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VOL. XLIV.

LONDON, ONTARIO, JANUARY 7, 1909.

No. 850

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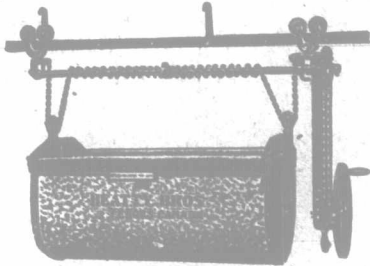
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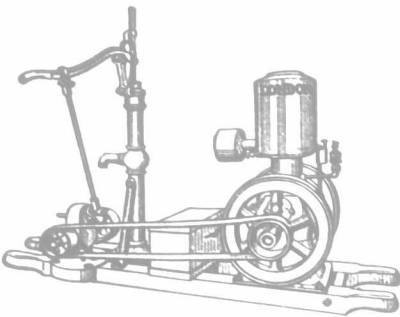
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Attaches to any gang or sulky and levels, pulverizes and makes a mulch of the "moist soil" that is not possible after the ground dries and "sets." Draft only slightly heavier—you'll be surprised to see how little. A great time and labor saver. Quick Canadian Shipments. Stock now carried at Winnipeg, Regina and Calgary. No Custom House or other delays. Write for catalog No 45

THE E. M. KRAMER CO.,

Paxton, Illinois

International Horse Show.

The International Horse Show of Chicago was held from December 7th to the 10th. In splendor it excelled the livestock exhibition which it succeeded, the crowds that daily thronged the amphitheater were greater, but the show itself in public interest was far below that of the event of the week before. A horse show in the United States is a dual-purpose institution. It is a display of horseflesh and horsemanship on one hand and the center of the elite of fashion on the other. A novice might have difficulty in discovering which of these purposes a show aims primarily to serve. At Chicago, the equine aristocrats of the continent assembled, glittering in trappings and appointments, to entertain the elite of the American fashionable world, the multi-millionaires with their friends of the East and West. The show presented the highest products of the breeders' skill side by side with the latest creations of the Parisian costumer. Which was the most essential of the two to success depends largely upon the point from which the affair is viewed.

Fashionable society patronized the Chicago show and graced the International pavilion with its presence, but the stockmen and farmers, all but those who were required to remain to look after the animals still on exhibition, went home. All the stock shown the week previous was held over for the horse show, and the show opened each day with a parade of the prizewinning drafters. One hundred and thirty horses, representing the cream of the draft breeds of England, Scotland, Belgium and France, were daily massed in groups about the arena, marched round and round, presenting a pageant such as has never before been seen in America. The value of the animals called daily to the ring, according to their owners' valuations, aggregated over a million dollars, which would mean \$10,000 per head. Nothing like putting on the price!

Excepting those of Miss K. L. Wilkes, Galt, Ont., who made a small exhibit, there were no Canadian horses present. Of American exhibitors, Alfred G. and Reginald Vanderbilt and Judge W. H. Moore, of New York, were the chief. The Truman Stud Farm, Crouch & Sons, of La Fayette, Ind., and a number of other breeders and importers of less note, made exhibits, the latter two getting a fair share of the money in certain classes. For the rest, it was largely a contest of wealth.

The principal event from the standpoint of the average draft-horse breeder, was the determining of honors in the six-in-hand contest. There were three contestants, Morris & Company, with an outfit of Clydesdales, and Armour and Swift, with Percherons. These three entries were shown daily during the progress of the International of the week before, but judging for the honors came on Tuesday night of the week following. Two of the Armour horses were of the famous team which that firm sent to England in 1907, that won the International six-in-hand prize in 1905, 1906 and 1907. The Morris horses that defeated them this year are a collection of prizewinning Clydesdales. Two of them are said to be the champion geldings of England, two were champion geldings from Canada, and the other pair the best geldings of Clyde breeding which the Morris people could purchase in the United States. The six-in-hand contest is the great event of the International draft harness classes. It is won this year by the Clydesdales for the first time since 1903.

Throughout the different sections leading up to the final event, honors were divided, with the advantage a little in favor of the Clydesdale blood.

The single class to halter, weighing from 1,500 to 1,750 pounds, was stronger than usual this year, the competition being entered into by the leading importers and breeders with some very worthy specimens of breeding mares. The awards were:

1. Morris & Co., on a Clydesdale gelding.
2. Finch Bros., on a Shire mare.
3. McLay Bros., on a Clydesdale mare.
4. Morris & Co., on a Clydesdale gelding.
5. Swift & Co., on a Percheron gelding.

In the class for the big single mares or geldings weighing over 1,750 pounds, the entries were more numerous than in any of the previous shows. The Shire and

Clydesdale entries of mares again furnished the competition for the geldings. The winner was found in a five-year-old gelding, Tom, a new addition to the Morris aggregation. This horse is said to be a cross-bred Shire-Percheron, and while not possessing the massive proportions and draft character of the old-time winner, Jim, when fully developed he will wear the honors quite as well. The awards were:

1. Morris & Co., on Tom.
2. Swift & Co., on a Percheron gelding.
3. Morris & Co., on Drew, a Clydesdale gelding.
4. McLay Bros., on a Clydesdale mare.
5. Trumans' Pioneer Stud, on a Shire mare.

In the class for pairs, lightweight, 3,000 to 3,500 pounds, to wagon, the awards were:

1. Swift & Co., on Percheron geldings.
2. A. G. Soderberg, on Clydesdale mares.
3. Morris & Co., on Clydesdale geldings.
4. Armour & Co., on Percheron geldings.
5. L. N. & O. B. Sizer, on Shire mares.

The pairs of heavy drafters over 3,500 pounds presented some keen competitions, the Armour entry of Percherons winning easily over the classy Clydesdale pair of wheelers shown by Morris, and the well-mated pair sent forward by Swift & Co.

The exhibit of three horses abreast to wagon had only three entries, the Morris Clydesdale geldings winning easily, Armours next with Percherons, and Swift & Co. third, also with Percherons.

In the class for fours, the Morris Clydesdales had an easy win, with Armour second, and Swift third.

Morris & Company started in 1900 to win this honor with an outfit of six imported Clydes, and they won it four years in succession. Then, in 1904, the blue ribbon went to the Percherons on a team of six which the Pabst Brewing Company, of Milwaukee, gathered together regardless of cost, and trained to win. In 1905, the Armour people entered the field with the six-in-hand that has defeated everything opposing them until this year, when the drafters of Scotland reach the premier position again. Prof. W. L. Carlyle, who judged at Winnipeg this year, made the awards.

When Mark Twain was a young and struggling newspaper writer in San Francisco, a lady of his acquaintance saw him one day with a cigar-box under his arm, looking in a shop window.

"Mr. Clemens," she said, "I always see you with a cigar-box under your arm. I am afraid you are smoking too much." "It isn't that," said Mark, "I'm moving again."

Two little darkies had gone walnutting, and, after filling their pockets and everything else about them that would hold nuts, they started for home. Passing a cemetery, one suggested that they go inside and divide the walnuts equally. In this the other agreed, and thereupon the two lads climbed the fence, dropping two walnuts outside as they were doing so. Piling the walnuts in a heap, they proceeded to make a division. While they were thus engaged a negro came along the road, and hearing voices in the cemetery, stopped to listen. And this is what he heard: "Ah'll tak' this one," "Ah'll tak' that one," "Ah'll tak' this one," "Ah'll tak' that one," "Ah'll tak' this one," "Ah'll tak' that one," "Ah'll tak' this one," "Ah'll tak' that one." The darky's eyes began to bulge. "Foh de law's sake," he suddenly exclaimed, "de debbil and de Lawd's dividin' up de folk," and taking to his heels, he fled down the road. About a mile and a half away a white man rushed out and checked him as he sped. "Hold on there," he shouted. "What's the matter? What are you running like that for?" "Oh, don't stop me, boss, don't stop me, I mus' get away from hyah," wailed the frightened negro. "But what's the matter?" pursued the white man. "Oh, de debbil and de Lawd's back in de cemeter' up dar dividin' up de folk. Lem'me go, lem'me go." "Here, that won't do. You will have to come back with me and see what is going on," said the white man, and taking him by the collar, he forced the darky to retrace his steps. When the two reached the cemetery the voices were still going on: "Ah'll tak' this one," "Ah'll tak' that one." Then suddenly one said: "Now we'll get the two outside, and we'll be done." "And they do say," said the storyteller, "that the white man beat the negro running."

The Farmer's Advocate

and Home Magazine

"Persevere and Succeed."

Established 1866.

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REGISTERED IN ACCORDANCE WITH THE COPYRIGHT ACT OF 1875.

LONDON, ONTARIO, JANUARY 7, 1909

No. 850

EDITORIAL.

Growth by Expression.

"We grow by expression." A vast measure of truth is expressed in these words by a modern American writer. Absorbing knowledge as a sponge soaks up water, may in time possess one of quite a wide range of information, providing he has a good enough memory to retain it, otherwise it will leak out nearly as fast as it soaks in. The best way to commit facts to memory is to commit them to paper in one's own words, revising and correcting as may afterwards be necessary to insure accuracy of statement. A careful writer informs himself by writing far more thoroughly than he can possibly inform his reader. The reader reads and forgets; the writer must master facts in a way that he will not soon forget them. To hold and gain knowledge, we must give it forth.

Merely as a means of fixing facts in the memory, therefore, writing is of rare value. But it does far more than that. It stimulates brain activity, and develops by exercise that most important of all intellectual faculties, expression. Of what would it avail one to have a mind richly stored with knowledge if his mouth were dumb and his hands paralyzed so that he could not motion or write? It is the faculty of expression which gives current value to knowledge and thought. It follows, then, that anything which cultivates the art of expression is educative in a high degree. Writing and speaking do this. The more one thinks, the better he is able to think. The more he writes and speaks, the more valuable and helpful do his writings and speeches become, unless he allows himself to degenerate into a prolix and meaningless chatterer. Properly directed and controlled expression makes for efficiency of thought, understanding and influence.

Give of your best thoughts if you would make room for others. Speak and write whenever suitable opportunity presents. Take part in discussions of an elevating character, and thereby broaden your own mind. Clarify and crystallize your ideas by committing them to paper, that they may take clearer and more definite shape. Nebulous thoughts become much clearer and more tangible in writing. Relate your experience that you may understand and appreciate it better yourself. Make use of the correspondence columns in the agricultural press. Give forth of your best ideas. Help, that you may be helped by your own helpfulness. Grow by expression.

Protecting Our Climate.

Just as a number of sensible Canadian editors were welcoming a public disposition to return to and make the most of those distinctively northern healthful sports and carnivals, so well suited to the Canadian winter climate, along came a press despatch from Ottawa the other day announcing that officials of the Immigration Department were doing their best to discourage the advertising of winter carnivals in Canada, one being quoted to this effect:

"Any literature, exhibition, or any other thing which tends to create the impression that Canada is an extremely cold country is very hurtful in the work carried on by our officers in other countries. You will remember the great prominence given to Rudyard Kipling's poem, 'Our Lady of the Snows,' and the opinion of many of those best able to judge, that the title did incalculable damage to our Dominion."

It is hard to believe that so much squeamishness concerning the facts of our glorious winter season could still remain, even among the immi-

gration officers at Ottawa. The explanation probably lies in an over-anxiety of the officials to make a large showing in numbers of immigrants, irrespective of quality and adaptability. To this end, the officials would studiously suppress any shivery impressions, and even withhold the facts from possible candidates. The futility of such a course is obvious, for the facts will out, and if people come to us with wrong impressions of our climate, their complaints on being undeceived are liable to be stronger than had they known the facts impartially beforehand.

Moreover, supposing we do secure extra immigration by persistently picturing our country as a land of sunshine and summer heat, are we not likely to attract some who will prove ill-adapted to conditions; some, in short, whom we would be better without? Hardiness, vigor and adaptability to our conditions are far more to be preferred among immigrants than large numbers.

Of course, there is, no doubt, a degree of force in the Immigration Department's protest. No doubt, the Canadian climate has been labelled abroad, being represented as more rigorous than it really is. But is not candor the best policy? Why not let the facts be heralded forth as they are? Why exercise censorship over the utterances of the papers and the business policy of those having to do with our winter attractions? Is it not time to cease protecting the facts, but rather to publish them far and wide? All the world knows we have a winter, and it is not a mild one. Let the world also know that we glory in and know how to make the most of it. Outdoor exercise and frosty outdoor air have no terrors for the rugged Canadian. He revels in it. Let us make the most of our winters. People who do not like our winters had better not come to Canada. Hurrah for the winter sports!

Give us Fresh Air.

Speaking of climate, we have much to learn yet in Canada about how best to meet winter conditions for both man and beast. In pioneer days, our houses were rather freely ventilated by open fireplaces, and unless walls, ceilings and floors were fairly well built, strong drafts were set up across the living-room. These were not only unpleasant, but, if too free, they lowered the temperature to an uncomfortable point, except just in front of the fire, and even there one's feet might be warm, while his back was chilled by drafts.

Under these circumstances, it was not surprising that our forebears should seek to build their houses as snug and tight as possible, thinking that if they only shut out the cold air, it was all that was required. They overlooked two very important principles: First, that heat may be lost from a room without any exchange of air whatever, just as water may be cooled and frozen in a tightly-corked bottle; and, secondly, that introduction of fresh air is necessary for health of the animal system. In order to keep a living-room or stable sanitary and healthful, there must be provision for admission of pure air and egress of foul, respired air. It is much better that this exchange of air should be accomplished by the installation of a systematic plan of ventilation, but in the absence of this, chinks and crevices are better than no air inlets at all, even though they do sometimes cause uncomfortable drafts. In fact, we would be much healthier were we to reduce the temperature of our living-rooms by more copious admission of fresh, pure air, and in this connection, the importance of sleeping with the windows open cannot be too strongly insisted upon. Scientists have discovered that colds are a germ disease, and are caught not in the cold, outdoor air, but in

the hot, vitiated, germ-laden atmosphere of our living-rooms. Arctic explorers who pass several successive winters sleeping in snow-houses and open air, without even a sign of a cold, invariably succumb when they get back to the close, warm, germ-infected houses of civilization. Consumption is nowadays treated by the fresh-air method, while even pneumonia is most successfully combated in cold, tented enclosures on the roofs of hospitals in New York. No one need be afraid of cold, pure air; it is the foul air of unventilated dwellings that is to be feared. Pile on the bed-clothes, and sleep with windows up at least the height of a fly screen, and keep the whole house abundantly and constantly aired. Gusts of fresh, cold air will not hurt a healthy person who is used to them. When your feet get cold, do not warm them under the stove or over the register. Warm them by exercise, thus improving the circulation. When you go outdoors, do not shrug your shoulders and bury your head in your coat collar. Breast the storm, step out boldly, take long breaths. Be hearty, and thus keep healthy and strong. The Storm King conquers those who fear and quail before him, but on those who throw out their chests, breathe deep, and laugh at him, he wreaks his furies in vain.

Away with hothouse conditions. Let us spend winter as it ought to be spent, toughen ourselves by judicious, habitual exposure, get fresh air and sunlight into our houses and stables, and let man and beast enjoy the outdoor air.

Remodelling the Farmhouse.

Much has been written for these columns in recent years on the subject of remodelling old barns and stables, with a view to rendering them more comfortable, sanitary and convenient, and to economizing time and labor, but comparatively little has been written about improving the old farmhouse, with the same objects. There are many good old houses in the country that were well built, and are roomy enough, and are likely to last for generations, but which are far from being arranged for comfort or convenience in working. The head of the house does not hesitate about making radical changes in his barns to suit his purposes, but too seldom thinks of the need of alterations in the house to lighten the work for his wife and daughters, and to make it more pleasant and comfortable for those whose time is mostly spent within its walls, while he has the freedom of the fields for variety and healthfulness. Experience and observation has proved that, in many cases, decided improvements may, at a moderate expense, be made in the internal arrangement of some of the rooms in an old house, rendering them much more convenient, while a cement floor in the cellar is a health-preserver and a rat-excluder, and a veranda or porch not only adds much to the appearance of the house, but may also mean a saving of doctor's bills if used for the purpose of indulging in sun baths, which are now recognized as essential to the enjoyment of the greatest degree of good health. And the mention of baths brings to mind the general absence of the bath-room in old farmhouses, a comfort which might in many cases be provided, at a moderate expense, by a simple rearrangement of some partitions. The water supply in the house might also, in many cases, be made as convenient as in the arrangement of the modern cattle barn, proving a great saving of time and a real comfort to the women folk in their work. The vanishing of the farmer's wood-lot brings to mind the question of economical heating of the house, which may well engage the attention of these contemplating improvements

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

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or changes in the old house, as well as those arranging to build new ones, as it is quite practicable in the case of most old houses to instal a heating furnace in the basement. These hints are thrown out with the hope that our readers may consider them, and that those who can afford it may be led to adopt some of the suggestions offered. Another purpose in view has been to lead to a discussion of the subject in our columns by those of our readers who have adopted any of these improvements in old houses or new ones, and who are willing to give others the benefit of their plans and experience.

Let us submit for discussion a few questions which those having experience are invited to answer. Replies to any or all the questions will be acceptable:

1. Have you ever remodelled an old house? What did you have to start with? What changes were made, and what did it cost?
2. Have you a water system, bath-room and closet in your house? How is it arranged, and what did it cost to instal?
3. How is your house ventilated? Give details and cost, if possible.
4. How is your house heated? Give cost of installation and amount of fuel used per year.

Insulation and Ventilation.

In building our houses and stables, economize heat by as thorough insulation as possible, building double walls, or walls with air-spaces in them, or else lining solid cement and stone walls with lumber. Avoid, so far as possible, the chilling of the stable air by radiation of heat from the walls, in order that you may the more freely admit cold, fresh air without unduly lowering temperatures. A tight shell of a house or stable is the very worst kind. The ideal structure is one with well-insulated walls (broken by many large, double-paned windows), and provided with a free-working system of ventilation. If no ventilation has been installed, keep some of the doors and windows open, protecting them by cotton curtains on windy days to prevent too strong a draft.

Prevention of Disease.

"An ounce of prevention is worth a pound of cure," is an old adage not lived up to by a good many stockmen. It is within reasonable limits to state that at least fifty per cent. of the ailments in flocks and herds are due to improper handling or to injudicious feeding. All too often the stabling facilities and equipments are at fault. Fresh air is an essential to sound bodies. When live stock are crowded into comparatively small stables, not equipped with ventilation systems, and with no fresh air admitted save that which steals in around window frames or through doors which are opened occasionally, their systems are bound to be affected in one way or other, with evil results. It may be that disease does not become apparent, but the animals are not as thrifty as they would be if plenty of fresh air were provided at all times. Economical use of food consumed cannot reasonably be expected.

The experienced stockman has learned that, while his herds and flocks require protection from storms during the winter months, they also must be kept in thoroughly-ventilated stables and pens. He also has learned that liberal rations of mixed feeds, with the absence of excesses either of bulky or of concentrated diet, given regularly, are necessary for satisfactory gains. Sudden changes, either in environment or in feeding, are avoided. Weather conditions, age of animal, uses to which the animal is put, and work done each day, are factors that receive due consideration. It is only by making a study of these questions, and by suiting the food to the requirements of the animal, that the results will be satisfactory. The exercise of due caution and judgment will avoid much of the trouble and expense in doctoring sick stock.

One Department Worth the Price.

Nearly three thousand questions a year are answered through "The Farmer's Advocate" for its subscribers, absolutely free of charge. An enormous amount of practical veterinary, legal and miscellaneous information is published in this way, subscribers often benefiting by a single answer to the extent of five, ten or twenty dollars each, while anyone who follows the replies from week to week cannot fail to derive advantage worth much more in cash than the price of a year's subscription, to say nothing of the satisfaction of being informed. The answers to questions are carefully prepared by a large staff of experts, our editors being assisted by a large consulting staff of specialists. This one department alone should abundantly recommend our paper to the discerning reader, apart from the many other valuable features contained. Subscribe or renew now, and keep the year's files complete.

A Citizens' Vigilance Committee.

Editor "The Farmer's Advocate":

In a recent issue you recommend rural police protection. As a remedy for thieving, there is an association in this township which works admirably. It is called the "Pickering Vigilance Committee," and was formed about 1902, at which time considerable horse and petty thieving was going on. It was formed with a large membership, each member paying a fee of \$1.00. Since its formation, practically nothing has been stolen from members. Each year a list of members is published in the local paper. No further call has been made on members for money. In case any member has anything stolen, one of the committee is notified, and everything possible is done to get the stolen property and prosecute the felons. Ontario Co., Ont. F.

Principal Tice, of the Picton (Ont.) Public Schools, in a recent address, declared, with regret, what many others believe, that the "little red schoolhouse" was not now the center of intellectual and social interest in the community that it was in the early days. He hoped for improved buildings, made attractive to both teacher and pupil, as the average school of the country now was a public disgrace.

Who is the Tyrant?

Editor "The Farmer's Advocate":

There is a letter in your issue of December 17th, "Argument for Higher Protection," signed "Pro Bono Publico," which contains many misleading statements that should not be allowed to pass for truth without him giving some proof for what he states.

First.—He says your views on the protective tariff of the United States are at variance with those of the best minds both in Canada and the United States. This he cannot prove, and I would like that he would give us the names of some of those men who possess these best minds.

Second.—He says that he could prove that it was the most rigid and extremely high protective tariff that gave Great Britain her immense wealth and great population. Now, I think this is so far at variance with facts that it needs no comment.

Third.—He says the United States Government have applied a similar trade policy, and have succeeded in building up, in an almost incredibly short time, one of the greatest and wealthiest countries in the world. Quite true, the United States is a great country, but the tariff had nothing to do with that. But what of the wealth? Is it not a fact that the United States trade policy has created more millionaires, at the expense of the masses, than any other country in so short a time, thus showing the curse of the protective policy pursued by them? I say a curse, because protection is simply robbery of the masses for the benefit of the few.

Fourth.—He says that the farmers of Canada have lost confidence in the National Policy, because their interests have been neglected, and that they have not yet adequate protection. Now, what does he mean by adequate protection? What I think the honest farmers of Canada want is to be relieved from the unjust burdens imposed on them by a protective tariff.

Fifth.—He says Canada wants men who know their rights, and, knowing, dare maintain. Prevent the long-aimed blow and crush the tyrant while they rend the chain. Let him tell us who the tyrant is; I say it is protection.

Larry Sound, Ont. JAMES S. MILLER.

A Kick from the "Cow."

Editor "The Farmer's Advocate":

I notice in your issue of December 17th a letter from "Pro Bono Publico" on higher protection. The gist of his contention is that, had the Government of Canada adopted high protection as tit-for-tat against the United States, our wealth would in all probability be double what it is to-day. Now, this statement is very improbable. The Government of Canada had a high tariff in 1895 and 1896, and our finances were down to zero. Perhaps I can give you a case, and I will endeavor to make it so plain that he who runs may read. An agent is trying to sell to a farmer a binder. The agent has two, one is made in Chicago, the other in Toronto; the price for each binder is \$125. The farmer cannot distinguish any special merit in one more than the other. Now, which machine should the farmer buy? The high-protection man would say, by all means buy the Toronto machine, and the \$25 duty will go—where? Into the pocket of the Toronto man, and he will have \$25 that he never earned. On the other hand, if the farmer buys the Chicago binder, the \$25 duty will go into the Dominion treasury, and will benefit all. The farmer, of course, will be out his \$25 in either case.

Your correspondent swells out his breast and points to the rich men of the United States who have made their pile under high protection. It may be well to note how those men made their riches. They live in a place which is the breeding-ground of trusts of all kinds, and the poor are ground under the millstone of rich combines, so that they are fleeing to Canada in thousands. We have rich men in Canada that are being spooned on pap by the Dominion Government who would starve were it not for the farming community. But the milk cow has an inclination to kick over the pail; the worm will turn on the enemy. Mr. Publico has sympathy to burn for the poor wool manufacturer; he would like a tariff equal, at least, to the American brand. It may be interesting to that gentleman if the writer would whisper in his ear, in a confidential way, his experience in buying an inner garment, known as a pair of drawers. The price, in cash, was \$1.25, and the garment in its entirety weighed exactly 10 ounces. The farmer who spent a year in growing the wool would get about 10 cents; the manufacturer the balance.

Does Pro Bono Publico not think that his sympathy is misplaced? It would be a disadvantage to the farmers of Canada if a duty were put on corn; they are in need of all the cheap feed they can get. The man who cannot live in a free-trade country is not worthy the name of man. When any combine is formed to enhance the price of an article, the duty should be taken off that article at once. G. BEER.

Wellington Co., Ont.

HORSES.

Common Ailments in Horses.

During the Provincial Winter Fair, at Guelph, "Some Common Ailments of Horses" was the subject of profitable discussion. Dr. J. Standish, of Walkerton, claimed that the horses of Ontario were valued at \$80,000,000. This showed how important it was that such questions should be discussed.

Acute indigestion commonly was caused by excessive quantities of food. Digestion being aided by secreted fluids, the excess of food prevented these fluids performing their function. The lack of proper digestion gave the horse distress. Chronic indigestion was due to derangement of the mouth, preventing complete mastication, or to derangement of glands in the mouth, stomach and intestines. It could also be produced by excesses of non-nutritious food. It was not the quantity of food consumed, but rather the quantity assimilated, that kept the horse in condition. The food given should be regulated by existing conditions. If a horse had been ill for a time, smaller quantities were advisable until he regained his appetite. Animals should not be fed excessively when not working. Hay should not be left in the manger in front of a horse all the time.

Flatulent and spasmodic colic were due to much the same causes. The ailments could be prevented by following practices in feeding similar to those mentioned under indigestion.

Heaves were due to overfeeding, the stomach being distended. Timothy hay overripe, or clover hay overcured, would cause this ailment. Moderate feeding on balanced rations, with regular watering and sufficient exercise, would avoid it.

Lymphangitis, a disease in which the small vessels accompanying the veins are affected, sometimes known as "Monday-morning" disease, could be prevented by moderate feeding and reduction of nutritive food when the animal was not at regular work. Bran mash on Saturday night, and again on Sunday, and perhaps Monday morning, was a preventive. If the case became habitual, 4 drams saltpetre could be put in the Saturday night's mash.

Azoturia could be prevented by plenty of exercise. A grain of prevention was worth a ton of cure. Lack of exercise was the cause of this disease. The exercise stimulated the heart, liver, stomach and other organs, and thus removed the cause.

A disease common in foals, known as joint-ill, was due to a germ that entered the navel in early life. These germs accumulated in a joint or in soft tissues. Prevention lay in keeping the surroundings of the foal in clean condition. Lime in the stall, and the application of antiseptics to the navel, was good practice.

IMPORTANT QUESTIONS OF DISCUSSION.

Q. Is it possible for a foal to contract the disease before being born?

A. I have never known of such case, but it would be possible immediately after delivery of the foal, and might occur during delivery if the germ be present on the tail or quarters of the dam.

Q. How is it that horses do not contract heaves on the prairie?

A. They do not gorge themselves on the prairie. They are always out nibbling at the grass, and prairie hay seems to be succulent and tender. During the time they are not busy, they usually are out on grass.

Q. What would you consider a reasonable supply of grain for an ordinary horse?

A. It is impossible to give a definite answer. About three gallons a day, divided into three feeds, at reasonable labor, should suffice for a 1,400-pound horse. In addition, hay, as much as would be eaten in one hour at breakfast, 35 minutes at noon, and one hour at night; and roots twice a week should be fed. In idle periods the oat supply should be reduced to one-half gallon twice a day, and only a small quantity of hay at noon.

Q. Do not many so-called horse-tooth doctors ruin good horses?

A. I am glad that point has been brought up. I believe much harm is done to good animals in this way. It is always best to go to a recognized, reliable veterinarian. The charge might be higher, but the ultimate cost, in most cases, is lower.

Q. Is impure air in stables the cause of digestive derangements?

A.—Yes. Impure air gives a depressing influence on the heart and other organs, and may result in indigestion.

Q. Would ten pounds silage night and morning be too much for a horse. Some say it injures the teeth, because of the acid present.

A. I would consider that heavy feeding. Twice a week should be enough.

Q. Can heaves be cured?

A. No. The symptoms may be alleviated, but the disease cannot be cured.

Q. What have you to say regarding diphtheria in horses?

A. I suppose it is the disease called cerebro-spinal meningitis, or it may be influenza. No doubt, it is due to something in the water supply. Stabling in unventilated places and in vitiated air frequently causes such diseases.

Q. Is there any cure for lockjaw?

A. Yes, in many cases special treatment with a serum (antitoxic serum) will effect a cure.

Q. Would you prefer alfalfa to clovers?

A. Yes, in conjunction with other foods. It requires intelligence in feeding, and must not be given in excess, particularly if damaged by frost or poorly cured.

STUDY DISEASES AND PREVENTION.

A lengthy and costly experience with horses led Wm. Smith, of Columbus, Ont., to state that the horse-breeder should know horse diseases and measures that would result in avoiding them. Farmers know that horses should be regularly watered and fed, and that they should get palatable and nutritious food, but too often they did not put into practice what they knew. Another mistake farmers make was in testing a home remedy, and when the horse was beyond recovery, rushing for a veterinarian, and then saying he was incompetent when the animal died.

An attempt to fatten a horse in 24 hours, or at least to fit him for next week's work by liberal feeding on Sunday, generally caused lymphangitis. Joint-ill was said to have caused the loss of more money value in horses than any other one disease. In former years he had lost several foals, but he had listened to a practical talk on this disease several years ago, and since then lost but one. He did not think a colt could contract the ailment before birth—not before the cord was broken. The use of antiseptics and cleanliness in the stalls prevented it.

Heaves, though not curable, could be alle-

Q. What medicine can not be given to pregnant mares?

A. Give no medicine to pregnant mares unless absolutely necessary. Aloes or any drastic purgative should be withheld.

Treatment of lymphangitis consisted in administering a purgative of 8 to 10 drams of aloes and 2 drams of ginger, followed by 4 drams nitrate of potash night and morning. Application of heat to the swollen part was good. Regular exercise and precautions as to prevention should result in permanent cure.

For Azoturia, the best treatment lay in absolute rest and comfort as soon as the symptoms were noticed. The administration of a purgative was good practice.

Q. How often should a horse be watered?

A. My theory is that when a horse is thirsty he wants a drink. If he is not excessively hot, he can be allowed to take water comparatively freely. As a rule, it is best to water before meals, and not after. Custom and regularity has much to do with a horse's habits.

Profit from Handling Horses.

Editor "The Farmer's Advocate":

When working on the farm with my father—I think it was in the fall of 1877 or 1878—I went to a farm sale one afternoon, and bought a sucking foal for thirty-one dollars; that was the beginning of my career as a horseman. Since that, I try to have a team to sell every year. I have sold some very good horses, and buried just as good. I kept the filly referred to until she was rising three years old, and then sold her for one hundred dollars.

I always like to have two colts run together the first winter of their lives, as I think they do better. I run them loose in a box stall. I had one colt two years ago in a box stall; fed it two

quarts of oats three times a day, also a quart of bran at each meal, and all the good hay it could eat. It did not do well, so I bought another, and put the two together on the feed the one had been getting, and they both gained in flesh. Two can be attended to almost as easily as one. The draft and Standard breeds are what I have been handling. I like a good road mare, but I like a good horse in any class. If I cannot breed colts, I buy them, and prefer to buy them as weanlings. I never seem to miss the feed and care of them until they are ready to sell. I can always sell them at three or four years old. I sold a three-year-old to go to Toronto to do heavy work. If you can get the size, it goes a long way to make up for age.

