

"O Lord! I thank Thee that my feeble strength
Has been so blest; that sinful hearts were melted
At my pleading—knew at length
How sweet Thy service, and how safe Thy fold;
While souls that loved Thee saw before them rise
Still holier heights of loving sacrifice."

So prayed the monk: when suddenly he heard
An Angel speaking thus: "Know, O my son,
Thy words had all been vain, but hearts were stirred,
And saints were edified and sinners won,
By his, the poor lay-brother's, humble aid,
Who sat upon the pulpit-stair, and prayed."

—A. A. Procter.

That old legend may be—indeed, surely is—true in many an instance. The wonderful power and privilege of prayer is in our hands. If we are not using it—and which of us does use it to the full?—we shall surely be called to account. This great talent has been placed in the hands of every Christian to be used for God's glory and the service of men. When the Master returns will He find that we have left it lying useless until it has become rusty or is buried out of sight and forgotten? Probably, in such a case as the one described above, a man who felt himself gifted with the power of reaching and inspiring men with his eloquence would feel bound to use that gift for good; but the lay brothers and sisters, who form the congregations, or who are forced by circumstances to remain at home, may not realize their power and responsibility so clearly.

Prayer is not as easy as it looks on the surface—indeed, it is very difficult. It is not only that time may be very limited, and that there are many other duties claiming attention—duties which at the moment seem far more pressing than the duty of prayer. There are meals to be got ready, the children to dress, the everyday "chores" to be attended to. Prayer can be pushed to one side to wait for a more convenient season, and, too often, that season grows more and more infrequent. But, even if we do insist on keeping to our regular times for prayer, making other less-important duties wait, fresh difficulties pile up to hinder us. It is hard to shut out the visible world around us, and to realize the Presence of the Invisible God. It is hard to concentrate one's mind on

the praises and petitions offered, when the thoughts are so inclined to wander.

"I cannot pray; yet, Lord Thou know'st
The pain it is to me,
To have my vainly-struggling thoughts
Thus torn away from Thee.
Prayer was not meant for luxury,
Or selfish pastime sweet;
It is the prostrate creature's place
At his Creator's feet.
Had I, dear Lord, no pleasure found
But in the thoughts of Thee,
Prayer would have come unsought and been
A truer liberty.
Yet, Thou art oft most present, Lord,
In weak distracted prayer;
A sinner out of heart with self
Most often finds Thee there.
And prayer that humbles, sets the soul
From all illusions free,
And teaches it how utterly,
Dear Lord, it hangs on Thee."

But, though distractions in prayer are not always our own fault, too often they prove that we are not particularly interested in that duty and privilege. If we find that our spiritual growth is slow, probably a little self-examination would show that neglect of prayer is at the root of the trouble. It is not that we have given up the daily "saying of our prayers." Such a deliberate omission as that would wake us up with a shock to a sense of danger, but our prayers may have grown formal, and have ceased to be a real, quickening communion with the Living God. When prayer is only a duty to be performed, and when we rise from our knees, and forget the next moment that we have been speaking to God, of course prayer is not the source of power that it should be. But the real difficulty lies still deeper down, and springs from want of faith. If we have a living, practical belief in God as our Father, if we know that He is ready and able to fill our outstretched hands with everything that is really good for us and for our friends, it will be impossible to give prayer an unimportant place in our lives.

Dean Hodges tells us of an ingenious kind of prayer which was invented in the middle ages. The letters of the alphabet were reverently repeated, and then the suppliant asked that—as very perfect prayers had been formed out of these 26 letters—God would take them and construct such devotion as might please Him. Such an easy way of manufacturing prayers would probably be as effectual as the attempt to paint a great picture by simply flinging on the canvas the colors used by great painters. A picture needs soul as well as paint, and a prayer needs soul as well as words. We may smile at the absurdity of the idea, and yet are not some of our prayers just as lifeless and meaningless? How often we rise from our knees and go about our work, forgetting instantly that we have been in the audience-chamber of the King of Kings, never looking for an answer to our petitions nor relying on His strength and protection. Yesterday a little blind woman was telling me that several years ago she fell down stairs and sprained her ankle. She said, in the most matter-of-fact way: "I got up in a hurry that morning to attend to my sister who was sick, and I forgot to say my prayers; so I thought God did not take care of me because I had not asked Him."

She evidently put a good deal of faith in her daily commending of herself to God's care, though she apparently thought His Fatherly Watchfulness depended altogether on her remembrance of Him. Happily for us, He loves and cares for His children even when they are entirely forgetful of Him, but that does not lessen the power and responsibility of prayer which we hold in our hands. My blind friend also told me how—the day before a murderer was to be executed—she was praying for him all day. Even at the Lord's Table she could think of no one else. Surely her loving, unselfish pleading not only strengthened and beautified her own soul, but—God only knows how—really helped that poor darkened spirit which has now passed on into the mysterious life beyond death.

It is strange that we should treat prayer so lightly when it is so infinite in its possibilities. Swifter than lightning it can reach the boundaries—if they have any boundaries—of time and space.

We long to be brave and strong and holy, and, in spite of many failures, we still struggle on after perfection. But do we always pray with all our strength, earnestly and persistently, for the indwelling Spirit of God, Who only can transfigure our lives and make our souls bright with the beauty of holiness? It is short-sighted folly to struggle on alone, when Almighty Power is pledged to help us if we look to Him for help. Or, perhaps, we are trying to bring help or comfort to others. God wants to send many messages through us; He wants each Christian to be, like John the Baptist, a "voice" speaking His words. It is a great honor and privilege to be used by Him, to be the channel through which He touches other souls; but how can God speak through our voice unless we are living in continual touch with Him? As the Word of God came into the world through a lowly, holy maiden, so He is constantly coming into the world, and reaching man, through men and women and children, who, like Mary of Nazareth, have offered and presented their souls and bodies willingly to His service, and, with pure hearts and steadfast wills, say unreservedly: "Be it unto me according to Thy word." God can do great things through such consecrated human instruments. If He is not working mightily through us—and He only knows whether He is making use of our powers for His own purposes—then it must be because we are not entirely consecrated to His service, or are not keeping always in touch with Him. St. Paul's influence for good was, and is, inconceivably great, and why?—He explains it very simply by saying: "I also labor, striving according to His working, which worketh in me mightily."

The Church of Christ is marching on like a great victorious army. Rev. R. H. Starr says: "There never was a time when art and science and literature and travel and research and investigation of every kind were bringing all their treasures and laying them at the feet of Jesus Christ as they are doing to-day, never a time when the cold, pessimistic thought of despairing Agnosticism was being met as it is to-day by the living and quickening faith in the old-time verities of the Christian creeds; never a time when the Church of God, aided and supported by this omnipotent faith, was taking the thistle of a thousand difficulties in her hand and crushing it, as she is doing to-day."

But, though Christianity is beginning to take its rightful place as a great world-power, are we individual Christians taking our rightful place as channels of power, channels along which the power of God may flow? If God has lighted us with the fire of His indwelling Life He intends us to do our part in the great work of lighting the world. Let us put more life and energy and enthusiasm into our prayers for the growth of His Kingdom, and then we can reach out in the night of those secret prayers to sweeten, brighten and strengthen the souls around us. God will keep His promise, and when an obedient disciple goes to Him in secret for help he is always rewarded openly. The only way to really help others is to press close to Christ, and stay there. Then both hands can be stretched out in eager service. You may have little time, money or world-influence. Well, what of that? The great Life which has transfigured millions of souls, filling them with power and joy and beauty, was very short, and had neither money nor worldly influence behind it. The world would have been poorer rather than richer to-day if Jesus had reigned in a palace instead of working in a village shop. True power lies in character rather than in circumstances, and the people who help us most in spiritual things are helping us by what they are, not by what they do. With God behind a man nothing is impossible, though success may for a time be hidden. To-day we can see that Christ's life was great and glorious, but on that first awful Good Friday, it must have looked like an utter failure. Not on this side of death can anyone judge of the results of his life and work. We all may be conquerors—through Him that loved us—but don't let us aim so low that we can possibly win satisfying success here.

A man's reach should exceed his grasp, Or what's heaven for?

HOPE.

About the House.

Cooking Fowl.

Turkey, Roast.—Wash, singe and draw. Rub with salt and pepper, and stuff as preferred. Skewer the fowl, draw the wings and legs into place, and tie in position with cotton cord. Rub all over with butter, dredge with flour, and put in a very hot oven to sear the outside, and prevent the juices from escaping. When seared, lessen the heat. While cooking, baste with butter and hot water mixed, at frequent intervals. About three hours will be required for roasting.

Turkey, Boiled.—Singe, rinse and wipe dry. Rub all over with lemon juice, salt and pepper. Fill with boiled celery, cut in slices and well drained. Truss the legs and wings close to the body, and wrap tightly in a band of cotton cloth to keep the shape. Put into water that is boiling hard, and when the outside has become cooked enough to keep the juices in, place on the back of the stove, where the water will only simmer gently. Cook until tender—about twenty minutes to the pound will likely be long enough. Serve with a thick cream sauce.

Goose, Roast.—Clean and truss, and fill with a stuffing of bread crumbs flavored with onions, sage and pepper and salt. Fasten the bird with a skewer; rub all over with dripping; wrap in well-greased paper, and roast for from an hour to an hour and a half, according to the size. When half done remove the paper, and let brown. Serve with apple sauce, and parsnips in cream sauce.

Chicken, Maryland Style.—Clean and disjoint, leaving the breast whole. Put necks and giblets into cold water, and cook so as to obtain a cupful of good stock for gravy. Put the chicken in a pan, keeping the pieces apart. Sprinkle with salt and pepper; dredge with flour, and dot with bits of butter. Bake in a hot oven from half an hour to 40 minutes, putting $\frac{1}{2}$ cup butter (melted) in $\frac{1}{2}$ cup hot water in the pan. When done, take up the chicken and make a gravy from the fat left in the pan, stirring in 2 tablespoons flour, 1 cup milk or cream, and the cupful of stock made from the giblets. Serve the chicken with the gravy poured around it.

Stuffing for Fowl.—(1) Plain stuffing: One cup grated bread crumbs, $\frac{1}{2}$ cup milk, 1 tablespoon chopped onion, 1 tablespoon butter, salt and pepper to taste. (2) For goose: Four onions, 10 sage leaves, $\frac{1}{2}$ lb. bread crumbs, 1 egg, 1 $\frac{1}{2}$ tablespoons butter, salt and pepper to taste. (3) Chestnut stuffing: Boil a pint of shelled chestnuts for three minutes, plunge in cold water, and rub off the skins with a coarse cloth. Cover with boiling water, and simmer for an hour, then mash to a paste. Chop $\frac{1}{2}$ lb. salt pork fine, add the chestnuts, season, and stuff.

Giblet Stew.—Clean the giblets, dry, and roll in flour. Put the gizzards and feet (skinned and thoroughly cleaned) into a saucepan with half a pint of water, and let stew very gently for an hour, then add the rest of the giblets, a pint of water, 2 small onions, in which a few cloves are stuck, the red part of a carrot (scraped fine), a bunch of parsley, a stick of celery. Stew for an hour and a half longer, adding a little more water, if necessary. Take out the herbs, put the giblets on a hot dish, add a little brown flour to the gravy, and serve very hot, garnished with bits of toast.

COOKING CRANBERRIES.

Cranberry Jelly.—Cook 1 quart berries and 1 cup water in a covered dish five or six minutes. Then press through a sieve. Stir in 2 cups sugar, and without reheating turn into the mould.

Cranberry Sauce.—Heat 2 cups each of sugar and water to boiling point. Add 1 quart cranberries. Cover the saucepan, and let stand on back of the range five minutes. Then move to the front, and let cook five minutes, after boiling begins. Set aside, covered, in the saucepan, until cold.

BREAD SAUCE.

Put 1 pint rich milk, $\frac{1}{2}$ cup grated bread crumbs, an onion into which five or six cloves have been pressed, with salt and pepper to season, in a double boiler over the fire. Let cook an hour.

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DECEMBER 6, 1906

When ready to serve, remove the onion, and add 2 tablespoons butter, then beat thoroughly. Serve with fowl.

Rhubarb in Winter.

The following, from "Boston Cooking School," may be worth trying:

"Rhubarb can be easily forced in the cellar for winter use. From a single good plant a dozen bunches of rhubarb of unsurpassed quality can be grown.

"Most well-ordered suburban gardens and all farm gardens contain a few rhubarb plants. If some of these plants are dug up in November or December and left on the ground to freeze thoroughly, they may be used immediately thereafter for forcing in the cellar or in boxes or in any frostproof room.

"The roots should be packed in closely together, and covered about three inches deep with moist sand. It doesn't make any difference whether the floor of the cellar is cement, wood, or dirt. The roots do not grow, simply the stalks. The roots have already been stored full of plant food during the preceding summer's growth, and it is this stored food that the plant draws on in producing the new stalks.

"After the roots have been put in place, they should be entirely screened from the daylight. The stalks are more tender, juicy, better flavored, and more beautifully colored if grown in the entire absence of daylight. If a single ray of daylight penetrates the growing-room continuously, all the stalks bend toward it, becoming crooked, the leaf-blade develops at the expense of the stalks, and the quality of the product is much impaired.

"Rhubarb will grow at a temperature anywhere above 45 degrees Fahr. The higher the temperature, the faster will the growth be, but the stalks produced are not of as good quality as those more slowly grown. If a corner of the cellar is used for forcing, it may be screened from the light with blankets, and if the growth is too slow, it may be hastened by keeping a lighted lantern in the bed. This gives heat, and does not have the injurious influence of daylight.

"Plants put in the cellar in December will usually be producing stalks by February, and will continue in bearing six weeks or more. When the yield of stalks begins to decline, the roots should be removed. These exhausted roots should be planted out in the garden again as soon as the soil can be worked in spring, and in a couple of years will be ready for forcing a second time.

"If one has only a few plants in the garden, these may be split into halves or quarters with a spade, and only a part of the plant taken for forcing. This does not injure the part that remains, but is rather a benefit, since, unless thus divided, the crown becomes so full of buds that only weak, spindling stalks are produced. The cutting up of the clump reduces the number of buds and increases the size of the stalks. Roots two or three years old generally give best results in winter forcing.

"There need be no hesitancy whatever in attempting to grow rhubarb for winter use. The only necessary precautions are to use only roots that have been frozen, and to grow the stalks in darkness. There is a lot of satisfaction in gathering and using rhubarb grown in one's own cellar, while the ground is still frozen and deeply covered with snow, and the expense and trouble of doing it are so little that no one need be without this piquant tonic and relish in midwinter."

The Letter Box.

Dear Cousin Dorothy,—I have never written to the Children's Corner before, but I like to read the letters that are written. We have been taking "The Farmer's Advocate" for about four years, and think we could not do without it. I live on a farm about four and a half miles from town. I have a mile and a half to go to school. I go every day, if the weather is fit. I am nine years old, and in the Third Book. We have lots of fun at school, playing cross-tag.

BEATRICE MAUD CLARE.

Dear Cousin Dorothy,—This is the first time I have written to the Children's Corner. I am nine years old. I am in the Junior-second Class. I go to school every day. I live on a farm, a mile and a half from Markham. We have a brick and a tile yard on our farm. We have three horses and a colt; their names are Pete, Bill and Jess, and the colt's name is Prince. We have eight cows and two calves. We have taken "The Farmer's Advocate" for five years. I have four brothers and two sisters. Markham, Ont. EVA SNOWBALL.

Dear Cousin Dorothy,—This is the first time I have written to "The Farmer's Advocate." I am eight years old, and am in the Second Book. I have not missed an examination in school yet. I have two and a half miles to walk to school. We live on a farm, five miles west of Forest, on the shore of Lake Huron, one-quarter of a mile from Hillsboro summer resort. I will close with a few riddles:

1. Why is the Prince of Wales like fifteen shillings?
2. What is it the more you cut the longer it gets?
3. How many feet have forty sheep, a shepherd and his dog?

Answers.

1. Because it takes a crown to make him a sovereign.
2. A ditch.
3. Two. VAUGHN HILL.

Forest, Ont.

pictures in any way, and you are very likely to reach some degree of appreciation of art for the sake of art itself. I am sure many of our Chatterers have had that experience. . . . And I talked so long about The Communicants, and, perhaps, but a small proportion of you saw it at all! But, let me whisper to you that we shall, some time before very long, give you a reproduction of it in our journal. Printers' ink does not tell the story very well, but it is better than nothing. It may, at least, give you some inkling of what the original looked like, or bring back to you again the wonderful coloring, that glimpse into and beyond the quaint, far-away French village, which appeared to us for a little while on the wall of the Toronto Art Gallery last September.

Helponabit's Opinion.

Dear Dame Durden,—On reading the last number of "The Farmer's Advocate," Nov. 15th, and the letters in the Ingle Nook, I avail myself of your invitation to tell what I think about "drudgery." I think it does not matter whether our lives are spent in town or country. It is the spirit that you do your work in that makes it a delight or drudgery. In what one thinks drudgery, another may take a delight and real enjoyment. We have a neighbor, a widow; all her children are married and gone

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the poor rich women that had two or more houses to look after, and a lot of servants to "work for and wait on," and had to stand up to be fitted for walking dresses, riding dresses, dinner dresses, "tea-gowns", and "ball-gowns"; and then the poor things had to sit on "boards." So, I think, Miss Darlington, passing by and not understanding the condition of our Canadian farmers' wives, looks on them as drudges, while they are happy and contented in being helpful and useful in the condition of life that it has pleased God to place them.

HELPOABIT.
York Co., Ont.

Aunt Diana's Opinion.

Dear Dame Durden,—I enjoy reading the letters of the Ingle Nook very much. I have never written before, but, as a farmer's wife, I cannot resist the temptation after reading the letters of the Nov. 15th issue. I think, surely, some of the ladies have lived in a very fierce neighborhood, or else their lot must have been very different from that of the farmers we have here in our part of the country. As a farmer's wife, I have never had any of these hardships, neither do I know of any, or, at least, very few who do. Of course, there are exceptions in all cases. I certainly have plenty to do, but am never so busy that I cannot find time for a little pleasure.