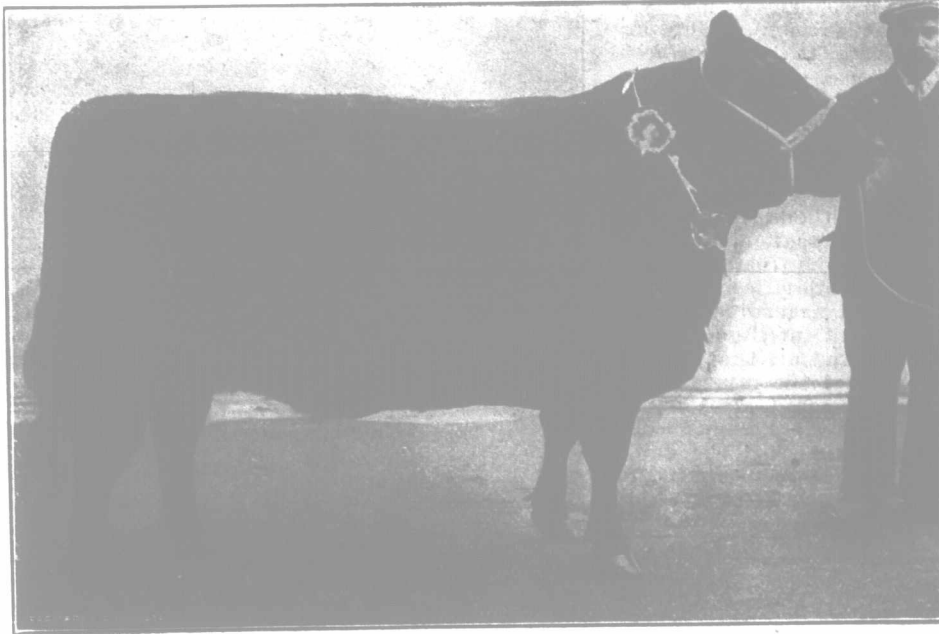
I have bought weanling colts from twenty dollars to as high as one hundred and ten dollars, and made as much out of the twenty-dollar colt as the one at one hundred and ten dollars. I usually mate them.

On one occasion I bought a colt which I had never seen, though I knew how it was bred. Horses were a little flat at the time. I paid thirty-five dollars, and sold it and its mate when rising four years old for four hundred and forty-five dollars. On another occasion I paid eighty dollars for a pair of two-year-old colts. That was in the fall, and the following spring I sold one of them for what I gave for both. They were heavy colts; I never buy anything else. In all my experience, I have bought only one light colt, although I try to breed light ones, as well as heavy.

I never have any trouble disposing of horses. When I buy a colt or a horse which I want to sell, I am not long in selling. I always sell on the farm. I do not get any fancy prices. The highest price I ever received was \$275, that being for a two-year-old colt. I have been offered more, and taken less.

In all my experience in breaking colts, I have never had any trouble. I have worked them at two years old. I find it a good plan, if you have two two-year-old colts, to work them half a day about. I farm only one hundred and eight acres, but, to give you all my experience, would make a little book.

ROBT. RIDDELL.
York Co., Ont.



Her-Majesty 5th of Cullen.

Pure-bred Aberdeen-Angus heifer, two years old. Winner at the Smithfield Fat-stock Show, 1908. First and silver cup for best heifer, and champion plate of 100 guineas for the best beast in the show. Exhibited by the Countess Dowager of Seafield.

viated by judicious feeding. Dusty hay, or, in fact, liberal supplies of hay or other bulky dry food, should be withheld.

TREATMENT OF AILMENTS.

How common ailments can best be treated, was dealt with by Dr. J. Hugo Reed, of the Ontario Agricultural College. Chronic indigestion could be treated best by having the mouth attended to by a competent man, administering a purgative, and perhaps a tonic. Acute indigestion and flatulent and spasmodic colic were difficult to distinguish in the early stages. For the first, raw linseed oil 1 pint, and turpentine 2 to 4 ounces, was a good dose. It might also be necessary to give belladonna, or to repeat the dose. Spasmodic colic, in most cases, required no treatment; the trouble passed off in short time. If it was found necessary to treat, a dose of tincture of belladonna, tincture of opium and sweet nitre, about 1 to 1½ ounces of each, would suit. Aconite was an unreliable remedy. Large doses killed quickly, while small doses hastened death, unless the heart be strong. However, when this drug had stood for a time it lost its strength, and had little more effect than water.

Q. What causes spasmodic colic?

A. Some horses are subject to the ailment. Cases are known where horses become affected with it on changes of feed, or when watered after eating.

Q. How does the pulse act in spasmodic colic?

A. During the spasm, up to 50 or 60 beats, while the normal is 36 to 40.

Speedy Stroke.

Hackney mare strikes each of her knees with the opposite foot. Her knees are both enlarged. How can the thickenings be reduced, and how can the striking be prevented? Would it be advisable to whip her for it? C. G.

This is called speedy stroke or speedy cut, but at the same time it does not indicate that the animal is speedy. Whipping will do no good; in fact, by the excitement and fear it would cause it would have a tendency to make matters worse. The trouble is due to faulty conformation. Horses which stand with their knees quite close, knock-kneed horses, are predisposed to speedy stroke, even though they may stand with their feet straight. The usual cause is an ill conformation that causes a horse to turn his toes outwards when standing. In these cases the feet roll inwards during progression, and the shoe is liable to strike the opposite fetlock, cannon, knee, or above the knee, according to the height of action. In many cases the conformation is all right down to the pastern joint, but in others a faulty conformation is noticed from the fetlock joint, the pastern deviating slightly outwards, and the foot planted with a decided out-turning. In other cases this deviation can be noticed from the knee. In all cases the animal stands with toes turned outwards, "soldier toed."

Various manners of shoeing have been tried without marked success in remedying the faulty action. Placing the toe calk about the length of itself inwards on the shoe will sometimes check it. Some recommend a shoe, the internal half of which is much heavier than the outer half, on the principle that when the foot is elevated the weight of the inner half will have a tendency to lower the inner part of the foot, hence prevent striking. Others claim that the opposite method, viz., making the shoe heavy on the outside, gives better results, but neither method, so far as I have observed, has given satisfaction. Shoeing with light shoes has a tendency to keep the feet below the knees, while the use of quite heavy shoes has that of carrying the feet above the knees, either of which removes the tendency to strike, but as the height of action with either light or heavy shoes varies according to the speed at which the animal is driven, either method may prove ineffective. Different methods of shoeing have different actions upon different horses, according to the peculiarity of conformation and action, hence each animal's peculiarities must be studied, and the horse be shod accordingly. In many cases the most careful and intelligent shoeing will not correct the fault, and all that can be done to prevent the repetition of the injury is to wear knee boots. The enlargements already existing cannot be reduced so long as the cause continues. If the striking can be checked the daily application of a little of the following liniment will reduce them, viz., 4 drams each of iodine and iodide of potassium, and 4 ozs. each of glycerine and alcohol. Apply a little once daily, with smart friction. "WHIP."

Fitting the Shoe.

Editor "The Farmer's Advocate":

As this is the time of the year when many will be getting their horses shod to do their hauling, I think it would be well to utter a word of warning to them. You have, no doubt, seen the blacksmith fitting the shoes to horses' feet, when he would first heat the shoe to a red heat, and then place it to the foot and burn a bed.

A wise farmer will forbid this if he wishes to save his horses' feet, for of what use is a horse whose feet are gone?

Did you ever heat the stove hook and just touch it to the top of the thumb nail for an instant? No! Well, just try it once, and then think how nice it must be for the horse to have that hot shoe burned on to the foot. So much for the feelings. Some blacksmiths will tell you that is the proper way to get a smooth bearing for the shoe. So it is for a lazy man, but if you take my advice you will make that man use the rasp, instead. Just watch the thumb nail where you touched it with the hot stove hook and see the effects after a day or two, and see how hard it is. Just so with the hoof, which is of very much the same nature.

I expect this letter will raise a discussion. I shall be glad if it does, and I should especially like the opinion of "Whip."

Sask.

HORSESHOER.

No Toy Watch.

The premium watch arrived O. K. It is no toy watch, but a satisfactory time keeper in every way. It puzzles me how you can afford to give so valuable a premium for the small matter of three new subscribers. Of "The Farmer's Advocate," I may say it requires no recommendation; it speaks for itself. A. E. PELTON.

Oxford Co., Ont.

LIVE STOCK.

Our Scottish Letter.

Time is on the wing, sure enough. The great fat-stock shows both in Great Britain and the Western Continent are over for another year, and Christmas is in sight at time of present writing. Six years ago, the writer visited the Chicago, Guelph and Amherst meetings, and nothing would give him greater pleasure than to renew the experience. There must be many changes in the six years, and improvement surely will be marked. Reports have not come to hand while we write, and, therefore, we know nothing of the results at either of the three great shows. Our own Canadian visitors returned some months ago, and are exuberant in their praises of your great Dominion. One of them, who possesses the gift of a sententious wit, remarks, regarding the younger generation of Ontario farmers, that he would like to see them "cut less dash and more thistles." Apparently, he was not impressed with the condition of the land and pastures in your Province. He thought they might have been what we call "cleaner." Never having seen Canada during autumn, I can express no opinion on the subject. My experiences were confined to the winter months, and then Canada proved her title to be the "Lady of Snows." But there was nothing unpleasant about the snows, and Canada must be a fine place in which to live.

At the Farmers' Club great banquet in London, on Tuesday evening, Dec. 8th, I saw the Hon. Sydney Fisher, your Minister of Agriculture, and Dr. Rutherford, your Veterinary Director-General. I do not know the object of their present visit, and possibly may never learn, but, no doubt, it may be connected with the present foot-

are high than he does when other conditions prevail. If he buys his stores 9 cwt. of 112 lbs., at 25s. per cwt., and sells them at 12 cwt., at 30s. per cwt., he makes £6 15s. of a gross profit; but if he buys his stores at 9 cwt. each, at 35s. per cwt., and sells them fat, 12 cwt., at 40s. per cwt., he makes £8 5s. of gross profit. It follows that, in cattle-feeding, as in everything else, there is greater profit when prices are moderately high than when they are too low. The cheapness which beggars my neighbor rarely profits me. It is best for both him and me when prices are reasonably high.

BRITISH FAT-STOCK SHOWS.

The great Fat-stock Shows in this country are held at Norwich, Inverness, Birmingham, Edinburgh and London. The most successful animals this year are Aberdeen-Angus cattle and their crosses. The champion animal of both London and Birmingham is the Aberdeen-Angus heifer, Her Majesty V. of Cullen House, the property of the Countess-Dowager of Seafield, whose extremely competent manager is Mr. Lewis Beaton. Her Majesty V. is a typical specimen of the breed, being wonderfully rounded, standing on very small bone, and having no superfluous loose fat about her whatsoever. She was champion of the feeding classes at the Highland Society's Show at Aberdeen, in July, and when the Smithfield Show opened she weighed 1,680 pounds, at 973 days. The reserve champion at London was Danesfield Fortune, the Norwich champion, an Aberdeen-Angus-Shorthorn cross, and weighing 1,696 pounds at 1,086 days. She is a wonderful heifer, also. The third reserve was a Shorthorn named Daisy V., from Garbity, Fochabers, an exceptionally bonnie animal, and champion of the Shorthorn breed at London. The best steer at London was another cross-bred named Jack, like Danesfield Fortune, bred by Mr. John Ross, Mill-



Yorkshire Sow.

Winner at Smithfield, 1908, of first prize in class, and grand championship as best single pig in show. Exhibited by the Earl of Ellesmere.

and-mouth scare. The condition of things here is rather critical. The Board of Agriculture have only scheduled the States south of the lakes in which disease has been scheduled. I notice that your authorities regard the situation as extremely serious, and are sparing no pains to keep Canada clean. I have no doubt you will succeed. Where there's a will there's a way, and Canada is undoubtedly more than willing to keep its record clean. At the dinner, and in answer to an agricultural deputation on the following day, Lord Carrington made it abundantly evident that his Department will not schedule more than is absolutely necessary. He is not going to schedule the whole United States, and he will not further the proposal to make the whole foreign meat trade a trade in dead meat.

OLD COUNTRY FEEDERS' ARGUMENT.

This plea for dead-meat imports only, is a favorite one with many in this country. It has sound logic behind it. The feeder here has to buy his stores in a restricted market, but he has to sell his beeves in competition with the world. He, therefore, pleads: "Give me a fair chance. If I am to buy in a market from which stores from overseas are excluded, let me sell in a market from which beeves imported alive are excluded. I do not object to the importation of dead meat, chilled beef or mutton, or beef or mutton carried in cold-storage I am prepared to face, but the live animal fat is unfair competition, when I am prevented getting the live animal lean."

Lord Carrington is not impressed with this argument, and in his blunt, straightforward way says he will have nothing to do with the end aimed at. The home feeder must, therefore, work away as best he may. With beef at current prices, he has little cause for complaint, and it is a curious fact that a feeder makes better profits when prices of stores are high and prices of fat

and the cattle of these breeds are always among the first to be sold in London. Interesting as the classes for animals on hoof are in respect of educational value, the best section of the show is the carcass competitions. The animals are stalled on the Saturday evening, and are open to public inspection on the Monday of the show. They are removed at five o'clock that evening, and slaughtered during the night. The carcasses are thrown open for inspection on the Wednesday afternoon, after they have been judged as carcasses, and those who saw and marked them alive on the Monday can then test their judgment by the results. The carcass competition is for cattle, sheep and pigs. The champion beef carcass this year is an Aberdeen-Angus-Dexter cross from Ireland. Its live weight was 1,166 pounds, and its dressed-carcass weight 753 pounds. It made a bonnie carcass of meat. The reserve champion carcass was a cross-bred steer, got by a Galloway bull, out of a cow half Ayrshire, half Galloway. This steer was placed first at the Edinburgh show in the previous week in a class for butchers' cattle, and on hoof on the Monday of the Smithfield show was placed second by his judges. His live weight was 1,325 pounds, and his dressed-carcass weight 861 pounds. He was nearly one year older than the champion carcass, which was less than two years old, and, therefore, a model of early maturity and quality of flesh. It may be worth recording the breeds or crosses which proved successful in the carcass competitions. For steers not exceeding two years old, the order of merit was: (1) Aberdeen-Angus-Dexter, (2) Aberdeen-Angus bull-Shorthorn-Aberdeen-Angus cow, (3) Shorthorn-Aberdeen-Angus, (4) Aberdeen-Angus, (5) Aberdeen-Angus, (6) Shorthorn-Aberdeen-Angus, (7) Aberdeen-Angus-Dexter. Steer over two and not over three years old: (1) Galloway bull-Ayrshire-Galloway cow, (2) Welsh, (3) Shorthorn bull-

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Aberdeen-Angus-Shorthorn cow, (4) Aberdeen-Angus bull-Shorthorn-cross cow, (5) the same, (6 and 7) Welsh. Heifer, not exceeding two years old: (1) Aberdeen-Angus-Highland, (2) Aberdeen-Angus-Shorthorn, (3) the same, (4) Galloway-Aberdeen-Angus, (5) Sussex, (6) Aberdeen-Angus. It will thus be seen that, except in a very few cases, every one of the prize carcasses were either Aberdeen-Angus or Aberdeen-Angus crosses. The supremacy of the black polled breed in the beef world could not be more conclusively established.

In the sheep section of the carcass competition, the champion award went to a Suffolk, whose mutton is in high favor with the butchers. The reserve champion was a Southdown. The highest price was made for the Suffolk, which sold for 9s. per stone of 8 pounds, or 1s. 1½d. per pound. The next highest price was made by Cheviot mutton, which sold for 6s. 6d. per stone of 8 pounds, or 9½d. per pound. The following details of the sheep breeds and crosses in the carcass competition may interest: One pure long-wool wether lamb: All the five prizes but one went to Cheviots, the exception being second prize, which went to Kentish. For the similar type of sheep above 12 and not exceeding 24 months old, Cheviots again won all the prizes except the fourth, which went to a Welsh wether. For lamb of the short-wooled type, the winner was a Suffolk, as were also the third, fourth and fifth; the Southdown was h. c. and com., and a Hampshire Down was second. For a wether of similar type above 12 and not above 24 months old, the Southdown was first and fourth, and all the other prizes went to the Suffolk. Among cross-breeds, the favorites and leading prizewinners were Suffolk-Cheviots. In the wether class, Scots gray-faces (Border-Leicester-Blackface crosses) were third and fifth.

The champion and reserve champion pork carcasses were Berkshires.

CLYDESDALE EXPORTS.

Clydesdale exportation has been quite brisk during the past month. Canadian buyers were slow to arrive, but when they did come they took away quite a large number of horses and mares. Several old friends were here, and some new friends; and, on the whole, the Clydesdale season for 1908 has closed not so badly. The results of the year, in respect of breeding horses, is to leave matters very much as they were. Baron's Pride (9122) easily reigns supreme among Clydesdale sires. Hiawatha (10067) comes next, and then sons of Baron's Pride come in, with Royal Favorite (10630) making a good appearance. Among the sons of Baron's Pride, the three which show up best are Baron o' Buchlyvie, Everlasting and Revelanta. These were all noted horses in the show-ring, and it is a striking fact that they should be the best distinguished at the stud.

The new regulations for admission of horses free of duty into Canada are curiously puzzling. Your authorities refused to allow a mare and her produce to land, because their breeding, although sufficiently recorded for the home stud-book, did not meet the requirements set forth in your regulations. The mare and foal were, therefore, brought back here, as they are more valuable in this country than they would be in Canada after duty had been paid on them. But the extraordinary thing about this transaction is that the mare and foal on which your customs demanded duty have been numbered in the National Record Office at Ottawa, with numbers in the Canadian Studbook; and not only so, but the animals named in the record of their ancestry, which cannot be numbered in the home Studbook, have also been numbered in the Canadian register, and fees demanded for their registration. The whole thing is puzzling to the mere onlooker. If it was legitimate to give numbers, it was surely legitimate to admit duty-free. If it was not possible to admit duty-free because of lack of registration of the back crosses in the home Studbook, surely it was an extraordinary thing to give these back crosses numbers in the Canadian register. From conversation with gentlemen from Canada, I gather that much ignorance prevails among importers as to the regulations and what they mean, and the relation between the National Record Office in Ottawa and the Clydesdale Horse Society organization in Toronto is the most puzzling problem of all. Breeders on this side have no objection to the regulations imposed in Canada, so far as they understand them, but the experience described above, does not make for lucidity, and something wants clearing up. Possibly the thing may be due only to the clerical error of a clerk, but it has been rather a costly proceeding for the shipper, who took his mare and foal back to Great Britain, rather than pay the duty, which, seeing the animals were given numbers in Ottawa, surely ought not to have been demanded.

"SCOTLAND YET."

Time to renew. Do it now. Send one or two new names with your own, and help to extend the circulation in your locality.

How are Your Stables Ventilated?

Ventilation is, without doubt, the most pressing need in the average farm stable. It has been calculated that a horse must draw into and force out of his lungs, on the average, each hour, some 142 cubic feet of air, the cow 11., the pig 46, the sheep 30, and the man 18 cubic feet. If it were necessary to supply air to our stock as we do water, the horse would require continuously 7 full pails of air per minute, the cow 6, the pig 2.3, and the sheep 1.5, according to Professor King. This air, once breathed, has lost much of its oxygen, which is to say much of its sustaining power, and when mixed with the remaining air in the chamber it dilutes the oxygen, thus rendering the whole atmosphere less efficient in maintaining the vital processes of the body. While animals can live in the vitiated and moisture-laden atmosphere resulting from partial consumption of the oxygen supply, they will not do as well, and are more susceptible to diseases, notably, tuberculosis. The health and well-doing of our stock demand constant or at least periodic withdrawal of the respired air, and constant infusion of fresh, oxygen-laden air from outdoors. Incidentally, this ventilation removes disease germs, deleterious odors and vapors, and moisture from the animals' lungs. The removal of moisture not only improves hygienic conditions, but contributes to the durability of the timber and lumber in the barn.

The importance of ventilation being conceded, the problem that remains is how best to accomplish the object. While much has been published in "The Farmer's Advocate" on this subject, there is room for more, and an experience meeting through our columns this winter could not but be helpful. We particularly desire experience with the King, Rutherford, Grisdale and muslin-curtain systems, but experience with any method will be welcome. Early answers to the following questions are accordingly invited:

1. How are your stables ventilated?
2. What did the system cost to instal? Give details of construction.
3. What, in your mind, are the benefits of ventilation, and what advantages has your particular plan?

Farcy and Lymphangitis.

Editor "The Farmer's Advocate":

I have the honor to acknowledge receipt of your letter, with attached inquiry from a correspondent, who states that a friend of his has a cure for farcy, and inquires whether there is any law against his using it and charging a fee for his services.

In reply, I beg to state that the liability of individuals practicing veterinary medicine or surgery depends, of course, upon the legislation obtained by the veterinary profession in the Province. In some of the Provinces, any individual who poses as a veterinary surgeon is liable to prosecution, but so long as he does not falsely represent himself no action is taken; while in other Provinces, surgery and treatment of maladies affecting live stock for a remuneration, by any other than a qualified veterinarian, is for-

bidden. I think, however, that the former restrictions exist in this Province, although I am not definitely sure regarding this point.

The so-called cure for farcy in the letter in question does not to my mind warrant serious consideration, owing to the fact that the term "farcy" is applied by laymen to a number of pathological lesions which are due to varied and totally different causes. Correctly speaking, farcy only applies to a form of glanders affecting the superficial lymphatics of the skin, and manifesting itself principally upon one or more of the limbs of the horse. This, of course, is not only an incurable disease, but is one which is included in the Animal Contagious Diseases Act, with which this Department deals. According to the Act in question, any owner of animals is compelled, under penalty, to report any such cases to the nearest veterinary inspector, or to this Department.

Lymphangitis in horses is often termed by laymen, farcy, which is quite erroneous. This disease is caused, generally, by feeding too large rations of grain, without giving the animal regular and careful exercise. It is also, less seldom, caused by injuries. This condition is easily overcome by prompt and vigorous treatment, but is liable to recur again if careful measures are not adopted in the feeding and care of the animal. When this malady has recurred several times, it results in new formation of the tissues on the limb or limbs, which rarely if ever afterwards assume their normal condition. The new growth of tissue, which is evenly distributed along the greater portion of the limb, in many cases assumes large proportions, and produces the condition known as elephantitis. This condition is also termed by laymen erroneously as farcy.

GEORGE HILTON,

For Veterinary Director-General.

THE FARM.

Clover-seed Midge.

The clover midge (*Cecidomyia leguminicola*) has been very bad in most of the clover-seed-producing sections this year. Unquestionably, it has meant a big loss to farmers, both in interfering with the yield per acre, and in the general quality of the seed.

In many sections, more especially along the lakes, there was never greater promise of a good crop, as evidenced by blossom, than obtained this year. Alas, too frequently appearances prove deceptive. It has been so this year, and the screenings from cleaning up the clover seed reveal the cause. Some samples of screenings consist very largely of the insect in the pupa stage, and are quite scarlet in appearance. The life-history of this insect, briefly stated, is, that a small fly lays the eggs in the clover blossoms. The first brood do it in June, the second brood early in September. The eggs hatch into small red larvæ which use the plant food which is being transformed into the seed. Clover seeds will be noticed as only half-filled. The larvæ, when full-grown, descend to the ground, and hide under the loose soil or any rubbish, and when the time is



Hampshire Down Yearling Wethers.

Winners of the grand championship at Smithfield Show, 1908, for the best pen of sheep in the show. Exhibited by J. E. Flower.

right and the conditions are favorable, they turn into the little fly, which lays the eggs again.

From a knowledge of these facts, it would appear to be wisdom on the part of every farmer to burn all his screenings, in order to prevent these reddish pupæ from turning into flies next June again.

It has been advised, and is often practiced in many clover-seed-growing sections, to pasture the clover intended for seed production until about the middle of June, when no first brood will have had a chance to develop in the head.

If the clover be cut for hay when the clover-head is forming, the same effect will be obtained. This is humbugging the midge, and is quite lawful. The trouble is that everybody will not do it, and so the trouble is perpetuated.

The presence of the midge has depreciated the value of the seed generally this season. In cleaning up such seed to make it No. 1 seed, there will of necessity be a big tare. It will be wise to plan against the ravages of the midge for another year. T. G. RAYNOR.

Hunting, Mining and Agriculture in Northern Ontario.

Editor "The Farmer's Advocate":

Having spent two weeks in the deer haunts of Parry Sound District, I thought perhaps a few notes of observation on the country generally might be of some interest to those who have never been in these wilds. Simply passing through in a railway carriage gives one rather a poor conception of the country. When one has tramped for miles and miles through thickets, up and down ledges of rock, climbed over fallen trees, walled through thick tamarack or cedar swamps, waded through beaver meadows with grass up to your head, then, and not until then, have you a full realization of the country where the deer roam at leisure.

Some are inclined to think that only professional and business men need or should engage in the sports of the chase; but why not the farmer? Has he not equally as good a right to enjoy this sport? Is he not entitled to a rest or change from his everyday labor? Why not, if he so desires, shoulder his rifle and join one of the many hunting parties that annually wend their way to the "Highlands of Ontario." Breathing the pure, life-giving air, a change of scenery and work, camp-cooking and all, cannot fail to do anyone good. When one returns from such an outing, he is certain to enjoy, as never before, the comforts of home-life. Even though one may make long and tedious tramps in quest of one of those nimble and fleet-footed beauties, and returns to camp weary and hungry, he is assured genuine rest is in store for him, and his craving appetite, that all hunters are subject to, can soon be appeased. I believe, if any class of people need holidays, it is farmers, and they, possibly, of all others, take the least. Those who may have no desire for the chase, should take a trip occasionally somewhere. It cures the blues that some are subject to, as well as many other ailments, and fits one the better for work, and makes life generally much more pleasant. Those who year in and out give all their attention to work, and never think of taking a holiday, are generally the ones who are ever complaining of the hard work constantly staring them in the face, and scorn the idea of having time for a holiday. I say, brother farmers, it will pay, everything considered, to occasionally take a trip and see how other people live and work. If a man travels, and keeps his eyes and ears open, he can always learn something.

I have already given you a faint idea of the topography of Parry Sound District, which is very similar throughout in many respects. It is a land of lakes and rocks of every conceivable shape and size. It was originally covered with a dense forest of large pine and other trees, some of which fell victims to the woodman's axe, but much has been destroyed by repeated fires, so that little of the original growth remains. The tall, dead pine trees, reaching heavenward, are left as a silent witness of the havoc wrought by the fire-fiend. These denuded, tall, dead pine trees are a sight to be witnessed all over this northern country, largely from ocean to ocean. The loss to the country has been immense, and still it goes on from year to year. These fires are caused accidentally by the scattered settlers, the tourists or prospectors, the hunters, and largely from the railway engines. During long-continued drouths, when once started, they sweep over large areas with great rapidity, uncontrollably.

Only a small percentage of the country will ever be adapted for agricultural purposes. Portions might be reforested; while some of the lakes and streams are stocked with desirable finny tribes, others have none, or worthless varieties. Here is an important problem for our legislators to consider: What an enormous quantity of fish might be produced from these numerous lakes to feed the hungry!

These wilds are certainly well-adapted, ideal places for the deer, and with the protection they

now receive, will, I trust, be spared for many years, thus affording the sportsman an annual opportunity of gratifying his desire of the chase. While there seems to be a great waste of land in this region, it is being sought after more every year; it has a mission to fill. It would be difficult to find a climate so delightful anywhere during the summer months, with such pure, health-giving air, and untainted, sparkling waters, and an endless field for angling, boating and hunting. Is there any wonder, then, that so many from our cities, as well as from the United States, with increasing numbers annually, spend their holidays in these "Highlands," avoiding the sweltering heat of the cities? Some live in tents, many having neat little summer cottages, that can be discerned in some cosy, out-of-the-way place along the many beautiful lakes or streams. Fishing, boating and hunting afford a variety of the most healthful amusements for those holiday and pleasure seekers, as well as those in quest of health. By the aid of a guide, one can traverse all these northern regions with a canoe, by making, generally, only short portages. What a scope here for the leisure-tourist to explore—new and varying scenes opening out before him from day to day.

Having a desire to see and know more of the country recently opened up by the Canadian Northern Ontario Railway, I, at the close of the hunting season, journeyed northward in the direction of Sudbury. The northern part of Parry Sound District and Nipissing District, as we passed up through it, presented a more favorable aspect from an agricultural standpoint: Much less snow, a log-house or two now and then, and small clearings, in this yet recently-opened-up country. The land is more level, too, and the

Since the use of this metal has been found to be of great value as an alloy with steel, to improve its quality, the demand has greatly increased, and, no doubt, much other use will be found for it. It is already being largely employed with steel in the manufacture of steel rails, for bridges, and in the construction of buildings, being lighter and stronger.

The nickel industry of the world to-day is controlled by a powerful syndicate, against which no ordinary company can compete. Those who may have thought themselves fortunate in owning nickel mines, find they are worthless against this powerful combine. The cost of extracting the nickel on a small scale cannot compete with this largely-financed concern. There has been much money invested in these so-called rich nickel mines that will never return to the investor. The same applies to hundreds of mining and other companies, those organizing the company and putting the stock on the market invariably faring the best. So many farmers have fallen an easy prey to these "oily-tongued," "get-rich-quick" agents, that others should profit by their sad experience. If farmers have any surplus money, they can usually invest it to good advantage in the improvement of their farms and buildings, or adding modern conveniences, that they may the better enjoy life. This, in the end, will be found more profitable.

The mining district of Sudbury extends 20 by 40 miles in extent, and, while nickel is mining king, other minerals, such as gold, silver, copper, iron, etc., are also found in considerable abundance.

About twenty miles to the north of Sudbury, formerly known as the Moose Mountain, there is springing up a town, with mushroom rapidity, called Sellwood. It is here that recently a rich iron-ore mine was located. After Alex. Mac-nie & Mann, the railway magnates, who are the fathers of the C. N. O. R., made an inspection of the locality, they were not long in cutting a way through the dense forest and laying steel rails, so that to-day the cars are run to the mines and loaded with crushed metal for transportation to the smelters. The diamond drill has been put down over five hundred feet, and the bottom of the ore not reached. The almost solid mass of iron ore is about one and a quarter miles in length, and of varying widths. Gates, of Philadelphia, who is largely interested in the iron industry of the United States, has estimated that the amount of ore here alone would supply the requirements of the world for one hundred years. The abundance of ore and the ease of mining will no doubt bring this place into prominence as iron headquarters.

Traces are yet left about Sellwood of the original forest of pine and other trees, much of which was destroyed by fire, and now is being reforested, the tall, straight trees being so close together that it would seem impossible to penetrate these new forests. This second-growth here and at Sudbury, as well as the remains of what was spared by the fires, are fast disappearing in the mouths of the furnaces and bake-ovens about the mines.

Geologists and scientists have some interesting facts to tell about the early history of this section, and how and why these minerals chanced to be here. They tell us, away back in the dim, misty past, when the earth was yet in its infancy, long before it was fitted for man's habitation, earthquakes and volcanoes played an important part. These eruptions and great upheavals that we now see traces of are relics of those ages. The earth was then in a plastic or molten condition, and certain minerals having an affinity for one another were brought together, as we find them here and elsewhere. The geological history of the nickel-mining area of Sudbury, they tell us, began in very early times, and is representative of what is known as the Huronian period—one thing we in America can boast of for its antiquity.

The country about Sellwood seems well adapted for farming, and the backwoodsmen who penetrate into the far northern regions informed me that the country for probably one hundred miles north of Sellwood was heavily wooded, and would, when cleared, be a good agricultural section, and beyond that the broad prairie, resembling Manitoba, and that in time millions of bushels of wheat would be marketed from those apparently far north and supposed frozen-up regions.

The C. N. O. R. has already done much to develop this northern section, and when they have the connecting link completed with their extensive Western system all over the Northwest and British Columbia (now about 500 miles yet to build), will play an important part in the transportation of this country. They will also open up new sections for agriculture. W. B. RITTENHOUSE, Lincoln Co., Ont.

Your Christmas Number is worth the subscription price of the paper.—H. P. Tanton, Middlesex Co., Ont.



One Gets the Stocks: the Other the Money.

ledges of rock so conspicuous in Parry Sound are seldom seen. The beautiful little lakes, lending a charm to the country, are not wanting.

Sudbury, the metropolis of a large district, and an interesting, prosperous and modern, up-to-date town, boasts of 4,000 inhabitants, and affords shelter and a resting-place for your humble servant. One appreciates good hotel accommodation, for a change, after spending a few weeks in the backwoods.

I was surprised to learn that there was about Sudbury such an agricultural country. Vegetables of all kinds are grown quite extensively, as well as hay and grain, beef, pork, etc. It is comparatively quite new, and the immense demands from the mining and logging camps, the surrounding locality is not yet able to supply. Farmers are prosperous, realizing good prices for their produce.

Sudbury is, of course, a mining town, situated in the midst of mines—the richest in the world. It owes its existence to the construction of the C. P. R. It is literally a French town. Everybody speaks French, as much as though in a French settlement in Quebec. The French, following up the construction of the C. P. R., have held the place ever since.

In a cut of the C. P. R. near here was first revealed the immense treasures concealed in these regions. The immense and apparently inexhaustible supply of nickel ore found about here attracted the attention of scientists of all countries. It was evident that Canada was destined to supply the world with nickel at no distant date. The ordinary price of nickel had been about \$2.60 per pound, and, on account of the high price, its use was restricted in manufacture to only certain articles. When it was learned that Canada could supply all the nickel required at 10 cents per pound, it soon found other and important use.

The Best Barn Frame.

Editor "The Farmer's Advocate":

Every farmer who thinks of building is naturally looking for the best stable plan, best system of ventilation, and best barn frame, as well as many other good points, but unless he gets these three requisites he may spend plenty of money and yet get little comfort and lots of worry in return. It may not occur to him that of these three the last is by far the most important, for either of the others may be changed in later days to suit his ideas, but the frame must remain as it is—either a collection of huge timbers, unsightly and weak in every joint, or a nicely-proportioned arch truss, rigid and securely bolted at every intersection.

We have discarded the old wooden bridge frame for the modern steel one, and the old-style house frame for the balloon frame, and why not substitute the plank for the timber frame? What the steel structure is to the bridge, and the balloon frame is to the house, the modern plank frame is to the barn.

Many predict that we will be using steel in our barn frames in a few years, but if this system of wood frame were as widely known as it should be, the days of the steel frame for this purpose would be a long way in the distance. I have heard farmers say that steel would be the ideal frame, because if the barn were burned the frame would still be good and could be enclosed again; but if any of these men had ever seen a steel structure after a fire their ideas would change considerably, for a more hopelessly twisted mass would be hard to find. Then the price of steel for a given frame would be very much more than plank for the same structure. After considering these points, I think we may come to the conclusion that, although steel is the structure for the city skyscraper, our simple farm barn frame is best built of plank.

That it is superior to the old timber frame is quite apparent from several standpoints. First, as to cost; about 50% of the material required, and the same saving in work, framing and raising. Next in strength, it far surpasses the old-style frame, being rigid from the long braces and well-proportioned truss construction, where every intersection is securely bolted and spiked; whereas in the timber frame, many of the draw bores are loose and braces slack. In nearly every case these braces are simply put into shallow mortises, without pins or bolts, and so can only resist compression of the frame members. These braces become worn by the movement of the frame, and loose by the shrinkage of the timbers, and in a few years the whole structure is creaking with every windstorm, and in many cases has to be strapped with iron to keep it together. The splices are also a fertile source of trouble, and at best are only about 50% the strength of the timber; while a plank splice is easily made of same strength as a whole-length piece would be.

But when we come to consider the joints, we find the great advantage of the modern method over the old one. Here we have, for example, an 8x8 in. side post, 16 ft. long, with innumerable girth mortises, and a large 3x8 in. tie beam mortise, with at least three holes for 1 1/2-in. pins through the cheeks of the mortise, thus weakening the timber almost 50%, besides making an ideal spot for decay to ruin the timbers.

To make this same mortise—or, more properly speaking, to ruin this timber—has cost quite an amount of money in laying out, boring, chiseling, etc.

Now, on a plank-frame post, we would simply lay two planks together with our tie piece between them and spike and bolt securely; no mortising, adzing, making of pins, etc., required, and this tie piece is put in right at the top of the post, where it can best overcome the thrust of the roof, while the mortise joint must be kept down from the top one or two feet, and very often more, thus increasing the liability of the timber breaking from additional roof thrust, occasioned by snow or wind load.

The space between the side planks below the tie piece is left open for circulation of air, except at points where girths spike on; here a short block 12 in. long is spiked between.

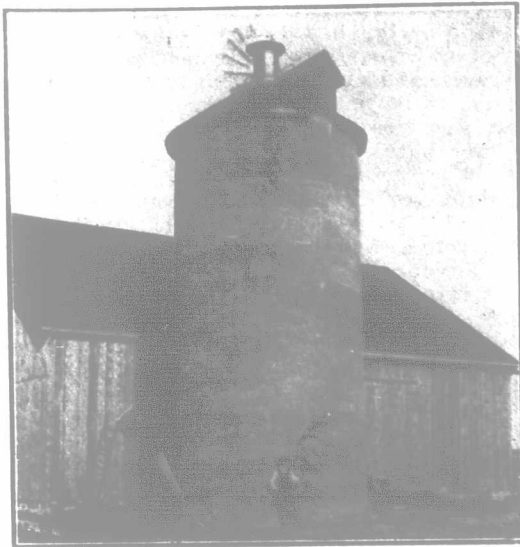
By comparing the amount of material in these posts we can more easily see the difference in cost:

Timber Frame Post—	
1 piece 8x8 in. x 16 ft., at 12c. per lineal ft.	\$1.92
Plank Frame Post—	
2 pieces 2x8 in. x 16 ft., at \$20 per M.	\$0.84
3 pieces 2x8 in. x 1 ft., at \$20 per M.08
	\$0.92
Timber Post	\$1.92
Plank Post92
Saving	\$1.00

By this we can see that on one post a saving of \$1 is effected, and I may safely say that, outside of rafters and joists, the same saving is made

throughout the frame. And, as before stated, the saving on work is in about the same proportion.

Another point to which I wish to draw the attention of the prospective builder is the liability to bulge, from weight of fodder, of timber frames,

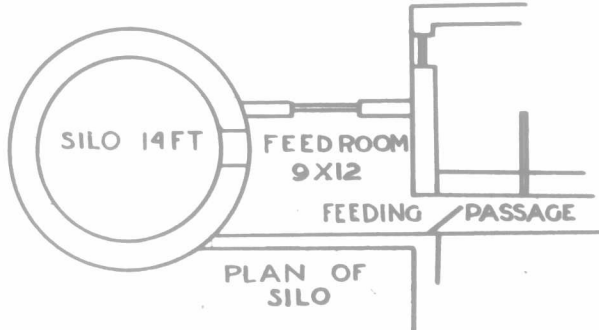


Round Cement Silo.

On the farm of David Lawrence, Oxford County, Ont.

while a properly-constructed plank frame, by its shape alone reduces the pressure a great deal, and the diagonal ties make the strongest possible end for any kind of barn.

The plank frame is nicely adapted to wooden basements, being much cheaper than stone or concrete.



Plan of Silo and Feed Room Adjoining.

These barns can be built with gambrel, mansard or ordinary pitch roof, and are also an ideal form of frame for skating rinks, lumber sheds, exhibition buildings, etc. ALF. A. GILMORE. Huntingdon Co., Que.

Building Round Cement Silo.

Editor "The Farmer's Advocate":

We studied the silo question for years before we fully decided to build—went to see quite a number of silos and interviewed the owners. They were all well pleased with their silos and with ensilage; so we decided to build a cement silo, 14 feet diameter inside, as being the best for a hundred-acre farm. We drew in all 43 loads of gravel, the most of it in the winter on the sleigh; a considerable portion of the loads would go about 1/3 of a cord, a few were not over 1/4 of a cord. We let a job of building the silo at \$2 per foot, we to furnish one horse for the cement mixer and a man to help. The first ring, 2 ft. 6 in., was 2 ft. thick; in it a great many large stones were used. The next ring was about 13 in. thick, and there was a gradual taper until at 37 1/2 ft. high the wall was only about 6 in. thick. We dug out the foundation as low as the stable floor, and built the silo about 12 ft. from the barn, and thus we have a room about 12x9, with cement walls and cement floor, in which to mix feed. We have a chute from the barn into this room, where we push out cut straw as we require it. The cutting-box is set on the barn floor near this chute, and when the wind blows we cut up a supply of straw and have it handy, ready to put down. We built a circular roof, made a ventilator of 2x10 cypress plank, 3 ft. 8 in. high, octagon and bevelled on edge—it was 2 ft. inside; the rafters are nailed to this. There is a gothic at the west side and a window with six 8-in. x 10-in. lights, to open on hinges, to admit the blower. The chute on the east side extends up to another gothic, which has also a window. We can thus go up the ladder from the feed room to the top of the silo, and walk across two planks over to the west side of the silo. The chute is 2 ft. 4 in. x 3 ft. 2 in. The roof was sheathed with pine boards, ripped from one corner to the opposite, and then all the wide ends put at the eaves, and then shingled with B. C. cedar shingles. The chute was lined with V-matched hemlock, and the ladder is of 2x4 in. elm, with white-ash rungs. We have a room above this feed room to be used for holding chop or bran, or as an overflow granary, as occasion may require. We will have a spout to the feed room below, so that the chop or bran can be let down. The feed room has cement walls, and then the granary part above is studded and lined with V-matched hemlock, and has a door and a window. The ventilator on silo is covered with wire netting, to keep out the sparrows, and has a galvanized top; we also put on a lightning-rod, made of 4 or 5 strands of No. 9 wire.

The silo and the feed room and granary above cost in all not less than \$280, besides our own work. There were 55 barrels cement used; the gravel was rather fine, and we had to use a little more cement on that account. The door between



Plank-frame Barn, Built by Alf. A. Gilmore, Huntingdon, Que.

feed room and feeding passage is made of 2-in. strips, to allow the warm air from stable to pass through, and keep out the poultry. Two rings were built in, on the outside wall of silo, about midway between the ground and the window, to fasten the blower-pipe to, and 10 bolts were built in the wall at the last to bolt the plate to wall with.

So far, we like the silage very well. The cattle eat it greedily, and have a good appetite for straw. Some years ago I was in Geo. Rice's barn, looking at the silage, when a man came along and said to me, "Taste it, it will give you an appetite like a hired man's." It seems to give the cattle a good appetite. Some object to the labor of filling the silo. It takes from four to six men to load the corn on the wagons; but these men could not do more than shock up that much corn in a day, and then it would still be to haul to the barn; whereas, once in the silo, it is ready for use without any more bother. I do not see any reason why the cement silo should not last 100 years at least. I might mention that we put seven acres of a very heavy crop of corn into the silo, and it was filled to within 2 ft. 6 in. of the top. In ordinary crops, I think it would hold from eight to ten acres. D. L. Oxford Co., Ont.

Some inquiries have recently been made regarding the clover-seed midge, and some anxiety expressed by clover-seed growers, owing to the presence of the maggots of this insect in recently-threshed clover seed. It is gratifying to know that in every case the maggots in the samples forwarded to the Central Experimental Farm, Ottawa, this autumn, have all been dead and dried up; consequently, there would be no advantage in destroying, by burning, such material. At threshing time, however, if the living maggots are noticed, it would be good practice to have all screenings swept up and burned.

THE DAIRY.

Liberal Feeding for Milk.

Editor "The Farmer's Advocate":

Although not a farmer, I am a subscriber to "The Farmer's Advocate." Not long ago I noticed an inquiry about feeding cows without roots or silage, and now the gentleman says the method you published gave good results. May I mention a little personal experience in that line? We had been buying milk. It was so unsatisfactory we decided to keep a cow. After looking at several, I selected a grade Shorthorn, which the owner said had plenty of points. She certainly had, but most of them were in the wrong place. I parted with \$30, and the cow was delivered at my barn. She came in shortly after, and began actively milking about the middle of December. During the winter she was fed first-class timothy hay, at a cost of \$10 per ton, getting just what she cleaned up nicely at each feed. Some said clover hay would have been better, but that was then and still is an open question in my mind. Her regular grain feed was a mixed chop of corn and oats, costing \$1.65 per cwt. She got all she would eat of this feed, except a couple of times a week, when she got what she would eat of scalded bran, seasoned with plenty of salt. On such days she got no chop. In summer she was turned on the grass at night, and kept in the stable during the day. The bran was discontinued in the summer. She did not need it, but she still got all the chop she would eat and a little hay. Sometimes, in the winter, she would get a cup of linseed oil, poured on the chop at each of the three feeds; on other occasions I mixed ground flaxseed meal with the chop. The stable was rather cold. In winter she was blanketed. In summer the windows were screened, so that no flies could bother her. She was always groomed and bedded with hemlock sawdust. We had a family of five, and used what milk and cream we wanted. A neighbor did the feeding and milking, and took what milk he needed for a small family. The balance I sold at 5c. per quart to a hotelkeeper, who sent for it night and morning. By distributing, I could have got 6c. per quart. What I sold paid for all the feed and recouped me the \$30 she cost. In the fall, we got the first premium in the milking class at the agricultural show held in our town. At the end of the milking season I sold her to a farmer for \$60. That sum was clear profit, besides the milk we used ourselves, of which no account was kept. She was a typical dual-purpose cow. It need not be inferred that I would have bestowed such attention upon a poor milker.

Silage and roots are all very well. Pedigree is all right, too, but it takes a full corn crib and a liberal hand to make good cows and get plenty of milk.

A gentleman was once exhibiting a well-bred saddle horse to some friends. The horse was very much out of condition, notwithstanding that he had been given several kinds of medicine. A stable boy, standing by, asked the owner if he

had ever tried corn. It is said that he afterwards tried corn, with good result.

Muskoka, Ont.

SUBSCRIBER.

Alberta Creameries.

C. Marker, Dairy Commissioner for the Province of Alberta, has issued his report on the work of the Government creameries for the summer season of 1908. As compared with last year, the number of patrons has increased, the total output has increased, and the price obtained per pound for butter has increased. The steady increase in price, from \$18.61 to \$25.43, during the past eight years, doubtless is regulated by other than local causes, as the price of all staple and general commodities is, but it is clear that the steady advance is due partly, also, to the steady growth in popularity of the product, owing to its uniform excellence and good keeping qualities. While good dairy butter from Alberta was quoted at 20 cents to the trade, laid down in Montreal, the price of Government creamery to the trade was 26 to 27 cents in Vancouver, with an easier freight. The market still is local and in British Columbia, from which, also, a considerable quantity is shipped to the Yukon.

The following table shows the points at which creameries are operated, and also the total output. Innisfail leads, as it has for some years. It will be observed, likewise, that the industry is confined to the district between Olds and Wetaskiwin, exclusive of two stations at Vegreville and Vermilion.

While these figures show the progress of the Government operations, it must be borne in mind that the private creameries are also growing step by step with the Government enterprises.

Station.	Patrons.	Pounds manuf'd.	Value at Creamery.
Olds	79	63,656	\$16,243.94
Innisfail	157	115,056	25,539.38
Tindastoll	101	90,951	23,172.60
Red Deer	125	87,585	22,368.06
Evarts	49	26,012	6,611.80
Blackfalds	79	45,728	11,657.49
Lacombe	15	4,970	1,191.32
Content	81	42,196	10,711.03
Earlville	69	38,714	9,869.09
Ferry Bank	89	44,554	11,332.34
Wetaskiwin	32	20,124	5,028.61
Rosenroll	47	26,564	6,725.79
Vegreville	29	5,085	1,218.75
Bonnie Glen	27	5,949	1,488.47
Vermilion	77	20,200	5,093.02
Stettler	44	17,113	4,311.04
Lakeview	62	26,938	6,899.17
Conjuring Creek	56	22,915	5,781.03
Rimby	51	20,148	5,103.02
Lamerton	49	19,303	4,887.69
Spring Lake	52	32,480	8,177.61

The Buttermaker as a Judge of Butter.

Editor "The Farmer's Advocate":

It is strange what creatures of habit we are, and how the tastes we acquire in our early days affect our judgment in such matters, even after we have reached years of discretion. No doubt many a person of mature age remembers the highly-colored and sharp-flavored butter which was his daily portion, possibly at each meal, on the old home farm. In after-life, and as they go through life, the recollection of its peculiar palatability, coupled with memories of the old home associations, makes them cherish and preserve their taste for that particular quality of butter. In spite of the knowledge that the more discriminating butter consumers of the present day prefer a milder article in every way. On the other hand, there must be a large majority of people who have no such tender reminiscences, and whose tastes are made or marred for the moment by whatever quality of butter it is their good or bad luck to be served with. But, no matter how a taste for any special article of diet be acquired, there is generally some outstanding circumstance or experience which fixes an ideal on our palates which remains with us to our lives' end, or until a more pleasing sensation of taste supplants it.

Thus it is with the ordinary consumer of butter: he is looking for something which past experience tells him will suit his taste, but he is generally prepared to yield to a more seductive tickling of the palate, and that at short notice.

Knowledge of these facts will very materially assist the buttermaker to arrive at a standard, for, although he may have lingering memories of what "mother used to make," yet his training and dairy education coerce him into accepting the standards of diverse markets, until his own personality in the matter of taste is obliterated, and he becomes in this respect more or less of an automaton, adjusting his methods to the various market requirements.

Here, then, is the *raison d'être* of the buttermaker's judgment—a standard of perfection. These last two words were prompted somewhat as a matter of course, and rightly so, although, upon

second thought, they seemed superfluous; but then occurred the idea that increase in butter consumption must necessarily result, the nearer that product is made to perfection. It suffices not only to provide what past experience calls for, but to create a larger demand by means of something a little better.

A "standard of perfection," then, is the basis of judging butter, and the basis of this standard is flavor; other things are of less importance, and may be forgiven; but bad flavor, never.

In practice, the usual maximum of 100 points may be adopted, with the subdivisions in general use, as follows: Flavor, 45 points; grain, 25 points; color, 15 points; salting, 10 points; finish, 5 points; total, 100 points.

The buttermaker's practice in scoring butter is necessarily limited, but valuable experience may be gained by merely scoring his own product, both when fresh-made, and just before shipment. Each churning may be scored before being put into the refrigerator, and no trier need be used. An intelligent estimate can be made during the manufacturing operations, taking into consideration at the same time the quality of the cream received, its subsequent treatment, the size and shape of the butter granules, the churning and washing temperatures, consistency of the butter when packed, moisture content, etc.

At this point flavor is not, relatively, of as much importance as it is later, say, in three or four days' time, or when the butter is shipped out. Each churning may be numbered separately, and the number and score entered in the record book. The afternoon before shipping butter, one package of each churning should be re-scored, flavor now being of paramount importance, and it frequently will be found to vary considerably from its first scoring.

As already has been explained, flavor standards vary, but for an ideal, let me suggest that sweet, rich, creamy flavor, reminding more of summer herbage than the starter can, more of freshly-drawn summer milk than highly-acid cream so suggestive of deterioration.

Perfect grain demands the clean break of the plug after a week's storage, but this quality is best judged when the butter is being packed, and one would rarely have to go back on his original score.

Color can scarcely be judged accurately until the third day, and even then will change after being taken out of storage. The chief desideratum in color is evenness—no mottles, streaks or specks. Next in importance is brightness, always indicative of a good grain and absence of buttermilk. The particular shade or color must accord with the special market requirements.

Much applies to scoring salting that has been said about color. Evenness can hardly be judged until the butter is a few days old, and grittiness, owing to undissolved salt, is quite possible for a day or two, but should eventually disappear. A few days' storage will usually show whether more salt has been used than the moisture in the butter has been able to take care of, and is plainly evident in the form of little crystals on the surface of the butter as the moisture recedes or evaporates.

While packing may be scored reliably at the time it is done, yet it is quite likely to show up defective in the stored article; while finish, with which packing is generally conjoined, should not alter materially, unless the boxes get dirty, or too sudden chilling causes the surface of the butter to crack across.

It seems quite possible that the important part which flavor plays in determining the value of butter scarcely receives full recognition in the prevailing scale of points for judging butter. At least 60 points out of 100 should be apportioned as the maximum for flavor, a far more practical scale of points than the one already mentioned being: Flavor, 60 points; grain, 15 points; color, 15 points; salting, 5 points; finish, 5 points; total, 100 points.

The reader has probably gathered that this matter of judging butter must be learned by experience; it may be based upon one's own personal taste, or it may be based upon the tastes of others, which collectively form a market, and as such are catered to. In the case of one's own personal taste, there is but one standard to judge butter from; in the other case there are very many. To teach others to judge butter intelligently, it is necessary to teach them all you can about the manufacture of butter, and then to train them with regard to special market requirements. The novice requires months of practical creamery work, and his education has scarcely more than begun when he has got through his first dairy-school course. Here he has seen good butter made, has sampled and heard comments by experienced men on samples of butter, good, bad, and indifferent, from every point of view, and has rubbed shoulders with and received ideas from not only his fellow makers, but the directors of dairy thought in his own particular State or Province.

Naturally, the next few years bear the fruits of that too short experience, and his judgment of butter is rapidly forming into something of a definite nature, until he at length realizes that in

his own creamery he is limited to the manufacture of butter to meet the requirements of one or possibly two market standards. As long as he remains content with his present knowledge and environment, well and good, but if he looks forward with the ambition to buy butter some day, either on his own account or for somebody else, the best thing he can do is to get a position with some reliable wholesale produce firm at an important distributing center, and the chances are that within a year he will acknowledge that he has learned more about judging butter than he ever knew before, and that he will probably be able to discriminate between the special requirements of special markets, as well as to distinguish just how far his own personal taste should or should not enter into his judgment.

Oxford Co., Ont. H. WESTON PARRY.

Problems of the Dairy.

By Laura Rose.

CHURNING.

In the last article we spoke at length of the churning temperature of cream, so now we will deal with the churning proper.

I prefer a barrel churn, with no dashers or workers in the inside, and I like a large churn. If the churn has been standing in a very cold place, bring it in and let it warm.

When ready to begin churning, strain in some hot water to scald the churn. After taking the water out, by pouring it from the top of the churn, which removes any floating dust, and is quicker than allowing the water to run through the plug hole, strain in some cold water to rinse the churn. When cream is put into a hot churn, one can never tell how many degrees it is going to raise the temperature of the cream.

When you have brought the cream to the desired temperature, strain it through a fine wire sieve or perforated tin dipper. It is nice to know just what has gone into the churn. We want to keep out any hard, clotted cream or curdy matter.

A little butter coloring does no harm, and improves the looks of the butter. If the quantity of cream is small, more accurate results may be had by allowing so many drops—from two to four—per pound of butter. Always err on the pale side.

When churning, I like, at first, the churn to revolve just as fast as will allow the cream to drop. When the cream thickens, lessen the speed until it breaks, when the speed may be increased. If the butter is gathering fast, keep up the speed; if slowly, churn slowly.

Churning should cease when the particles of butter have reached the size of wheat grains. If the churning is completed, no butter should come out with the first-drawn buttermilk. This is easily noticed if the buttermilk is allowed to run through a wire sieve. To better float the butter, and cause a cleaner separation of it from the buttermilk, I add two or three quarts of water a little below churning temperature, just shortly before the buttermilk is drawn off.

To wash the butter, strain into the churn as much or more water as you had cream. In winter it is necessary to take the temperature of the water. I usually have it from four to six degrees colder than the cream. This depends on the firmness of the butter and the heat of the room where the butter is to be worked. Revolve the churn rapidly and draw off the water. One washing is sufficient, unless the butter is very soft or has a bad flavor; in such cases, a second washing will help it.

The salting may be done in the churn or on the worker. The amount of salt depends on the market or the consumer's taste. Three-quarters of an ounce on the worker, and one ounce per pound in the churn, meets the usual demand. I prefer salting in the churn. It insures a more even distribution of the salt, with less working. Have the butter spread over the bottom of the churn. Estimate the amount, and weigh the salt. Sift part of it over the butter, then tilt the churn to fold over the butter, sift on more salt, tilt the churn the opposite way, and sift on the remainder of the salt. Revolve the churn slowly till the butter masses together into one or more lumps. If the butter can remain in the churn in this condition for an hour or two, so much the better; if not, take it out on the worker and give it one good working, using pressure only. Avoid a sliding motion; it makes the butter greasy and salty. If salting on the worker is practiced, the butter is removed from the churn in granular form, weighed, put on the lever butter worker, and the required amount of salt sifted over. Do not start to work without covering over the salt. Give sufficient working to remove excessive moisture and to evenly distribute the salt. Better a little too much than not enough working.

The most popular form to market butter is in the one-pound brick-shape mould. The butter print should be so adjusted that the print weighs a scant 16½ ounces when wrapped in the wet

sheet of parchment paper. The little extra weight allows for evaporation.

Wetting the paper makes it possible to get it more neatly on the butter, and the paper will not stick to the butter. Nothing but the best quality of parchment paper should be used, and it is worth while having the name of the farm or the maker printed on it. In this way a reputation for the butter is established.

Some Surprising Dairy Figures.

Wisconsin, in 1906, produced 125,000,000 lbs. of butter, having a value of \$35,000,000, while its cheese returns for the same year added \$17,000,000 to the account. The dairy products of the State exceed by \$3,000,000 the total income from wheat, oats, barley, flax and potatoes. The creamery butter alone in the State of Iowa had last year a valuation of \$28,000,000, while that of the crops above named totalled \$55,000,000. Minnesota has increased the annual value of the output of her dairy products from \$6,000,000, in 1890, to \$41,000,000 at the present time. Professor Hecker, of the Minnesota Station, estimates that he is able to get product worth \$2.24 out of every dollar's worth of fodder fed to the College herd. Every herd will not do so well, which is clear proof that there are many cows that are nothing more than female kine.

GARDEN & ORCHARD.

Orchard Practices in Norfolk.

A brief talk with members of the Norfolk Fruit-growers' Association is all that is needed to convince anyone that co-operation as known in the district surrounding Simcoe has been a benefit to the individual members, and to the whole community. Orchards that a few years ago were "eyesores" and annual burdens to the owners, now are proclaimed the most valuable asset of extensive operations in mixed farming. The change has been brought about by education through the association formed but three years ago, and the businesslike disposal of the product of orchards belonging to members by a shrewd and competent manager.

Chief among the enthusiastic promoters of the Norfolk Association is J. J. Gilbertson. It was not because of lack of effort on his part that organization was not effected prior to 1906. He, along with a few others, made an attempt to form an association in 1905. Meetings were held, and experts discussed the various phases of co-operation. Papers were prepared for organization, but the enthusiasm in some quarters seemed to wane, and the fact that a competent manager was not in sight resulted in disaster. Farmers interested did not stick together, and the boon was delayed.

"I have belonged to the Norfolk Fruit-growers' Association since it was formed three years ago," said Mr. Gilbertson to a "Farmer's Advocate" representative recently. "I had been in the apple business, and certain experiences had a strong tendency to make me anxious for the formation of an association. About seven years ago I had a magnificent crop of apples. I made a satisfactory sale at high prices—but this bargain was satisfactory only on paper. The buyer never came to pack until November 7th. The apples had been lying on the ground for some

time, and were fast deteriorating. The purchaser was to take everything, but at every turn I was a loser, and \$300 would not cover my losses that season in having to dispose of my apples in this way. I was taught to seek out a plan whereby growers could handle their own fruit and make maximum profits.

PRUNING AND SPRAYING.

"I took an active part in the organization here, and have been learning every season since. A few years ago our pruners started at the inside or center of the tree and worked out. It was soon found that this was a mistake. Now we start outside and work in. We used to trim off the fruit spurs, leaving them only at the point of a branch. Now fruit spurs are left all the way down to the trunk, and the fruit is distributed. This gives a greatly-increased yield and a balanced tree. Sometimes it is found necessary to prop up the limbs.

"In the past it was not the custom to spray orchard trees. Now I spray thoroughly three times, and I am certain that it pays. In this regard there is a difficulty in the fact that new members sometimes neither grasp the idea of spraying nor comprehend the value of absolute thoroughness. In spraying after the blossoms begin to fall particular care is demanded. New pests and more of the old ones commonly put in appearance if precautions are not taken. Last season the Tussock moth was bad. Spraying must be done when required, no matter what other work may be urgent. A strict watch must be kept to see when the trees are ready, and then weather conditions have to be taken advantage of. Our standard spraying mixture contains 60 or 70 lbs. of lime to 100 gallons of water. This excess of lime is desirable. With the 4-4-40 mixture there is not enough lime. It is difficult to distinguish sprayed from unsprayed trees.

CULTIVATION AND FERTILIZING.

"I practice clean cultivation in the orchard. Cover crop is sown in late summer. For the past two seasons buckwheat and rye mixture has been put in about the middle of July. The former comes up quickly and keeps ahead of the weeds, while the rye comes on later and remains after the buckwheat dies.

"For two years in succession I have used fertilizer, in the form of barnyard manure. I am able to get it in town at 50 cents a load. I reckon the total cost, including expense of hauling it home, at \$1.00 a load. I consider it would be wise to pay as high as \$1.00 a load in town for manure in preference to using artificial preparations. I haul one ton or sometimes one and a half tons at a load. My farm is only three miles from town, but I think it would pay to haul manure at least six miles.

LABOR QUESTION NO HANDICAP.

"Little or no trouble has been experienced securing help when it is needed. In fact, few extra hands are required except for picking, and at that season work in other lines usually is not urgent. Pruning can be done in March or early April, before regular farm work commences. An orchard can take much or little labor, depending on the thoroughness of the operations. I realize more money from apples than from any other product on the farm. On my 160-acre farm, twelve acres are in apples, the balance being devoted to mixed farming. Milk cows are kept and grain grown



Picking and Packing Apples in Norfolk County. Hand thinning in early summer in the orchard of J. J. Gilbertson resulted in only 73 barrels of seconds out of a pack of 880 barrels. Uniform size and freedom from blemish made grading easy on a padded grading-table.

for winter feeding. In net profit one acre of orchard is equal to at least 12 acres of oats. The soil, however, is not ideal for the latter. It is a sandy loam, with gravel bottom, and easily cultivated. The twelve acres of apples average about \$1,000 a year after paying all expenses. This year it will be more.

PAYS TO THIN ON TREES.

"After investigating the merits of hand thinning apples on the trees, I have concluded that it is a very advisable part of orchard practice. In 1907 I went over about 80 trees. There was a noticeable improvement in the quality of the fruit. On trees not thinned there was 15 per cent. or more number two, while on the trees gone over, seven per cent. or less went second grade. Last summer I thinned the whole orchard. Some were not heavily laden, and little thinning was necessary. Out of a total pack of 880 barrels, made up of Baldwins, Spies, Greenings, Tolman Sweets, and a few of other kinds, only 78 barrels graded seconds. In 68 barrels of Greenings, only two were second grade. Orchards in the district where no thinning was done scarcely had a percentage equal to 73 out of 880 that would grade number 1.