As for farmers' wives being so tired and heavy-hearted, I think it a mistake, and will venture to say that for every one heavy heart in the country there are ten in the city. While the farmer stays at home in the evenings with his wife and children, the husband in town is down at the corner, or perhaps she does not know where. To be sure, we all work, but who are we working for? Is not what's his mine, and are we not working for our own family? When I visit my sister in town, who has just half my family, I think I am not any busier than at least one town woman. I have a family of four girls and two boys, and feel that I have none too many. I know large families are not fashionable, but we country folks don't worry over fashion. I do not think it is any great calamity to be a farmer's wife. Now, dear Dame Durden, thanking you for your space.

AUNT DIANA.
Elgin Co., Ont.

Recipes Given and Wanted.

Dear Dame Durden,—I will send in a few recipes that I think are very nice. I wish to know whether some of the Ingle Nook Chatterers have a recipe for making oatmeal wafers. The following are the recipes:

Potato Caramel Cake.—Half cup butter, 2 cups sugar, 1 cup boiled potatoes (grated), 1 cup chocolate, 2 cups flour, 1 cup milk, 1 cup walnuts, spice to taste, 1/2 teaspoon of cloves, nutmeg and cinnamon, 4 eggs, 2 teaspoons baking powder. Beat eggs separately.

Oatmeal Drop Cakes.—Two eggs, 1 cup sugar, 1/2 cup shortening, 1 cup molasses, 2 cups oatmeal, 3 cups flour, 1/2 cup buttermilk, 1 teaspoon soda, 1 teaspoon cinnamon, and 1 teaspoon of ginger. Drop in pan.

Good Christmas Pudding.—One cup butter, 1 cup molasses, 1 cup milk (sweet or sour), 1 bowl chopped raisins and currants, 1 teaspoon soda, 1/2 teaspoon cloves, cinnamon and nutmeg, 3 cups flour. Steam three hours.

Would "A Lankshire Lass" please send that recipe for that syrup that is so much like maple syrup?

Waterloo Co. MARGARET.

Perhaps the following recipe will suit you:

Oatmeal Cookies.—Two and a half cups flour, 2 1/2 cups oatmeal, 1 cup sugar, 1 cup butter. Mix thoroughly, then make into a dough with 1/2 cup lukewarm water in which 1 even teaspoon soda has been dissolved. You may then roll very thin if for wafers, but they are delicious if made as thick as cookies, and buttered when eaten.

Chocolate—Candy.

Dear Dame Durden,—Just a few lines, as this is my first letter to the Ingle Nook, though I have enjoyed reading the chats so much, and we have taken the paper for years. Last summer, I started making a cookbook, and marked it off in sections, and each week I cut out all the valuable recipes and suggestions, and paste them in rotation.

Can anyone tell me how to make milk chocolate? It is a general favorite.

I enclose a lovely recipe for candy: Two and a half cups of white sugar, 1/2 teacup of water, cake Fry's chocolate. Boil four minutes. Remove from stove, and set the dish in cold water. Stir constantly until it thickens. It is also nice for walnut creams, or stir walnuts in when you remove from the stove.

Argenteuil, Que. BRIAR ROSE.

Perhaps some of our members can give you the precise recipe you want. The following is a very good chocolate recipe: Put 1 quart milk in a double boiler to heat. Scrape 2 squares chocolate finely into a granite pan; add 3 tablespoons water, and cook, stirring until thick. Add to the boiling milk; sweeten with three tablespoons sugar; whip with an egg-beater, and serve with a tablespoon of whipped cream on each cup.

Margaret Guthrie Heard From.

Dear Ingle Friends,—Since so many pleasing sketches of prominent women have been given, do you not think it is time we learned a little of our editor of the Ingle Nook, viz., Dame Durden? Fancy what a busy woman she must be, and what executive ability she possesses to handle such an extensive correspondence in all manner of handwriting, but none the less honest and earnest; what tact and discretion, never wounding nor stirring up strife, and always judging our work from our standpoint, never belittling our attempts. Some day, she will inform us how she prepares the articles for the press, perhaps never hinting at her weariness. Oh! no; she knows that goes with the occupation and the salary, as it were.

Her keen sense of humor shows forth occasionally; she will in all probability appreciate it in this, and maybe accuse the writer of "bumptiousness." She has been so reticent; if a note of correction comes through the mail, 'twill be hailed with gladness, for then it will be found whether she flourishes her capitals, or, as is believed, shows great deliberation, and gently turns the last letter outwards and down.

Oh, Blacklocks! never doubt again her identity. Her firmness, when occasion demands, exceeds men's—most men's. But she is a womanly woman, much like the "Old Woman in a Shoe." She has so many women she doesn't know what to do.

That old woman was not necessarily a mother, but a high-school teacher, a B. A., or an editor like our present lady. Oh, yes, she is always regarded as a mother—that woman in the shoe. Is Dame Durden burdened with household cares? We shall hope not. Wouldn't one pity her husband, or her children? Wouldn't some of us ask to adopt some of them—the husband or the children? You can't make us believe she writes all day, and does housework all night.

But, to return to Blacklocks, I did not blame you; but for one moment imagine a man editing a column for two or three hundred women for one week! Why, when Ruby's letter was called sensible (as it certainly was), wouldn't we be up in arms, and write for an explanation to find wherein ours was silly? It is trifles like this cause dissension in the home.

Now, for a little glimpse at the personality, nationality and religion, and we say adieu. She impresses one at first sight with a power to attract, rather than repel. Her voice is gentle, once she may have been impulsive and eager to have her rights, but now is quiet, dignified and very refined. Her handshake is firm and sympathetic. Her eyes possess this latter charm, and are bright, whether dark or (as Uncle Reben would reason) light. Her hair certainly matches her eyes, and is becomingly dressed. She is a genuine Canadian; is tolerant enough to favor church union, and unconsciously belongs to that society whose motto is, "I know something good of you."

MARGARET GUTHRIE.

Modestly almost demanded that I keep this letter out. However, since our friend Margaret never saw me at all, at all, and so was obliged to speak impersonally, I decided to let it go in. Wouldn't she smile if she saw me—an aggressive female, with a monocle, a violent plaid skirt, and a bank-clerk walk?



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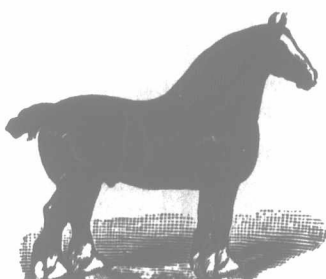
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Speaking of editorial tribulations, the Chicago Tribune relates this experience: "The young man with the long hair, tallow complexion and bundle of manuscript approached the editor's desk.

"Here is something," he said, "I wrote myself."

"The editor glanced hastily through the manuscript, and then looked at the author.

"That is a sufficient explanation," he replied, handing it back, "but it is hardly an adequate apology."

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Bob, Son of Battle.

BY ALFRED OLLIVANT.

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CHAPTER XV.

Death on the Marches.

On the top of this there followed an attempt to poison Th' Owd Un. At least there was no other accounting for the affair.

In the dead of a long-remembered night James Moore was waked by a low moaning beneath his room. He leapt out of bed and ran to the window to see his favorite dragging about the moonlit yard, the dark head down, the proud tail for once lowered, the lithe limbs wooden, heavy, unnatural—together pitiful.

In a moment he was downstairs and out to his friend's assistance. "Wha-iver is't, Owd Un?" he cried in anguish.

At the sound of that dear voice the old dog tried to struggle to him, could not, and fell, whimpering.

In a second the Master was with him, examining him tenderly, and crying for Sam'l, who slept above the stables.

There was every symptom of foul play: the tongue was swollen and almost black; the breathing labored; the body twitched horribly; and the soft gray eyes all bloodshot and straining in agony.

With the aid of Sam'l and Maggie, drenching first and stimulants after, the Master pulled him round for the moment. And soon Jim Mason and Parson Leggy, hurriedly summoned, came running hot-foot to the rescue.

Prompt and stringent measures saved the victim—but only just. For a time the best sheep-dog in the North was pawing at the Gate of Death. In the end, as the gray dawn broke, the danger passed.

The attempt to get at him, if attempt it was, aroused passionate indignation in the countryside. It seemed the culminating-point of the excitement long bubbling.

There were no traces of the culprit; not a vestige to lead to incrimination, so cunningly had the criminal accomplished his foul task. But as to the perpetrator, if there were no proofs there were yet fewer doubts.

At the Sylvester Arms Long Kirby asked M'Adam point-blank for his explanation of the matter.

"Hoo do I 'count for it?" the little man cried. "I dinna 'count for it ava."

"Then hoo did it happen?" asked Tammas with asperity.

"I dinna believe it did happen," the little man replied. "It's a lee o' James Moore's—a characterestic lee." Whereon they chucked him out incontinently; for the Terror for once was elsewhere.

Now that afternoon is to be remembered for threefold causes. Firstly, because, as has been said, M'Adam was alone. Secondly, because, a few minutes after his ejection, the window of the tap-room was thrown open from without, and the little man looked in. He spoke no word, but those dim, smouldering eyes of his wandered from face to face, resting for a second on each, as if to burn them on his memory. "I'll remember ye, gentlemen," he said at length quietly, shut the window, and was gone.

Thirdly, for a reason now to be told.

Though ten days had elapsed since the attempt on him, the gray dog had never been his old self since. He had attacks of shivering; his vitality seemed sapped; he tired easily, and, great heart, would never own it. At length on this day, James Moore, leaving the old dog behind him, had gone over to Gramnochtown to consult Dingley, the vet.

On his way home he met Jim Mason with Gyp, the faithful Betsy's unworthy successor, at the Dalesman's Laughter. Together they started for the long tramp home over the Marches. And that journey is marked with a red stone in this story.

All day long the hills had been bathed in impenetrable fog. Throughout there had been an accompanying drizzle; and in the distance the wind had moaned a storm-menace. To the darkness of the day was added the sombreness of falling night as the three began the ascent of the Murk Muir Pass. By the time they emerged into the Devil's Bowl it was altogether black and blind. But the threat

of wind had passed, leaving utter stillness; and they could hear the soft splash of an otter on the far side of the Lone Tarn as they skirted that gloomy water's edge. When at length the last steep rise on to the Marches had been topped, a breath of soft air smote them lightly, and the curtain of fog began drifting away.

The two men swung steadily through the heather with that reaching stride the birthright of moor-men and highlanders. They talked but little, for such was their nature: a word or two on sheep and the approaching lambing-time; thence on to the coming Trails; the Shepherds' Trophy; Owd Bob and the attempt on him; and from that to M'Adam and the Tailless Tyke.

"D'yo' reck'n M'Adam had a hand in't?" the postman was asking.

"Nay; there's no proof."

"'Ceptin' he's made to get shut o' Th' Owd Un afore Cup Day."

"'Im or me—it mak's no differ." For a dog is disqualified from competing for the Trophy who has changed hands during the six months prior to the meeting. And this holds good though the change be only from father to son on the decease of the former.

Jim looked up inquiringly at his companion.

"D'yo' think it'll coom to that?" he asked.

"What?"

"Why—murder."

"Not if I can help it," the other answered grimly.

The fog had cleared away by now, and the moon was up. To their right, on the crest of a rise some two hundred yards away, a low wood stood out black against the sky. As they passed it, a blackbird rose up screaming, and a brace of wood-pigeons winged noisily away.

"Hullo! bark to the yammerin'!" muttered Jim, stopping; "and at this time o' night too!"

Some rabbits, playing in the moonlight on the outskirts of the wood, sat up, listened, and hopped back into security. At the same moment a big hill-fox slunk out of the covert. He stole a pace forward and halted, listening with one ear back and one pad raised; then cantered silently away in the gloom, passing close to the two men and yet not observing them.

"What's up, I wonder?" mused the postman.

"The fox set 'em clackerin', I reck'n," said the Master.

"Not he; he was scared 'maist out o' his skin," the other answered. Then in tones of suppressed excitement, with his hand on James Moore's arm: "And, look 'ee, there's ma Gyp a-beckonin' on us!"

There, indeed, on the crest of the rise beside the wood, was the little lurcher, now looking back at his master, now creeping stealthily forward.

"Ma word! there's summat wrong yonder!" cried Jim, and jerked the post-bags off his shoulder. "Coom on, Master!"—and he set off running toward the dog; while James Moore, himself excited now, followed with an agility that belied his years.

Some score yards from the lower edge of the spinney, upon the farther side of the ridge, a tiny beck babbled through its bed of peat. The two men, as they topped the rise, noticed a flock of black-faced mountain-sheep clustered in the dip 'twixt wood and stream. They stood martialed in close array, facing half toward the wood, half toward the newcomers, heads up, eyes glaring, hands some as sheep only look when scared.

On the crest of the ridge the two men halted beside Gyp. The postman stood with his head a little forward, listening intently. Then he dropped in the heather like a dead man, pulling the other with him.

"Doon, mon!" he whispered, clutching at Gyp with his spare hand.

"What is't, Jim?" asked the Master, now thoroughly roused.

"Summat movin' i' th' wood," the other whispered, listening worse awed.

So they lay, motionless for a while, but there came no sound from the wood.

"'Appeer 'twas naught," the postman length allowed, pronouncing the word with a sigh.

"And yet I thocht I'd see somethin' o' I thocht."

Then, starting to his feet, he gave a hoarse cry of terror. "Gad, gad, gad, you there?"

Then for the first time the Master

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his head and noticed, lying in the gloom between them and the array of sheep a still, white heap.

James Moore was a man of deeds, not words.

"It's past waitin'!" he said, and sprang forward, his heart in his mouth.

The sheep stamped and shuffled as he came, and yet did not break.

"Ah, thanks be!" he cried, dropping beside the motionless body; "it's nob but a sheep." As he spoke his hands wandered deftly over the carcass. "But what's this?" he called. "Stout* she was as me. Look at her fleece—crisp, close, strong; feel the flesh—firm as a rock. And ne'er a bone broke, ne'er a scrat on her body a pin could mak'. As healthy as a mon—and yet dead as mut-ton!"

Jim, still trembling from the horror of his fear, came up, and knelt beside his friend. "Ah, but there's bin devlry in this!" he said; "I reck'ned they sheep had bin badly skeared, and not so long agone."

"Sheep-murder, sure enough!" the other answered. "No fox's doin'—a girt-grown two-shear as could maist knock a h'ox."

Jim's hands travelled from the body to the dead creature's throat. He screamed.

"By gob, Master! look 'ee their!" He held his hand up in the moonlight, and it dripped red. "And warm yet! warm!"

"Tear some bracken, Jim!" ordered the other, "and set a-light. We mun see to this."

The postman did as bid. For a moment the fern mouldered and smoked, then the flame ran crackling along and shot up in the darkness, weirdly lighting the scene: to the right the low wood, a block of solid blackness against the sky; in front the wall of sheep, staring out of the gloom with bright eyes; and as centre-piece that still, white body, with the kneeling men and lurcher sniffing tentatively round.

The victim was subjected to a critical examination. The throat, and that only, had been hideously mauled; from the raw wounds the flesh hung in horrid shreds; on the ground all about were little pitiful dabs of wool, wrenched off apparently in a struggle; and, crawling among the fern-roots, a snake-like track of red led down to the stream.

"A dog's doin', and no mistakin' thot," said Jim at length, after a minute inspection.

"Ay," declared the Master with slow emphasis, "and a sheep-dog's too, and an old un's or I'm no shepherd."

The postman looked up.

"Why thot?" he asked, puzzled.

"Becos," the Master answered, "im as did this killed for blood—and for blood only. If had bin any other dog—gray-hound, bull, terrier, or even a young sheep-dog—d'yo' think he'd ka' stopped w' the one? Not he; he'd ha' gone through 'em, and be runnin' 'em as like as not yet, nippin' 'em, pullin' 'em down, till he'd maybe killed the half. But im as did this killed for blood, I say. He got it—killed just the one, and nary touched the others, d'yo' see, Jim?"

The postman whistled, long and low.

"It's just what Owd Wrottesley'd tell on," he said. "I never nob but half believed him then—I do now though. D'yo' mind what th' owd lad'd tell, Master?"

James Moore nodded.

"Thot's it. I've never seen the like afore myself, but I've heard ma grand-dad speak o't mony's the time. An owd dog'll git the cravin' for sheep's blood on him, just the same as a mon does for the drink; he creeps out o' nights, gallops afar, hunts his sheep, downs 'er, and satisfies the cravin'. And he nary kills but the one, they say, for he knows the vallie o' sheep same as you and me. He has his gallop, quenches the thirst, and then he's for home, maybe a score mile away, and no one the wiser f' th' mornin'. And so on, till he cooms to a bloody death, the murderin' traitor!"

"If he does!" said Jim.

"And he does, they say, nigh always. For he gets bolder and bolder w' not bein' caught, until one fine night a bullet lets light into him. And some mon gets knocked nigh endways when they bring his best tyke home f' th' mornin', dead, w' the sheep's wool yet stickin' in his mouth."

*Stout—hearty.

The postman whistled again.

"It's what owd Wrottesley'd tell on to a tick. And he'd say, if ye mind, Master, as heo the dog'd niver kill his master's sheep—kind o' conscience-like."

"Ay, I've heard that," said the Master. "Queer too, and 'im bein' such a bad un!"

Jim Mason rose slowly from his knees. "Ma word," he said, "I wish Th' Owd In was here. He'd appen show us summat!"

"I nob but wish he was, por owd lad!" said the Master.

As he spoke there was a crash in the wood above them; a sound as of some big body bursting furiously through brushwood.

The two men rushed to the top of the rise. In the darkness they could see nothing; only, standing still and holding their breaths, they could hear the faint sound, ever growing fainter, of some creature splashing in a hasty gallop over the wet moors.

"Yon's him! Yon's no fox, I'll tak' oath. And a main big un, too, hark to him!" cried Jim. Then to Gyp, who had rushed off in hot pursuit: "Coom back, chunk-head. What's use o' you agin a gallopin' potamu!"

Gradually the sounds died away and away, and were no more.

"That's im, the devl," said the Master at length.

"Nay; the devl has a tail, hey do say," replied Jim thoughtfully. For already the light of suspicion was focusing its red glare.

"Noo I reck'n we're in for bloody times among the sheep for a while," said the Master, as Jim picked up his bags.

"Better a sheep nor a mon," answered the postman, still harping on the old theme.

(To be continued.)

The Children.

By Charles Dickens.

When the lessons and tasks are all ended, And the school for the day is dismissed, And the little ones gather around me To bid me good-night and be kissed;

Oh, the little white arms that encircle My neck in a tender embrace! Oh, the smiles that are halos of heaven, Shedding sunshines of love on my face!

And when they are gone, I sit dreaming Of my childhood too lovely to last; Of love, that my heart will remember

When it wakes to the pulse of the past; Ere the world and wickedness made me A partner of sorrow and sin, When the glory of God was about me, And the glory of gladness within.

Oh! my heart grows weak as a woman's, And the fountain of feelings will flow, When I think of the paths steep and stony,

Where the feet of the dear ones must go; Of the mountains of sin hanging o'er them,

Of the tempest of fate blowing wild; Oh, there's nothing on earth half so holy As the innocent heart of a child.

They are idols of hearts and of household-holds,

They are angels of God in disguise, His sunlight still sleeps in their tresses, His glory still gleams in their eyes;

Oh, these truants from home and from heaven, They have made me more manly and mild,

And I know how Jesus could liken The Kingdom of God to a child.

The Sunny Side.

Life holds no woe for me. I know full well, However evil things may seem to me to-day,

Some future joy is certain to dispel The clouds that lower darkly o'er my way;

And I have noted that one taste of bliss, E'en though 'tis but a taste, hath joyous need

To compensate for all that goes amiss, On which a soul in sorrow long may feed,

No might e'er was whose darkness did not fade; No storm e'er raged whose course was not soon run;

And so my soul, by troubles undismayed, Doth simply wait the coming of the sun.

—Selected.

Needn't Go to the Theatre—the Artists Will Come to You.

Plançon, Gadski, Caruso, Patti—the great singers of the world—will all come. Besides minstrels, bands, orchestra and the people who tell funny stories. They'll come in Victor Records and entertain you in your own home, through the



"HIS MASTER'S VOICE"

Victor-Berliner Gram-o-phone

which also gives an infinite variety of splendid church music.

The maroon-coloured, hard, flat Victor Records last ten times as long as other makes. And there is a greater purity—a singular freedom from harshness—a lasting sweetness and clearness about the Victor-Berliner. Listen for it in the smooth legato of Eames' lovely soprano—or in the flute or violin which rings out in orchestral selections. You can have the Gram-o-phone play with the piano or organ in your home.

Ask for free booklet describing the 3000 new records, when you come to our place, to hear the Victor-Berliner. Prices, \$12.50 to \$110.00.

510

If there isn't a store in your town where you can hear the Victor-Berliner Gram-o-phone, write for full information to the

BERLINER GRAM-O-PHONE CO. OF CANADA, LIMITED, Montreal.

The Winnipeg Heater
produces a much nicer heat than a stove, owing to there being no over-heated parts. It circulates the air in a room, keeping your feet warm and a uniform temperature. Its radiating surface is over 5,000 square inches, and it has heat-retaining pockets. It is time now to place a Winnipeg Heater and decrease your fuel bill.
Write for circular and particulars to
Dept. 6.
The "1900" WASHER CO.
355 YONGE ST., TORONTO, ONT.

Sewing Machines
Free, for 30 days trial. We send out all machines on 30 days free trial before we ask you to accept or pay for them. If not sat- isfactory, send them back at our expense. We sell a 5-drawer drop-head sewing machine, handsome oak woodwork, for \$17.50; a better machine, same pattern, guaranteed for 20 years sells for \$31.50; work cost a little more, but only about half what others charge. Our sewing-machine catalogue, fully explaining our different styles, free. Write for it to-day.
WINDSOR SUPPLY CO., Windsor, Ont.

Wedding Invitations, Wedding Announcements, Visiting Cards.
Latest styles. Latest type. Prompt attention to mail orders.
The London Printing & Litho. Co.
144 Carling St., London, Ont.

DOESN'T IT STAND TO REASON
That we, who make a specialty of telegraphy, can give you a course of instruction vastly superior to that given by schools which make telegraphy but one of many branches. Our free booklet, 5a, tells why. Write for it.
Dominion School of Telegraphy and Railroading, Toronto.

When Writing Advertisers Please Mention this Paper.

Established 1876. 30 Years. At Home 1906.

This magnificent building and grounds is the reward of our 30 years of honest and earnest efforts.



The new home of the **Canada Business College, Chatham, Ont., Canada's Greatest School of Business.**

Its 30 year of high-class work, backed by this splendid equipment of building and grounds, costing nearly (\$30,000) thirty thousand dollars, coupled with cheap board and the paying of your railway fare; all of these, combined with its great success in placing graduates in good positions, places its advantages so far above its contemporaries that it does not pay the student to go elsewhere, and is drawing students from Newfoundland on the east to British Columbia on the west. **The English-speaking world is our field.**

400 students placed in good positions last year.

December is one of the best months in which to start.

New Year Opening Wed., Jan. 2, '07.

If you cannot come to Chatham, and want to learn Bookkeeping, Shorthand or Penmanship, we can train you at your home in those branches through our courses by mail.

Our magnificent catalogues will tell you all about these courses. General Catalogue tells about the training at Chatham.

Mail Course Catalogue tells about the Home Courses. Write for the one you want, mentioning this paper, addressing

D. McLACHLAN & CO., Chatham, Ont.

A time like this demands Strong minds, great hearts, great faith and ready hands;

Men whom the lust of office does not kill; Men whom the spoils of office cannot buy;

Men who possess opinions and a will, Men who love honor, men who will not lie,

Strong men, sun-crowned, who live above the fog In public duty and in private thinking.

—Lowell.

A Large Egg Yield

A hen—any hen—will lay a great number of eggs (some more than others) if conditions and surroundings are such as meet the requirements of her nature. Here is where your part comes in. Give the hen a regular daily portion (a penny's worth is enough for 30 hens) of Dr. Hess Poultry Pan-a-ce-a, and she will do the rest.

DR. HESS POULTRY PAN-A-CE-A

is not a food—it is a tonic, specially prepared to give "tone" to the digestive and reproductive organs, so that the maximum of food, over and above the maintenance ration, is used to make eggs. It has also a property foreign to a so-called poultry food. It is a germicide, that is, it destroys bacteria, the cause of nearly all poultry ailments. Poultry Pan-a-ce-a is the prescription of Dr. Hess (M.D., D.V.S.), is endorsed by the leading poultry associations in United States and Canada, and is sold on a written guarantee.

1 1/2 lb. package, 85c.
5 lbs. 85c.
12 lbs. \$1.75.
25 lb. pack, \$3.50.
Send 2 cents for Dr. Hess 48-page Poultry Book free.

DR. HESS & CLARK, Ashland, Ohio, U.S.A.
Instant 1 ounce Killer Kills Lice.



Send 2c for Dr. Hess 48-page Poultry Book, FREE.

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.

BARGAINS in Black Minorcas and Barred Rocks as my entire stock must be sold at once. F. W. Race Post Hope, Ont.

FOR SALE—Mammoth pure-bred Pekin ducks. Winners wherever exhibited. Apply to Alvin Carson, Ailsa Craig, Ont.

FOR SALE—Rose-Comb White Leghorn cockerels. All show birds. Three dollars each. Jas Mackay, Medina, Ont.

FOR SALE—Bronze turkeys. Large young toms with brilliant plumage. Chas. W. Mainard, Glasworth, Ont.

INGLENOOK Park Poultry Farm offers a few cockerels only. W. Leghons, H. Minorcas, W. Wyandottes, Buff Orpingtons. Only best laying strains are bred here. A rare opportunity to secure the best reasonable, no fancy prices asked. W. H. Smith, Head Office, 41 Spruce St., Toronto, Ont.

MAMMOTH Bronze Turkeys, Silver Gray Dorkings, Barred Rocks, from prizewinners. Pairs not skin. Alfred E. Shore, White Oak, or 567 E. 15th St., London.

MAMMOTH Pekin ducks; choice young stock, \$1 apiece. H. J. Smith, Oakville, Ont.

SECOND to none—Miller's Barred Plymouth Rock cockerels, bred from a good laying strain, headed by first-prize imported eleven-lb. cockerel. Show birds a specialty. Satisfaction guaranteed, or money refunded. Herbert J. Miller, Lorenz P.O.

SINGLE-COMB Black Minorca pullets and cockerels for sale, \$2 each, sired by Champion 1st St. Louis cock. Great laying strain, both winter and summer. T. A. Faulds, 11 Victor St., London, Ont.

WHITE WYANDOTTES. Good blocky young birds ready to ship. W. D. Mookman, Road Head, Ont.

Mammoth Bronze Turkeys—Sired by imported toms. **Shropshire sheep and Chester White swine.** Write for prices. **W. E. WRIGHT, Glasworth, Ont.**



Hatch Chickens by Steam with the EXCELSIOR INCUBATOR Or WOODEN HEN

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

QUESTIONS AND ANSWERS.

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

2nd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer.

3rd.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

4th.—When a reply by mail is required to urgent veterinary or legal enquiries, \$1 must be enclosed.

Miscellaneous.

CONCRETE TILE.

Could someone oblige a reader of "The Farmer's Advocate" by giving some information regarding the use and success of concrete tile? F. R. F.

Ans.—Will some of our road experts and municipal authorities give the result of their experience with concrete tile, comparing cost and durability with ordinary tile and sewer piping. We have noticed in a few cases that cement tile at road culverts have crumbled and broken down, and in other cases, owing to the volume of water, a large cement culvert would have been better than the tile, which washed out at the time of freshets.

FEEDING COLTS.

I have two colts—one a year old, the other two years old—in fair condition. Would like to keep in same condition. What would be enough, and kind of feed; oats (boiled or chopped), mixed with bran, in what quantity to keep them growing? What will stop colts eating wood? A. D.

Ans.—Good oats and bran (equal parts by measure), as much as they will eat up clean at each meal, together with good, early-cut, well-cured hay, should keep colts in good condition. If they do not do well enough on whole oats and bran, try chopped oats, or boiled oats, with a handful of ground oil cake and a little bran added. To state a given quantity is impracticable, as some colts require and will take more than others, but one-half the quantity given a working horse should suffice to keep colts growing steadily. A small handful of hardwood ashes in their feed daily for a week or two, or mixed with their salt, should cure the habit.

BARLEY FOR COWS—TO KEEP COLT IN CONDITION.

1. Is barley chop better than oat chop for milch cows? Will the former not dry them up?

2. Have a colt coming two years old, I wish to keep in high condition. Can you give me a cheap and harmless tonic? MIC-MAC.

Ans.—1. Oat chop comes nearer than barley chop to meeting the nutritive requirements of a milking cow, though much depends on what roughage is being fed. Barley chop is rich in carbohydrates, hence tends to fat rather than milk, but it is all right to balance up a ration rich in protein, such as one consisting largely of alfalfa or clover hay, bran and oil cake. Some men believe that barley tends to dry cows up, but we doubt whether it has such a tendency when forming part of a properly-balanced ration.

2. No; keep drugs away from him. Hay, oats, bran, a turnip or a carrot or two, and a little oil cake, together with all the salt he wants, and an occasional pinch of sifted wood ashes are all your colt needs. An egg a day would be good for him, but is expensive at present prices of hen-fruit.

COLOR OF COLLIES.

1. What is the proper color of Scotch collies?

2. Is there any difference in color of English collies and Scotch collies?

3. Are there any pure-bred collies black and a little white on face? If so, what breed are they? Which is the most serviceable collie for a farmer for general use? SUBSCRIBER.

Ans.—1. The prevailing colors in Scotch collies are sable and white, and black, white and tan. There are also blue merles.

2. There is no recognized breed of English collies, but there is the old English sheep dog, a large, rough-coated, bob-tail variety, totally unlike a collie.

3. The old English sheep dog is adapted for slow work, such as is re-

quired in the larger, long-wooled breeds of sheep, while the Scotch collie is built more on galloping lines to work, if necessary, in rough, mountainous country amongst the very active Highland Black-faced sheep.

BARN PLANS AND HOG PASTURE.

1. Please send me plans and specifications for a hip-roofed barn, 45 x 62 feet; also plans for stable in basement of barn. I want cattle and horses in two horizontal lines so as to have a manure shed at the north end.

2. Could you advise me as to what to sow in order to have pasture for my pigs? I have a small piece of land convenient to hogpens. Would like to sow something to have pasture for the summer of 1907.

Ans.—1. To comply conscientiously with our correspondent's request, would require from five to twenty-five dollars' worth of time, which makes it impracticable, particularly at this season. We like to accommodate our friends whenever we possibly can, but this is asking too much. Our querist has not even enclosed our dollar fee for answer by mail. During the past year, we have published many barn plans from which our friend could probably work out one better suited to his needs than what we might prepare, not knowing all his conditions.

2. Rape is good, likewise vetches. Hogs are also very fond of Soy beans, though this is recommended for soiling rather than pasture. We would be inclined to try some rape, some vetches and oats, mixed, and a small area of rape, vetches and medium green Soy beans, mixed.

SANFOIN, AND FIVE OTHER QUERIES.

1. Please describe Sanfoin clover, how and when to sow, and feeding value.

2. What is a fair yield of sorghum syrup per acre (in gallons)? Is the apparatus for making it too expensive for a farmer to instal? Will some reader who has had experience give us particulars?

3. In a former issue a reader speaks of growing a large acreage of potatoes. Where can one dispose of this commodity in wholesale quantities?

4. Do you know of any experiments having been made of sowing grain in rows and cultivating as roots?

5. Have any experiments been made to test value of subsoil plowing for growing of roots, and results?

6. Give names of two or three first-class English agricultural papers. R. G.

Ans.—1. Sanfoin is a perennial, clover-like forage plant of the bean family. In its habit of growth, it is more woody than clover, and more blanching. It grows as early in the season as alfalfa, and, like it, continues to grow until autumn. In feeding value, it is about equal. It has been successfully grown in Quebec, where the heavy snows have protected it in winter, but not much success has attended experiments with it at Guelph. Seed is sown in early spring, very often uncleaned. It has very poor germinating power, so that seldom is a good stand secured.

2. One of our staff remembers that, in his youth, his father had half an acre of sorghum and hauled the product some miles to a mill to be made into molasses. Great things were expected, but the result was disappointing, both as to quantity, and, especially, quality. The experiment was not repeated. The truth is that sorghum is best suited for the South-western States, such as Kansas, and can be grown only in the extreme southern portions of Ontario with any measure of success. Some of our readers who have grown it for syrupmaking might give their experience.

3. In the large cities. Even London has already received, this season, many carloads.

4. We know of this having been done when very expensive seed was used in order to make the seed go as far as possible. It brought a greater return for the seed used, but a smaller yield per acre.

5. Yes, many. The fact that, though tests have been made, there is practically no subsoiling done in this country is proof that there is not much in it.

6. Live-stock Journal, Vinton & Co., publishers, Chancery Lane, London; Scotch Farmer, 93 Hope St., Glasgow; Farmers' Gazette, Barbours' Walk, Dan-

Save Your Money

BEFORE ORDERING YOUR YEAR'S SUPPLY of literature, write to The Times Agency, Stair Building, Toronto, for a FREE Specimen copy of THE TIMES WEEKLY EDITION, and full particulars of clubbing offers. Anything published supplied. It will SAVE you MONEY, TIME, and it reduces the risk of non-delivery to a minimum.

THAT BOOK WHICH IS TO BE GIVEN FREE TO EVERY ADVOCATE READER.

We admit that we began advertising the book too soon. No doubt some have lost patience, and are blaming us; but really we could not foresee the delay, and we are doing our best.

"The Farmer's Advocate" is certainly doing its part nobly. Every mail brings orders for "That Book," and as yet we have not filled one order. However, send in your name, we want every reader to have a book, and you may depend that the book is worth sending for. We do not pretend that the book is worth a great deal of money, that is not our method of doing business, but the book will give pleasure and instruction, if you are interested in the pure breeds of cattle, sheep, swine and poultry. Pictures made from photographs of the best that America has produced are in the book, with names of the breeders and exhibitors.

If you send us your name and address on a post card, or in a letter, we will add your name to our list, and you will receive the book without fail. We know you will be pleased with the book. Our address is, The Beaver Mfg. Co., Galt, Ont.



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.

FARMERS WANTED to use their spare time in winter months in selling our high-grade Nursery Stock. Season now starting. Liberal inducements. Write now for terms. Stone & Wellington, Fonthill Nurseries, Toronto, Ont.

HAVE you tried to grow mushrooms? If you have and failed, write Fungus Company, London, Ont., and find out how.

IDEAL wheat lands in Sunny Southern Alberta. Write before buying. Call when you come. Geo. C. Millar, Tabor, Alberta.

WANTED—A working herdsman for a small herd of Shorthorns. Single and a Scotchman preferred; sober and industrious. A man that understands care, handling, fitting and showing of cattle. A good place for the right man. Send references and wages. Address to Box 55, Columbus, Ohio.

266 ACRES for sale at Paisley, in Tp. Elderslie, Co. Bruce; lots 16 and 17, con. B; part lot 17, con. A. Large quantity of timber. A good water power. Frame house and barn. Brick clay on property. For particulars write: P. S. Gibson, Willowdale, Ont., or G. W. Gibson, Drew, Ont.



MEAT MEAL.

For Egg production Poultry should have meat every day. Meat makes eggs. It is good for growing chicks, ducks, turkeys, calves and hogs. Use Morgan's Roup Cure, 25c. Ask for Free Article on Feeding Chicks and Poultry.