"The cost of thinning is not excessive. When trees are heavily fruited and many varieties are grown it might total more. Last season five cents per barrel of fruit harvested would cover all the labor entailed in thinning. Then it cost 20 cents per barrel to pick and pack, thus making the total cost of harvesting 25 cents per barrel. Picking and packing can be done much more expeditiously when the fruit has been thinned soon after it is formed. I have to pay for taking the fruit off the trees in any event, and I prefer to take off some in the early summer and let it drop to the ground. The result is fewer apples in number to handle in the fall, and a great saving in time taken to grade. Thus thinning on the trees saves in picking, grading and packing, giving a superior article when prepared for the market at a cost not exceeding that commonly entailed in harvesting apples.

"I am greatly in favor of organization. It would be one of the grandest things possible if we could have such associations as the one which has done so much for fruit-growing in Norfolk County in all parts of the Province."

Replacing Trees.

A Northumberland County, Ont., apple-grower, after repeated, unsuccessful attempts to replace orchard trees that had died, with young stock, found that the difficulty could be overcome by putting the ground in proper condition. In brief, his plan is to burn the roots and trunk of the old tree on the spot, leaving the ashes. He then digs out a large hole, several feet across each way, in the autumn, and fills it with good barnyard manure, replacing the top soil and ashes. The heap being left exposed to the rains and snows of fall and winter, the site by spring will become thoroughly enriched with the heavy mulch and transformed to a mould. Before the new tree is set, any coarser or strawy portion left in the mass is carefully shaken out and removed, leaving a fine, rich receptacle, in which moisture will be retained and plant food supplied through the rootlets of the young tree. Since adopting this plan, failure in re-setting has been a rare occurrence.

POULTRY.

A Farmer's Experience with Poultry.

Editor "The Farmer's Advocate":

Your letter has just come to hand, requesting an article on poultry, which I am pleased to forward, although I cannot give figures of cost in keeping my stock the year round, as I am away during the winter months. Had been working on the Institute staff in Ontario for seven years prior to my winter engagements at Pennsylvania State College, 1907-08, as special instructor on poultry. Twelve years ago, after reading many articles written by experienced people (in your valuable paper) on poultry, I became enthused, and started in the business in a small way. I saw at that time there was likely to be a big demand for a suitable class of dressed poultry for the English market. After reading Prof. Robertson's report on that trade, I found they preferred a white-fleshed fowl. I had heard of the Buff Orpington as being a most popular fowl in England at that time, combining all the requirements as a general-purpose bird, and having white legs and flesh, which our English friends so much admire. I at once imported six females and one male, costing \$125, and was among the first to introduce this breed into Canada. Two years after I had a good-sized flock. With care, I had selected birds of the proper meat type. I then commenced crate-fattening them for the market, paying special atten-

tion to the best methods advocated for fattening. I was able, in a short time, to raise and fatten birds that won the sweepstakes at the Winter Fair, Guelph, in dressed poultry. Although working a large farm of nearly 200 acres, I raised several hundred fowls each year, and bought from my neighbors several hundred, and fattened them in crates, doubling my money on the investment. I was then able to build more extensive poultry buildings, having had a few years' experience in the business, and feeling confident I could make a success of it. Many failures have been made by those who had little or no experience, and invested considerable money in buildings and equipments. It is a much safer policy to commence with a few, and gradually increase your flock as you profit by mistakes.

After I had got well established, I commenced exhibiting at the shows, and advertising eggs and stock, and, by dealing honestly with the public, my business developed year by year. Last year my orders for eggs alone for hatching amounted to about \$700, from 150 layers. I raise about 400 young stock each year, and sell \$800 worth of these for breeding purposes, and market the culls. I have no trouble in securing from \$5 to \$25 each for the bulk of breeders, many of my best shipments going to the United States. This merely shows what can be accomplished as a side line in poultry, where special care is given to it.

BUILDINGS FOR POULTRY.

Mistakes are frequently made in putting up expensive buildings; moderately cheap ones answer just as well. Before any profit is realized on poultry, they have first to pay for the food they consume, then the interest on the money in buildings, and a sinking fund for wear and tear on equipment. Where a lot of money is put in a plant, the profits are much smaller at the end of the year.



Permanent Poultry House.

Shed-roof plan, showing yards in front. On farm of J. W. Clark, Brant Co., Ontario.

The most essential things in a poultry house are fresh air and sunshine. These are the best and cheapest known agencies in destroying disease germs. No poultry is profitable if unhealthy. Many people have the idea that hens must be kept very warm in winter to produce eggs. Accordingly, they keep the henhouse closed up tight day and night to prevent any cold air entering. Dampness soon forms on the interior of the building, which creates a breeding-ground for germs. Poultry, after being kept in a building of this kind for some time, and then allowed to go out in the cold air, catch cold very quickly, which will soon develop that dread disease, roup, which, if not checked, will soon spread through the flock, causing an endless amount of trouble.

Fowl will stand considerable cold if they are hardened to it gradually. When the nights begin to get cold in the fall, do not close the windows, unless there is a direct draft on the birds. All well-arranged houses will be so constructed as to prevent this. If chickens are in good health, zero weather inside the house will not materially affect the egg yield, or the combs of the male birds. I have on several occasions noticed this most strikingly, having sometimes purchased a bird from a pen where they were kept warm, and placed them in my pens alongside of birds that were hardened to cooler conditions; the comb of the bird introduced would freeze, while the others were not affected in the slightest. From my experience, a poultry house built on the shed-roof plan gives best results, more especially during the winter months. A house 12 feet wide, 4½ feet at rear, and 8 feet at front, with windows in front running close up to roof, will permit the sun to shine all over the interior of the building during the day, making the house warmer and more cheerful for the fowl. The sun is low in the heavens during winter

months, and will reach to the rear part quite easily if the windows are arranged properly. A house of this kind should be built, not to exceed in cost of construction over \$2.00 per running foot. After the frame is up, cheap lumber can be used to cover it, covering this with one or two thicknesses of tar paper, and three-ply roofing paper for the roof. One-ply can be used for the sides, or cull shingles, where they can be procured. A permanent house of this style should be placed on a cement wall 8 inches thick. The wall should be 6 inches above ground. A trench should be dug 15 inches deep, and 8 or 10 inches of stone or brick-bats placed in bottom, to drain the water off, thus preventing any from entering the inside of the building. If the ground on which the building is placed is hard and dry, no floor is required; if soft, the fowl will soon dig holes in it. In this case, I would put in a cement floor. This can be done at small cost where soft-coal cinders can be procured; they make one of the driest floors for a poultry house. Place about 5 or 6 inches over the floor, and tamp down tight, then put on 1½ inches sand and cement, 1 cement to 3 sand. This will make a floor sufficiently strong for poultry. It is easily kept clean, and is rat-proof. Where fowl are confined to a limited area, the building should be located so that runs can be made on both sides. This will give the runs a chance to grow green food for the hens during the summer, if they are changed from one side to the other every few weeks. The dropping-boards, perches and nests should be arranged at the rear part of the house, leaving the entire floor space for a scratching place, which should be covered with four or five inches of straw. A frame covered with muslin should be hinged at top of window, to open inside. This can be hooked at top of ceiling when not in use. On very cold, windy or stormy days the curtain should be down.

In sections of the Province where the thermometer drops from 10 to 20 degrees below zero, it is advisable to have a window to slide over the opening, in place of the curtain, during the night. Inch-mesh wire netting should be put on a frame, which is hinged to side of window. This, when closed, will keep out sparrows, which usually hover around poultry houses.

In addition to my permanent houses, I am using several colony houses for wintering hens, with equal results in egg production. These are built on much the same plan, with the exception that they are placed on runners. They are built 7 x 8 ft., 4½ ft. at rear, 7 ft. at front; 12 hens and one male to a house. The only objection to this plan is the extra labor in caring for them. Where this is not considered, the colony house has many things to commend it. It can be moved from place to place, used for rearing young stock, etc.

EGG PRODUCTION.

In producing eggs in winter, much depends on the stock, housing, feeding and attention given. An ideal hen for winter-egg production is a pullet that is mature by November 1st; one that is strong and vigorous, and of good laying strain. Some breeds are better layers than others, but more depends on the strain of the breed, as we often find good and poor layers in all breeds. To get pullets of our general-purpose breeds matured by Nov. 1st, it is necessary to hatch in April in some years. May chicks mature quickly, and commence laying about Dec. 1st. Good-laying hens that have moulted early are likely layers, if not too old. The practice of forcing moult is advocated by some, but in the writer's experience this has not always proven a success. If a hen is forced to stop laying by this method, it is often difficult to get her at it again. If good layers are fed properly, they will usually continue egg production pretty well through the moult. I have often found that the very best layers moulted late in the season.

Hens over two years of age are seldom profitable layers. Leghorns, Minorcas, etc., are sometimes good for a longer period; old hens of the heavier breeds usually become excessively fat. For summer egg production, the lighter breeds, and later-hatched pullets of the heavier breeds, are best.

FEEDING.

The main points to be considered in winter

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egg production are that there be a good supply of green food, meat food, and grain. It is necessary to feed so as to induce the fowl to take exercise. This is most important during the time the birds are in confinement, and can be accomplished by feeding the grain in straw on the floor.

Wheat is, without any exception, one of the best grains for laying hens. It is one of the best grains for feeding in the litter to induce exercise. Corn is used quite freely by some both winter and summer, but corn being rather large and conspicuous when in the litter, it does not give enough exercise. It is a heating and fattening food, and is best adapted for winter use, and is best fed at night, when it can be quickly picked up by the fowls. It is a good plan to warm the corn in very cold weather, thereby assisting to keep the hens warm during a portion of the night. Plump oats, barley and buckwheat are also good foods, and are relished as a change by the fowl. Green food is very important in winter, and can be supplied by feeding mangels, cabbage or other roots. Cut clover or clover leaves steamed till soft are also relished, and are valuable green food; hens kept for laying should have all they will eat each day. Animal food is supplied in the form of green cut bone, which gives the best results in winter, where one has a bone mill; if not, beef heads and livers give good results. Beef scrap is also good, where it can be had, and is valuable during the warmer part of the year. Decayed meat of any kind should not be used, as it is unhealthful. Fresh water, grit and oyster shell should be accessible to the fowl at all times. According to the analysis made by chemists, the average composition of hens' eggs is given in the following table:

	Refuse %	Water %	Protein %	Fat %	Ash %
Whole eggs as purchased	12.2	65.5	11.9	9.3	0.9
Whole eggs, edible part		73.7	13.4	10.5	1.0
Eggs, white		86.2	12.3	0.2	0.6
Eggs, yolk		49.5	15.7	33.3	1.1

It can be seen from the table shown herewith that the protein or nitrogenous elements contained in the common grain foods alone are not sufficient to supply the needs of a fowl whose body is made up so largely of nitrogenous matter, and whose product, the egg, is so rich in protein and fat. On an exclusively grain diet, fowls would find difficulty in keeping their body in condition, to say nothing of having any surplus from which to manufacture eggs.

As a rule, prepared meats are costly. Skim milk is an excellent animal food, where it can be had cheaply, but containing about 90 per cent. water. It would not be worth more than 20c. per 100 pounds, compared with beef scrap at \$3 per 100 pounds. Green bone would be much cheaper at \$1 per 100 pounds.

Various experiments have been tried from time to time with vegetable products, such as gluten meal, oil meal, pea meal, and other foodstuffs rich in protein, with a view to using them in the place of animal food. It has been found that vegetable protein is not so palatable nor so well tolerated by the fowls as animal protein. Heavy feeding on vegetable foodstuffs rich in protein usually results in digestive disturbances, the birds getting out of condition. With animal foods, if pure, the only trouble usually is looseness of the bowels, in heavy feeding, which can usually be checked by lessening the amount. Just why vegetable foods rich in protein should prove less digestible than meat-foods, is not apparent from the analysis, but from practical experience with these foods, fed in excess, trouble usually arises. Feeding skim milk to laying stock has been practiced, with excellent results, as has feeding of curd or cottage cheese. Where skim milk is fed, it is mixed in mashies or given to drink. The results are satisfactory, but care should be used to have the milk either always sweet or always sour. Alternate feeding of sweet and sour milk is liable to produce diarrhea. Old milk that has been allowed to stand in dirty vessels or galvanized-iron cans or pails, sometimes proves injurious. To force egg production during winter, a warm mash, fed once a day, has a good effect. My system of feeding is wheat in the morning, scattered among the litter; mash and animal food at noon; also green food and corn at night. Where a person can keep some sheaf wheat for the hens, it is valuable for inducing exercise, and supplies the pen with some fresh litter each day. Hens seem to delight in threshing their own grain. I also keep before my hens a dry mash, composed of 100 pounds of bran, 100 pounds corn chop, 100 pounds oat chop, 100 pounds wheat middlings, 100 pounds beef scrap, 25 pounds linseed meal, 25 pounds alfalfa meal. As a rule, they will not eat much of this dry mash unless hungry; they much prefer the grain or wet mash. But when hens are laying heavily, we do not sometimes feed them all they should have. They can then go to the dry-mash hopper and take what they require. Some people are having

fairly good results from feeding dry mash most of the time. Where labor is scarce, this method answers very well. I have found from experience that hens want to be fed well to produce eggs. Pullets need all the food they will eat, of the right kind, and results in egg production will follow if properly taken care of.
Brant Co., Ont. J. W. CLARK.

Methods and Results.

Editor "The Farmer's Advocate":
My poultry house is 20x24 ft., built of single boards and battened on outside of studs, and lathed and plastered on inside, with air space. It has a cement floor, on which is a few inches of dirt or gravel, also some litter. There are three windows 3 ft. square in south wall; then at the upper end of the roof, sloping to the south, is an upright part some 4 ft. high, which also contains three windows, 3x4 ft. The north and south walls are 4 ft. high. It has a door in the west end and a window 2 ft. square in the east end. I have removed a few lights in the lower windows, and tacked on cotton for ventilation. It contains four pens and a little feed room between the back two. The dropping boards are some 2 ft. above the floor, and above the two on the north side are slatted ceilings covered with straw, and in front of all of them is a curtain of burlap, which can be let down on cold nights. I have one scratching shed on the north side end one on the south; the latter open to the south. They enjoy these on nice days.

I feed three times daily. One feed of grain in litter, some oats and mangels or cabbage at noon, and a feed of mash at night, part of time. The mash is sometimes fed in the morning, followed by some small grain in the litter. I give one or two feeds of potatoes (cooked) with shorts every week, in place of the mangels, which are stuck on nails. The mash is made up of ground grains, such as corn and oats, two parts; bran, one part; shorts, one part, and a little linseed meal, all moistened with boiling water; or, better, skim milk.

They get two or three feeds of boiled beef liver or green bone a week, and have dry bran in a hopper before them constantly. I also keep grit and oyster-shell before them in a hopper. Some clover leaves to pick over also furnish a treat for biddy in winter.

The dropping boards are cleaned two or three times a week, and a sprinkle of lime dusted over them. Coal oil should be put in the notches at the end of the perches, also on the under side of perches. A serviceable hopper may be made from a length of stovepipe and a small box. Take a box with sides about 6 in. high and 1 ft. or more square; remove the bottom and fasten a bottom half way up the sides; nail laths around the top of sides, allowing these to project 1/2 of an inch inside, to prevent hens from wasting feed. Make a hole on each side of stovepipe 2 in. from one end; fasten a wire in these holes for a bail, at top of which have a ring. Suspend this pipe from the ceiling by a cord or wire over the box, so the bottom of pipe is 1/2 in. or 3/4 in. from floor of box. Place grain or dry mash in the pipe, and adjust it so as to run out as fast as feed is picked from the box.

During the early part of the year 1907, from 60 hens, I got the following results. About May and June began killing off part of the stock:

- 1907—Jan., 37 doz.; Feb., 30 doz.; Mar., 75 1/2 doz.; Apr., 61 doz.; May, 73 doz.; June, 45 doz.; July, 24 doz.; Aug., 16 doz.; Sept., 12 1/2 doz.; Oct., 7 1/2 doz.; Nov., 12 1/2 doz.; Dec., 6 doz.
- 1908—Jan., 21 doz.; Feb., 46 doz.; Mar., 51 doz.

The receipts for 1907 were \$147.09; expense, for feed, \$72.28; profit, \$74.81.
During the year 1907 they laid 400 dozen eggs. The eggs alone in January, February and March, 1908, brought \$38.65. I then had about 55 hens. Cannot give figures for balance of 1908.
Norfolk Co., Ont. J. F. RIDDLE.

Water for Poultry.

While hens can live and lay moderately well if given snow instead of water, it is reasonable to believe that water is better, and that the chill should be removed from it, one consideration being that it will not freeze so quickly as if at the freezing point when placed in the pen. If water is provided, let it be given regularly and pure. Water one day and snow the next is not a very effectual regimen for stimulating egg production.

Better Than Ever.

I received my knife some time ago, and am delighted with it. It is well worth trying for. Your Christmas number was fine this year—better than ever. We have been taking "The Farmer's Advocate" for two years, and could not do without its weekly visit. Hoping to get new subscribers, and wishing you every success for the New Year.
GEO. KENDRICK.
Wentworth Co., Ont.

APIARY.

The Busy Bee.

At the meeting of the Maine State Pomological Society, recently held, Miss L. M. Scales, of Temple, presented a paper on a few phases of the busy bee, an abstract of which follows:

"The farmer has many enemies in the insect world, but one of his best friends, the bee, belongs to the insect domain. Because of the offices of this little insect, busily fitting about carrying pollen from flower to flower, larger and better fruit and more of it results. Apples, pears, plums and cherries owe a large and perfect crop to the busy bee, and the strawberry and other small fruits are under the same obligation; hence, we find many orchardists uniting bee-culture with the raising of fruit.

"Bumblebees and honeybees live in communities composed of drones, workers and queens. The queen bee spends the most of her time laying eggs. The cells in which the eggs of the workers and drones are laid are also used after the emergence of the young for the storing of honey. They are hexagonal in form and nearly horizontal; the drone cells are larger and stronger than those of the workers, while the queen cells are still larger, cylindrical in form and of a dark-brown color.

"After the eggs hatch the larvae are fed pollen and honey for a few days; when they refuse to eat they are covered over with wax and spin themselves a fine silk cocoon, from which, after a two-weeks' pupation, they emerge perfect bees. The cells are now cleaned for more brood, or for the storing of honey. They gradually become smaller, owing to the accumulation of the cocoon material. After a time the foundation should be melted, as small cells mean small bees.

"The length of a bee's life depends upon the amount of work it does. The wings are delicate, and soon wear out, and in the busiest season will last only from two to three weeks.

"The hives should be filled with bees and the frame with brood as early in the season as possible. A seven-frame Simplicity hive is a standard make. This should be carefully packed with wool blankets for winter, and plenty of stover provided. In the spring remove the side packing as soon as the weather is warm enough, and add three more frames. Blankets of light wool will be needed over the section cases until the middle of June. When the weather becomes hot, spray the hives with cold water and place wet sheets over the tops and sides to keep them cool and to prevent the wax from melting.

"Before the honey flow there is no nectar in the honey sacs, and the segments of the abdomen telescope over each other, and the bees are massed in the least possible space. When the flow of honey comes the abdomens become filled, and unless room is given for the enlarged bees they will crowd out on the outside of the hive, providing the hive was full before. This nectar is given by the field bees to the hive bees, who hold it until it is properly conditioned before they deposit it in the comb. The length of the season is usually from the first or middle of April, when the bees first begin to gather the pollen for the bee-bread, until the last of October. It may begin in the middle of March if spring comes early.

"Bees rarely swarm when there is enough work to do, but if the flow of nectar ceases, watch out. The first indication is generally that the front of the hive is covered with bees. When a young queen is nearly ready to hatch, everything becomes suspiciously quiet, and soon the old queen and the greater part of the bees leave the hive with a pleasant humming sound. They cluster around the queen, hanging in great bunches. If it happens that the queen did not leave, the bees return to the hive, to go again a little later, when she is ready to leave. Swarming bees are filled with honey to begin home-making, and are never so gentle as at that time. Scouts are sent out to locate a site for the home before the bees swarm. When the bees decide to accept the hive in which they are placed, they make a happy, low, purring sound, like a contented kitten.

"In handling bees it is always well to be protected by a bee veil. If the operator is not too nervous, it is easier to work without gloves. Late in the season, however, protection is indispensable, and in handling strange bees one should be fully protected. Should one bee of a swarm sting, it always incites others to do likewise. A linen cloth folded several times and kept saturated with vinegar is an excellent alleviant for bee-sting.

"Wax is a secretion of the worker-bee, and is produced when required for use in the hive. The bees fill themselves with honey, and as a high temperature is required to produce it, they hang themselves up in clusters or festoons in the hive, and most tenaciously cling together. It is secreted between the plates in the lower side of the abdomen, and is at first white and very brittle, but is rendered pliable by mastication in the mouth of the bees." MRS. M. B. AIKEN.

THE FARM BULLETIN.

Death of Mr. T. S. Weld.

There are many readers of "The Farmer's Advocate" who will regret to learn of the death of Mr. Thomas Saxon Weld, which took place in London, England, on Tuesday, December 29th, at the age of 45 years. Mr. Weld was born in Delaware Township, Middlesex Co., Ont., and was one of the nine sons of the late William Weld, who founded "The Farmer's Advocate." Educated in London and at Woodstock College, he became prominently identified with this paper, and for some time was also President of the London Printing and Lithographing Company. About seven years ago, owing to ill-health, he left London and travelled extensively, spending some time in Arizona, Alberta, and the south of France, in the hope of being benefited by change of climate, but with only partial relief. Finally he went to England, where he, with his wife, lived in London for the last six years, his health having in the meantime somewhat improved. Letters received by the family here on Christmas Day indicated that he was as well as usual, but four days later a cable message brought the sad tidings of his death. Mr. Weld was a man of a cheerful and kindly disposition, and was popular with a large circle of appreciative friends. He was exceedingly fond of good horses, and before his health failed was the owner at various times of high-class harness horses, of which he was an expert handler. Besides his wife, he is survived by seven brothers and two sisters.

Ontario Horse-breeders' Exhibition.

Everything is now about in readiness for the Breeders' Horse Show, at the Union Stock-yards, West Toronto, January 13th to 15th. Entries are completed, the stables ready for the horses, and the arena ready for the visitors and the judging. Handsome decorations are in place in the Horse Exchange, where the animals will be stabled, as well as in the arena. The passages between the two buildings are also tastefully decorated.

In order that visitors may see the horses to the best advantage in the stalls, the stallions of each breed will be placed in adjacent stalls. The mares will be stalled in a similar manner. The best opportunity for careful inspection will be when the horses are in the stalls and before the building is crowded. Visitors will be admitted to the stables any time during the morning or afternoon. One paid admission will admit to any of the exhibition buildings during the entire day. Any person paying admission fee may go in and out of the exhibition buildings as often as desired during the day on which the admission was paid.

Full information regarding the programme and entries in each class will be published in the official catalogue, and will be distributed during the show. The programme showing the order of judging may be procured upon application to the Secretary. Every facility will be given purchasers to examine horses.

The railroad rates will be single fare, good going from all points in the Province on January 12th and 13th; and from points where the single fare is \$2.50 or less, tickets will, in addition, be sold on January 14th and 15th; all tickets good to return up to January 16th.

For all particulars regarding the show, application should be made to A. P. WESTERVELT, Parliament Buildings, Toronto.

Dread Disease Under Control.

Judging from reports from reliable sources, the Bureau of Animal Husbandry has the foot-and-mouth disease under control, and there is little danger of a further outbreak. About 250 competent men have been at work, and almost 4,000 cattle were killed and buried. Already relief from some quarantine regulations are reported from some parts. Maryland, it is said, can ship fat animals to butchers. Another report says that arrangements have been made with the Canadian Department at Ottawa, whereby hay can be brought into Canada from Michigan through Sarnia.

Canadian Fruit at Spokane.

The superior quality of apples grown in British Columbia was demonstrated at the great apple show at Spokane, when, according to reports, thirteen firsts and one second prize, including two medals and a silver cup, fell to the product of the Canadian orchards. This victory was won over fruit from various States of the American Union, including Oregon, Washington, Utah, Wyoming, Montana, North Carolina, New Mexico, Georgia and New York.

To Our Club-raisers.

There are thousands of farmers who do not know what they are losing every year through not being subscribers to "The Farmer's Advocate and Home Magazine." Therefore, we want all readers of "The Farmer's Advocate" to act as club-raisers this year, and send us large lists of NEW SUBSCRIBERS.

If you send us two new names and \$3.00 to cover same (each new subscriber paying \$1.50), we will mark date on your paper forward one year as remuneration to you; or, for each single NEW NAME, accompanied by \$1.50, we will advance the date of your address label six months. Cash commissions or premiums, as preferred, for larger lists of new names.

In clubs of FOUR RENEWALS OR OVER, we will accept \$1.25 each.

Premiums not included in club offers.

Start raising your club immediately. Get "The Farmer's Advocate and Home Magazine" into every household in your locality.

Fixed Methods of Young Farmers.

Discussions at a series of successful Institute meetings in Durham County, Ont., held during December, revealed the fact that systematic and practical rotation systems on farms managed by young men were doing much to uplift agriculture in the county. The leading speakers were D. Anderson, of Rugby; Dr. H. G. Reed, of Georgetown, and Dr. J. Standish, of Walkerton. Mr. Anderson reports that both afternoon and evening sessions were well attended, and that interest was manifested by intelligent discussions following the addresses. Live-stock meetings in Alberta demand the services of this worker in the West for the next few weeks.

Dealing with agricultural conditions in Durham County, Mr. Anderson says:

Farmers are following diversified farming closer than at any other point I have touched. One-third of the tillable land in the County is in oats and hay, not much fall wheat being grown. Peas, rye and buckwheat are supplementary crops. An increasing area is being planted to corn. Roots are not extensively cultivated. A million dollars' worth of cattle and swine are sold annually. Organized dairying is not a strong factor in Durham County agriculture. Many are beginning to specialize in apple-growing, particularly in winter varieties; extensive, healthy, well-cultivated young orchards, some of them coming into bearing, are to be seen. A very large area has been planted in the Townships of Clarke and Darlington, so that Durham promises to rank as one of the best apple-producing counties in the Province.

During the circuit I was very much impressed with the number of bright, intelligent, brainy young men who were starting farming for themselves, running their farms on progressive lines, yet tempered with a steady cautiousness that is always indicative of success. One young farmer's methods will give an idea of how agriculture is progressing amongst young men. He owns a farm of 150 acres, 50 of which is a mile away from the home farm, and is kept in permanent pasture. The 100 acres is all cleared, and all tillable land. The farm is divided into four fields, and a four-years' rotation closely adhered to: 1st, corn and roots; 2nd, oats and barley; 3rd, clover; 4th, mixed hay. Sometimes one-half of the clover field is kept for seed. A large cement silo, conveniently situated to the stables, contains the bulk of the succulent feed. Only a few roots are raised, the dry falls being adverse to turnip-growing. I heard no complaint about noxious weeds. With a cleaning crop and two grass crops in a four-year rotation, how can weeds gain a foothold? Besides, one of the grass crops is in reality a smothering crop, for a luxuriant growth of red clover, with its dense shade, chokes out and stifles weed growth. The fixed methods of many of the young Durham County farmers are to be commended, and could be applied with almost like results in nearly every county in the Province.

Results in Farm Practice.

We must thank you for the beautiful present, the Christmas Number of "The Farmer's Advocate." I think it is just splendid. We do enjoy reading "The Farmer's Advocate." It is welcomed every week. The results are easily seen in the feeding and breeding of farm stock and the general care of the farm, in the farmers who read "The Farmer's Advocate."

Bruce Co., Ont.

ROBT. J. POLLOCK.

A British Columbia Settler.

Editor "The Farmer's Advocate":

I have been a subscriber to "The Farmer's Advocate" thirty-one years. My cabin was situated four miles south of post office and store at Fort Langley, with only a trail cut through the bush. I made regular trips for my favorite, "The Farmer's Advocate." After getting my load of provisions, I commenced my journey, over logs, ravines and rivers, to my home, sweet home, among the bears and panthers. At that time there was no C. P. R., no Vancouver; about half a dozen settlers in Langley Valley, a few Indian ponies, and a few bands of wild cattle. Now, fine houses, fine farms, fine barns, fine scenery, and a finer valley, will be hard to find. There are a great many beautiful places in Ontario, but when we think of those artistic houses, those immense stock and grain barns, those well-tilled farms, those great herds of black-and-white cattle grazing in fields as green as the green fields of Ireland, I think you would say, Mr. Editor, Langley leads. In a few months' time the electric cars will be running from Vancouver, and the houses will be aglow with electric light; and the dark evenings in winter the barns will be light. The telephone will be installed in nearly every house. Then, we have the mountains to the north, extending from east to west. The California sun sets, to a certain extent, at the foot of the mountains. The great waters of the Fraser roll gently down to the sea, teeming with different kinds of salmon. WM. MEDD.

New Westminster, B. C.

The Sparrow's Discernment.

Editor "The Farmer's Advocate":

One of your correspondents on the sparrow question, in a recent number of your paper, wonders how poisoning would work. It will work all right until the sparrows get too wise to eat the poisoned grain, which will be very soon. About a year ago I undertook to poison some sparrows. I started by feeding them some wheat every day on one of the beams in the barn, until I had the sparrows gathered around pretty thick, and they would clean up the wheat in a few hours. Of course it is not wise to have very much other feed lying around that they can get at. When I had the sparrows feeding about right, I put the poisoned wheat (poisoned with strychnine) on the beam about dark one night, to be ready for them in the morning. In the next two or three days we found about two dozen dead sparrows, but so far as I know they never touched another kernel, although the wheat lay there till the next harvest.

The editor expresses a fear that cats may be poisoned by eating the dead birds. There have been no cats poisoned here in that way. The poisoned sparrows seem to have no attraction for cats whatever.

I agree, most heartily, with those who would like to see the sparrow exterminated entirely. I consider it a nuisance, and that continually, with practically no redeeming features.

Waterloo Co., Ont. J. D. TAYLOR.

How to Renew.

Send us two new names, accompanied by \$3.00 (\$1.50 from each), and we will advance your own subscription one year for helping to increase our circulation. If two new names cannot be secured, send one, accompanied by \$2.25 (\$1.50 from the new subscriber and 75 cents from yourself for the balance of your own renewal). This is a most liberal offer. Take advantage of it, thereby benefiting your neighbors and yourself, besides helping us to improve "The Farmer's Advocate."

Fair Dates Fixed.

January 13th to 15th.—Ontario Horse-breeders' Exhibition, West Toronto Stock-yards
January 18th to 22nd.—Eastern Ontario Live-stock and Poultry Show, at Ottawa.

"The Farmer's Advocate" is far and away the best agricultural journal printed in Canada, if not in America. That is universally admitted. The best is the cheapest. That also is a well-established principle, and in reading matter it applies more forcefully than in anything else. The conclusion is plain. "The Farmer's Advocate" is by all odds the best paper to take. Cheap reading is dear.

Enclosed, please find postal note to amount of \$1.50, for subscription to "The Farmer's Advocate" for ensuing year. We are well pleased with "The Farmer's Advocate." It is an excellent paper, and should find a place in every farmer's home. GEO. H. STEVENS.
King's Co., N. B.

A report from Ottawa states that H. R. Pousette, of Sarnia, Ont., has been appointed representative of the Trade and Commerce Department for South Africa, with headquarters at Durban.

THE BANK OF TORONTO

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INCORPORATED 1855.

MARKETS.

Toronto.
LIVE STOCK.

At West Toronto, Ont., on Monday, January 4th, receipts were 51 cars, comprising 1,074 cattle and 359 sheep. Quality of cattle was medium and trade moderately good. Export steers brought \$5 to \$5.30; bulls, \$3.75 to \$4.20; prime picked butchers', \$4.80 to \$5; good, \$4.50 to \$4.55; medium, \$4 to \$4.25; common, \$3.50 to \$3.80; canners, \$1.50 to \$2.25; milk cows, \$30 to \$51; calves, \$3 to \$6.50 per cwt.; sheep, \$3.25 to \$3.50; lambs, \$5.50 to \$6.25; hogs, \$6.25, fed and watered at market, and \$6 to drovers at country points, f. o. b. cars.

REVIEW OF LAST WEEK'S MARKET.

Last week's offerings were not as large as had been the rule for some time past, but ready and prompt sales, at fair prices, were the rule. Some very fine lots of exporters arrived early in the week, and met willing purchasers, despite the heavy supplies arriving before the holiday week.

Exporters.—Until the end of the week all export offerings were in demand to fill boat space. Export bulls went up to \$4.50. Prices ranged as follows: Steers, 1,300 to 1,400 lbs., \$5.25 to \$5.35; bulls, \$3.75 to \$4.50.

Butchers.—There was a general demand for medium butchers' stock to mix with choice Christmas stock purchased earlier. A wide range in prices was experienced, the minimum and maximum figures being \$3.45 and \$4.25.

Feeders and Stockers.—There was a scarcity of feeders and stockers. Rough light steers brought \$2.30 to \$2.40 per cwt.

Milkers and Springers.—The market for milk cows and springers was not brisk. Quality generally was poor to medium. Prices ranged from \$25 to \$50, with the bulk going at \$30 or \$35.

Veal Calves.—Veal of high quality was in good demand. The average price was about \$6.

Sheep and Lambs.—Choice and medium sheep and lambs were sought after. Extra choice lambs went to about 6c. a pound. The figures ranged as follows: Choice lambs, \$5.25 to \$5.75; medium, \$4.25 to \$5; common, \$3.50 to \$4. Choice sheep, \$3.25 to \$3.40. Rams, \$2 to \$2.50.

Hogs.—There was little change in the hog situation. Selects, fed and watered at the market, were quoted at \$6, with \$5.75 ruling to drovers, f. o. b. at country points.

BREADSTUFFS.

Wheat.—No. 2 white winter, 95c. bid; No. 2 red, 95c. bid; No. 2 mixed, 93c. bid. Barley—No. 2, 57c.; No. 3, 54c. Oats—No. 2 white, 37c. bid; No. 2 mixed, 36c. bid. Rye—76c. buyers. Bran—\$22 per ton. Shorts—\$25. Buckwheat—No. 2, 57c. bid. Peas—No. 2, 85c. bid. Clover—Ontario, 90 per cent. patent, \$3.50 per ton; for export; Manitoba patent, special brands, \$6; second patents, \$5.40; strong brands, \$5.30.

HIDES AND WOOL.

E. T. Carter & Co., wholesale dealers in wool, hides, etc., quote prices as follows: Hides—No. 1 inspected steers, 60 lbs. up, 10c.; No. 2 inspected steers, 60 lbs. up, 9c.; No. 1 inspected cows, 9c.; No. 2 inspected cows, 8c.; No. 3 inspected cows and bulls, 7c.; country hides, cured, 9c.; calfskins, city, 12c.; calfskins, country, 10c. to 12c.; horsehides, No. 1, \$3; horsehair, per lb., 29c. to 30c.; tallow, per lb., 5c. to 6c.; lambskins, 8c. Raw furs, prices on application.

Montreal.

Live Stock.—The cattle markets of Great Britain showed increased firmness during the last week of the year, and prices, in some instances, advanced as much as a cent per pound. The local market was not particularly well supplied with cattle last week, and for some reason the demand was unusually good for the week following Christmas. Apparently butchers had not purchased sufficient to carry them over the holidays. This may have been owing to the scarcity which developed in the poultry market, and to the resulting sharp advance in price. Also, there was some demand for cattle for export, and 5c. to 5c. per lb. was paid for them. One load of specially good stall-fed stock was held at 5c. Generally speaking, 5c. was the best figure paid locally for best cattle, fine selling around 4c., good 4c. to 4c., medium 3c. to 3c., and lower grades all the way down to 2c. per lb. Sheep and lambs were firmly held also, and choice lots of sheep ranged from 4c. to 4c. per lb., culls ranging down to 3c. per lb. Choice lambs were in demand at 5c. to 6c. per lb., while good lots were available at 5c. to 5c. per lb. Calves also experienced a good demand, and prices ranged all the way from \$2 to \$8 each. Hogs were none too plentiful, and the market for them was firmer and rather higher, at 6c. per lb., for selects, weighed off cars.

Horses.—Once more one of the principal dealers of the city reports a good week's business. Trade has been more active, he states, than he had even hoped. For the month, his turnover was almost a record one. Demand has come largely from lumber camps. His advices from his purchasing agents throughout the country are to the effect that good horses are becoming quite scarce again. Up to the present, however, there has been no further change in prices, quotations being as follows: Heavy draft horses, weighing 1,500 to 1,700 lbs., \$225 to \$300 each; light draft, 1,400 to 1,500 lbs., \$185 to \$240 each; good blocks, 1,300 to 1,400 lbs., \$175 to \$200; small or inferior animals, 1,000 to 1,100 lbs., \$100 to \$150; broken-down animals, \$50 to \$75 each, and choice saddle or carriage animals, \$300 to \$500 each.

Dressed Hogs and Provisions.—The market for dressed hogs held about steady, the tone being, however, firm. Fresh-killed, abattoir-dressed hogs sold at 9c. to 9c. per lb., country dressed being 8c. to 8c. per lb. The demand for cured provisions of all kinds was fair, and prices held steady. Smoked bacon ranged from 11c. to 15c. per lb., green being 10c. for flanks and 11c. for boneless and long clear heavy, long clear light being 11c. per lb. for those weighing 25 lbs. and over; 12c. for those weighing 18 to 25 lbs.; 13c. for those weighing 8 to 18 lbs., boned and rolled being 14c. to 15c. per lb. Pure lard was 12c. to 13c. per lb., and compound 8c. to 9c. per lb., barreled pork being \$21.50 to \$24.50 per bbl.

Poultry.—The market for poultry—particularly that for turkeys—has gone sky-high. The general course was for prices to drop immediately after Christmas. This year, for some reason not yet sufficiently apparent, prices went the other way, and on the last day or so of the year it was almost impossible to get any considerable quantity of choicest and fresh-killed turkeys at any price. At the farmers' market, a few lots were picked up at the unprecedented figure of 25c. per lb., while wholesale houses were able to get 22c. for anything that came in. On Monday they were easier, at 20c. to 22c. Even for fine, frozen stock, they were able to get 18c. to 19c. without trouble. Geese were dearer also, being 10c. to 12c. per lb., while chickens went as high as 15c., good ones being 12c. to 13c. Fowl advanced to 10c. and 11c., according to

quality, and ducks brought 11c. to 12c. per lb.

Potatoes.—A carload of Green Mountains sold at 77c., track, per 90 lbs., the seller to lose the frozen stock. The range was 77c. to 80c., Quebec whites being about 5c. less. Jobbing prices were about 5c. more than those mentioned for carloads. Demand was good.

Eggs.—The market for eggs experienced an advance, and holders demanded and received 1c. to 2c. more than the previous week. No. 1 candled sold at 26c. per dozen, selects at 29c., and boilers at 38c. to 40c., the latter being obtainable for fresh—when they could be had.

Butter.—Demand continued very fair, and stocks were none too heavy. However, it is not thought that there will be much of an upward movement before the end of January, at any rate, about which time production will have become exceedingly light and stocks will be showing the inroads of consumption. Best fall makes were quoted at 27c. to 28c. per lb., while fresh-made stock went at 26c. to 27c. Dairy butter could be had at 21c. to 23c. or 24c. per lb.

Cheese.—The market was not in evidence.

Grain.—Very little change took place in oats, although the tone was rather easier. Canadian western were quoted at 46c. for No. 2, carloads, store, 45c. for No. 1 feed, extra, and 45c. for No. 1 feed.

Flour.—The market was steady, at \$6 per bbl., in bags, for Manitoba spring wheat patents, and \$5.50 for strong bakers', Ontario winter wheat patents being \$5 to \$5.25, and straight rollers \$4.60 to \$4.70.

Feed.—Bran ranged from \$21 to \$21.50 per ton, in bags, and was in good demand. Shorts were \$24 to \$25 per ton, in bags. There was little demand for cottonseed at \$33, oil cake being also dull at \$32 per ton.

Hay.—The market was firm, at \$12.50 to \$13 per ton for No. 1 timothy, carloads, track; \$11.50 to \$12 for No. 2 extra; \$10 to \$10.50 for No. 2; \$8 to \$9.50 for clover mixed, and \$7 to \$7.50 for clover.

Hides.—There was a good enquiry, though the actual business put through was not very large. Prices were steady all round, dealers paying 8c., 9c. and 10c. per lb., respectively, for Nos. 3, 2 and 1 hides, and 11c. and 13c., respectively, for Nos. 2 and 1 calfskins, and selling to tanners at 1c. advance. Sheepskins were 60c. each, and horsehides \$1.50 for No. 2 and \$2 for No. 1. Tallow, rough, 1c. to 4c.; rendered, 6c.

Chicago.

Cattle.—Strong; beefs, \$4 to \$7.50; Texans, \$3.85 to \$4.60; western steers, \$3.75 to \$5.70; stockers and feeders, \$2.85 to \$4.90; cows and heifers, \$1.80 to \$5.15; calves, \$7.50 to \$9.50.

Hogs.—Light, \$5.25 to \$5.95; mixed, \$5.55 to \$6.15; heavy, \$5.65 to \$6.25; rough, \$5.65 to \$5.85; bulk of sales, \$5.70 to \$6.10.

Sheep and Lambs.—Natives, \$2.75 to \$5.30; western, \$3 to \$5.25; yearlings, \$5.50 to \$6.80; native lambs, \$5.50 to \$7.85; western, \$4.75 to \$7.85.

Buffalo.

Cattle.—Prime steers, \$6.50 to \$7.

Veals.—\$7 to \$9.50.

Hogs.—Heavy and mixed, \$6.10 to \$6.15; a few, \$6.20; Yorkers, \$5.70 to \$6.10; pigs, \$4.50 to \$5.60; roughs, \$5.25 to \$5.50; stags, \$4 to \$4.75; dairies, \$5.80 to \$6.05.

Sheep and Lambs.—Lambs, \$5 to \$7.40 yearlings, \$5.75 to \$6.25; wethers, \$4.50 to \$5.00; ewes, \$4.25 to \$4.50; sheep, mixed, \$2 to \$4.65.

British Cattle Market.

London cables for cattle were steady, at 13c. to 14c. per lb., dressed weight; refrigerator beef was quoted at 10c. to 10c. per lb.

By the death of Sir Albert P. Muntz, Bart., M. P., of Dunsmore, England, which took place on Dec. 21st, one of the most prominent breeders of Shire horses in Great Britain has passed from the scene of action. The great sire and prizewinner, Dunsmore Jameson, than which few more successful have been seen since the days of Harold, was bred by Sir Albert, who was also a prominent breeder of Shropshire sheep.

QUESTIONS AND ANSWERS.
Miscellaneous.

UDDER TROUBLE.

I have a young cow which gave bloody milk from two teats this last fall; one has gone dry and the other is going dry. Also a small lump forms in them.

J. W.

Ans.—The formation of lumps in the teats makes it doubtful whether the cow will be useful in the dairy another season, as it is practically impossible to remove these successfully. Treatment in the case of a cow giving bloody milk consists in bathing the affected quarter long and often with cold water, and giving one ounce tincture of iron in a pint of cold water as a drench three times daily.

TANNING DEERSKIN—MANGELS IN PARRY SOUND DISTRICT.

1. Kindly publish a recipe for tanning deerskins.
2. Give instructions for growing mangels in the district of Parry Sound.

A. H. W.

Ans.—1. Questions dealing with tanning skins at home have been answered in recent issues of "The Farmer's Advocate." See issues of December 24, page 2015, and December 3, page 1856.

2. Mangels can be grown with fair success in any part of Ontario where a reasonably deep and compact soil, with a liberal supply of plant food, is provided. Perhaps some of our readers who have had experience in growing mangels in Parry Sound district could give us information that would be especially helpful to our inquirer in this instance.

FEEDING CATTLE AND SHEEP.

1. What is the proper way to feed milking cows and fat cattle? Have plenty of good silage, turnips and straw. How would you advise feeding for ordinary returns, and what would you advise feeding in connection with it? Will have to buy all other feed fed.

2. How much silage and turnips would you consider good feeding for twenty-five sheep, which have plenty of pea straw? How soon would you advise feeding grain?

3. Is alsike straw, with a quantity of grass and quack, safe feed for all kinds of stock?

S. L. J.

Ans.—1. The roughage mentioned will require to be balanced up with some concentrates rich in protein, if best results are to be obtained. For the cows try silage 40 lbs., roots 20 lbs. (as the roots are turnips, it is not well to feed them largely to milch cows for fear of imparting turnip flavor to the milk), straw ad libitum, bran 2 lbs., crushed oats 2 lbs., pea meal 2 lbs., oil cake 1 1/2 lbs., per head. The above is intended for cows giving a pretty good flow of milk. For others, a less quantity of peas and oil cake will answer. It is, of course, to be understood that the feeder will not start out with the above ration, but with a small allowance, gradually increased, according to response. For the fattening cattle, a little corn might be added to the ration described. It would be well to chaff part of the straw and mix with the silage, throwing the meal on top of the mixture in the manger.

2. Four pounds of silage per head per day is as much as it would be advisable to feed to sheep, commencing with half that amount and feeding no more than they will eat up clear in half an hour. In-lamb ewes should be fed turnips sparingly, not more than one pound per day, and if their teeth are sound, it is better to feed the turnips whole to the ewes, scattered upon pea straw or clean ground. For lambs or fattening sheep, one and a half to two pounds per day, cut in strips by means of a root-cutter, may be fed. Lambs and fattening sheep should have a little grain daily all winter. Ewes need not be given grain till within two or three weeks of lambing time.

3. Alsike straw is not considered a safe feed as the sole roughage, but with mixture mentioned, should be tolerably safe, especially where silage or roots are being fed.

"Morning, morning!" said paterfamilias genially as he entered the breakfast room. "I've had a splendid night. Slept like a top!" His wife agreed with him. "You did," she responded grimly—"like a humming top!"



Life, Literature and Education.

The bill to reduce licenses in Great Britain apparently sustained a crushing defeat, 272 of the Lords voting against it, and only 96 for it, but right—strength even, in things moral—can scarcely be computed by numbers. It is now stated, on good authority, that the 96 included the flower of the Peers—both Archbishops and ten Bishops, also Lord Knollys, Lord Milner, Lord Esher, Lord Lytton, and Lord Balfour of Burleigh. When speaking in favor of the bill, the Lord Chancellor quoted a judge who declared that eleven out of twelve cases tried at a recent assize were due to drink, and the twelfth indirectly, and that ninety per cent. of cases of cruelty to children had the same cause, but the appeal fell on deaf ears. . . . Why should the 272 Lords concern themselves with that with which they do not come in contact? What had they to do with criminality, or with the cruelty dealt to the wives and children of the drinking poor? Human nature is very substantially the same in all ages, and still the excuse comes, ready to the action, if not to the tongue, "Am I my brother's keeper?"

The following, from a recent American publication, on an old yet ever new subject, needs no comment. We trust the article may recommend itself, especially to our women readers:

"A bill is now pending in the British Parliament to prohibit the importation of plumage for millinery purposes, and is being strongly advocated by various humanitarian organizations. London tradesmen, who, with those of Paris, establish the feminine fashions for the 'civilized world,' are up in arms against the 'silly sentimentalists' who seek to deprive them of a possible profit. "Whole birds, slain solely that their dead bodies may be worn on the heads of women who are foolish enough to suppose themselves beautified thereby, are becoming more and more in evidence on fashionable thoroughfares in London, Paris and New York. The effect of the wholesale destruction of birds for their plumage, was recently described by Dr. David Starr Jordan, who is better known as an educator than as president of the California Audubon Society, but who, whatever else he may be, is hardly a 'silly sentimentalist.'"

"In a recent lecture, he began by describing a visit to a village in Japan, where he heard what he thought at first to be the notes of quail, but on closer acquaintance he learned that it was the humming of countless insects. As he went from place to place, he saw a few birds in cages, but no wild song birds, and everywhere he saw myriads of insects—and no fruit. Years ago, the French milliners had sent bird lime to Japan, and this had been spread on the limbs of the trees, and the birds had been caught and killed to send to the Paris market for hat-

trimming for women. Practically all the birds of Japan had been killed, the exception being a few water birds, some ravens and jays.

"The speaker said that the Audubon Societies of this country had been formed to prevent what has happened to Japan. Birds are highly-organized animals which are worth preserving. They now have as enemies the boy with his gun, the hunter on Sunday, the cats, certain birds themselves, and women who wear trimmings or feathers. The ostrich appears to exist for the sole purpose of providing innocent feathers for hats. But the terns, gulls, grebes, and many other water birds, and many of the parrots, are in such demand as threatens them with extinction. The song birds have been largely protected for some years through the operation of the Lacey bird law.

"Dr. Jordan ended his remarks on bird protection by saying that Japan has no need of an Audubon Society, because its birds are all gone, and neither has Europe any birds to protect, but that this country still has birds, and therefore the Audubon Societies have much work to do in preserving the birds of the country.

"The British Textile Trades have issued a circular against the prohibition of plume importation, to which James Buckland has made an important rejoinder, from which the following paragraphs are culled:

dependence of creature on creature so complex, that no one can tell what grave and far-reaching results might follow the extermination of a single species. In this regard, our responsibility to those of our blood who have made their homes in countries where insects impose a heavier tax on farm products than in any other part of the world, is immense. Fully awakened by disastrous experience to the economic importance of birds to agricultural interests, they plead with us to save these tireless aids of the farmer. Knowing, now, that no bird should be blamed for the depredations of one month, considering the invaluable services it renders during the remaining eleven, they point to orchards in which the song of the fruit-gatherer is hushed, and remind us that the birds, by whose agency the trees had been made fruitful, were a local asset, and not the property of a London merchant. They speak of harvest fields bared by the ravages of an undue increase of insects, made possible by the appropriation of the regular influence by plume-traders, and tell us that the profit of the few ought not to be obtained at a loss to the public economy.

"On their part, the feather traders have no arguments of a scientific or economic nature to advance in justification of their action. Their strong plea is that they have always slaughtered birds for coin, and that

the cavernous maw of universal consumption has been turned against the air itself, successful experiments having already been made in extracting nitrogen from it for purposes of plant-growth. What next? Will the inventiveness of man bridge the difficulty of having one's cake and eating it, too? Or do the inhabitants of this mortal sphere bid fair to share ultimately the fate of the Surinam toad of Bermuda, which has inconsiderately devoured its chief means of subsistence? But the Surinam toad is slowly starving to death. Enough! Comparisons are not pleasant.

A party of young Canadians in Old London, who proceeded to an East-end music hall with the intention of protesting against the singing of a song which has been proving very popular in that quarter recently, were refused admittance. The refrain of the song runs as follows:

"Why send your sons to Canada,
Tell me, John Bull,
Where hunger stares them in the
face?"

Common sense suggests that but little indignation need be felt over the occurrence. Such songs are not composed to create prejudice, but as an expression of a sentiment that has already taken hold; hence their popularity.

All emigrants to Canada do not go hungry, but, as the reports from Shactowns hovering on the borders of various cities of the Dominion showed last winter, many of them do. Canada has room and work and food in plenty for an innumerable multitude of men and women from the Old World, but these must be such as are willing to settle down to hard, steady labor on the land or in the homes, as Canadian pioneers are obliged to do. Needless to say, no very great proportion of such men and women can be expected from the East End of Old London.

A contemporary facetiously remarks: "Everybody feels bound to tip the railway porter. His employer knows it. The porter's nominal pay is twenty-five dollars a month, because his employers figure that, with the tips he gets, that is enough. So who gets the tip?"

The same may be said of hotel and steamship service; porters must be tipped, stewards, maids, elevator boys, waiters and waitresses, else but very indifferent attention can be looked for. Practically, a toll is demanded of the people, and by whom? "Who gets the tip?"

People, Books and Doings.

Mr. A. M. Wickens, a Toronto engineer, stated recently, at a meeting of the Central Railway and Engineer Club of Canada, that the day is near in which electricity will be substituted for steam on the railways. Such a system, he asserts, could increase the carrying capacity fully thirty per cent.

For the future, "God Save the King" is, by the express desire of His Majesty, to be played in quicker time than has hitherto been the cus-



Glenora, on Bay of Quinte.

"Over and above the sentimental side of the question, there is a national view of the case to which we, with our vast over-sea possessions, cannot afford to shut our eyes. The material prosperity of a nation depends largely on agricultural pursuits; wherefore, when we consider the dangers to agriculture arising from the immense numbers, fecundity and voracity of insects, and reflect that the birds, which are the natural enemies of insects, are being decimated for a sordid purpose, we must admit that we are confronted with a question that merits the most profound thought and study. Man cannot set up artificial standards of his own and bid Nature conform to them. The linkage of life to life in nature is so intricate, the

they do not see why their pecuniary gain should be now interfered with by 'faddists.'

"I believe that the time is ripe for a rebellion against the forces of destruction, but it is a work that must be done now or never. If delayed, it will be too late to save many species of useful and interesting birds from extermination. It is, indeed, impossible to exaggerate the importance of immediate action."

Mr. Carnegie states that, at the present rate of consumption, the world's iron ore will be exhausted in forty years; experts in forestry and mining from time to time give almost as startling computations in regard to timber and coal; of late,

tom. An order of the Army Council has been issued, instructing military bandmasters that the time of the National Anthem is to be 84 crochets to the minute, instead of 60. It is understood that the King and the royal family objected to the slower time as too dirge-like, and the brisker rendering of the music has been tried before the King, and approved by him. The correct time is to be inserted on all music sheets in possession of 400 military bands, and doubtless other bands will copy the example.

Mr. Reginald Brock, M. A., Ottawa, has been appointed Director of the Geological Survey of Canada, and will act under Mr. A. P. Low, Deputy Minister of Mines.

Descendants of Sir Isaac Brock are presenting to Canada the coat he wore when he was mortally wounded at Queenston Heights.

Pope Pius X. has undertaken a revision of the Vulgate and the codification of the canon law. Proofs will be sent to all the Bishops of the Roman Catholic Church in the world for approval and suggestion.

"It was Macaulay who said that if one wished to prove oneself irrefutably a bore, one had only to ask three questions, and one of them was, 'Who was the man in the Iron Mask?' All the same, people are still groping after that secret of the Vatican, and the very latest is Mgr. A. Barnes, in 'The Man of the Mask.' This author adds a new name to the already long list of candidates for the iron mask—that of James de la Cloche, or James Stuart, eldest of the children of Charles II."—T. P.'s. [The others who have been put forward as this mysterious personage were: (1) The Duke of Vermandois, a natural son of Louis XIV. and Mlle. de la Valliere; (2) an elder brother of Louis XIV., a child of Anne of Austria and the Duke of Buckingham; (3) the issue of a secret marriage of Anne of Austria with Mazarin; (4) a twin brother of Louis XIV.; (5) the Duke of Monmouth; (6) a son of Oliver Cromwell; (7) the Duc de Beaufort; (8) Fouquet; (9) Avedick, an ecclesiastic of the Armenian Church; (10) Count Matthioli, an Italian; (11) M. de Marchiel, a French adventurer.

Lake On the Mountain.

Whether the visitor takes the "high road" or the "low road," the stony driveway over the upland, or what is locally called the shore-road, along the south side of an arm of the Bay of Quinte, the distance from the thrifty town of Picton, Ont., to Glenora and The Lake on the Mountain, is about the same—five miles. In the summer quest for more distant and flamingly advertised resorts, the tourist is likely to miss many a scenic gem along the Canadian water byways. Charmingly surrounded by the Murray Canal, the aforesaid Bay and Lake Ontario, with their encircling aqueous arms, and beautified by East and West Lakes, the County of Prince Edward possesses a history, and has evolved among its people the distinction of a type. "The Farmer's Advocate and Home Magazine" has many old friends here whom readers elsewhere would surely be glad to know more intimately; so, if they are going somewhere next season, we counsel them to spend a while in the beautiful Bay of Quinte region, and to not forget to explore The Lake on the Mountain, a mile or better across each way. Driving from the south-east, the writer came in sight of its pellucid waters on a breezy October morning, but there seemed to be no "mountain" in view. In this way, one reaches the "summit" almost without knowing it, and, skirting the north-east corner, the eye is greeted with a glimpse of the deeper-tinted Bay waters far below. The sparkling surface of the little lake is about 185 feet above the level of the bay, from which it is separated by a mighty limestone

wall, about 25 rods across at the narrowest part. This barrier is crowned with fertile soil, and gardens and homes, and a few business places. The fathoming line has accorded the lake a depth of some 95 feet. Always fresh, plentifully supplied with "pan" fish, a charming boating place, and varying little in depth from year to year, it is a picturesque conundrum. By what means was scooped out from the "everlasting hills" the gigantic cup that holds its waters? Through what mysterious subterranean channel is it fed? From the Trent River, some have guessed, and others from far-distant Lake Erie, to which speculation Dr. Wm. Canniff alludes in his history of the Settlement of Upper Canada. Inquisitive souls have proposed dynamiting a tunnel to empty the lake, so that they might explore the hole through which the waters come—like Helen's Babies, that wanted to see the wheels of the watch "go round,"—and others of practical turn to test

ing Company. The mill property, owned by Mr. J. C. Wilson, of Picton, was, a while ago, leased to a newly-organized company, under the management of Mr. T. N. Martin, by whom it has been entirely refitted with a modern flour-milling outfit. The water supply from the lake is regulated above by gates, and at the bottom the main is subdivided into three branches, supplying power, likewise, for a turbine-wheel foundry. One of our engravings affords an attractive glimpse of The Lake on the Mountain, and the other of Glenora, on the bay below.

From Out of the Past.

Probably few will dispute the proposition that, whether generally recognized or not, there are many Christian thoughts underlying Pagan conceptions, and that, veiled under the poetical emblems of a mythological creed, many valuable lessons may be learnt by Christian and Pagan alike. Nay, more, that many of our



Lake on the Mountain.

the permanence of its surplus volume for electric-power purposes. But most folk are content to leave geologists and geographers to wrestle with the problem of its source, while they enjoy its beauty or contentedly regale upon the products of the "roller process" which its energy sets in motion. In a rather inaccessible spot on the brambly and precipitous rock-side is a dark cave, infested betimes, 'tis said, by black snakes, the terror of bad boys who may be banished there as a penalty for sundry misdemeanors.

In early days, the overflow of the lake doubtless formed a cascade, tumbling to the waters below, and one, Major Van Alstine, with an eye to monetary utility—still characteristic of the good Bay of Quinte people—cut a channel down the mountain side, and established here the third flouring mill of the region, in 1796. Some years ago, a wooden flume, that used to convey the waters, was superseded by a huge iron pipe, through which the waters rush down to the turbines of the Glenora Mill-

own festivals have for their foundation a Pagan origin, proving that even in the ages long ago men groped after higher meanings, and, whether they knew it or not, gave expression to the Divine element which was and is the birthright of every human soul.

Take, for instance, the mythical significance of the heathen Deity "Janus," represented with two faces, the one looking back into the past, the other forward into the future. One poet makes him say:

"'Tis mine to guard the portals of the year,
To close or open to the seasons four,
And to the importuning throng of days,
Sometimes I hear the tread of stormy feet.
Hoarse trumpet blasts, and loud assaulting blows;
But other times they come with flatteries smooth,
Entreating 'Janus! Janus! let us in.' . . .
I watchful stand. I will not turn the key
Until my glass and figured dial stern

Declare the moment ripe. Two ways I look,
Two faces I present. One seamed with eld,
And gray with looking on the frozen past,
One fresh as morn, and fronting days to be."

And another, after a still more descriptive introduction, says of Janus:

"His reversed face doth show distaste,
And frowns upon the ills now past;
But that which this way looks, is clear,
And smiles upon the new-born year."

And what is this but the Christian doctrine of hope?

Let heathendom teach us one more wholesome lesson.

There is a pretty Indian legend of a good spirit who, wishing to benefit a young princess, led her into a ripe and golden cornfield. "See these ears of corn, my daughter; if thou wilt pluck them diligently they will turn to precious jewels; the richer the ear of corn, the brighter the gem. But thou mayest only once pass through this cornfield, and canst not return the same way." The maiden gladly accepted the offer. As she went on, many ripe and full ears of corn she found in her path, but she did not pluck them, always hoping to find better ones further on. But presently the stems grew thinner, the ears poorer, with scarcely any grains of wheat on them; further on they were blighted, and she did not think them worth picking. Sorrowfully she stood at the end of the field, for she could not go back the same way, regretting the loss of the golden ears she had overlooked and lost.

What better New Year's illustration could be given to us from our church pulpits, of the inevitable result of a failure to grasp life's golden opportunities as they come to us year by year?

Seeing, then, that our opportunities as a rule come to us singly, not in battalions, and knowing also how apt to be easily scared by difficulties are even the most stout-hearted amongst us, what better motto could be suggested for our opening year than that time-honored injunction to "Do the next thing"?

"Do it immediately, do it with prayer;
Do it reliantly, casting all care;
Do it with reverence, tracing His Hand,
Who hath placed it before thee with earnest command.
Stayed on Omnipotence, safe 'neath His wing,
Leave all resultings. 'Do the next thing.'"

With the same thought in mind, a writer for children says:

"Although it takes so many months
To make a single year,
Yet far more quickly than you think
The months will disappear.
The very centuries have wings;
New years grow old and gray;
The work which you intend to do,
Begin it, dear, to-day.

Within a single fleeting hour
How many minutes lie!
But even as you wait to count
Will sixty moments fly.
If you've a tender word to say,
A kindly deed to do,
Suppose you do it just this day?
I would, if I were you."
H. A. B.

Words of Appreciation.

H. A. B. wishes to thank Mr. Cumming, of Blyth, for his kind words of appreciation expressed in a recent issue.

Life.

Better than fame is still the wish for fame,
The constant training for a glorious strife:
The athlete nurtured for the Olympian Game
Gains strength at least for life.
—Lord Lytton.

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The Quiet Hour.

What Some People are Doing.

Though I am still laid on the shelf with a lame knee, and have been forced to drop any active participation in settlement work, of course I am still deeply interested in the progress of the college settlements among the poor of the great cities. It was therefore a great pleasure to me to read an article on "Settlement Work in a Great Metropolis," by Anna Seaton Schmidt, and I think it will be of interest to our readers, so I will quote from her article which deals with some of the settlements in Old London. She gives us a peep into one House where the weekly party given by the Young People's Club is in progress. These parties are encouraged because the work of the young men and women during the day is very confining, and they need the social relaxation in a bright and happy atmosphere which is provided for them. Their homes are stuffy and forlorn and they are sure to find amusement on the streets, or in low dancing halls, unless a better place is open to them.

"The evening that we selected to go over happened to be Bank Holiday. Mr. Gladstone, the enthusiastic young warden, conducted us to the large hall, where about fifty girls in simple white shirt-waists and dark skirts were wheeling gaily around with their attendant cavaliers. They always have a dance on holidays. There is nothing that the young folks enjoy more, so they are willing to return early from their excursions in the country. Otherwise they would be late in the streets and perhaps get into bad company.