Connie Mack, the baseball man, was talking in Philadelphia about the importance of silence.

"No ball player," he said to the group of young men around him, "accomplishes anything by being noisy. If a decision goes against a player, if the umpire is unfair, let him keep quiet. Let him refrain from oaths, shouts, accusations. Noise in the midst of a game only damages the ill-treated player's case."

"To impress on my men this doctrine of silence, I often tell them about a married couple."

"The wife, in the middle of the night, was awakened by the loud snores of her husband. She endured the horrible racket as long as she could. Then, pinching the man sharply, she said:

"Herbert, could you make less noise if you kept your mouth shut?"

"Herbert, sleepy and surly, muttered:

"So would you."

Salem Herd of Shorthorns: Champions of 1905

OWNED BY R. A. & J. A. WATT, ELORA STATION,

15 Miles North of Guelph, on the G. T. and C. P. R.

15 high-class young bulls, the kind that suits all buyers, at attractive prices. Sired by the International winners, Mildred's Royal and the Duthie-bred Scottish Beau. When at Guelph Show come and see us.

Trains Met by Appointment.

QUESTIONS AND ANSWERS. Veterinary.

LAME MARE.

Mare went lame in one fore foot more than a year ago, and was lame all winter, and in the spring went lame in both fore feet, and stumbled over every little thing. She raised a colt this summer, and got much better of her lameness, but is now again lame. R. J. P.

Ans.—The symptoms all point to navicular disease, which, when of so long standing is practically incurable, but the symptoms can be somewhat relieved. The rest and moisture of the ground, when at pasture with her foal all summer had the result of giving temporary ease, but as soon as put on dry floors and worked, the trouble reappeared. Remove her shoes; clip the hair off all around the hoofs for 2 inches high. Get a blister made of 2 drams each biniodide of mercury and cantharides, mixed with 2 ounces hog's lard or vaseline. Tie her so that she cannot bite the parts; rub well with the blister once daily for two days, on the third day wash off and apply sweet oil. Turn in a box stall now, and oil every day. As soon as the scale comes off, tie up again, and blister the same as at first, and after this, blister every four weeks all winter. In some advanced cases, even, this treatment will not give ease. In which case, an operation called neurotomy, which consists in removing a portion of the nerves, is sometimes performed; but unless the animal is practically useless, we do not recommend it. V.

SPEEDY STROKE—ABORTION.

1. Driver hit his knee with opposite foot. It swelled, and in a few days broke and discharged matter in three places. It is healed now, but an enlargement remains. He is not lame, but handles the leg somewhat clumsily.

2. Cow aborted in six or eight weeks after conception. On other occasions, she aborted at seven months. G. W. A.

Ans.—1. This is called speedy stroke, and the abscess should have been lanced at the time. The enlargement will be very hard to reduce. You must get a knee boot to use when you drive him, else he will continue to hit. Get a liniment made of 4 drams each resublimed crystals of iodine and iodide of potassium, and 4 ounces each of glycerine and alcohol. Clip the hair off, and rub a little well into the enlarged joint once daily. A great amount of patience is required.

2. This looks like infectious abortion. Isolate her, and flush out the womb twice weekly with 2 gallons of a solution of corrosive sublimate, 15 grains to a quart of water, heated to 100 degrees Fahr., and introduced with an injection pump or syringe with a long nozzle, until all discharge ceases. Give her 30 drops carbolic acid, mixed with a pint of cold water and sprinkled on her food twice daily. Do not breed for six months, and continue the carbolic acid after conception, until danger is past. V.

LUMPS IN THROAT.

Last winter lumps came in the throat of a two-year-old heifer. They broke and discharged pus. They have not grown larger, and are now healed. She had a calf in the summer, and is now in poor condition. Is there any danger of her taking tuberculosis? Is there danger of other cattle contracting the disease? M. R. M.

Ans.—The lumps are either tumors of actinomycosis (lump jaw), or tuberculosis. I am inclined to think the for-

mer. As the bone is not involved, the proper treatment is to have them carefully dissected out, and the parts dressed with a five-per-cent. solution of carbolic acid regularly until healed. As to taking tuberculosis, if she has not the disease already, she is in no danger unless exposed to the contagion, when, on account of her weak condition, she will be more liable than a stronger animal. So long as there is no discharge, there is little danger of other cattle becoming affected, if the trouble is lump jaw. If you decide that the unthrifty condition is due to the lumps, I would advise you to destroy her, as it is not legal to offer for sale an animal in this condition, and the prospects of a cure are very slight. V.

Miscellaneous.

GUERNSEYS WANTED.

Can you furnish the addresses of two or three breeders of Guernsey cattle? H. S.

Ans.—Guernseys have not been exhibited at leading exhibitions in Ontario for some years, nor advertised in the leading stock journal. Parties owning cattle of this excellent dairy breed may find it to their advantage to advertise in "The Farmer's Advocate," as this is not the only enquiry of the kind we have received recently.

U. S. CUSTOMS TARIFF ON SHEEP.

What are the requirements of the United States customs regulations for the admission of sheep from Canada into that country? E. L.

Ans.—Going into the United States, the duty on sheep, over one year, is \$1.50 per head; under that age, 75c. Pure-bred sheep are admitted free only when accompanied by the registration certificate of the association recognized by the United States Customs, and the declaration of the purchaser made before a customs' notary that such sheep are correctly invoiced and are being imported for breeding purposes.

STANDARD-BREDS.

A number of breeders in this section would like a little information on the registration of Standard-breds. They have been trying to get the best strains, but when they try to get them registered, they find it very difficult; there appears to be so many different stud-books. What is the proper book in Canada? Is E. King Dodd's book or Wallace's studbook recognized in Canada? J. W. C.

Ans.—There is but one recognized stud-book for Standard-breds. This book was originated by Wallace, and called "Wallace's Studbook," but was purchased by the American Trotting Association some years ago, and is now known as "The American Trotting Association Studbook." Certificates of registration for this class of horses in other studbooks indicate that the animals have good breeding, but at the same time are not recognized as "Standard-bred." V.

Twelve imported Clydesdale fillies, belonging to Mr. Dugald Ross, that, owing to the rough voyage, were not in condition to be offered at his last sale, will be disposed of at the Repository, Toronto, corner Simcoe and Nelson Sts., on Tuesday, December 18th, by auction or private sale.

The great trotting mare, Sweet Marie, 2.02, was sold by auction, at New York, last week for \$14,000.

Canadian Horses at Madison Square Garden.

Canada was creditably represented by her horsemen last month at the twenty-second annual Horse Show in Madison Square Garden, New York. Exhibitors from the Dominion included Graham Bros., Claremont, Ont.; Graham & Renfrew, of Bedford Park; Miss K. L. Wilks, Cruickston Park Farm, Galt, Ont., and the Toronto horse-show men, Geo. Pepper and Crow & Murray, besides Miss Pepper and an exhibitor named Capt. Evans. The first blue ribbon of the week went to Geo. Pepper's Lord Minto, which won with a superb exhibition in the jumping class.

In Hackneys, the Grahams figured prominently, winning first for stallion and four of his get, with the nineteen-year-old Royal Oak, the get being Royal Count, Glendower Gun, Maud of Wawne and Maid of Glendower. In aged stallions, over 14.2 hands, their Dalton King, by Garton Duke of Connaught, second at Toronto to their other entry, Colorito, was here second to William White's Oxford, by Cadet. Colorito came in the class 15.1 hands and over, and was but highly commended, the first in this class being Meanwood Majesty, by Forest King. In the three-year-old stallions, Graham & Renfrew were awarded third on Brigham Radiant, by Rosador, the first-prize three-year-old last fall at the Canadian National. His rivals at New York were Aguiness II. and Hiawatha, also by Rosador. First in yearlings was a colt called Land o' Burns. Second was Graham Bros.' Admaston Nugget, second at Toronto last fall, while Inverness St. Thomas, first over Admaston Nugget at the Canadian National, had to be content with high commendation. In fillies, the Claremont stud secured first on the yearling, Maud of Wawne, by Royal Oak II., and third on Maid of Glendower. The champion Hackney stallion was Meanwood Majesty. Reserve was Oxford.

In Standard-breds, Miss K. L. Wilks won first on the three-year-old, Mograzia, also on the two-year-old, Kentucky Todd. Mograzia was also champion trotting stallion. Another win was a commendation ribbon in the brood-mare class on Rhea W., one of the famous pair of harness mares shown so successfully all over the continent.

The First Scientific Farmer.

An American writer gives the following account of one whom he calls the first scientific farmer history records:

"Jethro Tull, an Englishman, wrote and labored in the cause of agriculture between the years 1680-1740.

"Tull claimed that, since it was from the soil that plants mainly derived their nourishment, the finer the condition of the soil, the better would be the results to the farmer.

"A great hobby with Tull was the thorough pulverization of the soil. He claimed that it was from the fine earth, not from the hard clods, that the plant got the nutrition it needed to make it productive.

"He also insisted upon deep plowing to give moisture to the plant's roots, and upon frequency of cultivation to keep the surface open to the influence of the rays of the sun.

"In a word, it was the Englishman who first strove to impress upon men's minds the idea that farming was a

science, and that in order to get good crops, agriculture needed to be carried on upon scientific principles.

Tull, furthermore, believed that there was no reason why agriculture should be carried on almost wholly by brute strength. He believed in saving as much of man's labor and strength as possible, and he set himself to the task of finding ways and means of doing farm work that should be an improvement upon the old muscle-wearing methods.

"His thinking took shape in the invention of a horse hoe, a grain drill and a threshing machine—not much of a threshing machine, it is true, as compared with those of to-day, but still a great improvement upon the old-time flail.

"The impetus given to scientific farming by Tull started the movement which was later on taken up with enthusiasm by Arthur Young, the correspondent and friend of Washington.

"Young did a great deal for agriculture. By his pen, by travel and painstaking investigation and experiment, and last, but not least, by a series of bright and useful inventions, he did more for the ancient art than any man of his day and generation.

"With the birth of modern chemistry, and through the writings and experiments of such men as Sir Humphrey Davy, Thomas Jefferson, Justus von Liebig and others, agriculture began to look up as it never had before, and today, as a result of those men's labors, the farmer is beginning, for the first time since farming began, to get from the earth something like a fair return for his toil.

"I say 'beginning,' for there can be no doubt that we are simply upon the threshold of successful farming. A hundred years hence, when the truths of chemistry shall have been almost universally applied to the agricultural art, returns such as would now be considered miraculous will be the common order of the day.

"We have been merely playing with the earth heretofore. When we get down to the principles and practice of a scientific husbandry, our harvests shall be many-fold what they are even to-day."

"In time it is to be hoped and expected that the place of every unsuitable grade and 'scrub' stallion will be taken by a pure-bred stallion of the proper kind, type, quality, soundness and excellence of conformation to best improve the stock of his district. Meanwhile, there not only is need for the retirement of the unsuitable horses of indifferent breeding, but great room for improvement in the character of many of the pure-bred horses now being used. Many of these are getting up in years; others have failed to give a good account of themselves in the stud, or their progeny have been defective, weak, or lacking in quality, and such horses thus have given the scrub and mongrel stallions a chance to obtain the patronage of dissatisfied breeders. As fast as possible these old and unsatisfactory stallions should be retired, and their place taken by younger, better, more prepotent, less-pampered stallions that at once will stamp their impressiveness and superiority upon the horse stock of their respective districts, and so discourage the detrimental use of 'scrubs' and grades."

The scrub stallion must go, eventually; the speedier he makes his exit the better.—[Live-stock World.]



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QUESTIONS AND ANSWERS. Miscellaneous.

WET OR DRY MEAL FOR HOGS — THIN HORSES.

I would like to know which is the best way for feeding hogs, feeding dry or soaking the chop.

2. What is the best plan to get a horse up in good condition that is run down with hard work? I think he needs something to get his blood in good condition on the start. The horses will not be working, and would like to feed them so that they won't stock-up in the legs.

R. W. McG.

Ans.—1. Soaking meal or grains for several hours is beneficial, but wetting immediately before feeding is of doubtful if any advantage, except, perhaps, in preventing waste of meal from the trough.

2. Exercise moderately. Feed lightly on oats, bran, and, perhaps, a little corn in ear. For roughage, give clover or mixed hay, and a little bright oat straw. Use brush to keep skin in good condition. We take little stock in drugs for improving a horse's condition, but if you wish to try something, the following is recommended: Take 6 ounces each of sulphate of iron, gentian, nuxvomica, ginger and bicarbonate of soda. Mix, and make into 48 powders. Give a purgative of 8 drams aloes and 2 drams ginger. Feed bran only until purgation commences. After the bowels regain their normal condition, give a powder every night.

PASTURING HAY LAND.

1. Does bare cropping in the spring or fall of the hay land by cattle or sheep lessen the plant food in the soil?

2. How much Portland cement would be required for a floor in a cellar, 18 x 24 feet, and how much sand and gravel would be required? How thick should such a floor be? I notice a beam in a cellar is beginning to decay at one end. What would be the best wash to preserve it? Had some whitewashing done when noticed.

3. Please give an example how to figure out the exact length of rafters for a building 20 feet wide. Would 14 1/2 feet be the exact length? A barn, 28 feet wide, has rafters 19 feet long. How long should rafters in a kitchen, 23 1/2 feet wide, built to this barn, be so that it may have the same pitch? Please figure out the example. A. B. C.

Ans.—1. No, but it lessens the vigor, lowers the vitality of the plants, and thus reduces the crop. Alfalfa can thus be so weakened that it will not survive the winter.

2. Cement floors should be about 2 1/2 inches thick. Two inches of gravel-concrete first, mixed one of Portland cement to eight of gravel, and well rammed down; faced with half an inch of fine concrete, in the proportion of one of cement to three of sand. You would require three-fourths of a cord of gravel, from which sand needed can be screened, and four barrels cement. You might soak the beam with brine—salt-barrel staves will scarcely rot.

3. The length of rafters depends not only on the width of building, but also on the pitch of roof. Rafters 14 1/2 feet long on a building 20 feet wide, would give a half-pitch roof. The peak would be 10 feet higher than the eaves. The elevation is one-half the width. About the kitchen, if built against the end of barn, with peak roof, the rafters should be 15 feet 11 1/2 inches in length; if alongside, with shed roof, then twice that length. The rule used in determining rafter length is to add the square of the elevation to the square of half the width, and the square root of the sum is the length of rafter. For instance, a building 16 feet wide has ridge of roof 6 feet higher than eaves. The square of 6 is 36; square of 8 (half the width) is 64; the square root of 100 (the sum of these two numbers) is 10. The rafter is 10 feet long. This rule is little used. Most mechanics draw a plan of roof, 1 inch to the foot, and find required length by simply measuring the line drawn as rafter. T. B.

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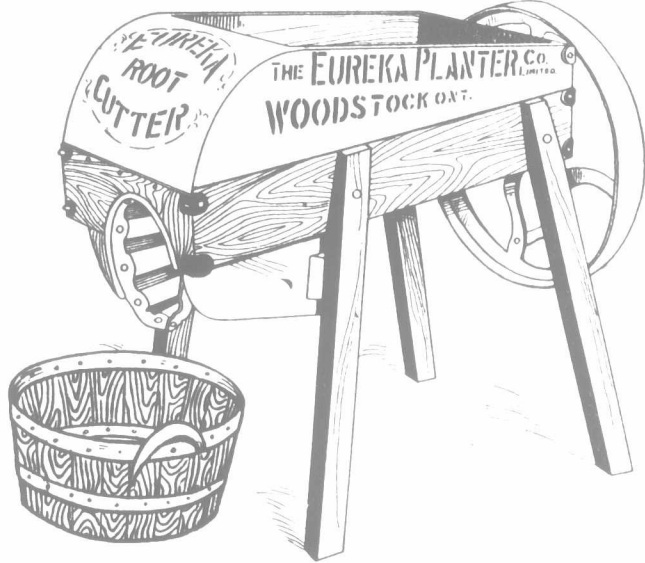
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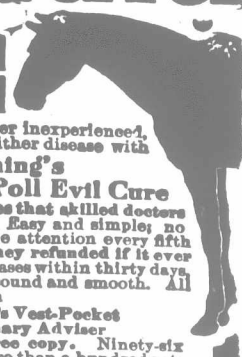
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"Father, may I ask you a question?" "Yes, my son." "What is an excavation?" "Why, an excavation, my boy, is a place from which dirt has been taken." "Well, I suppose my face is an excavation, then."

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QUESTIONS AND ANSWERS. Miscellaneous.

BARLEY OR SPRING WHEAT ON THIN FALL-WHEAT STAND.

Last fall I treated some fall wheat with formalin, and by using the solution too strong, killed a good deal of the wheat. I had put the stuff on some barley in the spring, and it failed to kill all the smut, so I made it a good deal stronger for the wheat, and, in consequence, very little of the wheat came up, except on the last two or three rounds of the seeder, which wasn't treated at all. Which would be the better to sow among the fall wheat in the spring, some spring wheat or barley, or plow it up altogether? D. G.

Ans.—It will probably be best to sow barley, merely working the land up early with harrow, and, perhaps, cultivator or disc. We hope our correspondent's experience with formalin will prove a warning to others. Formalin for smut in seed grain is all right when used carefully, according to conservative directions, but too strong a solution weakens the grain, or kills it outright. This is not the first case of the kind that has been reported through our columns.

COWS GNAWING WOOD—PIG GRINDING HIS TEETH.

1. Two cows are eating wood every chance they get; in the stable, they are gnawing the manger.

2. What is the matter with a pig that is all the time grinding her teeth? What will I give her? C. H. W.

Ans.—1. This is a depraved appetite, generally induced in the first place by the lack of some essential constituent in the feed, and subsequently becomes a persistent habit. An application of bone meal or of acid phosphate to the land which grows their feed will sometimes prove beneficial. Meantime, feed a balanced ration, containing some bran and clover hay. Allow salt ad libitum, and twice a week give each one, in her feed, a small closed-handful of sifted wood ashes.

2. It may be worms, or some other digestive derangement, or largely habit. Give her a sod every day or so; keep pen clean, dry and well bedded; feed on shorts, barley meal and a little oil cake or skim milk, with a mangol or sugar beet daily. In a box before her keep a mixture of one part sulphur and ten parts of wood ashes or ground charcoal. A little salt should also be given, either in the mixture or separately.

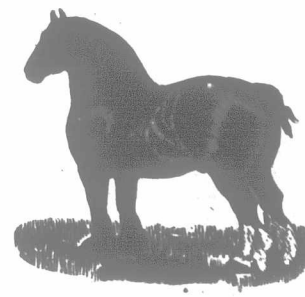
THE WHITE-WINGED CROSS-BILL.

I am sending you a bird, which I would like you to name through the columns of "The Farmer's Advocate," and, please, tell something of its habits; whether it is destructive or not. It was shot as an English sparrow, and was one of a flock flying around very much as the sparrow. P. E. R. Halton Co., Ont.

Ans.—The bird you send is the white-winged cross-bill, which, though it is not migratory, has the somewhat remarkable custom of coming down from the far north about every seven years, remaining here during the month of November. In a similar way, the pine crossbeak comes down every five or six years. Mr. W. E. Saunders, the ornithologist, has noticed a large flock of the former near London this season, but all have probably gone before this date. They have been observed at two succeeding intervals of about seven years. The peculiar cross bill, which our correspondent will have noticed, enables these birds to pick out the seeds of the cones of the hemlock and tamarack upon which they feed. Two explanations are given of their periodical southward visit; one that the supplies of seeds on which they feed may periodically fail in the north, and another that they multiply till their numbers exceed the normal food supply, for which they then go elsewhere, and in the migration, large numbers of them naturally perish from the incidental perils that beset bird life.

"The evidence shows, Mrs. Mulcohey, that you threw a stone at Policeman Casey."

"It shows more than that, yer Honer, it shows that Oi hit him."



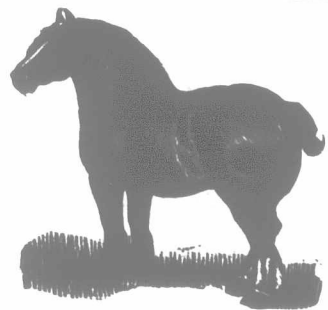
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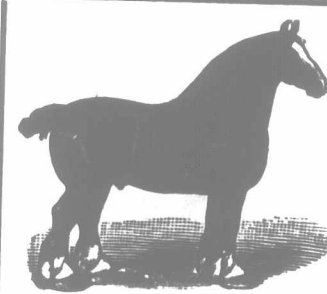
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Have just arrived in their own stables. I want to point out to the breeders of Ontario, Manitoba, British Columbia, that without doubt I have the best consignment of Clydesdales and Hackneys that I have ever handled. Combining size, action and quality, I think I am quite safe in saying that they are the best lot ever brought by one importer to Canada. My Clydesdales consist of stallions aged 2, 3, 4 and 5 years. Fillies aged 1, 2 and 3 years. Hackneys are 2, 4 and 5 years old. Many of them were prizewinners this year and last in some of the leading shows in Scotland and England. Parties wishing anything in my line will save money by seeing my stock and getting prices before buying elsewhere.

THOS. MERCER, MARKDALE, ONTARIO.



Clydesdales and Hackneys

SECOND CONSIGNMENT JUST ARRIVED.

Dalgety Bros. have at their stables, London, Ont., choice selection of the above. If you want a good one, come and see them.

JAMES DALGETY, Glenora, Ont.

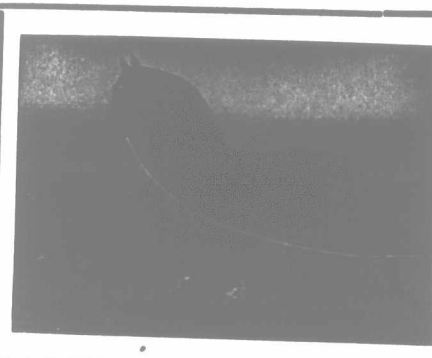
We have a second consignment of choice big Clyde fillies to land about end of December.

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Importers and Breeders of Clydesdale and Hackney Horses. We have on hand at present the choicest specimens of Clydesdale fillies in Canada, also a few extra fashionably-bred young Clyde stallions. People wanting good ones should see these before buying. Our farm, "Simcoe Lodge," is situated near Beaverton, on James Bay and G. T. Railways. Long-distance 'phone No. 18. Visitors will be met at Beaverton on notification.



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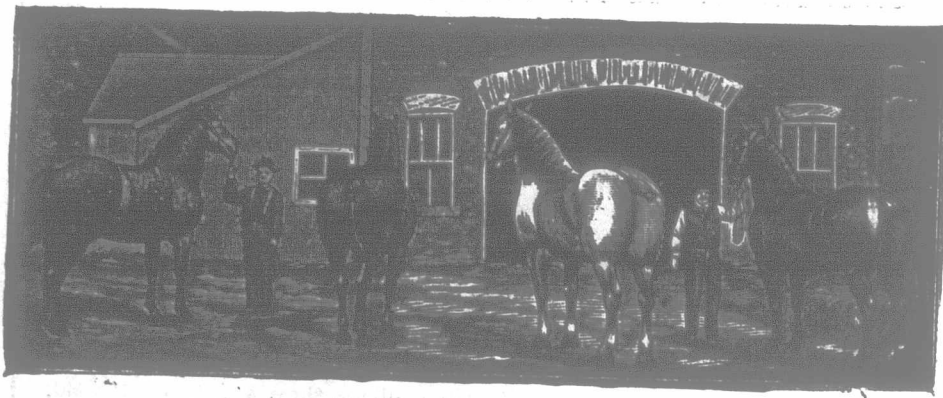
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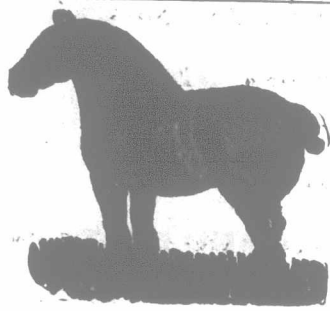
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Also Shires, Hackneys and Clydes and 12 Percheron Mares (3 and 1 year old) have just arrived with our new importation from Scotland, England and France, of high-class stallions and mares. Many of them prizewinners in their native lands. Bred by the best breeders. Percherons, blacks and grays, weighing 1,600 to 2,000 pounds. Shires by the best old weighing 1,700 pounds. Clydes, bays and blacks, 4 and 5 years old, weighing 1,800 to 2,000 pounds, bred by the best in Scotland. Our Hackneys are bays and chestnuts, combining size, quality and breeding that cannot be beaten. These horses can be seen at Toronto and London fairs, and all for sale at reasonable prices.

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In Clydesdales we can offer a splendid selection of fillies, including many prizewinners from famous sires. Our brood mares won more prizes than those of any other exhibitor at the Canadian National Exhibition, 1906.

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have now on hand a choice selection of Clydesdale Stallions, combining size and quality with straight, true action. Breeding unsurpassed. Individuality unexcelled. Scotland prizewinners. Also a few Canadian-bred stallions, and Imp. and Canadian-bred fillies.

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of highest possible quality and richest breeding. Have sold as many stallions the last year as any man in the business, with complete satisfaction in every case. I have always a large number of high-class horses on hand. My motto: "None but the best, and a straight deal." Will be pleased to hear from any one wanting a rare good one. Terms to suit. Long-distance phone. LISTOWEL P. O. AND STATION.

Imported Clydesdale Stallions and Fillies

My new importation comprises 3 stallions, two 2 years old and one 1 year old, by Everlasting, Baron Buchylvie and Ascott, and 5 fillies, from 1 to 4 years old, by Baron's Pride, Elator, Favorite's Heir and Ascott. They are a high-class lot, as good as ever crossed the water. Come and see them. All are for sale at living prices.

A. AITCHISON, Guelph P. O. and Sta.

GOSSIP.

A contemporary tells the following story as a solemn fact. Probably it might prove suggestive to those churches that are talking union, and are consequently in search of a new ecclesiastical title. "An Irishman who had married a Jewess, wished his firstborn son to be called Patrick. The mother was equally desirous that he should be called Moses. Finally it was agreed that the name should be taken from the Scriptures, the priest to make the selection. The priest baptized the child 'Pat-Mos.'"

Many years ago a Philadelphia clothing manufacturer received a contract for making uniforms for the telegraph operators along the line of one of the railroads. In order to measure the operators along the line he sent telegrams asking them to meet him on the station platforms.

He sent this telegram to the operator at one of the small stations:

"Meet me on the arrival of the 2.15 p. m. train. Wear nothing but shirt and trousers."

At the appointed time he reached this station, and enquired for the operator. He saw a young woman looking embarrassed. She said, in answer to his enquiry:

"I am the telegraph operator, and am here in response to your summons; but I decline to comply with your instructions as to apparel."

LESSONS OF THE HORSE MARKETS.

Those who study the horse markets can hardly fail to learn the practical lesson of good breeding. Quotations on horses from week to week are both high and low. In the draft-horse classes, we find keen competition and plenty of outlet for the supply of horses which are of size and have quality, while for the undersized, the scrub, the misfit and the plain horse of common quality, we find a low market, which means a poor demand. Buyers have learned their lesson, and their action in the markets is sufficiently plain to indicate to the producing class what is needed and what will bring profitable values in the public mart. For the right kind of a horse, the demand is increasing, but for the other kind lower values are bound to rule. Neither on the market nor the farm is the scrub a profitable animal. In our breeding, let us avoid him and prosper.

A good story is told of a couple of farmers living a few miles apart. One day one called on the other, happening around at dinner time. The person called upon, by the way, was rather a penurious old fellow. He sat at the table enjoying his dinner. The visitor drew toward the table, expecting the old farmer to invite him to dine. The old farmer kept on eating.

"What's the news up your way, neighbor?" No news, eh?"

Presently a thought struck the visitor. "Well, yes, friend, I did hear of one item of news worth mentioning."

"Ha! What is it?"

"Neighbor John has a cow that has five calves."

"Is that so? Good gracious! What in thunder does the fifth calf do when the others are feeding?"

"Why, he stands and looks on, just as I do, like a fool."

"Mary, put on another plate," drawled the farmer, as he caught the point.

TRADE NOTE.

CHICKENS BY STREAM.

If you are interested in poultry raising, write to George H. Stahl, Quincy, Ill., and get a copy of his interesting book on this subject, and which also gives valuable information regarding the growing of incubator eggs for market. This book is sent absolutely free. George H. Stahl is widely known as the manufacturer of the famous Loxford and Wood-
en Hen incubators. These incubators are recommended by leading poultrymen as being the leaders whose results are considered, and they are most used by the manufacturers to get a larger percentage of fertile eggs at a lower cost than any other hatchers. The Excelstar and Wooden Hen incubators, when in use, require only five minutes' daily attention.

Standing Offer



Good always, everywhere, \$100 Reward, for any lameness, curb, splint, founder, distemper, etc. (where cure is possible) that is not cured by

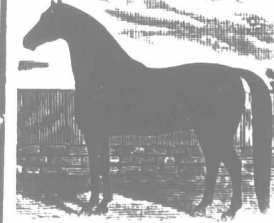
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Dr. Page's English Spavin Cure.

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.

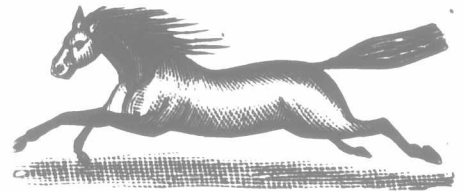


This preparation (unlike others) acts by absorbing rather than blister. This is the only preparation in the world guaranteed to kill a Ringbone or any other ailment of the leg. It will not kill the hair. Manufactured by Dr. Fredrick A. Page & Son, 7 and 9 Yorkshire Road, London, E. C. Mailed to any address upon receipt of price, \$1.00. Canadian agents: om

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IMPORTERS OF

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AND Shire Stallions

Are at present on a purchasing tour through England and Scotland. They return about Dec. 15th, 1906, and will bring with them some carefully-selected and high-classed specimens. This firm imports only first-class horses, and sell at right prices. Inspection by intending purchasers is invited. Their arrival will be announced in the ADVOCATE.

N. Wagg, Claremont, Ont.



I have on hand a few choice

Clyde Stallions & Mares

Imp. and Canadian-bred. Size and quality, with true action. Write me before buying. Claremont P. O. and Stn. C. P. R.

No more blind horses - For Specific Ophthalmia, Moon Blindness and other sore eyes BARRY CO. Iowa City, Iowa, have sure cure.

If you want ANYTHING in Aberdeen-Angus, at a reasonable price, write: JAMES SHARP, "Tweedhill," Rockside, Ont., Cheltenham Station, C. P. R. and G. T. R.

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 STREET, TORONTO, CANADA.

GOSSIP

Volume 66 of the American Shorthorn Herdbook has been issued, and has been received at this office, through the courtesy of the secretary and editor, Mr. John W. Groves, Chicago, Ill. The volume contains pedigrees of bulls numbering from 252,478 to 257,708, and probably a larger number of females, indicating a steady increase of the breed in America.

Mr. James Snell, Clinton, Ont., orders a change in his advertisement, in which he offers for sale the registered bay Clydesdale stallion, Brave Boy [2982], a tried and proven sire of high-class stock, a horse that has made profitable seasons over the same ground for several seasons. Young Shorthorn bulls and Leicester sheep are also included in his offering.

DRYNESS AND WINTER EGGS.

It does not matter how good a laying strain may be, or how well they may be looked after and fed; without a dry spot underfoot, eggs will be few and far between. Every effort should be made to give the birds a dry corner that they can resort to on wet days—this has been proved times without end. On one of the American egg farms it was found almost impossible to get eggs in the winter, until the experiment of laying wooden floors to the houses was resorted to, and the egg average increased wonderfully, so that the season following it reached the high average of 194 eggs per bird per annum. In this case, the birds were fed just the same one year as another. Then, dryness lessens the demand for food. If a bird is wet, it takes heat to dry it, and heat can only be produced, in most cases, by food, so that the surplus food that should have been diverted to the egg-basket is used in drying the bird's feathers.

RECORDS OF RACE-HORSES.

While it is a very near thing whether Persimmon or Ladas shall head the list of winning Thoroughbred stallions in England, His Majesty's horse having at the moment a slight advantage, there has for some time been no doubt as to the result of the competition for the supremacy. Flying Fox, whose progeny won upwards of £45,000 last year, has lost the pride of place, for, although he has twenty-five winners of £20,000, this is not half the amount credited to Le Sagittaire, whose total is £43,000, or double what has been won by either Persimmon or Ladas. Le Sagittaire is the sire of the three-year-old Maintenon, who has won nearly £38,000 in eleven races, and this has sufficed to place him on the top, but he had several other good winners, and was a good horse himself when in training. He is by Le Nancy—La Dauphine, by Doncaster, and carried Baron Schickler's popular colors with great success, and he has done well at the stud, though he has never had such a year as this. Next to him comes Flying Fox, who has done well with twenty-five winners of just £20,000, his principal contributors being the three three-year-old fillies, Sais, Blue Fly and Flying Star, who monopolized the races for animals of their age in the summer. M. Edmond Blanc had also some winning two-year-olds by Flying Fox, but not quite in the first class, and the prospects of this great horse are not so good as they were a twelve-month ago. The third winning stallion in France is St. Bris (a son of St. Simon), who was imported a few years ago, and he has nine winners of £15,000, included among them being three-year-olds of high class; and the fourth name is that of Le Pompon, with ten winners of £13,000, one of these being the three-year-old Prestige, who has never been beaten, and has won nine races worth £8,000 this season. Then comes Perth, winner of the French Derby and the Grand Prix de Paris, and he has thirty winners of about the same amount, and he is likely to be very prominent next season in France and in England, as one of his two-year-olds is My Pet II., who is one of the best of his year, and who is heavily engaged in both countries. The most successful of the other sires is the Australian horse, Carbine, who has only one representative, and this was the three-year-old Sparmint, who won the Grand Prix de Paris of £10,000, and eighteen other stallions had winning progeny of from ten to five thousand pounds.

150,000 MELOTTE CREAM SEPARATORS

in daily use (Outside the U. S. A.)

THE "MELOTTE" CREAM SEPARATORS

Take less power, skim more closely, run at a lower speed, use less oil, and are simpler and more durable than any other on the market.

Sizes 1 to 6 fitted with Enamelled Bowl Casing, gearing machine cut.

Skimmer consists of 1, 2 and 3 pieces only.

Capacity, 400 to 1,300 lbs. Fitted with brake.

Write for booklet describing The Melotte to

R. A. LISTER & CO., Limited

HEAD OFFICE AND FACTORY: STEWART STREET, TORONTO.
Agents Wanted Everywhere. Branches: Montreal, Vancouver, Winnipeg.



SIZES 1 TO 6.
Capacity
400 to 1,300 Lbs.



SIZES A, B, C, D.
Capacity
250 to 600 Lbs.

Don't Buy Herefords



Until you know our prices. The stock that Marchon 2nd is producing is worth your inspection. Write at once for full description and prices.

A. S. Hunter, Durham, Ont. Grey Co.

BROXWOOD HEREFORDS.

A few choice bull calves from my imported stock.

R. J. PENHALL, NOBER P. O., ONT.

FOREST VIEW FARM HEREFORDS
Four bulls from 8 to 12 months old; prize winners and from prizewinning stock. Several heifers bred on the same lines; choice individuals for sale.
JOHN A. GOVENLOCK, Forest Sta. and P.O.

HEREFORDS—We are now offering a few thick, smooth young bulls and a number of females—a low-down, even, beefy lot. If in want of something extra good, correspond with us. We can please you.
J. A. LOVERING, Coldwater P.O. and Sta.

Aberdeen-Angus bull for sale, Black Diamond, No. 826, 3 years old this spring. A good individual and extra stock getter; has never been beaten in showing. Price reasonable. Also one Chester White boar old enough for service.
A. G. SPAFFORD, Compton, Que.