"Just then a handsome young man approached and was introduced as Professor M., of Cambridge, who was visiting the warden. 'Will you dance with the girls?' I asked. 'Oh, yes, I enjoy it immensely. I've promised Mr. Gladstone to look after all the wallflowers!' As the next waltz began, he crossed the hall and spoke to some girls who were sitting on a bench, quietly watching the dancers. Their beaming faces told of their pleasure, as he led, first one, then another into the magic circle. The dance over, he took them to the refreshment counter for a cup of coffee and a sandwich."

Probably some of our readers will think that dancing-parties are a strange way of elevating the degraded. But it is safer to refrain from judging, until one has had personal experience of settlement problems.

The Passmore Edwards Settlement is not exactly in the "Slums" of London, but it provides for the social needs of the people around, whose "small salaries permit of no luxuries, and after their hard day's toil they would find little pleasure in their overcrowded homes, or dingy boarding-houses. . . . Under the noble moral influence of its inmates they are encouraged and helped to lead good lives."

But the work of the Duchess of Newcastle, in her little settlement of St. Anthony, in Whitechapel, is reaching a much lower and more degraded class, "who must be taught, through the beautiful lessons of Christian charity, that the rich are not the enemies of the poor, and that it is possible, even for those born in the dens and lairs of the East End, to conquer environment and become self-respecting, self-supporting members of society."

Though only a small fraction of the "submerged tenth" has as yet been reached and helped to throw off the crushing weight of despairing misery, yet even that is worth while. "Statistics in England prove that crime and drunkenness have greatly decreased since the settlements began their work," says Miss Schmidt, "the jails, recently torn down in London, are not to be replaced because of the decrease in the number of criminals. Social workers agree that the streets are the nurseries of crime, from which the jails have been recruited—they direct their combined efforts toward rescuing children from such pernicious influences." What can be expected of children growing up in the degraded atmosphere of the worst slums? They are accustomed to indecent overcrowding and dirt, their clothes are mostly draggled rags, and the language they hear and use is utterly indescribable in polite society. "But after two or three years spent in the evening classes at St. Anthony's, a

wonderful change takes place in the children, who are thus brought under the personal influence of the Duchess. Watching the pretty, bright girls as they deftly cut and planned their winter dresses in her sewing school, and remembering their homes, where a father or mother live with three or four children in one room, and seldom have enough to eat, it seemed one of God's greatest miracles that anything so pure and sweet could come out of such foulness. "We are great believers in the inheritance which each child has received from her Heavenly Father, if only we can provide the environment."

"The Duchess always takes the most depraved cases. If a man has stabbed his wife, if a drunken woman is beating the children, Her Grace is sent for—day or night she fearlessly enters the worst tenements in Whitechapel." One of her helpers—Miss Violet—says that when she first came to St. Anthony's, she was terribly frightened in the tenement houses, with their dark, crooked stairways and drunken men and women. "When I heard them quarrelling I would often turn back—then the thought of our beautiful Duchess, who goes into much worse places, would make me ashamed of my cowardice. She is never afraid. Often she returns late at night from her home in the West End, and walks here from the underground station. She won't spend a cent on cabs if she can walk. She saves every penny for her poor, sick people."

After visiting some of the neighbors in their homes, where too often the beds were unmade, dirt piled in every corner, potato peelings, cabbage leaves and bits of bread strewn on the floor and drunken men and women in a heavy stupor, they returned to the settlement.

"After all, we must not blame them too much," said Miss Violet. "The longer I live among them, the more I wonder that any are sober. You cannot imagine what our winter means without fire or light—especially when the fogs settle over London. The men return from their work wet and tired. What comfort is there in a room damp from fog and rain, filled with crying children, no fire and an ill-smelling lamp? Is it not natural they seek the saloons for comfort?"

"Many of these poor creatures lead beautiful lives," said Her Grace. "I often feel that we receive here more than we give, from the noble example of those who are so patient, so cheerful, in spite of their terrible poverty."

The settlements certainly are doing a great deal to bring rich and poor together, and the spiritual gain is perhaps greater to the former than to the latter. They are learning that it is the joy and privilege, as well as the duty, of the strong to bear the infirmities of the weak and not to please themselves. HOPE.

My Pillowmobile.

'Tis my delight,
In the depths of night,
To speed in my Pillow Car;
To dance perchance,
Thru sunny France,
Perhaps to the Polar Star.
I linger long
In the Hills of Song,
I travel to Mandelay;
I board my ship
And take a trip
To glorious Yesterday.
My Pillow train
Will jump from Spain
To Saturn, perhaps the Moon;
Then take the track
That leads me back
To the home of Eternal June.
Thru old Japan,
Beloochistan,
And Thibet and gay Pekin;
And thence we creep
Thru the vasty deep
To the haunts of the Tribes of Fin.
My Pillow Car's
Been up to Mars,
It travels both earth and air;
And, like the wind,
It leaves behind
The City of Woe and Care.
So come with me
On a pillowy spree,
For the Land of Dreams awheel;
Thru sky and earth,
To joy and mirth,
In my wonderful Pillowmobile.
—John Kendrick Bangs, in Harper's Magazine.

The Roundabout Club

A Country Boy in a Big City.

Editor "The Roundabout Club":

Having seen several articles in "The Farmer's Advocate" discussing the subject, "How to Keep the Boys on the Farm," I thought it might be a good thing if the young men could see things in their right light. A young man comes to the city at Exhibition time, Thanksgiving, Christmas, or Easter; he sees all the lights and festivities and is greatly attracted by it all, but fails to realize that "all is not gold that glitters," and that after the excitement there comes a calm, and everything goes back to its normal state. Now, let us take a look at boarding-house life in a large city.

A young man arrives in the city and seeks a room for himself, and after a while finds one to his liking at from one dollar and a half to two dollars and a half a week. The lady of the house at once informs him that if he has any callers he must take them up to his room; he must be out at a certain time in the morning or his bed will not be made; and he must supply his own towels and soap. He next hunts up a boarding-house, and finds one that he thinks he likes and pays three dollars a week. Meal hours are 6.15 a. m. to 9 a. m., dinner 12 m. to 1.30 p. m., and supper from 5.30 p. m. to 7 p. m. If he is there, all well and good; if not, he has to go without, or go out and buy for himself. He is not at home where mother will give him a bite, and where the pantry is handy.

This young man next finds employment, and his working hours are 7 a. m. to 6 p. m., with one hour for dinner. He rises at 6 a. m., prepares for work, and then proceeds to his boarding-house, and after breaking his fast, sets out for work. At noon he returns to his room, washes, makes himself presentable, goes over for dinner, and then back to another five hours' work. He hurries home when his work is done, hungry as a hunter, and feels as if he could eat anything that was placed before him, but he cannot go and sit right down to his meal as he could at home; no, he must go to his room, wash, dress for the evening, and then off to his boarding-house. At his old home, with dear old father and mother, Betty, Maggie, Jack and Tom around the table, the conversation used to be on topics which were interesting to him; but at this table, what is the talk? Nonsense and chatter, which is intended for "every-one in general, but no one in particular," and which is of no interest to him. At home he would say, "Betty, that pudding is tip top," and Betty answers, "Pass over your plate," and he would get a second supply; here no second helpings he gets, or if he does, the black looks of the boarding mistress drive away his appetite.

After supper he has the choice of two things—spend the evening in his room, or go out. The city being new to him, there there are many things to be seen and heard. If he is moral and religious, the churches, Y. M. C. A.'s, Public Libraries, and night schools, open their doors to receive him; and if the opposite way, the theaters, bowling alleys, billiard parlors and music halls all invite him to an evening of enjoyment, while the saloons, with lights all glittering, invite all young men, rich and poor, good and bad, to their doom. It has been well named, "The Bar."

A bar to progress, a bar to health,
A door to poverty, a bar to wealth,
A bar to heaven, a gate to hell,
Who named it that, named it well.

Sunday comes around, and he gets up at an early hour and gets his best duds on, and off he goes for a walk, and then to breakfast. After that is over he may go for another walk, or go back to his room. At home in his leisure hours, Maggie would sit at the piano, and he could exercise his vocal powers, and no one interfered, or if he felt frisky he could give mother a kiss and a hug, or have a wrestle with Jack, or a good old-fashioned argument with Tom; but here he dare not sing, he might disturb the other roomers. There is no one around who cares a straw whether he is happy or sad, good or bad, or whether he feels "at home" and has a pleasant time or not. All they think of is, give us your

money at the end of the week and keep out of our way. So he reads for a while, and then goes to church. In the afternoon he can go to Sunday school or not as he pleases, but there is not much of love or comfort for him. He goes to church at night, and after church to his lonely room, there to go to bed, and get refreshing sleep to prepare him for another week of work and thankless toil. At home, after church, they would sit around the big, old-fashioned stove, while the fire crackled and blazed, and discuss the sermon, and bring to memory old scenes and faces; mother would then bring out a pan of good "Snows," or Northern Spies, and oh! what a munching-match would follow, and then off to rest. ALL THIS HAS NOW PASSED OUT OF HIS LIFE.

This is but a faint picture of boarding-house life, with no sympathy, love or care, with only strangers, and no one in whom to confide a care or sorrow. True, when a young man comes to the city everything is new to him, but it soon becomes monotonous. The lights do not burn as brightly, the wheels do not turn as fast, the hurry and bustle become weary ploddings, and the young man wakes up to find that life in a large city is not all that he anticipated, and he sings:

"Mid pleasures and places though we may roam,
Be it ever so humble, there's no place like home!
A charm from the skies seems to hallow us there,
Which seek through the world, is ne'er met with elsewhere.
Home! home! sweet home!
There's no place like home!"

"An exile from home, splendor dazzles in vain;
Oh, give me my lowly thatched cottage again!
The birds singing gaily, that came at my call,—
Give me them, and the peace of mind dearer than all.
Home! home! sweet home!
There's no place like home!"

Toronto. "RAOUL."

We have been much interested in the above letter. The condition which it describes is one which has been experienced, perhaps, by every young man or woman who, going into a big city, has been obliged to face the barrenness of the ordinary boarding-house. . . . We should be much pleased to hear from others who have had experience in city life—the kind of city life, we mean, in which the way has not been made smooth by the presence of city friends or relatives—the kind of city life which must be looked forward to, for a time, at least, by everyone who goes into a metropolis alone, unheralded, and unknown. . . . To one point of Raoul's letter, however, we feel like taking exception. Surely the music-hall cannot be put indiscriminately in the same category with the vaudeville and saloon. There are, ostensibly, some "advantages" in the city of which those with a little money to spend, may avail themselves, and the high-class music-hall is assuredly one of them. There are, however, music-halls and music-halls, in some of which even music is prostituted. Possibly it may be to such as these that Raoul refers.

"Keep the South Winds Blowing."

Editor "Roundabout Club":

I am very interested in the subjects touched upon. I agree with John M. C. that the girls spoil the boys. On one occasion very recently a fine, sensible boy dropped a lady (?) friend because she was "too spoony."

I was delighted to read the rules on "Etiquette." It is my firm belief that we should be our best all the time, not merely when in society.

Having been happily married for six years, I eagerly read Nero's causes for unhappy marriages. "Keep the South Winds Blowing All the Time."

My little daughter of five has far too great a distance to walk to school. As I was a school teacher, we decided that she take little lessons at home for two or three years. How I enjoy teaching her! It has given me new ambition. As "Teacher, Nova Scotia," emphasizes thoroughness, I practice it, although one

of my failings is always wanting to hurry things.

Hoping you may long continue this exceedingly useful Club, I remain,

Yours very truly,
Grey Co., Ont. ELLEN.

Another Country Lad's Opinion.
Editor "Roundabout Club":

Although I have been a reader of "The Farmer's Advocate" for a very few years I am greatly interested in this discussion on the subject of matrimony, and I heartily agree with Nero and Jane in your issue Nov. 26th.

As I am only a young lad yet, perhaps my opinion will not amount to much, but being a stay-at-home and just beginning to glance around for a mate to take to the great West in a couple of years to found a new home, I am compelled to say that the girls I would choose are as scarce as hen's teeth, or nearly as scarce.

During the past two years I have lived in three different districts, and it seems to me that life is just a game of chance, each one trying to deceive someone else. Perhaps I am wrong. I hope that I am, but there is a certain lack, it seems to me, of Christianity in the youth of our land.

My ideal is Christ, but I know that I fall far short of the ideal myself, and in choosing a helpmate I look for one whose ideal is the same as mine.

A debate was held once, "Resolved, that single blessedness was to be preferred to married bliss," and the decision was awarded to the affirmative because they proved that nine out of ten marriages were not happy. Now, if young people would take Christ as an ideal there would be fewer unhappy marriages.

CRAZY KID.

Self-made Men vs. Women-made Men.

We quite agree with Elaine that there are different kinds of young men, and fully appreciate the difficulty in adequately defining their most admirable qualities. But it is regarding the statement "that young men are to a large extent what young women make them," that we desire to speak with Elaine.

She does not tell us whether she performed the experiment personally, and can produce for our examination a brand of young men that are guaranteed to compete favorably with other makes of young men. Perhaps, however, she means it for a theory. Living as we are in an age of theories, we all have a right to our theories, and she is doubtless quite conscientious in her assertion.

At any rate, we cannot help feeling touched by her forgiving spirit towards the shortcomings of the amateur young man. We can almost feel the throb of her kind, compassionate heart, as it goes out in sympathy to the shortcomer. We can almost hear her gentle, purring voice, saying as she occasionally runs up against an embryo young man. "Poor thing! What a pity! But then 'it' is not responsible for its foolishness and simplicity. It didn't make itself. It was entirely at the fate of 'its' environment, and that environment was unfortunately the society of a very foolish and simple class of young ladies. They have sapped that brilliant intellect and left nothing but the smoothly-combed cranium. So it is not in any way responsible for its conduct."

No! no! Elaine. We, who are true men, have yet a spark of the ancient fire of chivalry in our veins, and couldn't allow the fair sex to shoulder the terrible responsibility of that "imitation man." He is made in our image and is our brother, and no one feels the fact more keenly than we do "that he persists in walking around on his hind legs, dodging the authorities, and keeping out of the menagerie." Imitation is the sincerest form of flattery, so we show him a good example and let him walk, Elaine.

We quite agree with you that there are many species and sub-species in the genera "Adolescens," but think that when subjected to a rigid anatomical examination, like all other vertebrates, they can be classified, the two principal orders agreed upon being the candle-wick vertebrate and the cast-iron vertebrate.

The candle-wick vertebrate has already been alluded to, so we shall say a word in favor of the cast-iron vertebrate. Obviously, by this, we mean the self-

made man, the man of worth, the man of wisdom, the man of character, the man of charity.

Our humble conception of the ideal young man is as follows: He is a man who has ideas and principles of his own, that he will not permit being wafted this way and that, by the balmy zephyrs of "Public Opinion," or that he will not allow to be infringed upon by the flippant frivolity of the so-called modern society, in which the unsuspecting young man is so often made the dupe of feminine coquetry. He is gentle and kind, and respects the opinion of others as he does his own. He is courteous to everyone, and abhors anything of a hypocritical nature. Coupled with the fact that he is just as much a man in his overalls as he is in his Sunday best, we have before our minds an ideal that should win admiration alike from both sexes.

Our ideal young man should be made of the real fiber that will ever win for him the honorable term, "a gentleman." If he possesses these qualities, his whole nature will be characterized by that physical and mental stamina that is bound to win for him the attention and approval of the fair sex. Lastly, he must live the Christ-life, then he is worthy of the love of the noblest and purest of women.

THE GALE.

[Will this very interesting "Gale" kindly send us his address?—Ed.]

What about a new discussion now, on another phase of this subject? Should people of opposite tastes and temperaments marry? Or is more happiness to be found in marrying someone "like one's self?" Let us hear your opinion on this.

Our Literary Department.

Editor of "Literary Society":

Perhaps no one appreciated more than did the Harwich Literary and Debating Society, the articles written some time ago in your valuable paper, on the "Organization of Farmers' Clubs," etc. As evidence of the good influence of such societies on rural communities, I am sending a short history of our five-year-old society.

A feeling for the need of better education or development of the art of public speaking, elocution, etc., was evident among the young people of our section, and a mass meeting was first called and the subject of organization discussed. A constitution, rules and regulations were drafted, and the necessary officers elected, consisting of the President, Vice-President and Secretary-Treasurer. An Executive Committee was appointed to arrange for debates, etc., and a Literary Programme Committee to arrange a literary or musical part of the programme each night, and a complete literary or other interesting programme one night of each month. To this committee a number of the fair sex was appointed, who not only contributed towards the literary and musical part of the programme, but frequently treated the society to refreshments, greatly aiding in making the evening a very social and enjoyable one.

The Executive, comprising the President, Vice-president, Secretary-Treasurer, and two other members, arrange the subjects of debate for a period in advance, choosing the captains of the respective debates, thus allowing those interested to become acquainted with all the subjects under discussion, and also causing better digested reading. Some friendly warfare has been waged on such subjects as "Co-operation of Farmers," "Destiny of Eastern and Western Canada," "Women's Franchise," "Ill-tempered Wife vs. Good-natured, Slovenly Wife." We aim in each case to get debatable subjects, and our rules forbid the reference to religion or politics.

The programme of debates is occasionally varied by mock trials, mock parliaments, and addresses from prominent outsiders.

A nominal membership fee of 25 cents is charged to meet running expenses for lighting, minute books, etc., the cost of heating the school-house where the meetings are held being borne by the School Board. During the second year of the society's existence, a musical instrument was thought necessary, and a Dramatic Club was organized, staging with success "The Merchant of Venice," "Thomas A'Becket," "Columbus at the Court of Spain," and, together with the efforts of teacher and pupils, put on some fine con-

certs, the proceeds going to the purchase of a piano. Later, with the aid of our good local government, a library and case was installed, a substantial flag-pole erected and a beautiful flag donated by our ex-member of Parliament, H. L. Clements, hoisted.

At the end of each season of debates, which lasts from November 1st until April 1st, a banquet is given to its members, the expense being borne by the Society. A suitable and appropriate toast-list is prepared, and an evening of pleasure and profit spent in a manner educative in itself.

As a result of this Society the young men of our section have developed into a class of fine, clean-mannered young fellows, who have not only developed a broader intellect by constant study on subjects of debate, but are enabled to take their place on any public platform or banquet hall and give a splendid account of their stewardship. There is no doubt but that Farmers' Clubs and Debating Societies of this kind will strongly tend towards solving that vexing problem, "How to Keep the Boy on the Farm," and by the aid and education of such organizations the brain and brawn of rural Canada can be developed to that point where the agriculturist will take a leading part among the leading agricultural countries of the world.

Wishing you the compliments of the season, and continued prosperity, I remain a loyal subscriber.

JNO. A. McGEACHY.

Kent Co., Ont.

We thank Mr. McGeachy very much for sending us this account of the very up-to-date Harwich Club. Such a description cannot fail to be an inspiration, and we trust that the outcome may be a very general establishment of such clubs in places which have no such mental stimulus at present.

We should like to hear other opinions, suggestions, etc., on this subject—also a general discussion on the following kindred topic: "Do you think it advisable that the people, young and old, of rural districts, shall be interested in literature and art? If so, why? Have you any suggestions to make in regard to the best method of arousing and sustaining such an interest?"

In order to expedite matters, kindly send all letters to reach this office on or before January 30th.

The Ingle Nook.

Not long ago, we were at the reopening of a big school after holidays. We sat in the Principal's room, from which an open door led into an assembly hall, where the Principal himself was endeavoring to bring order out of a chaotic mass of wriggling humanity, six hundred boys and girls noisily awaiting orders as to what "Forms" they should take.

Bang! Bang! went the bell; then, in a moment, dead silence; then the Principal's voice calling out in stentorian tones: "Girls who are going up for teachers, and whose names begin with from A to H, go to Form so-and-so."

"Bizz-z-z! Bizz-z-z!—clatter, clatter, clatter! Immediately the uproar began, like a thousand colonies of swarming bees—or worse.

Then Bang! Bang! of the bell again; another silence; another order, and another uproar—and so on until all were disposed of.

"My stars! who would be a teacher!" whispered an onlooker.

At the same time there was reason to admire a little the expedition with which so large a crowd was disposed of. These boys and girls were noisy between times, but when the season for silence came they were absolutely silent. Perhaps under a longer strain they would not have kept it up—probably not unless under compulsion of interest or good government—I do not know, nor am I at the present juncture especially interested. The incident had brought up a subject (and that is what we paper folk are always after), viz: "Audiences."

Have you ever noticed how inconsiderately some people behave in an audience? I remember sitting once, during a concert, behind a woman (a minister's wife she was, too), and her daughter, who never failed to set up a giggle whenever a certain individual appeared on the stage. He was a tenor, rather an

apology for a tenor to be sure, but not bad enough to give any excuse for these people to glance at each other, put up their handkerchiefs and simper, every time he went flat on a high note.

At another concert I had the ill-fortune to sit behind a big fat man who actually rolled up his overcoat and sat on it all through the performance. From his elevated position he, no doubt, had a fine view of everything. Our memory of the evening is confined chiefly to a blank wall of black broadcloth.

It is strange how many people who would not be rude for the world anywhere else, seem to feel that rudeness is out of sight of in a crowd. Nor is the propensity confined to the present age. Writing on a meeting of the British Association half a century ago, Harriet Martineau said: "I am sorry to say Sir John Herschel himself so far succumbed to the spirit of the occasion as to congratulate his scientific brethren on the 'crowning honor' among many of the presence of the fair sex at their sessions! That same fair sex, meantime, was there to sketch the savants, under cover of mantle, shawl, or little parasol, or to pass the time by watching and quizzing the members. Scarcely any of the ladies sat still for half an hour. They wandered in and out, with their half-hidden sketchbooks, seeking amusement as their grandmothers did at auctions. I was, in truth, much ashamed of the ladies, and I wished they had stayed at home."

A public meeting nowadays is not likely to be troubled by so overwhelming a plentitude of artists, but it is not a whit the surer of escape from people who fidget, whisper, and giggle.

When it is remembered that the one object of going into an audience at all is to listen, the incongruity of such behavior is apparent. Then, even common kindness should be enough to indicate the rudeness of it; no greater slap in the face can be given a lecturer or musician than failure to pay attention.

Paying attention when attention is required is, in short, the essence of what is commonly called "good breeding," whether in an audience or elsewhere. Failure in it is enough to stamp one at once to all beholders, as either unkid or untaught.

The season for audiences "is upon us." May we women, at least, so watch ourselves that we will give no one cause to be "heartily ashamed of the ladies."

D. D.

Women's Institute Convention at Guelph.

(Concluded.)

The discussion of the "Milk Problem" proved to be one of the most important of the convention. Professor Dean, of the O. A. C., spoke first. Milk producers, he said, have a duty to perform, but the consumers also have a duty. They should bear in mind that milk is one of the most valuable foods, but also that it is one of the most easily contaminated. It should be kept in perfectly clean vessels. A paraffine-lined paper bottle has lately been invented, especially for use in the towns, in which milk may be left several days without danger. When the milk is used the bottle is burned. Milk should be kept as cold as possible, and in covered vessels. When left open it is exposed to all sorts of dangers and flavors from the air. . . . If milk has not been pasteurized by the milkman this should be done at the house. Put it in a porcelain vessel, heat over the fire, stirring frequently, until a temperature of 160 degrees is reached, then cover, and cool.

Milk taken to a sick-room should not be returned to the dining-room, or used by the patient or anyone else without being again pasteurized. When a portion is left on the table after a meal it should not be poured back again into the vessel containing the main supply.

Prof. Dean closed by saying that milk is one of the most healthful foods; even at 10 cents a quart it is the cheapest food that comes into a house. "If I were making up a man's rations," he said, "I would feed him at least three times a week on a bowl of bread and milk." He always took that when Mrs. Dean was away and he was keeping bachelor's hall.

Professor Edwards, also of the O. A. C., followed in an address on the "Bac-

teriological Contamination of Milk." Milk, he said, is a very favorable medium for the growth and multiplication of bacteria. If it were not for the latter it would keep sweet indefinitely. When sterilized and kept closed from air it does keep sweet indefinitely. A low temperature also helps to check the growth of bacteria.

The bacteria which work in milk are not, however, all harmful. Among them is the lactic-acid bacillus, which the dairyman requires to give a good flavor and odor to butter. Without it milk would not coagulate. Upon the other hand, there are other species which produce changes of a more or less putrefactive nature. Again, the bacteria of diseases in cows may get into milk.

Among sources of contamination he mentioned: (1) Bacteria from the cow, which may amount to from 20,000 to 100,000 in the first few drops. For this reason the first few drawings should be milked into a separate vessel and discarded. (2) Hairs from the cow, bits of manure and straw, all of which are simply teeming with bacteria. Most of this dirt can be kept out by wiping the udder and flanks with a damp cloth. . . The milker should have clean clothes and hands, and both animal and milker should be free from disease. The air in the stable should be pure, and bedding or feed should not be thrown to the animals while milking is in progress. This should be given after milking, or at least one hour before. In specimens of milk examined from 12,000 to 43,000 bacteria had been found in that milked while feed was being given to the cows, while only from 500 to 2,000 were found when the feeding was done a sufficient time before.

Milk utensils should be washed properly, then well scalded. After scalding they should not be wiped, as bacteria might be communicated from the dish-cloth. . . . When scalding, the water should not be poured from one can into another, but each can should be given its own supply of actually boiling water. . . . Precautions during milking: clean cow, clean milker, clean air, clean utensils, are not only advisable, but imperative.

Dr. MacMurphy, of Toronto, spoke on the "Dangers of Milk." The distressing rate of infant mortality, she considered, was mainly due to impure milk. She considered the answer of a physician to a mother who was disposed to wonder at the dealings of Providence a very sensible one: "Providence had nothing to do with your baby's death, it was dirty milk."

Contaminated milk was also, she said, a prolific source of the "white plague," tuberculosis. She had been called in Toronto to examine the carcass of a cow whose lungs and liver was literally studded with tubercles of tuberculosis, and yet that cow had been giving milk for families the week it was killed,—had not even been suspected of being tuberculous before. We could stamp out tuberculosis here if we went the right way about it, as well as in Denmark, where the Government has arranged that every cow suspected should be slaughtered. This had not been the cause of as much pecuniary loss as appeared evident, because it had been shown that the meat of cows only slightly affected was not harmed for food, the cooking disposing of the few germs present.

Tuberculosis in this country might be greatly prevented by open windows, perfect ventilation for cows, exercise for them in the open air, and good food. She recommended the use of the tuberculin test for cows, stating that the Dominion Government had promised to supply all the tubercle required to veterinary surgeons, free of charge. She thought Government inspectors for cows should be provided.

In addition to the precautions cited by previous speakers, she would recommend whitewashed cow stables, and cheese-cloth covers for the top of the pail, also the immediate cooling of milk to 40 degrees Fahr.

Tuberculosis had, by recent investigation, been proved to go to the lungs by way of the stomach and intestines. It may not develop before eighteen or twenty years. We should see to it that it does not enter our systems through the milk supply.

Mr. James Acton, of Toronto, agreed

with what Dr. MacMurphy had said in regard to the necessity of pure milk for children. When possible, mothers should nurse their children. Cow's milk, being too strong for the stomach of the child, should be diluted in the right proportion. Children are to-day appreciated more than ever before, and yet every year thousands of children die who might be saved by proper care.

FOOD VALUE OF MILK.

Professor Harcourt, of the O. A. C., closed the session by one of his statistically convincing talks on the food value of milk compared with the values of other foods. "If the true value of milk as a food," he said, "were more fully appreciated, it would be used much more freely." To be really valuable, even safe, it must be clean. Being one of the most favorable media for the growth of bacteria, it is particularly subject to contamination, and so must be given the best possible care.

Milk contains all the ingredients required to nourish the body; that is, it furnishes the materials which build up the body and keep it in repair (protein); also those which supply it with fuel to keep it warm, and energy to do its work (carbohydrates and fat).

The protein, fat, and carbohydrates may be oxidized or burned in the body, and the heat which they will produce is frequently used as a basis for comparison of foods. Unfortunately, this does not give us an entirely satisfactory basis for comparing the nutritive value of foods, for the protein is absolutely essential for the formation of flesh, and yet has a low fuel value. . . . Taking all things into consideration, however, possibly a statement of the amount of energy a food is capable of producing is the best basis upon which to compare the nutritive value of foods; and in order that we may have some measure for expressing the amount of heat a given substance is capable of producing, the "calorie" is taken as the unit. Roughly speaking, a calorie is the amount of heat required to raise the temperature of one pound of water 4 degrees Fahr.

It has been found that a man requires a certain amount of protein, fat, and carbohydrates in his daily food, and that these ingredients combined should furnish approximately a certain number of calories of heat. Any food which will furnish all the nutrients in the right proportion to supply the needs of the body in a digestible and palatable form, that is not too bulky, and at a moderate cost, is a complete food. Milk is frequently spoken of as a complete food. It is to the infant, but for the adult it does not contain enough carbohydrates, and is too bulky. Wheat bread more nearly fulfils the requirements, but it is a little deficient in protein. Possibly oatmeal comes the nearest to being a complete food for the adult.

A varied diet is, of course, necessary, but we should know which of our common foods furnish the most protein, fat, and carbohydrates for the least money. The following table will give some idea of food values. It will also be seen that certain combinations of food are very valuable for nutrition and energy, e. g., milk combined with bread forms a very valuable food; to use butter with bread is also reasonable; while rolled oats and cream form one of the very best dietaries. Considering its food value, we could afford to pay much more for milk than we do. It is, in fact (in combinations), one of the very cheapest foods for daily use:

	Price.	Refuse.	Protein.	Fat.	Carbo-hydrates.	Fuel value in calories.
Milk	6c. qt.	—	1.38	1.69	2.21	13.80
Milk	8c. qt.	—	1.04	1.27	1.66	10,402
Skimmed milk	10c. gal.	—	3.40	0.30	5.10	17,070
Buttermilk	10c. gal.	—	3.00	0.50	4.80	17,362
Butter	25c. lb.	—	0.04	3.40	—	14,422
Cheese	17c. lb.	—	1.63	2.16	0.24	12,593
Beef, front quarter	6c. lb.	18.7	2.41	2.91	—	16,762
Beef, hind quarter	8c. lb.	15.7	2.12	2.37	—	13,944
Beef, sirloin	18c. lb.	12.8	0.92	0.90	—	5,509
Veal cutlets	15c. lb.	3.4	1.34	0.50	—	4,612
Mutton chops	16c. lb.	16.0	0.84	1.80	—	9,158
Lamb, hind quarter	19c. lb.	15.7	0.92	0.90	—	5,509
Ham, smoked	18c. lb.	13.6	0.79	1.85	—	9,276
Ham, cooked	30c. lb.	—	0.67	0.75	—	4,405
Eggs	25c. doz.	11.2	0.71	0.56	—	3,853
White bread, 2 1/2 lbs.	10c.	—	2.16	0.50	12.2	28,710
Rolled oats, 7 lbs.	25c.	—	3.50	1.96	20.0	51,730
Farinas, 6 lbs.	25c.	—	2.30	0.24	18.7	40,070
Potatoes	90c. bag	20.0	2.18	0.10	15.6	33,492

In concluding, may we pause to congratulate the ladies on the marked improvement as regards ability to speak, which was evident throughout the convention. One after another the delegates (we do not refer at all to the professional speakers) got up as though they had something to say; and invariably they said it, calmly, logically, without wasting words, without the slightest indication of mere "showing off," or talking for talk's sake. The Women's Institute, in short, seems to have gripped the fact that it has a work to do, and come to the determination that it will do it.