ROCK SALT for horses and cattle, in ton and car lots.

TORONTO SALT WORKS TORONTO



White Hall Shorthorns

Missies, Cecillas, and Lady Victorias. 4 young bulls, 7 heifers, and a few older females. Bred right and will be sold right.

N. A. STEEN, Meadowvale P.O. and Station, Peel Co.

Shorthorns, Clydesdales and Shropshires.

In Shorthorns we have 100 head to select from, of both sexes and all ages. No fancy prices asked. Several choice young Clyde mares and fillies. 75 Shrop. lambs of both sexes. Small profits and quick returns is our motto.

EDWARD E. PUGH, Claremont P. O. and Station.

SMITHFIELD STOCK FARM Shorthorns & Yorkshires

Present offering: Young stock of both sexes, sired by the Missie bull, Aberdeen Beau, by (Imp.) Scottish Beau. Also young Yorkshire sows.

R. E. WHITE, Balderson, Ont.

MAPLE LEAF STOCK FARM

4 Choice Young Bulls for Sale. Also some cows and heifers, and prizewinning Berkshire pigs. Terms reasonable.

ISRAEL GROFF, Alma P.O. & Sta., G.T.R.

MAPLE + GROVE + STOCK + FARM Scotch and Shorthorns - Topped

Present offering: Two choice nine-month-old bulls, by Captain Mayfly 2nd; also young cows and heifers at very reasonable prices. For particulars write to

L. B. POWELL, Elmira Stn. and Tel. Wallenstein P.O.

GREEN GROVE SHORTHORNS

Fairy Queens, Urys, Floras, Clarets, Isabellas, Rose of Autumns, Village Girl. Females of all ages 3 choice young bulls. Prices right. Breeding unsurpassed.

W. G. MILSON, Goring P. O. Markdale Station

C. Rankin & Sons, Wyebriidge, Ont.

Importers and Breeders of

SHORTHORN CATTLE and OXFORD DOWN SHEEP.

FOR SALE—Females and bulls, of all ages from noted Scotch families.

RAILWAY VIEW STOCK FARM SHORTHORNS

Herd headed by Lord Lieutenant, imported, =50050=. Present offering: Two extra good bulls, 14 and 21 months old. Cows and heifers, imported and home bred. Prices reasonable.

SCOTT BROS., Highgate P. O., Ont.

WILLOWBANK SHORTHORN HERD

ESTABLISHED 51 YEARS. FOR SALE: Young bulls and heifers from imp. sires and dams of most fashionable breeding and type; exceedingly choice. Prices to suit the times.

JAMES DOUGLAS, Caledonia P.O. and Sta.

Shorthorns, Cotswolds and Berkshires.

For sale: 2 yearling bulls, cows, heifers and calves. Over 50 head to select from. Nothing to offer in Cotswolds or Berkshires.

CHAS. E. BONNYCASTLE, P. O. and Stn. Campbellford, Ont.

ROWAN HILL SHORTHORNS

Herd bull for sale: Greengill Archer, imp., 45184, as some of his heifers are of breeding age, and herd is not large enough to keep more than one bull; also a few young bulls and heifers.

A. DUNCAN & SONS, Carluke, Ont.

Shorthorns & Berkshires

For sale: Young bulls and calves; also a few young sows and fall pigs.

John Racey, Lennoxville, Que.

SCOTCH Shorthorns FOR SALE

Have still on hand some choice young imported bulls that were not catalogued; bred right; good colors; good individuals. Also imported and Canadian-bred cows, heifers and calves, both sexes, at all times, for sale at easy prices; many of them eligible to record in the American Herdbook. Write to or call on

H. J. Davis, WOODSTOCK, ONT.

SHORTHORNS.

We have for sale a 12-months old Mayflower bull by Derby Imp. He was first prize winner at O.S. this fall in a strong class. Also several choice heifers of the highest breeding for sale cheap. **W. J. SHEAN & Son, Box 858, Owen Sound, Ontario.**

Plaster Hill Shorthorns and 1 Incolns

About a dozen heifers from 6 to 24 months of age, 7 young bulls from 6 to 15 mos. of age. The low-down, thick sort, Berkshires of both sexes, some sows in pig.

F. Martindale & Son, York P. O. Caledonia Station.

Maple Hill Shorthorns: For immediate sale are two yearling bulls—one a Crimson Fuchsia, the other a Duchess of Gloster; both by Imp. Royal Prince, and both herd headers. Also a number of heifers that are strictly high-class. Send for catalogue.

DAVID BIRRELL, Greenwood P. O. Pickering G. T. R. Claremont, C. P. R.

J. BRYDONE,

Breeder of pure Scotch Shorthorns. Breeding females imported. Headed by the pure Cruickshank (Duthie bred) bull, Siltyston Victor (Imp.) =50068= (18737). 11 young bulls from Imp. dams for sale. Prices reasonable. **Telegraph, Telephone, R. R. Sta. and P. O., Milverton.**

U. Bartlett & Sons, Smithville Ont.

Breeders of Shorthorns and Dorsets. For sale: Young cows and heifers at all ages. Dorset shearlings and lambs of both sexes, of choice quality, suitable for show purposes, at moderate prices. **P. O. and Station: Smithville, Ont.**

ARLINGTON Shorthorns and Leicesters.—Present offering: 4 choice young bulls (8 mos.) and 2 heifers rising 2 years. Sired by imp. Trout Creek Guard and Christopher's Heir, Vol. 20. All out of heavy-producing dams. An extra choice lot. Also ram and ewe lambs. **John Lishman, Hagersville P.O. & Sta.**

SCOTCH SHORTHORNS

9 heifers, yearlings. 4 bulls, yearlings.
29 heifers, calves. 27 bulls, calves.

All out of imported sires and dams.
Prices easy. Catalogue.

JOHN CLANCY, H. CARGILL & SON,
Manager. Cargill, Ont.

Maple Shade Shropshires AND CRUICKSHANK SHORTHORNS.

A first-class bunch of yearling ewes, bred to the best imported rams, now ready for shipment. All are for sale at moderate prices.

JOHN DRYDEN & SON, Brooklin, Ont.
Stations: Brooklin, G.T.R. Myrtle, C.P.R. Long-distance telephone.

WESTSIDE SHORTHORN HERD AND BORDER LEICESTER FLOCK.

All Registered in the Herd and Flock Books of Great Britain.

We invite all interested to inspect the cattle and sheep on this farm. The Shorthorns are long-tried families, tracing to the pioneer herds of Scotland through channels of repute. The Border Leicester flock is one of the oldest in Scotland, and embraces blood of the highest breeding. Selections for sale. Visitors from the States and Canada will be cordially welcomed.

A. Cameron & Sons, Westside Farm, Brechin, Scotland.

PURE SCOTCH SHORTHORNS

Offering for December and January:

Imp. Scottish Pride = 36106 =
3 yearling bulls from imp. cows.
12 young bulls from 8 to 14 months, also from imp. cows.
10 imp. cows with calves at foot or safe in calf.
10 home-bred cows with calves at foot or in calf.
25 heifer calves, yearlings and 2-year-olds.
30 Shropshire ewes (bred).
2 imp. Yorkshire sows, due to farrow in March.
7 boars and 10 sows, 4 and 5 months old.
Catalogues on application.
Our farms are 1/2 and 1 1/2 miles from Burlington Junction, G.T.R.
Long-distance telephone in residence.

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

JOHN LEE & SONS, Highgate, Ont.

SHORTHORNS & LINCOLNS

The champion herd of Elgin, Kent and Essex counties.

For Sale: 6 choice young bulls 3 reds and 3 roans, of grand type and quality; also good selection of young cows and heifers. Visitors welcome.

BELMAR PARK SHORTHORNS

10 bull calves.
16 heifers under two years.

All of the choicest breeding and practically all of show-yard quality. You can buy anything in the herd at a reasonable figure.

JOHN DOUGLAS, PETER WHITE, JR., Manager. Pembroke, Ont.

SHORTHORNS

Imp. Keith Baron 86060. Six young bulls from 10 to 18 months old. A lot of 2-year-old heifers in calf and a few young cows. A bunch of heifer calves, cheap.

GLYDESDALES

Just now: One pair of matched geldings 5 and years old; show team.

JAS. McARTHUR, Goble's, Ont.

Pine Grove Stock Farm.

Breeders of High-class Scotch Shorthorns, Choice Shropshire Sheep, Clydesdale and Hackney Horses.

Herd catalogue on application. Address:

JAMES SMITH, Supt., Rockland, Ont.
W. C. EDWARDS & Co., Limited Props. om

Oak Grove Shorthorns—Present offering: Several imp. cows heifers and 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 Station, Harwood P. O.

BONNIE BURN SHORTHORNS
For immediate sale: Two 2-year-old heifers, safe in calf; four bulls, two of them out of imp. dam. All by imp. sire, Shropshires, both sexes—lamb and shearlings. Berkshires, both sexes, by imp. sire and dam. D. H. RUSSELL, Stouffville P. O. & Sta.

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 Sts.

MAPLE HILL STOCK FARM—Scotch Shorthorns of the best families. Young stock for sale of either sex, sired by the grandly-bred bull, Wanderer's Star = 68686 =.

Wm. R. Elliott & Sons, Guelph, Ont.

MAPLE GROVE SHORTHORNS

My present offering: Several imp. cows with calves at foot; also 4 young bulls Heifers 6 months to 2 years old. Prices and terms reasonable.

C. D. WAGER, Enterprise Stn. & P.O., Addington Co.

R.A. & J.A. Watt, SALEM, ONT.

Our list of young bulls for 1908 fall trade contains royally well-bred herd-headers. Among them are to be found show animals. Farm adjoins the town.

Elora is 13 Miles North of Guelph on G.T. & C.P.R.

Shorthorn Cattle and Lincoln Sheep

Shorthorn bulls, cows and heifers for sale at greatly reduced prices for the next 60 days. om

J. T. GIBSON, Denfield, Ont

Glenoro Stock Farm SHORTHORNS and LINCOLNS.

Three grand young Scotch bulls, eleven months old, at prices low enough to sell at sight. Young cows and heifers in calf for sale. Twenty very choice Dudding-bred ram lambs at very reasonable prices. Write at once if you want a flock header. Also a few ewe lambs from imported sires and dams. Long-distance telephone.

A. D. MCGUGAN, RODNEY, ONTARIO.

Pleasant Valley SHORTHORNS

We are offering several high-class young bulls from first-class (imp.) bulls and from imp. and Canadian-bred Scotch cows; also young heifers of various ages, with good Scotch breeding.

GEO. AMOS & SON, MOFFAT, ONT.
Farm 11 miles east of Guelph on G. & E. E. One-half mile from station.

J. Watt & Son SHORTHORNS

A number of extra good young cows for sale, three of them each raising a nice heifer calf; also a number of yearlings, just bred.

SALEM P.O. Elora Stations, G.T.R. and C.P.R.

High-class Shorthorns

The well-known Duthie-bred bull, Scottish Beauty (imp.) (86099), by the great Silver Plate, formerly at head of B. A. & J. A. Watt's herd, now heads my herd. Young stock usually on hand for sale.

N. S. ROBERTSON, ARNPRIOR, ONT.

Brown Lee Shorthorns—Present offering is 3 young bulls from 3 to 15 months old, a nice straight, good-doing lot, sired by Blenheim Stamp; also females of all ages, daughters of Imp. Sir Christopher and Imp. Beaucamp. Prices very reasonable.

DOUGLAS BROWN, Ayr P.O. and Station

QUESTIONS AND ANSWERS. Miscellaneous.

GOVERNMENT REPORTS.

How may I obtain the different reports issued by the Government?

Ans.—For Dominion Government reports make application to the Hon. Sydney Fisher, Ottawa, Ont., and for Ontario reports to the Hon. Nelson Monteith, Toronto.

TREATMENT FOR WORMS.

Mare, six years old, stocks up very bad when not working; even when she is working she will stock up over night just now, though she did not during the fall. She is very dry in the hair, and also is thin in the flesh. I think, somehow, she is wormy.

J. S.

Ans.—Pregnant mares are especially disposed to this affection, though many geldings and non-pregnant mares stock up more or less at this season. Ease up a little on the work, and feed lightly on oats and bran, with mixed hay and a turnip or a carrot or two daily. As you suspect worms, try the following: Take 1 1/2 ounces each of sulphate of copper, sulphate of iron, tartar emetic and calomel. Mix, and make into 12 powders. Give a powder every night and morning, either in damp food or mixed with a pint of cold water as a drench. Feed bran only for 12 hours after giving the last powder, then give a purgative of 8 drams Barbadoes aloes and 2 drams ginger. Feed bran only until purgation commences, then hay and a little grain. As soon as the bowels regain their normal condition, she may be put to work, but must not be worked from time of administering the purgative till it ceases to act.

TIME FOR PRUNING APPLE TREES, ETC.

1. Would you give me scientific or botanical names for the silver maple, poplar and elm?

2. Would trimming an orchard at this season be better for the trees, or as good as in the spring?

3. How as to raspberry bushes being thinned of the dead stocks now?

Elgin. SUBSCRIBER.

Ans.—1. Acer dasycarpum is the silver maple; Populus tremuloides is the poplar, and Ulmus Americana is the common American or white elm.

2. In this climate it is better to defer the pruning till late winter or early spring. In cold parts of the country, it is thought that winter-made wounds are the means of depriving the tree of much of its moisture. The trees are believed to be better for a continuous cover of bark until severe weather is past.

3. Better leave the dead canes till spring, when any winter-killed new-growth may be removed with the old. The dead canes will help to hold the snow, and thus afford a measure of protection. In regions where raspberries are extensively grown, it is customary to remove and burn the old canes immediately after picking is done, but for climates where the canes are not always hardy, leaving them till spring is advised.

TRADE NOTE.

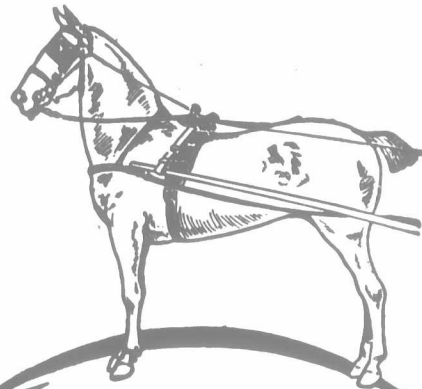
A SANTA-CLAUS GUN.

A special wireless telegram from the North Pole says that Santa Claus this year is loaded down with guns, not only for boys and girls, but for the boys and girls of larger growth. No doubt Santa Claus has been stirred up particularly by the announcements of the Stevens Rifles and Shot Guns that are appearing in our advertising columns about this time. If you will take a look at them, you will not wonder why Santa Claus chooses Stevens firearms for his presents this year. If you are interested to learn about Stevens Firearms, their high quality, popular prices, read the advertisements and send for the handsome Christmas catalogue which they offer.

Lawyer—I say, doctor, why are you always running us lawyers down?

Doctor (dryly).—Well, your profession doesn't make angels of men, does it?

Lawyer.—Why, no; you certainly have the advantage of us there, doctor.



Accidents to your horses may happen at any moment. GET READY for emergencies. Buy a bottle of

Fellows' Essence

For Lameness in Horses

Only 50c. a bottle—and saves dollars worth of time by curing lameness of every description.

At dealers, or from National Drug & Chemical Co., Limited, MONTREAL.

Maple Lodge Stock Farm.

1854-1906.

SHORTHORN BULLS—good ones. Several from heavy-milking cows. Choice heifers also. **LEICESTER EWES**, and a lot of extra good rams.

A. W. SMITH, MAPLE LODGE, ONT.

5 one-year-old bulls, \$60 to \$100 Canadian
5 one-year-old heifers, \$100 to \$125 } Shorthorn Herdbook.
4 six-months pigs, pure Yorks. } \$15 per pair.
10 six-months sows, pure Yorks. }
50 six-months pigs, \$14 per pair.
100 fall pigs, \$6 per pair.

Purchasers must make own selection. Apply to

A. SUMMERS, Valley Farm, Aldershot P. O., Ont.

A. EDWARD MEYER, Box 378, Guelph, Ont.

Scotch Shorthorns.

The Sunny Slope herd comprises Cruickshank Bellona, Mysies, Villages, Brawith Buds, Broadhocks, Bruce Augustus, Mayflowers, Campbell Beesies, Urya, Minus, Clares, Killlean Beautys. Herd bulls: Scottish Hero (imp.) (80095), a Shorthorn in Rosemary, and Chief Ramsden = 62548 =, a Miss Ramsden. Correspondence solicited. Visitors welcome. Long-distance phone in house.

SHORTHORNS AND BERKSHIRES.

Eight grand young bulls of choice breeding. Ten choice young sows being to our imported boar, and thirty younger ones of prolific families and sired by prizewinning boars.

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

Stations: Streetsville and Meadowvale, C.P.R.

KENWOOD STOCK FARM.

SHORTHORNS.

Headed by (Imp.) Jilt Victor = 45187 =, 10 grand young bulls; also heifers; from imp. and home-bred cows, for sale. Choice Lincoln sheep; Berkshire and Tamworth hogs offered.

HAINING BROS., Highgate, Ont. Kent Co.

GEORGE D. FLETCHER, Breeder of Scotch Shorthorn Cattle and Yorkshire Pigs.

Our herd of the most noted Scotch families is headed by the \$2,000 Duthie-bred bull, Joy of Morning (imp.) = 3270 =, winner of 1st prize at Dominion Exhibition, Toronto. A few very choice young bulls from 4 to 9 months old, also females for sale. In Yorkshires are a choice lot of either sex, 7 months old, from imp. sire and dam. Sows bred to imp. hog if desired.

BINKHAM P. O. ONT. ERIN STATION AND TEL.

SHORTHORNS AND LEICESTERS

Present offering: 4 choice young bulls from 8 to 12 months old. All sired by Rosicrucian of Dalmeny (imp.) = 4320 =, and from grand milk-rot dams. Prices away down for quick sale. Also a grand lot of young registered ewes now bred to our stock ram, and a few good rams at reasonable prices. Address:

W. A. DOUGLAS, Caledonia Station, Tuscarora P. O.

For Sale: Scotch Shorthorn

Young cattle and heifers.

H. K. FAIRBURN, THEDFORD, ONT.
Rosedale Stock Farm.

For Sale: The Scotch Bull, Queenston

Archon = 8333 =, Derby (imp.) also a number of pure Shropshire ram lambs at reasonable prices.

W. H. BULLOCK, Bradford, Ont.

Unreserved Auction Sale

ON FRIDAY, DEC. 14, 1906,

At His Farm, Bedford Park, Three Miles North of Toronto, on Yonge St., Where Street Cars Pass the Farm Every Hour, from Newmarket on the North and Toronto on the South,

COL. J. A. MCGILLIVRAY

will sell his entire herd of 40 HEAD of imported and Canadian-bred

SCOTCH SHORTHORN CATTLE

Including His Stock Bull, Butterfly King, Imp.

The herd represents the Nonpareil, Missie, Crimson Flower, Miss Ramsden, Duchess of Gloster, Butterfly, Marr Beauty and Marr Meadowflower families. Together with

2 Imported Clydesdale Fillees, 3 years old, and 1 Imp. Shire Filly, 1 Registered Canadian-bred Clyde Mare, 25 Imp. and Canadian-bred Horned Dorset Sheep; also a Number of Grade Cattle, Horses, Farm Implements, etc.

Implements, Grade Cattle, Farm Horses, etc., will be sold at 10 a. m.; Pure-breds at 1 p. m.

Terms cash, or 5% on approved notes. Catalogues on application.

FRED. SILVERSIDES, Auctioneer.

Positively no reserve.

HOLLYMOUNT SHORTHORNS



Pure Scotch, Imported, and the get of Imp. stock.

25 HEAD

Anything for sale. 1 young bull. Breeding salt-edged and unsurpassed. A few heifers. Prices right.

W. J. Thompson, Mitchell P. O. & Sta.

GREENGILL HERD

of high-class

SHORTHORNS



We offer choice Scotch bulls and females, representing such families as Duchess of Gloster, Village Girl, Rosebud Orange Blossom, Mysie, Victoria, and other popular families, either imp. or Canadian-bred.

R. MITCHELL & SONS, Nelson P.O., Ont.; Burlington Juno. Sta.

JOHN GARDHOUSE & SONS, Highfield P.O., Ont. Breeders of

Scotch and Scotch-topped Shorthorns, Lincoln and Leicester Sheep and Shire Horses.

A good selection of young stock of both sexes always on hand for sale. Scottish Prince (Imp.) Vol. 49, at head of herd. Royal Albert (Imp.) Vol. 507, at head of stud. Farms 5 1/2 miles from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

Clover Lea Stock Farm SHORTHORNS

FOR SALE: Choice bull calves by Golden Cross (Imp.). All dark roans. Some from imported sire and dam. Visitors met at Ripley station.

R. H. REID, PINE RIVER, ONT. Ripley Station, G. T. R.

Spring Valley Shorthorns

Herd headed by Imp. Bapton Chancellor = 40809 = (78286). A choice lot of young bulls and females for sale, among them being winners at the Canadian National.

KYLE BROS., Ayr, Ontario.

Shorthorns

ARTHUR JOHNSTON

Greenwood, Ont.,

Offers for sale, at moderate prices,

7 Imported Cows and Heifers (calves at foot).

11 Yearling Heifers (all Scotch).

2 Yearling bulls, including a Marr Clara.

1 Crimson Flower, and One Daisy.

Queenston Heights SHORTHORNS

One yearling bull, red, straight Scotch, a high-class herd-header. Also a few choice bull calves and heifers, Canadian and American registration.

HUDSON USHER, Queenston, Ont

DON JERSEY HERD

Our Jerseys rank second to none in Canada. Present offering. Choice young bulls and heifers, bred from prizewinners and great producers. Write for what you want. Visitors welcome.

D. DUNCAN, Don, Ont. Duncan Sta., on Canadian Northern Railroad, near Toronto.

HIGHGROVE JERSEY HERD.

Our present offering is: a few choice heifer calves from 3 to 8 months old, which, considering quality, will be sold reasonable.

ROBT. TUFTS & SON, Tweed P.O. & Sta.

Brampton Jersey Herd For sale: 10 bulls from 6 to 18 mths. old, descended from St. Lambert or imported stock; also females of all ages. For full particulars address: B. H. BULL & SON, Brampton, Ont. 'Phone 68.

QUESTIONS AND ANSWERS. Miscellaneous.

SUN-SCALD ON APPLE TREES.

What causes the bark on apple trees to get dry and scraggy? Last spring, on looking over some apple trees, I noticed the bark dried on in spots, and on removing same, noticed the wood hard and cranked, with active mites running about; in color, resembling wood lice. Had those mites anything to do with the trouble? Is there any remedy? Is it necessary to have fruit trees banked during the winter? A. B. C.

Ans.—The trees have evidently been injured by sun-scald. This injury is done in late winter and early spring, when there are warm days and cold nights. The sun shining on the south side of the tree thaws out the sap, and this followed by severe freezing at night destroys the cambium or loosens the bark. The injury usually occurs on the south or south-west side of the tree. Sun-scald can be prevented by shading the trunk with sacking, or some other material, or by using a veneer wooden protector, or even by mounding up with soil, although it would not be practicable to cover the whole trunk. The insects were probably feeding in the decayed wood, or finding a shelter there. The dead wood should be cleaned out of the injured part, and the wound painted with white lead paint.

W. T. MACOUN.

Central Experimental Farm.

GOSSIP.

LAST CALL FOR COL. J. A. MCGILLIVRAY'S SALE.

Parties in want of choice Scotch Shorthorn cattle, Clydesdale or Shire mares, or Horned-Dorset sheep, should remember that on Friday, next, Dec. 14th, a rarely-good opportunity will be offered at Col. J. A. McGillivray's dispersion sale, at Bedford Park, three miles north of Toronto, on Yonge St. Everything will be sold without reserve, as the farm is sold and everything must go. The farm implements and grade cattle will be sold at 10 a. m.; the pure-breds at 1 p. m. There is a hotel just across the street, where parties attending the sale can get dinner. Terms are cash, or 5 per cent. on approved paper. Street cars pass the door every hour from north and south. For catalogue, address the auctioneer, F. Silversides, Bedford Park P. O., Ont.

DUNROBIN SHORTHORNS.

Thirty head of imported and Canadian-bred Scotch Shorthorns make up the herd of Messrs. Donald Gunn & Son, of Dunrobin Stock Farm, Beaverton, Ont., breeders and importers of Clydesdale horses, Shorthorn cattle and Yorkshire hogs. The Shorthorns represent such fashionable strains as the Missie, Mayflower, Ury, Village Queen, Nonpareil and Lavender families; the get of such noted bulls as Luxury, Imp. Cronje 2nd, Imp. Village Champion, Imp. Magstrand, Imp. Bapton Fancy, Imp. Royal Prince, and Sir Wilfred Laurier, and are an essentially high-class lot, being of the low-down, thick-fleshed, good-doing order. Most of the young stuff is the get of Imp. Lucerne, by Cyprus, dam Lustre 36th, by Bruce Palatine. Lucerne, besides being a good individual, is a very successful sire, his get coming straight-lined, thick and even. One of his get in the herd for sale is a roan, six-months-old bull calf, out of Fancy Ury, a daughter of Imp. Bapton Fancy. This youngster is built on show lines, and is an extra good one. The present stock bull, Imp. Ardlethen Royal, by Baron Beauford, dam Pauline 2nd, by My Choice, grandam by Lord Lavender, is a Princess Royal, a short-legged, thick, even, mellow bull, and an extra good doer. His lieutenant in service, Nonpareil Eclipse, by Imp. Langford Eclipse, dam Nonpareil Lady, by King William, grandam by Imp. King James, is a roan, eighteen months old, big, straight-lined, full-fleshed, with a heap of quality, a show bull of no mean order. He is for sale, and can be bought well worth the money. Don't forget the Dunrobin herd when in want of something good in Shorthorns. The firm have also for sale a number of imported and Canadian-bred Clydesdale fillies and mares in foal, also up-to-date Yorkshires of both sexes and all ages.

DR. WOOD'S



NORWAY PINE SYRUP

Stops the irritating cough, loosens the phlegm, soothes the inflamed tissues of the lungs and bronchial tubes, and produces a quick and permanent cure in all cases of Coughs, Colds, Bronchitis, Asthma, Hoarseness, Sore Throat and the first stages of Consumption.

Mrs. Norma Swanston, Cargill, Ont., writes: "I take great pleasure in recommending Dr. Wood's Norway Pine Syrup. I had a very bad cold, could not sleep at night for the coughing and bad pains in my chest and lungs. I only used half a bottle of Dr. Wood's Norway Pine Syrup and was perfectly well again."

Price 25 cents a bottle.

Hillview Herd of Prizewinning

AYRSHIRE CATTLE.

All animals bred and carefully selected for size, constitution, long teats and deep-milking qualities. Select animals of both sexes for sale at reasonable prices. For further information and prices write

A. KENNEDY & SON, Hillview Stock Farm, Vernon, Ont. Winchester Station, C. P. R.

SHANNON BANK STOCK FARM FOR AYRSHIRES AND YORKSHIRES

Young stock of both sexes for sale from imported stock.

W. H. TRAN, Cedar Grove, Ont.

SPRINGBROOK AYRSHIRES.

Gave over 7,000 lbs. of milk, testing 5.9 per cent. butter-fat, during 1905. For sale: One bull 4 years old, Comrade's Fancy of Glenora 15790; bull calves of this year; also females of all ages.

W. F. STEPHENSON, Huntingdon, Que.

P.O. Box 162.

AYRSHIRES FROM A PRIZE-WINNING HERD

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to

W. M. STEWART & SON, Campbellford Sta. Ontario.

Stockwood Ayrshires for Sale. — Have some nice yearling heifers, also a few two-year-olds due to freshen in Nov. and Dec. Write or call and see them.

D. M. WATT, ST. LOUIS STATION, QUE.

Ayrshires and Yorkshires

We always have on hand choice animals of above breeds, of any desired age. Prices reasonable. Write us before buying. Intending purchasers met at Hoard's. Alex. Hume & Co., Monticello P. O.

AYRSHIRES—Choice stock of either sex, different ages, for sale. Prices reasonable. For particulars apply to

M. D'AMENY, Hickory Hill Stock Farm, Dundas St. & Tel. O. G. Harrison, Ont.

WOODBINE HOLSTEINS

Herd headed by Sir Mechthilde Posh, absolutely the best official-headed sire in Canada. Dam Ianthe Jewel Mechthilde, 35.8 pounds butter in seven days. Champion cow of Canada over all breeds. Sire's dam, Aaltje Posh 4th, holds the world's largest two-day public test record—8.6 pounds butter. Young bulls of the choicest quality for sale.

A. KENNEDY, Ayr, Ont. Ayr. O.P.R.; Paris, G.T.R.

Spring Brook Holsteins and Tamworths

Bargains in Tamworths from now till New Year to quick buyers. Young pigs ready to wean. Boars ready or about for service, and sows that are bred. Come and see, or write for what you want in Tamworths and Holsteins. A. O. Hallman, Breslau, Ont., Waterloo Co.

QUEEN CITY HOLSTEINS

If you would like to purchase a young Holstein bull whose sire's dam has an official record of 560 pounds of milk and 26 pounds of butter in seven days, write to R. F. HICKS, Newton Brook P.O., York Co.

Holsteins at Ridgedale—A few choice bull and heifer calves on hand for sale, sired by Prince Pauline DeKol 6th. Ages up to ten months. Write for what you want, or come and see them. Shipping stations: Port Perry, G. T. R., and Myrtle, C. P. R., Ontario Co.

R. W. WALKER, Utica P.O., Ont.

MAPLE GROVE HOLSTEIN HERD

is made up of Record of Merit cows and heifers with large records, and headed by Lord Wayne Mechthilde Calamity. Young bulls fit for service at reasonable prices. Walburn Rivers Falden's, Ont.

HOLSTEINS AND YORKSHIRES

R. HONEY, Brickley, offers for sale a choice lot of young boars fit for service; also sows ready to mate.

AUCTION SALE

OF

65 Holstein-Friesian Cattle

At **Riverside Farm, CALEDONIA, ONT.**, on

THURSDAY, DEC. 27, 1906

30 Cows, 20 Heifers, 15 Bulls.

8 months' credit on approved security.

Riverside Herd represents several of the greatest families of the breed: DeKol, Wayne, Mercedes, Mechthilde, Pietertje, Johanna, Sarcastic, Posch, etc. Over 20 "Record of Merit" females, including Hulda Wayne's Aaggie and Inka Mercedes DeKol, that were at the Pan-American Model Dairy economical six months' test. Recent stock bulls: Johanna Rue 4th Land and Sir Pietertje Posch De Boer.

Caledonia is on Buffalo & Goderich, Hamilton & Pt. Dover branch of the G. T. R. Arrangements have been made with G. T. R. for trains to stop at the farm. Trains will arrive at the farm at 9.20 and 10.20 a.m. from south, west and east. Hamilton and Toronto trains will be met at Caledonia station at 9.52 a.m. Trains leave the farm at 6.30 and 7.30 p.m. for all points. Reduced rates on all railroads.

Sale commences at 12 o'clock, noon.

CAPT. T. E. ROBSON, London, Ont.
MERRALL & HUTTY, Caledonia, Ont. Auctioneers.

To whom bids by mail or telegraph may be sent.

Catalogue ready by Dec. 6th.

Sale held under cover.

M. Richardson & Son, Caledonia, Ont.

Annandale Holstein Herd

Prince Posch Calamity heads the herd. His dam (Calamity Jane) and sire's dam (Alta Posch) in official test, averaged 86 lbs. milk a day, and over 26 lbs. butter a week, one of the greatest sires living.

A number of good young bulls, 1 to 10 months old, for sale, from great sires and AI cows.

GEO. RICE, Tillsonburg, Ontario.

A FEW HOLSTEIN BULLS

At for service, for sale at reasonable prices. Choice females, all ages. If you are willing to pay good prices for good stuff, write me.

G. W. CLEMONS, St. George, Ont.

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.
BROWN BROS., LYN, ONT.

"GLENARCHY" HOLSTEINS

43 head of big, deep flanked, heavy-producing Holsteins, many of them milking from 50 to 60 lbs. a day on grass. Young stock of both sexes for sale. A straight, smooth lot.
G. MACINTYRE, Renfrew P. O. and Stn

GROVE HILL HOLSTEINS—We now offer for sale our stock bull, Verbelie 4th's Count Calamity Born December, 1902. Only two of his daughters have been tested, and both are in Record of Merit. He is a show animal, and a persistent stock-getter. If you want a bargain write: **F. R. MALLORY, Frankford P. O. and Stn. C. O. R. Trenton Stn. G. T. R.**

MAPLE PARK HOLSTEINS

Home of the great De Kol Pietertje and Posch families. Schilling Sir Posch, son of Annie Schilling, testing over 4% butter-fat officially and grandson of Altje Posch, stock bull.
S. MACKLIN, PROP., STREETSVILLE.

CENTRE AND HILLYVIEW HOLSTEINS

Bulls 1 year and under for sale, from great-testing dams and sires, all in A. R. O. Records. Our prizes in milk test in America's A. R. O. Records is, 1st prize in 30-day; 5th in 7-day; 5th in 7-day, over 8 months milking.

P. D. EDE, Oxford Centre P. O. Woodstock, C.P.R. or G.T.R.

HOLSTEINS FOR SALE



Four imported and one home-bred bulls from 8 to 12 months old; also our entire crop of springbull calves from week old up to 12 months old.

sired by the grandly-bred imp. bull, Sir Howijk B. Pietertje, whose dam record is over 92 lbs milk in one day, and from great-producing cows of the most fashionable strains. Can spare a few cows and heifers, from one year up; 75 head to select from. Cheese 13c. Don't delay if you want one from this herd.

H. E. GEORGE, Crampton, Ont.

Greenwood Holsteins and Yorkshires

For sale: A few richly-bred bulls from one to eighteen months old. Also a few choice females of all ages. Yorkshires of either sex.
D. Jones, Jr., Caledonia P. O. and Sta.

My Shropshires Won the Flock Prize at Toronto.

And I have imported and home-bred **RAMS and EWES**

for sale that are of the same stamp. All kinds of good

COTSWOLDS and SHORTHORNS

as well.

Prices always reasonable.

ROBERT MILLER, Stouffville, Ontario.

FARNHAM FARM OXFORDS

We are offering for sale 100 strong, vigorous, good-quality ram lambs, a number from best imported sires. We also have for sale 50 yearling and two-shear ewes, and a number of ewe lambs. Telegraph Guelph.

HENRY ARKELL & SON, ARKELL, ONT. Guelph, G. T. R.

QUESTIONS AND ANSWERS. Veterinary.

BARBED-WIRE WOUND.

Mare got cut in front of the hock with barbed wire a year ago. It has not entirely healed up yet. It heals, and then cracks open again. We are working her all the time. The leg swells some when she stands.

J. S. K.

Ans.—On account of the constant flexion and extension of the hock, wounds in this region are very hard to heal. Apply, three times daily, a little oxide of zinc ointment to which has been added 20 drops of carbolic acid to the ounce of ointment. Do not wash the parts. Give her a purgative of 8 drams aloes and 2 drams ginger. Feed on bran only for twelve hours before and twenty-four hours after administering the purgative, and do not work until her bowels regain their normal condition.

WORMS.

1. Mare is thin, and passes white worms.
2. Her sucking colt also passes worms.

F. J. S.

Ans.—1. Take 1½ ounces sulphate of iron, sulphate of copper, calomel and tartar emetic. Mix, and make into twelve powders. Give a powder every night and morning in damp food, or mixed with ¼ a pint water as a drench. Feed bran only after the last powder has been taken, and in twelve hours give a purgative of 8 drams aloes and 2 drams ginger, and feed bran only until purgation ceases. If she is again in foal, omit the purgative, but give the powders as above.