Upon one or two other points, however, the convention was open to criticism,—first in the lack of precautions to ensure ventilation. As a man who came in near the end of one of the sessions remarked, the air was "thick enough to cut with a knife" most of the time. It is to be hoped that next year the windows may be kept open an inch or so at the top.

Again, much annoyance must have been given to some of the speakers on the last afternoon, by the continual trooping out of women—in the very middle of some of the addresses—to catch trains. Now, this does not seem exactly kind. It might be misinterpreted. Indeed, I heard one of the speakers—a very interesting speaker, too—remark after the convention that he noticed he had made a very "moving" speech. . . . Next year, ladies, please be so good as to leave, if you have to, between the addresses, and if a clock is not provided in full view to enable you to be easy about the time, clamor for one; it will be given you if you ask for it. D. D.

Re Held-over Letters.

Several letters are, of necessity, held over again. Now that the convention report is off the tapis, we shall be able to attend to these next week.

Current Events.

Thirty families of Hebrews have been ordered to leave Finland.

Plans are being made to hold a great Centennial Fair at Winnipeg in 1912.

The Grand Trunk Pacific Elevator Company has been incorporated, with a capital of \$1,000,000.

An antitoxin against hog cholera has been discovered by experimenters at the Missouri Agricultural College.

The Social Democrats left the Duma in a body recently because of the suspension of two of their members.

A blizzard which seriously blocked traffic for a time swept over the British Isles and Western Europe last week.

Tom Longboat, the noted Onondaga runner, was married Dec. 28th to Miss Lauretta Maracle, of the Deseronto Reserve.

It is estimated that 4,000,000 Christmas trees were used in the United States for the Christmas that has just passed.

The Canadian Northern Railway Company has given notice of application to Parliament for the construction of a number of new branch lines in Northern Ontario.

A sea-fight has occurred off the coast of Venezuela between adherents of the former President Castro and the crew of a gunboat working in the interests of the new President, Gomez. About twenty were killed and fifty wounded.

The British steamer Tai On was captured recently by two Chinese cruisers. The reason for the capture is believed to lie in the fact that the steamer some time ago ran down a junk and drowned a theatrical company on board.

A conference, looking toward the conservation of the natural resources of all North America, to be held at the White House, on Feb. 18th, has been proposed by President Roosevelt, who addressed letters in regard to the subject to Earl Grey, Sir Wilfrid Laurier, and President Diaz, of Mexico. Canada has agreed to the proposal, and will send representatives.

Owing to disquieting criticisms in regard to bringing the Panama Canal to a successful completion, Mr. Taft will proceed to the Isthmus to make a personal investigation at an early date. Much dissatisfaction is expressed at the under-estimation of the total cost, which was at first placed at \$145,000,000, but which is now estimated by engineering experts at a minimum of \$550,000,000.

It is now known that considerably over 300,000 lives were lost in the terrific earthquake which occurred last week in Southern Italy and Sicily. Notwithstanding the fact that enormous sums of money were immediately sent, the King of Italy himself subscribing \$400,000, and the Pope \$200,000, the sufferings of the people have been intense. British, French and Russian ships have done good service in carrying refugees and injured away, but the course of the Straits of Messina has been so altered and deflected that navigation has become exceedingly dangerous. There are indications to show that the vicinity of Mount Etna was the center of the disturbance. Mount Etna itself is quiet, but Stromboli is in violent eruption.

Not Atheists Now.

At one of the posts of the British army where a number of recruits were temporarily stationed, an old sergeant was ordered to ascertain to what religious sect each man belonged, and to see that he joined the party told off for that particular form of worship.

Some of the men had no liking for church, and declared themselves to be atheists. But the sergeant was a Scotsman and a man of experience. "Ah, weel," said he, "then ye hae no need to keep holy the Sabbath, and the stables hae na been claned out lately."

And he ordered them to clean out the stables. This occupied practically the whole day, and the men lost their usual Sunday afternoon's leave.

Next Sunday a broad smile crept over the face of the sergeant when he heard that the atheists had joined the Church of England.

"Dolan," said Mr. Rafferty, as he looked up at the city post office, "what does them letters 'MDCCC-XCVII' mean?"

"They mean eighteen hundred and ninety-seven."

"Dolan," came the query after a thoughtful pause, "don't yez think they're overdooin' this spellin' reform a bit?"—[Woman's Journal.



There is only one Bovril.

That name is your guarantee that the article you buy really does contain all the nutritive, stimulating and flavoring qualities of prime beef. Do not be induced to accept some other preparations in place of BOVRIL.

ORDER BOVRIL NOW. 94



Feeds the Hair!

Have you ever thought why your hair is falling out? It is because you are starving your hair. If this starvation continues, your hair will continue to fall.

HISCOTT Hair Tonic

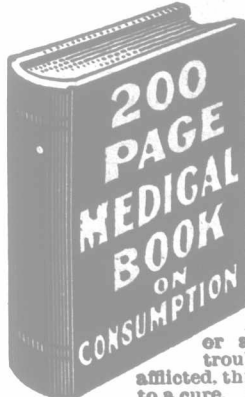
is assuredly the ideal remedy for poor hair and sick scalps. You will realize this if you use it. \$1.00 express paid.

Hair Rejuvenator restores gray and faded hair to former color in ten days. Not greasy or sticky, contains nothing harmful, clear as water. For hair less than half gray, \$1.00.

Superfluuous Hair, Moles, etc. permanently destroyed by our method of Electrolysis. Satisfaction assured. Get Booklet "F."

Hiscott Dermatological Institute, 61 College Street, Toronto, Ont. Established 1892.

Consumption Book FREE



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

Write at once to the Yonkerman Consumption Remedy Co., 959 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Don't wait - write today. It may mean the saving of your life.

A Woman's Sympathy

Are you discouraged? Is your doctor's bill a heavy financial load? Is your pain a heavy physical burden? I know what these mean to delicate women—I have been discouraged, too; but learned how to cure myself. I want to relieve your burdens. Why not end the pain and stop the doctor's bill? I can do this for you and will if you will assist me. All you need do is to write for a free box of the remedy which has been placed in my hands to be given away. Perhaps this one box will cure you—it has done so for others. If so, I shall be happy and you will be cured for 2c (the cost of a postage stamp). Your letters held confidentially. Write to-day for my free treatment. MRS. F. E. CURRAH, Windsor, Ont.

PLEASE MENTION THIS PAPER.

"The Farmer's Advocate" Fashions.



6180 Boy's Outing Shirt, 12 to 16 years.

To be made with separate or detached collar and cuffs.

6180:—The perfectly plain outing shirt is the one that all boys like. It is essentially masculine in effect, and it is comfortable to wear, while it is so easily made that all mothers will be glad to welcome it. This one is shown in tan-colored silk-finished chambray, but all shirting materials are suitable. Stripes and figures are greatly in vogue as well as plain colors, and flannels must be included in the list as well as cotton and linen fabrics. Fine percales, madras and linen are, however, favorites.

The quantity of material required for the medium size (14 years) is 4 yards 24, 3 1/2 yards 27 or 2 1/2 yards 36 inches wide.



6166 Misses' Gumpes, 14 and 16 years.

6166:—Gumpes dresses are so general for young girls that pretty gumpes are always needed. This one is novel and attractive, yet quite simple, and allows variations of several sorts. All-over lace, tucked, fancy and plain nets, lingerie material, chiffon, thin silk and everything of the sort is appropriate for the facing and sleeves; if liked, the gumpes can be made of one material throughout.

The quantity of material required for the 16-year size is 2 1/2 yards 21, 1 1/2 yards 36 inches wide with 3 yards 18 or 1 1/2 yards 44 inches wide to make as illustrated.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Be careful to give Correct Number and Size of Patterns Wanted. When the Pattern is Bust Measure, you need only mark 22, 34, 36, or whatever it may be. When Waist Measure, 22, 24, 26, or whatever it may be. When Misses' or Child's pattern, write only the figure representing the age. Allow from one to two weeks in which to fill order, and where two numbers appear, as for waist and skirt, enclose ten cents for each number. If only one number appears, ten cents will be sufficient.

Address: "Fashion Department," "The Farmer's Advocate," London, Ont.

A southerner, hearing a great commotion in his chicken-house one dark night, took his revolver and went to investigate.

"Who's there?" he sternly demanded, opening the door.

"Who's there? Answer or I'll shoot!"

A trembling voice from the farthest corner:

"'Deed, sah, dey ain't nobody hyah 'ceptin us chickens."

The Golden Dog

(Le Chien D'Or.)

A Canadian Historical Romance.

Copyright, 1897, by L. C. Page & Co. (Inc.)

[Serial Rights Secured by the Wm. Weid Co., Ltd., London, Ont.]

CHAPTER IV.—Continued.

"It is a strange mystery. But I would not seek to unravel it, Angelique," remarked Amelie, "I feel there is sin in it. Do not touch it. It will only bring mischief upon you if you do!"

"Mischief! So be it! But I will know the worst! The Intendant is deceiving me! Woe be to him and her if I am to be their intended victim! Will you not assist me, Amelie, to discover the truth of this secret?"

"I? how can I? I pity you, Angelique, but it were better to leave this Intendant to his own devices."

"You can very easily help me if you will. Le Gardeur must know this secret. He must have seen the woman—but he is angry with me, for—for—slighting him—as he thinks—but he was wrong. I could not avow to him my jealousy in this matter. He told me just enough to madden me, and angrily refused to tell the rest when he saw me so infatuated—he called it—over other people's love affairs. Oh, Amelie, Le Gardeur will tell you all if you ask him!"

"And I repeat it to you, Angelique; I cannot question Le Gardeur on such a hateful topic. At any rate I need time to reflect, and will pray to be guided right."

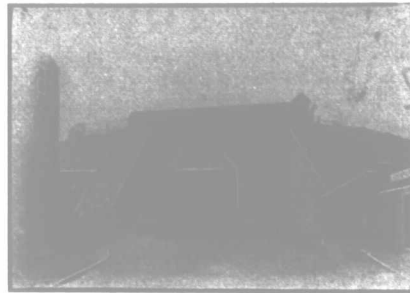
"Oh, pray not at all! If you pray you will never aid me! I know you will say the end is wicked, and the means dishonorable. But find out I will—and speedily! It will only be the price of another dance with the Chevalier de Pean, to discover all I want. What fools men are when they believe we love them for their sakes, and not for our own!"

Amelie, pitying the wild humors, as she regarded them, of her school companion, took her arm to walk to and fro in the bastion, but was not sorry to see her aunt and the Bishop and Father de Berey approaching.

"Quick," said she to Angelique, "smooth your hair, and compose your looks. Here comes my aunt and the Bishop—Father de Berey, too!"

Angelique prepared at once to meet them, and with her wonderful power of adaptation transformed herself in a moment into a merry creature, all light and gaiety. She saluted the Lady de Tilly and the reverend Bishop in the frankest manner, and at once accepted an interchange of wit and laughter with Father de Berey.

"She could not remain long, however, in the Church's company," she said, "she had her morning calls to finish." She kissed the cheek of Amelie and the hand of the Lady de Tilly, and with a coquettish courtesy to the gentlemen, leaped nimbly into her caleche, whirled round her spirited horses like a practiced charioteer, and drove with rapid pace down the crowded street of St. John, the observed of all observers, the admiration of the men, and the envy of the women as she flashed by.



Old St. John's Gate, Quebec.

Amelie and the Lady de Tilly, having seen a plenteous meal distributed

BRONCHITIS

Bronchitis is generally the result of a cold caused by exposure to wet and inclement weather, and is a very dangerous inflammatory affection of the bronchial tubes.

The Symptoms are tightness across the chest, sharp pains and a difficulty in breathing, and a secretion of thick phlegm, at first white, but later of a greenish or yellowish color. Neglected Bronchitis is one of the most general causes of Consumption.

Cure it at once by the use of

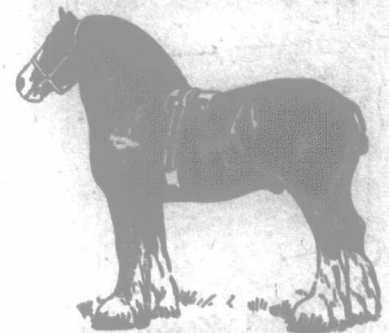


Mrs. D. D. Miller, Allandale, Ont., writes: "My husband got a bottle of Dr. Wood's Norway Pine Syrup for my little girl who had Bronchitis. She wheezed so badly you could hear her from one room to the other, but it was not long until we could see the effect your medicine had on her. That was last winter when we lived in Toronto."

"She had a bad cold this winter, but instead of getting another bottle of Dr. Wood's Norway Pine Syrup, I tried a home made receipt which I got from a neighbor but found that her cold lasted about twice as long. My husband highly praises 'Dr. Wood's,' and says he will see that a bottle of it is always kept in the house."

The price of Dr. Wood's Norway Pine Syrup is 25 cents per bottle. It is put up in a yellow wrapper, three pine trees the trade mark, so, be sure and accept none of the many substitutes of the original "Norway Pine Syrup."

INSURE



YOUR STALLIONS

Just as you insure your Buildings.

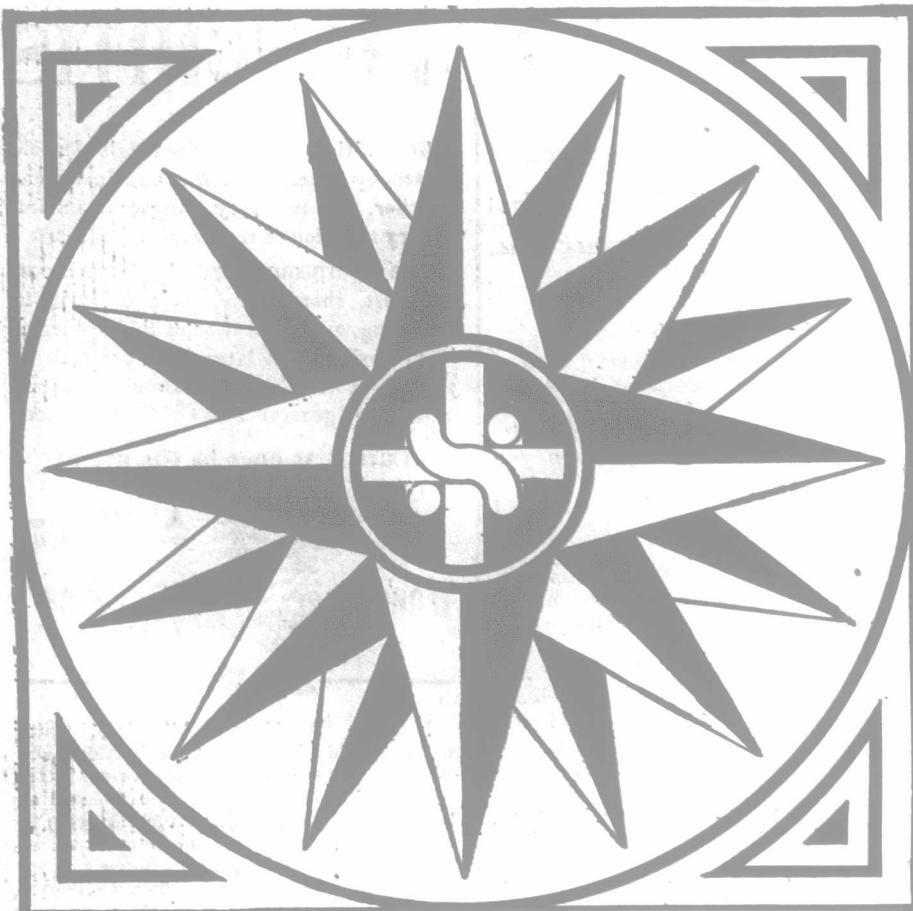
The loss of a stallion represents a certain capital, the reimbursement of which comes in hand to replace the lost animal whether death be due to accident or disease.

On payment of a small premium our Company will insure your stallions, as well as your Horses, Mares, Colts, Fillies, Bulls, Cows, Calves, Hogs and Sheep, against death by accident or disease.

Booklet sent free on demand. Agents wanted in unrepresented districts where resides a veterinary surgeon.

GENERAL ANIMAL INSURANCE CO. OF CANADA, Dept. B., New York Life Building, MONTREAL.

LADIES' SUITS, \$7.50 to \$18.—Tailored to order. Beautiful veil skirts, \$5 to \$9. New cloth coats, \$5 to \$10. Nice cloth skirts, \$2 to \$4. New waists in lawn and silk, 50c. to \$4. Lustre jumper suits, \$4.75. Silk jumper suits, \$12. Send to-day for the sample material and style-book. They are Free. Southcott Suit Co., London, Ont.



16 POINTS in the Selkirk Stiff Stay Fences and Gates possessing Undeniable Superiority.

Selkirk Fence Agents make money and build business. Selkirk Fence Users get the best value for their money and are satisfied customers.

We will send you full particulars on receipt of the following coupon properly filled out.

Selkirk Fence Company, Hamilton, Can.

I would like to know more about the Selkirk Fences and Gates. Send me a free sample piece of the fence and literature on the Points of Superiority with Agent's terms.

Name.....

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



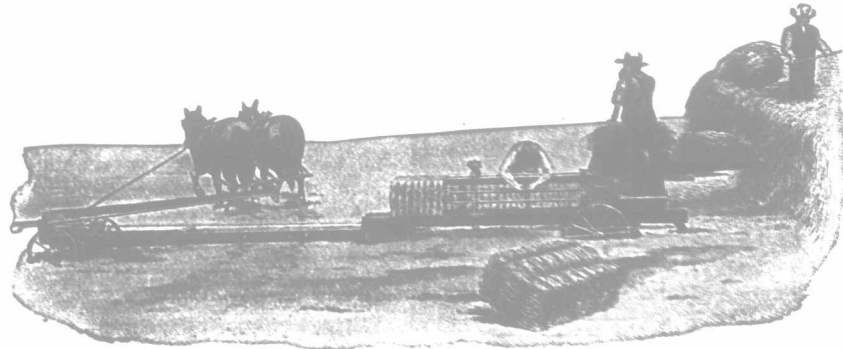
Sherlock-Manning Organs

Contain Extra Wide Tongue Reeds.

Which produce a rounder, fuller and better quality of tone. Also a greater carrying power than the tone of the usual narrow-tongue reeds. Thus the Sherlock-Manning is particularly adapted to church work, as well as best for the home.

Sherlock-Manning Organ Co., London, Ont.

GET ON TO THE GREAT DAIN LINE.



And demand that your hay be pressed by a Dain Press. No other press makes as nice bales, is as easy on the horses and men, nor has as large a capacity. Buy or use it because it is the most economical of all presses. Write for catalogue and prices, or ask your nearest agent to get them for you. Mention this paper.

DAIN MANFG. CO., PRESTON, ONTARIO.

BOOKS FOR ENTERTAINMENTS

116 Humorous Recitations, 15c.; 20 Humorous Dialogues, 15c.; 150 Songs with Music, 15c.; Famous Dramatic Recitations, 15c.; by mail, postpaid, two books for 25c.; four for 50c.

USEFUL NOVELTIES CO.,
Toronto, Canada.

Dept. E.

Hillhurst Hackneys and Shetlands.
For Sale: 3 imp. pony mares, broken to ride and drive; 1 yearling filly, imp. in dam. Low price for lot.

JAS. A. COCHRANE, Lennoxville, P. Q.

PLEASE MENTION THIS PAPER.

among their people, proceeded to their city home—their seigniorial residence, when they chose to live in the capital.

CHAPTER V.

The Itinerant Notary.

Master Jean le Nocher, the sturdy ferryman's patience had been severely tried for a few days back passing the troops of habitants over the St. Charles to the City of Quebec. Being on the King's corvee, they claimed the privilege of all persons in the royal service; they travelled toll-free, and paid Jean with a nod or a jest in place of the small coin which that worthy used to exact on ordinary occasions.

This morning had begun auspiciously for Jean's temper, however. A King's officer, on a gray charger, had just crossed the ferry, and, without claiming the exemption from toll which was the right of all wearing the King's uniform, the officer had paid Jean more than his fee in solid coin and rode on his way, after a few kind words to the ferryman and a polite salute to his wife Babet, who stood courtesying at the door of their cottage.

"A noble gentleman that, and a real one!" exclaimed Jean, to his buxom, pretty wife, "and as generous as a prince! See what he has given me." Jean flipped up a piece of silver admiringly, and then threw it into the apron of Babet, which she spread out to catch it.

Babet rubbed the silver piece caressingly between her fingers and upon her cheek. "It is easy to see that handsome officer is from the Castle," said Babet, "and not from the Palace—and so nice-looking he is, too, with such a sparkle in his eye and a pleasant smile on his mouth. He is as good as he looks, or I am no judge of men."

"And you are an excellent judge of men, I know, Babet," he replied, "or you would never have taken me!" Jean chuckled richly over his own wit, which Babet nodded lively approval to. "Yes, I know a hawk from a handsaw," replied Babet, "and a woman who is as wise as that will never mistake a gentleman, Jean! I have not seen a handsomer officer than that in seven years!"

"He is a pretty fellow enough, I dare say, Babet; who can he be? He rides like a field-marshal, too, and that gray horse has ginger in his heels!" remarked Jean, as the officer was riding at a rapid gallop up the long, white road of Charlebourg. "He is going to Beaumanoir, belike, to see the Royal Intendant, who has not returned yet from his hunting party."

"Whither they went three days ago, to enjoy themselves in the chase and drink themselves blind in the Chateau, while everybody else is summoned to the city to work upon the walls!" replied Babet, scornfully. "I'll be bound that officer has gone to order the gay gallants of the Friponne back to the city to take their share of work with honest people."

"Ah! the Friponne! The Friponne!" ejaculated Jean. "The foul fiend fly away with the Friponne! My ferryboat is laden every day with the curses of the habitants returning from the Friponne, where they cheat worse than a Basque pedler, and without a grain of his politeness!"

The Friponne, as it was styled in popular parlance, was the immense magazine established by the Grand Company of Traders in New France. It claimed a monopoly in the purchase and sale of all imports and exports in the Colony. Its privileges were based upon royal ordinances and decrees of the Intendant, and its rights enforced in the most arbitrary manner—and to the prejudice of every other mercantile interest in the Colony. As a natural consequence, it was cordially hated, and richly deserved the maledictions which generally accompanied the mention of the Friponne—the swindle—a rough and ready epithet which

sufficiently indicated the feeling of the people whom it at once cheated and oppressed.

"They say, Jean," continued Babet, her mind running in a very practical and womanly way upon the price of commodities and good bargains, "they say, Jean, that the Bourgeois Philibert will not give in like the other merchants. He sets the Intendant at defiance, and continues to buy and sell in his own comptair as he had always done, in spite of the Friponne."

"Yes, Babet, that is what they say. But I would rather he stood in his own shoes than I in them, if he is to fight this Intendant—who is a Tartar, they say."

"Pshaw, Jean! you have less courage than a woman. All the women are on the side of the good Bourgeois; he is an honest merchant—sells cheap, and cheats nobody!" Babet looked down very complacently upon her new gown, which had been purchased at a great bargain at the magazine of the Bourgeois. She felt rather the more inclined to take this view of the question, inasmuch as Jean had grumbled, just a little—he would not do more—at his wife's vanity in buying a gay dress of French fabric, like a city dame, while all the women of the parish were wearing homespun—program, or linsey-woolsey—whether at church or market.

Jean had not the heart to say another word to Babet about the French gown. In truth, he thought she looked very pretty in it, better than in the program or in linsey-woolsey, although at double the cost. He only winked knowingly at Babet, and went on to speaking of the Bourgeois.

"They say the King has long hands, but his Intendant has claws longer than Satan. There will be trouble by and bye at the Golden Dog—mark that, Babet! It was only the other day the Intendant was conversing with the Sieur Cadet as they crossed the ferry. They forgot me, or thought I did not hear them; but I had my ears open, as I always have. I heard something said, and I hope no harm will come to the good Bourgeois, that is all!"

"I don't know where Christian folk would deal if anything happened him," said Babet, reflectively. "We always get civility and good penny-worths at the Golden Dog. Some of the lying cheats of the Friponne talked in my hearing one day about his being a Huguenot. But how can that be, Jean, when he gives the best weight and the longest measure of any merchant in Quebec? Religion is a just yard wand, that is my belief, Jean!"

Jean rubbed his head with a perplexed air. "I do not know whether he be a Huguenot, nor what a Huguenot is. The Cure one day said he was a Jansenist on all fours, which I suppose is the same thing, Babet—and it does not concern either you or me. But a merchant who is a gentleman, and kind to poor folk, and gives just measure and honest weight, speaks truth and harms nobody, is Christian enough for me. A bishop could not trade more honestly; and the word of the Bourgeois is as reliable as a king's."

"The Cure may call the Bourgeois what he likes," replied Babet, "but there is not another Christian in the city if the good Bourgeois be not one; and next the Church, there is not a house in Quebec better known or better liked by all the habitants than the Golden Dog; and such bargains, too, as one gets there!"

"Ay, Babet! a good bargain settles many a knotty point with a woman."

"And with a man, too, if he is wise enough to let his wife do his marketing, as you do, Jean! But whom have we here?" Babet set her arms akimbo and gazed.

A number of hardy fellows came down towards the ferry to seek a passage.

(To be continued.)

Nitrate of Soda

Nitrate Sold in Original Bags
NITRATE AGENCIES CO.

64 Stone Street, New York
 Keyser Building, Baltimore, Md.
 36 Bay Street, East, Savannah, Ga.
 305 Baronne Street, New Orleans, La.
 140 Dearborn Street, Chicago, Ill.
 Holcombe & Co., 24 California Street
 San Francisco, Cal.
 603-4 Oriental Block, Seattle, Wash.

Address Office Nearest You

Orders for All Quantities Promptly Filled—Write for Quotations

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.

BUFF Orpington cockerels, and May pullets already laying. Also pure-bred Brown Leghorn yearling hens. Cheap. H. W. Parry, Princeton, Ont.

MAMMOTH Bronze turkeys, bred from prize-winning stock. Fine heavy birds. Good plumage. Francis Docker, Dunnville, Ont.

MAMMOTH Bronze turkeys for sale. Bred from heavyweight imported tom—a Madison Square winner. Also pure-bred Mammoth Pekin ducks. John Carson, Ailsa Craig, Ont.

MAMMOTH Bronze turkeys. Show birds. Bred from prizewinning heavyweight stock. Young toms 22 to 27 lbs. Pairs not akin. R. G. Rose, Glanworth, Ont.

MAMMOTH Bronze and White Holland turkeys. Embden geese, Pekin ducks, Buff, Brown and White Leghorns, White Wyandottes. Walter Wright, Cobourg, Ont.

OVER 400 Bronze turkeys have been shown at Guelph Winter Fair the past nine years by 25 exhibitors. I was awarded 30 first prizes, leaving only 24 firsts for the other 24 exhibitors. I have furnished first-prize winners at Dominion Exhibition (Calgary), Manitoba Poultry Show (Neepawa), and Winnipeg Poultry Show the past year, besides largest shows in Indiana. Choice stock for sale—all ages—at moderate prices, considering quality. W. J. Bell, Angus, Ont.

TOULOUSE Ganders. Extra fine. Large heavy weights. Three-fifty each. Robt. Stevens, Petrolia, Ont.

WHITE Plymouth Rocks—Cockerels and pullets; great layers; satisfaction guaranteed. J. R. Dods, Alton, Ont.

WHITE Leghorns—For sale: A number of cockerels, show birds; also some very choice pullets. Robt. Hughes, Collingwood, Ont.



Advertisements will be inserted under this heading, such as Farm Properties, Help and Situations Wanted, and Pet Stock. **TERMS**—Three cents per word each insertion. Each initial counts for one word and figures for two words. Names and addresses are counted. Cash must always accompany the order. No advertisement inserted for less than 50 cents.

FARMS FOR SALE—50 acres; 8 miles to London market; good buildings. 25 acres; 3 miles to London market; good buildings; good garden land. 5 acres; 1 mile to London market; 10 minutes walk to street cars; a fine home. 10 acres; 1 mile from London market. 100 acres; 4 miles from London market. 150 acres; 6 miles from London market. 40 acres; market garden; 3 miles from London. 320 acres of land near City of Moose Jaw, N. W. T.; lovely house and bank barn; good water; 5 1/2 miles from Town of Luxford; no better section; well settled; will exchange for small farm in Middlesex. 100 acres County of Lambton, Township of Inniskillen; good buildings; good land. If in want of a farm, large or small, we can suit you. Apply: London Real Estate Exchange, Room 13, Green Swift Building. Auction sales promptly attended to. J. A. Lawson, Auctioneer.

FOR SALE—95-acre farm in Wentworth, 10-roomed brick house, large bank barn, 12-ft. walls, hog-pen, drive barn; land A1; up to date; in good repair; centrally located; price right; terms easy. R. L. Shaver, Copetown, Ont.

TELEGRAPHY and Railroad Work quickly and thoroughly taught on railroad main-line wires. Railroad co-operation and thorough office training insures positions. Write F. E. Osborn, Molson's Bank Building, London, before closing with any school.

WANTED A DELHI TANNERY Hides, Skins and Furs to tan for Robes, Coats and Gauntlets Mitts, etc. Tanned soft and pliable. Never get hard. **B. F. BELL, DELHI, ONTARIO**

The haughty heiress was in a rage. "Leave my presence," she stormed, "or I shall make you quail." The impecunious nobleman smiled. "I'm not particular about the quail, miss," he said. "I'd be satisfied with a ham sandwich."

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, \$1.00 must be enclosed.

Miscellaneous.

HORSE WITH TONGUE OUT.

What can be done to stop a horse from sticking out his tongue while working?
 R. I.

Ans.—This is a habit that is very difficult to break a horse from. Some have found cure in continued use of a bit made for the purpose, and others again by the use of a close-fitting muzzle.

DISPOSAL OF STRAW.

Could a farmer who sells his straw be called up-to-date, or would it be better policy to scatter it over the field?
 R. I.

Ans.—All depends on conditions. If the farmer was able to dispose of his straw at high prices and to maintain the supply of plant food and humus by purchasing artificial fertilizers or barnyard manure, or by plowing in green crops occasionally, he could not be placed out of the up-to-date class. In very few cases is it advisable to scatter straw over the field. In heavy and comparatively moist soils this practice may be good, if limited quantities are plowed under, but it is much better to use straw after it has been turned into manure by some class of live stock. No objection can be taken to a man's method of disposing of his straw, provided always he keeps his farm in good condition for crop-production at a minimum cost.

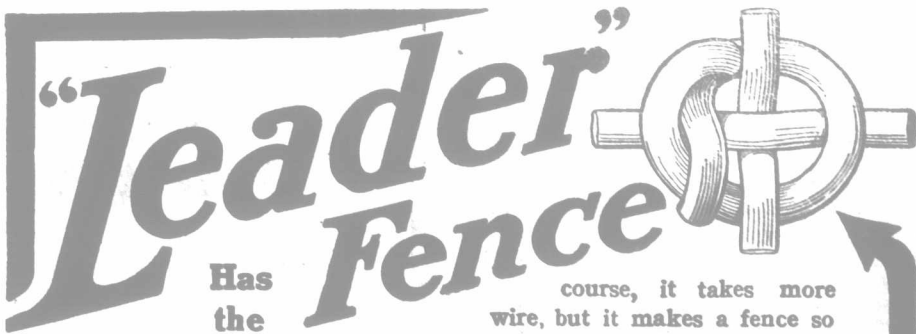
FLAX CHAFF—FEEDING QUESTIONS.