2. Treat the same, only use but 2 drams each of the drugs to make 12 powders. For a purgative to follow the powders, give 4 ounces raw linseed oil.

ABORTION.

Cow, six years old, has had four calves. Each was born from six weeks to two months before full term. This year we tried the carbolic-acid treatment, but she aborted all the same.

M. B.

Ans.—This cow has acquired the habit of aborting. The accident in this case is not due to contagion. The habit is very hard to correct. I would advise you to not breed her for eight to twelve months. After you breed her, treat her very kindly, and when she reaches that stage of pregnancy at which she has aborted several times, keep her very quiet in a partially-darkened box stall, feed on sloppy food, and watch closely. If she shows symptoms of aborting, give her 3 ounces tincture of opium in a pint of cold water as a drench, and repeat the dose in three hours, or longer if the symptoms indicate the necessity.

CHRONIC COUGH

Mare commenced to cough last fall, and coughed more or less all winter; when turned on grass in the spring, the cough ceased, but has returned since she has been stabled again this fall. She coughs for about half an hour in the morning when fed. She has had no nasal discharge, or swelling of the glands.

G. W.

Ans.—Chronic coughs are very hard to treat, but in many cases treatment is successful when the lungs have not undergone change of structure. Give her, every morning, a ball composed of 2 drams solid extract of belladonna, 1½ drams powdered opium, 30 grains digitalis, and 1 dram camphor, with sufficient oil of tar to make it plastic. Roll in tissue paper and administer, or dissolve in a pint of warm water and administer as a drench.

Miscellaneous.

WYANDOTE WITH RED-TINTED LEGS.

How many points will a White Wyandotte male score that is perfect in every respect, but his yellow legs are tinted with red?

H. O. H.

Ans.—The bird you speak of should be cut about ¼ a point on color of legs, that would make him score 99¼. I never saw as perfect a bird. A 95-point bird would be worth from twenty-five to sixty dollars, and one that would score 99¼ would be well worth one hundred dollars. I would like to see this bird, if possible. I would like to see one so perfect.

WM. McNEILL.

Bone Spavin

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

Fleming's Spavin and Ringbone Paste

Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 5-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of

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Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses.

FLEMING BROS., Chemists, 45 Church Street, Toronto, Ontario

HAMPSHIRE DOWN SHEEP

"Reserve" for Champion in the Short-wool Classes, Smithfield, London, 1904

SPLENDID MUTTON GOOD WOOL GREAT WEIGHT

This highly valuable English Breed of Sheep is unrivalled in its

Wonderfully 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.

The Riby Herd and Flock of Shorthorn Cattle and Lincoln Sheep

The largest of each in England. Established 140 years, with world-wide reputation both in the show ring and sale yard. Holders of the 100-guinea champion prize at Smithfield Show, London, 1902, against all breeds, and breeder of the two 1,000-guinea rams, and also the heaviest sheep at Chicago Show, 1903. Selections for sale.

Cables—**DUDDING, KEELBY, ENG.**

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.**

CLAYFIELD STOCK FARM COTSWOLDS and HAMPSHIRE

We now offer 150 head of high-class Cotswolds for sale at reasonable prices, including some extra good imported and home-bred shearing extra rams; also imported and home-bred ewes of different ages, and a car of ranch stock. We won both open and home-bred flock prizes this year, both at Toronto and London. Correspondence and inspection invited.

J. C. ROSS, Prop., Box 61, Jarvis, Ont.

Hampshire Sheep For sale: rams (imported and home-bred), yearlings and lambs. Correspondence or inspection invited. **FREEBORN BROS., Denfield Station and P. O.**

Suffolk Sheep

JAMES BOWMAN, Elm Park, Guelph SHROPSHIRE

Can sell about 20 Ram Lambs. Mostly by an Imp. Butlar bred ram.

GEO. HINDMARSH, Alisa Crak, Ont.

Oxford Down Sheep, Shorthorn Cattle, Yorkshire Hogs.

Present offering: Lambs of either sex. For prices, etc., write to **John Cousins & Sons, Buena Vista Farm, Harriston, Ont.**

Leicesters

Bred from Stanley Winchester rams. Shearing rams. Prices reasonable. **DUNNET BROS., CLANBRASSIL, ONTARIO.**

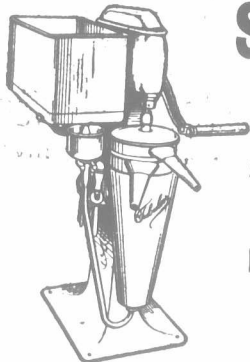
SHROPSHIRE

Good young rams and ewes **FOR SALE.**

W. B. MONKMAN, Bond Head, Ont.

A FARMERS' COMMITTEE SAYS TUBULAR IS WORLD'S BEST CREAM SEPARATOR

**Low Can
Lightest Bowl
Simplest Bowl
QUICKEST CLEANED**



**Self Oiling
Ball Bearing
Enclosed Gears
CLEANEST SKIMMER**

The Tubular

A community of farmers and dairymen recently united and appointed a committee of six wide awake farmers to thoroughly investigate cream separators and decide which is best.

Why? Simply because they were convinced that cream separators pay, and wanted to know the best before buying. The committee requested all leading separator representatives to meet the committee and show their machines.

Why did they do that? Because the committee wanted to find out positively which separator actually is best. They didn't want to take anybody's word for it, but wanted to see all reliable separators side by side and decide for themselves.

When that committee met, many farmers were present waiting the decision. The committee carefully examined the different separators, and unanimously decided that the Sharples Tubular Cream Separator is best, excelling all others in fifteen essential points.

The members of the committee backed up their decision by buying for themselves six No. 6 Sharples Tubular Cream Separators right on the spot—one Tubular for each farmer on the committee.

What did that mean? That this investigation had absolutely satisfied the committee that the Sharples Tubular is the best cream separator built—the best in every way. If you buy a Sharples Tubular, you will get the world's best separator.

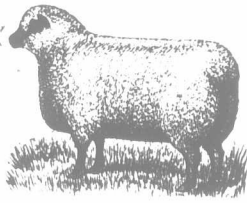
It is to your advantage to learn all about this committee's decision—and the world's best separator. Write for our handsome, complete catalog C 133, with leaflet and the committee's sworn statement telling all about it.

THE SHARPLES SEPARATOR CO.,

Toronto, Can.

WEST CHESTER, PA.

Chicago, Ill.



The Langton Stock Farm Co., Ltd.

BRANTFORD, ONT.,

Special offer of 56 imported Shropshire sheep, 20 shearing rams and 36 shearing ewes. All Minton and Harding bred. Also Clydesdale and Hackney horses and Berkshire pigs.

T. A. COX, Manager, Brantford, Ont.

E. T. CARTER & CO., Toronto

DEERSKINS HIDES, SKINS, FURS

Shropshires and Cotswolds

I am offering for sale 100 shearing ewes, home-bred and imported; also an extra good lot of yearling rams and ram lambs of both breeds, some of each fitted for showing.

JOHN MILLER, Brouham, Ontario.

Southdowns

Imported and home-bred ewes in lamb to imported and prize-winning rams. COLLIES—Puppies by imported Holyrood Clinker; also bitches in whelp.

Robt. McEwen, Byron, Ont.

Long Distance Phone.

FAIRVIEW SHROPSHIRE EWES.

Rams at Service Proved Getters of Extra Good Stock.

BELVOIR SIRDAR, champion at St. Louis World's Fair, where he was a winner of \$510

HARDING'S BEST, champion at the International, winning over Belvoir Sirdar.

FAIR STAR ROSE, Mansell-bred, the greatest living producer of International winners

ALMONT, sired by a Mansell ram and out of a Butter ewe.

Only a limited number of ewes to offer.

Do you need a few good ones? If so, write:

JOHN CAMPBELL, Woodville, Ont., Canada.

Canadian Agents for the Original

McDougall's Sheep Dip & Cattle Dressing

Imported direct. Price: Imperial pints, 35c.

imperial half gallon, \$1.25; imperial gallon, \$2.25

Sold by druggists, or charges prepaid on one gallon tins. THE WORTHINGTON DRUG CO., Toronto, Ontario.

Leicesters!

A grand lot of one and two-shear rams and ram lambs, also ewes of various ages.

Mac Campbell, Harwich P. O., Ont.

18 DORSET SHEEP

For sale, selected from flock of Col. J. A. McGillivray.

Morris & Wellington, Fonthill, Ont.

NEWCASTLE HERD OF TAMWORTHS and Shorthorns.—We have for immediate sale several choice boars ready for service, and sows bred and ready to breed, together with a lot of beautiful pigs from two to four months old. Also a few choice heifers in calf to Donald of Hillhurst No. 44690, and a few nice bull calves and heifer calves. All correspondence answered promptly. Daily mail at our door, and prices right. Colwill Bros., Newcastle.

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. 1343. Won sweepstakes and silver medal at Toronto, 1901-3. Also a few bulls. Bertram Hoskin, The Gully.

Tamworths and Dorset Horn Sheep. A choice lot of pigs of different ages and both sexes. Some fine shearing rams and ewe lambs. JAMES DICKSON, Orono, Ontario "Glenairn Farm."

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.

Meadowbrook Yorkshires
Young stock of both sexes. A number of sows old enough to breed, all sired by Imp. Dalmeny Topsman. Everything guaranteed as represented. J. H. SNELL, HAGERSVILLE P. O. & STATION.

To make room Yorkshire Sows, due to we are offering in March (easy feeders), at \$15.00 each. Six weeks' pigs, \$6.00. Shropshire ram and ewe lambs at \$10 to \$12 each. W. R. BOWMAN, Mt. Forest, Ont.

When Writing Please Mention this Paper.

QUESTIONS AND ANSWERS Miscellaneous.

BALSAM HEDGE.

Have a hedge of balsam trees grown twenty to twenty-five feet; wish to trim hedge. How many feet can be cut off without injury to tree? Some trees are not so high. Would twelve feet be too much to cut off a twenty-foot tree?

CORRESPONDENT.

Ans.—These are past the hedge stage, and it would be useless to cut them down to ten or twelve feet. None of the conifer or evergreen trees take kindly, nor will they respond after any severe cutting back or pruning. They would always look ragged and stumpy; and be unsightly. Better cut them down altogether and replant. J. S. PEARCE, London, Ont. Park Supt.

STONE SILO.

1. Would good building stone, built up the same as a foundation of a barn with cement, do for a silo, being a square silo?

2. Would lime do as well?
3. What thickness of wall?
4. What size, to feed 20 head of cattle for eight months? J. M.

Ans.—1. Stone silos have not given as good satisfaction as cement-concrete or wood, and round is a preferable shape to square. If square, the corners must be "cut off," or the ensilage will not settle well. The inside should have a smooth coat of cement plaster.

2. Lime has been used, but we question if it would be as durable as cement.

3. Say 15 inches at bottom, and one foot at top.

4. About 27 feet high, and 14 feet in diameter.

A WANDERING BULL.

A owns a not very likely looking (supposed to be thoroughbred) Holstein bull, which runs all over the country during the summer, and cattle are not allowed to run in this township, but the law is not very strict. B owns a three-quarter-bred Shorthorn cow, which he is wanting to breed to a pure-bred Shorthorn bull, and keep breeding up. B's cows very seldom wander off his own land, which is not fenced; and A's bull comes two miles from home and serves B's cow.

1. Can B collect damages for his cow, which he valued highly, and was put out very much, also his herd?

2. Can A collect pay for services of bull? A SUBSCRIBER.

Ans.—1. We do not see that B is in a position to prove such a case against A as would enable him to recover damages.

2. No.

DITCHING.

A and B have land fronting in adjoining townships. Some years ago, A had an engineer run an award ditch through some thirty acres of his farm, across C and through D into creek. B's father, now deceased, was asked to join and have water, now in question, brought into ditch, but refused. Now, B desires to drain some three acres across A (600 feet) into said ditch. A ditch now runs down B's side of road, some 2,000 feet, into same creek as ditch, which, if deepened, would carry away water.

1. Which course should water go?

2. If B brought an engineer, who would be liable for cost?

3. What size of tile would carry that water? Would you advise putting in tile?

4. In case A allowed B to run water into ditch, what proportion of labor should each perform?

5. If main ditch required cleaning out, should B assist?

6. In case of tile being used, what proportion of expense and labor would be fair for each? SUBSCRIBER.

Ontario.

Ans.—1. Apparently by way of the ditch along B's side of road.

2. B.

3, 5 and 6.—We cannot tell from the foregoing statement alone. The engineer's advice ought to be taken respecting these matters.

4. As it would seem to be entirely for B's benefit, he ought to do the whole of the work.

CURED HIS WIFE of LA GRIPPE

Quebec Man tells how the Great Consumptive Preventative was an all-round Benefit

"My wife took La Grippe when she was an Ottawa," says R. N. Dafoe of Northfield Farm, Que., in an interview. "She got a bottle of Psychine and after using it for a few days she was quite well. I took a cold and am using it and am getting all right. I think Psychine is one of the best tonics on the market to-day."

There you have the whole matter in a nutshell. La Grippe and colds are among the forerunners of consumption.

This man had one, his wife had the other. Psychine not only cured both but it built them up so that their bodies are strong enough to resist disease. All seeds of consumption are killed by

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Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars. HENRY MASON, SCARBORO P. O. Street cars pass the door.

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100 Pigs to Offer 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.

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David Barr, Jr., Box 3, Renfrew, Ont.

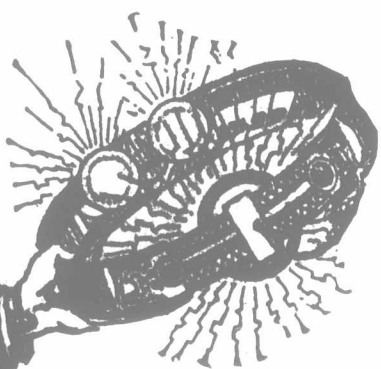
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Morrison Yorks. and Tams.

on hand, for sale. Are both sexes of both breeds. Bred from prizewinners and extra choice. Prices right. Charles Currie, Morrison P. O., Shaw Sta., C. P. R.

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I WANT to talk to men who have pains and aches, who feel run-down physically, who realize that the old "fire" and energy which was so evident in youth is absent now; men who can't stand the amount of exertion they could years ago. I want you—if that means you—to see what I have done for others who were just as bad off. That's my introduction. If a friend in whom you had confidence presented some one to you and said, "Jack, here's Brown; he has made good with me and I trust him," wouldn't you trust him too?

Now, if you don't feel right, I can cure you with my Electric Belt. If you are full of Rheumatic Pains, I can knock them out. I can pour oil into your joints and limber them up. I have often said that pain and electricity can't live in the same house, and I prove it every day.

G. Duval, Grand Mere, Que., says: "Your Belt is a wonderful appliance for the relief of poor, suffering humanity. I found a permanent cure in its use for rheumatism and weakness. Yes, the Belt cures."

If it were not for the prejudice, due to the great number of fakes in the land, I would not be able to handle the business that would come to me. The "Free-Belt" fraud and the "Free-Drug" scheme, which are not free at all, or the "Just-as-Good" Belt offered for a dollar or two, which gives me current at all, have made everyone sceptical, but I know that I have a good thing, and I'll hammer away until you know it.

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Dear Sir,—I have not had my Belt three months yet, but will tell you how much good it is doing me. I believe your Belt is all you claim for it, for it has done me a lot of good. I sleep well and feel well in every way, and rest good. I feel that I can recommend your belt to anybody.—Geo. Ruddy, 501 St. James St., London, Ont.

Dear Sir,—I have been wearing your Belt for thirty days, and feel that it has done me a lot of good. The losses have stopped almost altogether and my nerves are much stronger than they were.—Gordon Dunn, Paris Station, Ont.

F. A. Ouellet, Springfield, N. S., writes: "I now feel like a new man in every way, and wish you all the success that you deserve in your endeavor to relieve suffering humanity."

I have a cure in every town. Tell me where you live and I will give you the name of a man I've cured.

Tell me your trouble, and I will tell you honestly whether I can cure you or not. If I can't cure you, I don't want your money. I have been in this business 24 years, and am the biggest man in it to-day by long odds, and I am growing yet, because I give every man all he pays for.

Now, wouldn't you rather wear my life-giving appliance while you sleep every night, and feel its glowing warmth pouring into you, and feel yourself taking on a new lease of life with each application, than to clog your intestines up with a lot of nauseous drugs? Surely! Try me.

Dear Sir,—Your Electric Belt is all right. I am not bothered with rheumatism any more. When your Belt is used right, it is a sure cure. Thanking you very much for your kindness, and wishing you great success, I am,—John Noble, Jr., Hanover, Ont.

Dear Sir,—It is now thirty days since I started to wear the Electric Belt which I purchased from you, and I can truthfully say it has done me a lot of good in that while. Have had no losses since wearing it. My back is getting stronger; digestion better, and I also sleep better. I have no trouble with the Belt, as I follow your instructions carefully. I firmly believe that electricity is life, and without it we could not live.—A. B. Winquist, Poplar Point, Man.

W. H. Belding, Chance Harbor, N. B., has this to say: "After 32 days' use of your Belt, I feel twice as strong as I did. My stomach is much better, and I have improved in every way. Have gained in weight, and sleep better than I have for 10 years."

I don't ask anyone to buy my Belt on speculation. I don't ask you to take any chances of a failure. I take all the chances of curing you. If you are suffering from Rheumatism, Lamé Back, Lumbago, Sciatica, Varicocele, Nervous Debility, Constipation, Lost Energy, resulting from exposure and excesses in young and middle-aged men, write to me. Offer me reasonable security, and I will make a Man of you, and you can—

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Sows ready to breed. Choice young stock ready to wean, sired by Maple Lodge Doctor and Sallie's Sambo (imp.), a Toronto winner.

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