1. What is the feeding value of flax chaff compared with timothy hay, if buying for rough feed?
 2. Would you feed it alone, or mix with silage, roots, or other chaff?
 3. What amount each of the following make a balanced ration for milk cows and feeding cattle, to be finished on grass: Silage, roots, bran, oat chop, with oat straw, timothy and clover hay?
 4. What is the name of the firm that make the ——— fanning mill; I think it is made in Detroit?
 R. J. P.

Ans.—1. Henry says: "Where flax is grown for the seed, the straw, or halm, is generally wasted. Stockmen who have fed flax straw to horses and cattle report satisfactory results from its use. Frequently some flax seed is left in the straw, which increases its value. There seems no foundation for the statement that the fibre of flax straw forms balls of indigestible matter in the stomachs of farm animals. It is, no doubt, digested the same as other fibrous matter—the lint of cotton, for example. Some flax straw may always be fed, and during times of scarcity will prove a boon to the stockman who overcomes his prejudice and supplies it freely to his hungry animals. The chaff of flax is not mentioned specifically, but we would scarcely expect it to prove equal to timothy hay. Possibly some of our readers will tell us of their experience with it.

2. It would seem best to feed the chaff mixed with silage or roots.
 3. For the milk cows, try silage 30 to 40 pounds, roots 20 pounds (or more, if available), hay 10 pounds, oat straw ad libitum, bran 6 pounds, crushed oats 3 pounds. If the hay is chiefly clover, the proportion of bran may be reduced by two or three pounds. We would strongly recommend substituting a pound of oil cake for two pounds of the bran allowance. The steers may be fed much the same as above, only that a smaller meal allowance is necessary, and as the steers are to be finished on grass, it would not be advisable to feed more than a handful or two of oil cake per head daily. Beefing cattle fed heavily on concentrates during winter, incline to run down worse when physicked on grass in the spring.

4. The answer to this question should appear in our advertising pages, but it would not be admissible to publish in this column.



Leader Fence

Has the Double Grip Lock

Don't buy wire fence until you've seen our new woven fence which is so vastly superior that we have appropriately named it the Leader. It is a hard steel wire fence, heavily galvanized—both laterals and stays No. 9. But the "Leader" Lock—that is the really great improvement. It has the double grip—makes twice as strong a binding—twice as strong and durable a fence. Of course, it takes more wire, but it makes a fence so much better that it will be that much easier to sell. Will give such genuine satisfaction that we are certain of repeat orders from all purchasers.

Will You Sell "Leader" Fence For Us

in your locality? Also act as our representative for our complete line of farm and ornamental fence and gates? Write to-day for our money-making proposition.

Frame & Hay Fence Co., Ltd., Stratford, Canada

THINK it over AND you will FIND

by reasoning with us we are correct in stating that it is too often the case, you just skip over an advertisement, barely read it, and that's the end of it. Did it ever occur to you, readers, that this is expensive talking? So if it were only one-sided we had better not talk at all. If we expect returns we must tell the truth. We want to talk about something every week which pertains to your interest as well as ours, and shall end in our mutual benefit. We are importers of the Celebrated Elastic Draft Springs, of which millions are in use in Europe. They actually prevent sore shoulders, stop many breaks, make your harness last very much longer, and save your poor horse wonderfully. See page 1926, headed "Farmers," and watch this advt. next issue. In wishing our friends and readers a very prosperous 1909, we assure you that your horses will certainly have a Happy New Year if you permit them the use of our Springs. Don't tell your neighbor about this.

THE TRANSATLANTIC IMPORT & MFG. COMPANY, LIMITED.
 163 Queen's St. North, Berlin, Ont.
 Write for circular and information.
 Agents wanted everywhere.

BE SURE TO GO TO
OTTAWA
 Jan. 19, 20, 21, 22
 TO PROFIT BY
 THE EASTERN ONTARIO
Live Stock and Poultry Show
 \$7,500 IN PRIZES.
 For Details Address:
D. T. Elderkin, Secretary
 21 SPARKS ST., OTTAWA, ONT.

The Maid (after being kissed)—You ought to be arrested for that!
 The Man (dramatically)—What's the charge against the prisoner?
 The Maid (naively)—Violating the unnecessary noise ordinance.

QUESTIONS AND ANSWERS. Miscellaneous.

SALE OF PIGS.

B sold three pigs to F and delivered them 4th of December, and they were to be killed that day. Two were killed, and third was killed 7th December. F now says one pig had kidney trouble, or gall stone, and wants B to pay \$10.50. Can F compel B to pay this amount?
 G. B.

Ans.—Unless the pigs were sold subject to a warranty covering the alleged trouble, F cannot legally compel B to refund any part of the purchase price, or pay any damages.

A THRESHING BILL.

A hired a man who owed a storekeeper \$20. B, the hired man, agreed that A should pay the storekeeper the \$20 out of his wages, but before that amount was earned B died. A did threshing for the storekeeper's brother, who paid to the storekeeper the \$20 instead of paying A for the threshing done, the bill for which was \$19.50. B had earned but \$18 as wages, and A paid that amount to B's widow. What action should A take to obtain payment for the threshing?
 SUBSCRIBER.
 Ontario.

Ans.—His regular course would be to make a demand upon the storekeeper's brother for payment and then sue him in the Division Court in the event of such demand not being complied with.

SUGGESTED ASSIGNMENT.

1. Supposing A owes a certain number of people, and in particular a balance of \$100 on the rent, and \$40 on taxes; also a judgment, and a chattel mortgage of \$70. The goods would amount to about \$400, if sold. Who would be entitled to the first claim? A would like every man to have as near his share as possible.

2. How is it as regards implements that are not all paid for? Would the vendors have to take their share or not?
 3. Will it clear a debtor if he makes an assignment to his creditors or not?
 Ontario. A SUBSCRIBER.

Ans.—1. The tax collector would have to be satisfied first, then landlord, chattel mortgage, employees (if any, to a limited extent), execution creditors (as to their costs), and then general creditors.

2. They could only take a dividend out of the estate along with the general creditors, unless they had preserved their liens as against creditors in the regular way—in which case they could come in ahead of even the chattel mortgage.

3. Not unless there is sufficient in the estate assigned to satisfy all creditors and the expenses of the winding up. Creditors not paid in full would simply credit him with the amount of the dividend, and would be in a position to proceed against him thereafter for the balance of their claims.

TRADE TOPIC.

IMPORTANT CHANGE IN CANADIAN
PACIFIC TRANSCONTINENTAL
SERVICE.

During the months of January and February the C.P.R. "Imperial Limited" will not run between Montreal and Winnipeg, or between Calgary and Vancouver. This change will not, however, affect passengers from this district to any considerable extent. The departure time of the Northwest express from Toronto is unchanged from 10.15 p. m., daily. There is no change in the fast time made to Winnipeg, and for passengers to Calgary and points east, no wait in that city. Passengers for points west of Calgary and the Coast will enjoy a welcome break in their long journey, arriving in Winnipeg at 12.40 p. m., and after an afternoon and evening in which to see the attractions of the Western metropolis, leave for their destinations at 10.45 p. m. This opportunity to explore Winnipeg, the gateway to the Northwest, and famous for its rapid growth and prosperity, will, undoubtedly, be welcomed by cross-continent travellers. The change takes effect January 1st.

GOSSIP.

DISPERSION SALE OF SHORTHORNS

As announced in the advertisement in this paper, Dr. T. S. Sproule, of Markdale, Ontario, will sell at auction, in the village of Markdale, his entire herd of 45 registered Scotch and Scotch-topped Shorthorn cattle, seven of which are useful young bulls, fit for service, and all are bred from excellent families, several of which are of noted milking strains and high-class sires only have been used in the herd. Markdale is a station on the Owen Sound branch of the C. P. R.

LIVE-STOCK LABELS.

Metal ear labels are now largely used by breeders of pure-bred stock and farmers generally for identification of animals and for keeping pedigree records, for which latter purpose they are indispensable. These labels are made in different sizes for cattle, sheep and hogs, the owner's name or initials stamped on one side, and consecutive numbers or year dates on the other. A suitable punch for inserting and closing the labels is sold by the advertiser, F. G. James, Bowmanville, Ont., and the prices quoted for the outfit are so moderate that no farmer need let his stock remain unmarked. The label is a great convenience, and has saved trouble in many instances.

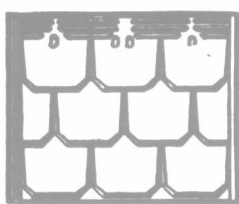
PUT ON IN 1885

Perfect Protection in 1909

Metal Shingles may be "guaranteed" to last for 25 years—and not last five.

When a house has been making Metal Goods only a few years, of what good is their "guarantee" that their shingles will "last a life-time."

They don't know themselves how long their shingles will wear because they have not had time to put the shingles to the test.



"EASTLAKE"
METALLIC
SHINGLES

MADE IN CANADA FOR 24 YEARS

Don't forget that—Made in Canada for 24 Years. In use, right in your own province, for 24 years. Proven lightning-proof, fire-proof, leak-proof, wind-proof, rain-and-snow-proof, wear-and-rust-proof by 24 years' resistance against storms and climate.

The guarantee that goes with "Eastlake" Shingles is backed by 24 years' test. You don't take risks, you know.

There's the "Eastlake" Cleat—the improvement that makes the "Eastlake" Shingles perfect. An entirely original idea, patented, and found only in "Eastlake" Shingles. Let us tell you all about it. Write for catalogue.

The Metallic Roofing Co., Limited

TORONTO Manufacturers WINNIPEG

Agents wanted in some districts. Write for particulars naming this paper.

54

Please Mention this Paper.



The lock
on Frost
Woven
Fence

There are reasons for the conspicuous success of "Frost" Agents. The reputation of their goods gives them an influence no other Fence Agents have. They have the most complete line: Woven Wire Fence, Field Built Fence, Ornamental Fence and Gates. No order they cannot fill. They can supply every possible fence requirement.

They are able to sell fencing of the famous "Frost" quality at a rate that makes the price for inferior goods appear highly unreasonable, to say the least.

FROST WIRE FENCE CO., LIMITED, Hamilton, Ont.

Frost Agents have Reasons to "Crow." They increased their sales 25% last year. Why not join them?

Nine out of ten Manufacturers, Merchants and Agents will tell you that last year was a "lean" business year, yet "Frost" Agents did not find it so. They increased their sales of "Frost" Products 25%. Do you wonder that they are crowing?

On account of its elasticity, the farmer has great faith in Coiled Wire for horizontals in his wire fence. Without that springiness or elastic feature, wire fence will, as you know, soon become slack, unsightly and fail to give the service required.

"Frost" Coiled Wire has made "Frost" Field Erected Fence famous. But provisions for expansion and contraction are as necessary in a machine-made fence as in the field-built kind. In "Frost" Woven Fence there are extra provisions made for this. A piece of this fence stretched on the posts has every

appearance of a field-built fence with coiled laterals. Horizontals and Stay Wires in the "Frost" Woven Fence are identically the same grade as the "Frost" Coiled Wire used for horizontals in "Frost" Metal Lock Fence. Now we are increasing our field force this year, so why not join our "crowing" Agents and take orders for the easy selling "Frost" Products, and largely increase your Bank account.

Remember there is only one "Frost" Wire. The farmers have become educated to this and you will find a big trade awaiting you.

MANITOBA FROST WIRE FENCE CO., LIMITED, Winnipeg, Man.

"Frost" Fence

SALE DATES CLAIMED.

Jan. 13th.—At Union Stock-yards, West Toronto, Wm. Laking; imported Shire stallions and mares in foal.

Jan. 14th.—C. D. Wagar, Enterprise, Ont.; Shorthorns.

Jan. 19th.—At Markdale, Ont., Dr. T. S. Sproule; Shorthorns.

Feb. 3rd.—At West Toronto, W. G. Pettit & Sons, Freeman, and J. A. Watt, Salem, Ont.; Shorthorns.

Feb. 4th.—At West Toronto, W. C. Edwards & Co., Rockland, Ont.; the Millers, Arthur Johnston and John Davidson; Shorthorns.

Mr. John Racey, Lennoxville, Que., whose advertisement runs in this paper, writes: Amongst the Shorthorns we are offering is a particularly nice young bull about eleven months old, by Nonpareil Victor 2nd =34534=. He is a dark red in color, has good style and form, and from his breeding should do good wherever he goes. We also have a fine lot of heifer calves by Golden Crescent and other bulls. Those requiring something in this line will, we expect, find what will suit both with regard to price and quality. We aim at producing an animal that combines both milking and good feeding qualities.

Kyle Bros., Ayr, Ont., write:—"We have recently made the following sales of Shorthorns from our herd: To Alex. Hall, Ayr, the red fourteen-month-old bull, Rosebud Chancellor, a grandly-bred Kinellar Rosebud, sired by Bapton Chancellor; Messrs. McFarlane & Ford, Dutton, secured Roan Gloster to head their herd. This is a very promising calf of the famous Duchess of Gloster family, and being got by the great breeding bull, Bapton Chancellor (imp.), we would expect him to go on and develop into something good. Mr. F. Scott, Paris, got the Golden Drop calf, Golden Chancellor, a March calf that won 6th at Toronto in a strong class of juniors. He has done fine since the show, and will develop into a bull with plenty of size and a lot of quality. We still have ten young bulls for sale, including our two imported bulls, which will be home the first week of January. These are a pair of good bulls, with first-class breeding, and anyone in need of such should see them before they buy. We also have Broadhooks Chancellor, winner of first at Toronto, in a class of twenty-six senior calves, and a lot more good ones."

In market parlance, carriage horses, sometimes spoken of as "heavy harness horses," are full-made, round-bodied and smoothly-turned, with an unusual amount of quality, and must possess to a marked degree, high action, with a fair amount of speed. They should have a long, well-arched neck, small, neat head, a short, well-muscled back, long, level croup, and well-developed thighs and quarters. The class is composed of coach, cob, park and cab horses. They range in height from 14.1 to 16.1 hands, and weigh from 900 to 1,250 pounds. Road horses are more lithe in build and angular in form than those of the carriage class. They are sometimes spoken of as drivers or "light harness horses," and are usually driven to light-weight vehicles. Considerable speed is desired of some of the individuals of this class, which is composed of runabout and roadsters. They range in height from 14.3 to 16 hands, and weight from 900 to 1,150 pounds.—Horse World.

THE CARGILL SHORTHORNS.

A private catalogue of the noted Shorthorn herd of H. Cargill & Son, Cargill, Ont., recently issued, shows the herd over 135 head strong, considerably over one-half being imported, and all of high-class Scotch families, sought for the world over at the present time on account of their merit as producers of natural flesh, early maturity, strong constitution, and the most successful show cattle of the breed to be found to-day, as shown by show-yard records. At the head of the herd as stock sires are the Duthie-bred bulls, Blood Royal (imp.), by Pride of Avon; Proud Hero (imp.), by Pride of Hall, and Red Star, by Vanguard. The pedigrees in this catalogue are tabulated on the most approved plan, and parties desiring to purchase or to study the character of the herd will do well to apply for a copy.

Ontario Horse Breeders' EXHIBITION

Union Stock Yards, West Toronto

JANUARY 13, 14, 15, 1909

Over \$3,000 in Prizes. Entries Close January 2nd.

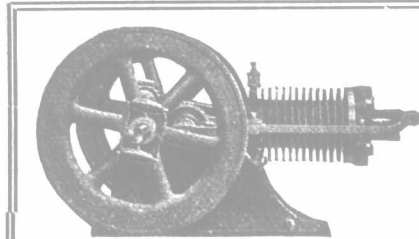
All horses exhibited will be stabled in the Exhibition Buildings. For prize lists, entry forms and all information, address:

WM. SMITH, President. **A. P. WESTERVELT, Secretary,**
Parliament Buildings, TORONTO, ONT.

Make Money Sawing Lumber With This Portable American Saw Mill



Lumber keeps going up in price. A traction or portable steam or gasoline engine and this portable mill can be driven where the timber is. The rest is just as easy. Go from grove to grove on your own farm and on your neighbors'. Make all kinds of lumber—
THE OUTFIT SOON PAYS FOR ITSELF
An American saws the best and most lumber, with least power and least help. See the reasons and the guaranty in our Large Free Catalog. Variable Friction Feed—Combined Ratchet Set Works and Quick Receder—Giant Duplex Steel Dogs, and many other time and labor saving features. See our complete line of wood working machinery. Write today.
113 Hope St., Hackensacktown, N. J.
154 Terminal Buildings, New York



A Feeling of Security Of Absolute Reliability and Power is enjoyed by every owner of a GILSON ENGINE "Goes Like Sixty."

A mechanical masterpiece of the highest type, with our improved simple methods of air cooling, governing and sparking. Positively guaranteed, biggest value, free trial. All sizes. Ask for catalogue. GILSON MFG. CO., 450 YORK ST., GUELPH, CAN.

REGISTERED TRADE MARK

GRANTED 1682
JOSEPH RODGERS & SONS, Limited, SHEFFIELD, ENG.
AVOID IMITATIONS OF OUR
CUTLERY
BY SEEING THAT THIS EXACT MARK IS ON EACH BLADE. SOLE AGENTS FOR CANADA:
JAMES HUTTON & CO., MONTREAL.

Imported Clydesdales In my new importation I have the best lot I ever imported. 7 stallions, including the great sire, Baron Hood. All have great size, smoothness, quality, on the best of bottoms, and royally bred.
WM. COLQUHOUN, MITCHELL, ONT.

NEW IMPORTATION OF CLYDESDALES. My new importation of Clydesdales are now in my stables: 14 stallions, 2 fillies. Visitors will find them as choice a lot as ever seen in Canada. Big, full of style and quality, a d bred right royally.
T. D. ELLIOTT, Bolton, Ontario, P. O. and Station

BELL'S BRONZE TURKEYS. Situated between the towns of Barrie and Collingwood, on the northern division of the G. T. R., is the village of Angus, and three miles south-east of the latter place is the home of the best flock of Bronze turkeys in Canada, if not in America, owned by W. J. Bell. The fact that Mr. Bell bred every first and second prize male (six in number) at the recent Winter Fair, Guelph, and had some of the third-prize winners as well, gives a pretty fair idea of the high quality of his birds. Notwithstanding the showing made at Guelph, he had furnished winners the past year at the Dominion Exhibition, Calgary; Manitoba Provincial Poultry Show, Neepawa; Winnipeg Poultry Show; Madison Square Gardens, New York, and leading Indiana shows. Instead of Mr. Bell going to the States for his show birds, the breeders there are coming to him. Mr. Bell has the best lot of turkeys, of all ages, for sale, that he has ever had, and he has been breeding and selling Bronze turkeys for 23 years. See his advertisement in poultry column.

Liquor and Tobacco Habits.
A. McTAGGART, M. D., C. M., 75 Yonge Street, Toronto, Canada.
References as to Dr. McTaggart's professional standing and personal integrity permitted by:
Sir W. R. Meredith, Chief Justice
Hon. G. W. Ross, ex-premier of Ontario.
Rev. N. Burwash, D. D., Pres. Victoria College.
Rev. Father Teely, President of St. Michael's College, Toronto.
Right Rev. A. Sweatman, Bishop of Toronto.
Rev. Wm. McLaren, D. D., Principal Knox College, Toronto.
Dr. McTaggart's vegetable remedies for the liquor and tobacco habits are healthful, safe, inexpensive home treatments. No hypodermic injections, no publicity, no loss of time from business, and a certain cure.
Consultation or correspondence invited.

QUESTIONS AND ANSWERS. Veterinary.

CALF WITH COUGH.
Yearling calf has had a hacking cough for some time. It eats all right and appears perfectly healthy, except for the cough. W. J. H.
Ans.—The cough indicates pulmonary tuberculosis, for which nothing can be done. The only definite method of diagnosis is the tuberculin test, applied by a veterinarian. If the calf reacts to the test, do with it as your veterinarian directs. If it does not react, do not be alarmed about the cough. V.

FISTULA OF TEAT.
Cow had teat cut in to the duct by barbed wire. It has all healed except a small opening through which milk escapes. She will be due to calve in March. J. A. M.
Ans.—Leave her alone until she becomes dry. Then cast her, or secure in some way, and scarify the edge of the opening all around until it is raw. Then stitch with carbolized catgut or silk suture. Dress the wound three times daily until healed. V.

Miscellaneous.

GERANIUM - LEAF FUNGUS.
What is the matter with enclosed geranium leaf? The plant is almost dead from some disease. J. G. W.
Ans.—These geranium leaves resemble somewhat the leaves of one of the species of native geranium which have been attacked by a plasmodium—a fungus closely allied to the one that causes potato blight and rot. If there were superficial hyphae, which would have verified the suspicion, they have dropped or have been rubbed off. J. D.

MATERIALS FOR FOUNDATION.
How much cement, gravel and small stone will it take to build a foundation under a driving shed? The wall will be 78 feet long, 14 feet high, and 8 inches thick. I have plenty of small stone. H. J. N.
Ans.—The wall will require, approximately, 100 cubic feet of material (uncompacted). A proportion of one of cement to ten of sharp gravel should suit. Since the wall is narrow, it is not advisable to use small stones too freely, as it is recommended that stones in cement wall should not come within about two inches of the face. However, if care is taken in the construction, perhaps the small stones could be made to supply one quarter of the total, or 25 cubic feet. Of the balance required, slightly less than 70 cubic feet of gravel and 7 cubic feet of cement will suffice. An approximate of the materials needed then would be 25 cubic feet, or less than one-fifth cord of stone; 70 cubic feet, or less than 3 cubic yards of gravel, and 7 cubic feet, or slightly less than two barrels of cement. These quantities will vary with the strength of the cement and gravel mixture, and also with the quantity of stone that can be worked in.

GOSSIP.
Mr. H. D. Smith, Ingleside Farm, Hamilton, Ont., advertises for sale young Hereford bulls, varying in age from 10 to 20 months, of the low-set, up-to-date type, and of choice breeding, at moderate prices for quick sales.

LAST CALL FOR C. D. WAGAR'S SHORTHORN SALE.

In last week's issue we gave a synopsis of the breeding of a few of the high-class Shorthorns to be sold at Mr. C. D. Wagar's sale in the village of Enterprise, on January 14th. Individually this is one of the very best lots of Shorthorns that has been offered by auction in Canada for a long time, and certainly the present is an opportune time for breeders to strengthen their herds, as the turning of the tide for higher prices in Shorthorns is upon us, and the wise, wide-awake farmer is preparing to reap the harvest which is sure to come. For a high-class Scotch-bred herd-header, or a good thick, early-maturing cow or heifer, this sale will offer the opportunity, and it is up to the people interested to seize it. The terms are very liberal. Cash, or nine months, with 5 per cent. Remember the date and arrange to be there.

ROOFS THAT NEVER WEAR OUT

Sea Green or Purple Slate is nature's own product—not man made. Quarried from solid rock—split into convenient form for laying, and then in its natural state ready for the roof.
SOLID ROCK CAN NOT WEAR OUT
It can't burn, rust, warp, crack, tear or decay. That's why Sea Green or Purple Slate Roofs never wear out and never require painting and re-roofing like all other roofing. Sea Green or Purple Slate Roofs are suitable for any building, new or old. Give perfect protection. Reduce insurance rates because spark and fire-proof. Afford clean, clear water. Not affected by heat or cold. First cost—only a trifle more than short lived roofing. Settle your roof question for all time. Don't spend more money for poor roofing. Write to us for our free book "ROOFS"—it will save you money. Give name of your local roofer. Write today.
AMERICAN SEA GREEN SLATE CO.
Box 3 Granville, N. Y.

Lump Jaw
The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitution or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vest-Pocket Veterinary Adviser.
Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.
FLEMING BROS., Chemists, Toronto, Ontario
78 Church Street, Toronto, Ontario

D. McEACHRAN, F. R. C. V. S., D. V. S., ETC.
Ormsby Grange, Ormstown, P. Q.,
Importer and breeder of high-class pure-bred **CLYDESDALES** STALLIONS RECENTLY IMPORTED.
Personally selected from the extensive stud of Messrs. A. & W. Montgomery, **Barling 13972**, 2-year-old; sire Baron; Pride, dam by Macgregor, g.-dam by Cedric. **Selborne 14363**, 2-year-old; sire Pride of Blacon, dam Sybel Grey (dam of Acme). **Doctor Jim 14094**, 2-year-old; sire Pride of Blacon, dam by Prince Macgregor.
CORRESPONDENCE INVITED.
One of the fillies is the celebrated four-year-old, prize, cup and championship winner, **Hilda** (now in Linthgow Lass), by Everlasting, purchased from Wm. Nelson, of Haining Valley, Linthgow; stinted to Sir Hugo.

3 VERY CHOICE YOUNG IMPORTED Clydesdale Stallions
For sale. Sound and grand stock-getters.

Wm. Meharey, Russell, Ont.

SALE OF IMPORTED SHIRE HORSES. Two stallions, 4 mares in foal, will be offered for sale by public auction at the Union Stock Yards, Toronto, Jan. 13, 1909, subject to ownership being retained by me for exhibition purposes during the 13th, 14th and 15th of Jan. Intending purchasers can have catalogue giving description and pedigree, sent to their address by writing to **Union Stock Yards Co., Toronto,** or **Wm. Laking, care of Wm. Laking Lumber Co., 100 King St., West, Toronto.**

Dr. Bell's Veterinary Medical Wonder cures inflammation of lungs, bowels and kidneys. The 20th-century wonder. Agents wanted in every county. Write for terms.
DR. BELL, V. S. Kingston, Ont.

STAMMERERS
The ARNOTT METHOD is the only logical method for the cure of Stammering. It treats the CAUSE, not merely the HABIT, and insures natural speech. Pamphlet, particulars and references sent on request.
THE ARNOTT INSTITUTE BERLIN, ONT. CAN.

RHEUMATISM.
The Best and Safest Cure for GOUT, RHEUMATISM, SCIATICA, LUMBAGO, & BLAIR'S GOUT & RHEUMATIC PILLS
All Druggists, at 40c., and \$1 per box.

PREMIUM AND PRIZE Clydesdales

I have just landed my choicest importation of Premium and Prize Clydesdale stallions in 30 years' experience.



I will not exhibit at Toronto in January. Come and see the winners at home.

Everybody welcome.

O. Sorby, Guelph, Ontario



THE UNION STOCK-YARDS Horse Exchange

WEST TORONTO, CANADA.

Auction sales of Horses, Carriages and Harness every Monday and Wednesday.
Private sales every day.
Come and see this new Horse Exchange. It will interest you. Also the quarter-mile track for showing and exercising.

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

Clydesdale Stallions and Mares!

A fresh lot has just arrived, including many prizewinners. Some extra big ones. Prices right. Inspection invited.

DALGETY BROS., LONDON, ONTARIO.
Stables Fraser House. Address correspondence to Dalgety Bros., Glencoe, Ont.

CLYDESDALES AND SHORTHORNS.—Both imported and Canadian-bred, at Columbus, Ont., the Home of the Winners. Our last importation landed in August. They include the pick of Scotland, from such renowned sires as Baron's Pride, Everlasting, Baron o' Bucklyvie, Hiawatha, Marsells, Sir Everest, and Prince Thomas. We have on hand over 30 head to choose from, from the above noted sires, from 1 to 6 years old, and including stallions and mares. Correspondence solicited. Call and see them at our barns, Columbus, Ont., before purchasing elsewhere. Our prices are right. Long-distance phone in houses. Phone office, Myrtle station. Myrtle station, C.P.R.; Brooklin station, G.T.R.; Oshawa station, G.T.R. **Smith & Richardson & Sons, Columbus, Ont.**

IMPORTED CLYDESDALES, SHORTHORNS AND SHROPSHIRE!
I have on hand several Clydesdale stallions, as choice a lot as ever crossed the ocean. Missie, Stamford, Claret and Gem of Balcchin Shorthorns; up-to-date in type and quality. 50 imported Shropshires, 30 ewe and 30 ram lambs from imported stock. Look me up at Toronto Exhibition horse barns. **THOS. L. MERCER, MARKDALE, ONT., P. O. AND STA.**

IMPORTED CLYDESDALES
My new importation for 1908 has now arrived—stallions and fillies—personally selected. Richest in breeding; highest in quality; with abundance of size and character. Sold on terms to suit. **GEO. G. STEWART, HOWICK, QUE.**

IMPORTED CLYDESDALES
My new importation of Clydesdale stallions and fillies, landed a short time ago, are an exceptionally choice lot, full of flashy quality, style and character, and right royally bred. I will sell them at very close prices, and on terms to suit. **C. W. BARBER, Gatineau Point, Quebec.** "Close to Ottawa."

Clydesdales
Imported and Canadian-bred. Our mares all are bred to Acme (imp.), the 8th best breeding horse in Scotland in 1907. Four male foals and one filly, all from high-class (imp.) mares, for sale right.
R. M. HOLBY, Sta. & P.O. Manchester, Ont., G.T.R.; Myrtle, Ont., C.P.R.

Clydesdales and Hackneys
We have for sale a few choice Clydesdale mares, imported and Canadian-bred; also some Canadian-bred Clydesdale stallions. Hackney stallions and mares for sale always. **HODCKINSON & TISDALE, BEAVERTON, ONTARIO.** G. T. R. and C. N. R. Long-distance phone.

Oak Park Stock Farm Co., Ltd. have at present for sale a choice selection of young **HACKNEYS** broken to harness, well worth the attention of the best buyers. A grand selection of pedigree **BERKSHIRE BOARS** and **SOWS** at moderate prices. Also 70 choice **SHROPSHIRE RAM** and **EWELAMBS**, all bred from imported ewes, and sired by the best imported rams. Will be sold at times prices.
JAS. J. BROWN, Manager, BRANTFORD

IMPORTED SHIRES
At their St. Thomas stables, the John Chambers & Sons Co., of England have for sale stallions and fillies from their noted Shire stud, high-class representatives of the breed. Correspondence solicited.
Address: **DR. C. K. GEARY, St. Thomas, Ont.**

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

HAVE YOU SECURED ONE OF "THE FARMER'S ADVOCATE" PREMIUMS

QUESTIONS AND ANSWERS. Veterinary.

GREASE.

Horse has a bunch like a bunch of grapes on his leg, between hoof and fetlock joint. When not kept clean it discharges a fetid fluid. The leg swells when he stands. Is this contagious?

F. H.

Ans.—This is a case of grease. The little lumps, which are called grapes, should be removed or practically cut off with a red-hot firing iron with a sharp edge. The raw surfaces should then be dressed three times daily until healed with one part carbolic acid to twenty parts sweet oil. Give him a purgative of 8 drams aloes and 2 drams ginger, and follow up with 2 ozs. Fowler's solution of arsenic twice daily for a week. It is not contagious.

V.

CHRONIC THROAT TROUBLE.

Horse has an irregular discharge from his nostrils all the time. Part of his food escapes from his nostrils after mastication. The glands of his throat are swollen and he coughs some. He snorts as if there were some throat irritation. He seems healthy and fat, but is short of wind when exerted.

E. B. J.

Ans.—This has become chronic, and it is doubtful whether a recovery will take place. There may be some growth in either the nostrils or the back part of mouth. It would be wise to have him examined by a veterinarian, and, if necessary, operated upon. If nothing of this kind is present, rub the throat well twice daily for two or three days, with three parts each of raw linseed oil and oil of turpentine and one part liquor ammonia fortier. Give him one dram iodide of potassium three times daily. If this effects his appetite reduce to 40-grain doses.

V.

DEVELOPING ACTION, ETC.

1. What is the best way to shoe to develop action? Would you shoe the same in winter as in summer?

2. Mare has capped hock.

3. Mare salivates a great deal when eating oats.

B. A. M.

Ans.—1. Shoe with flat shoes of considerable weight, without calkins. The shoes should weigh from one to two pounds, according to the weight with which the horse goes best. They should be slightly thicker at the heel, and the toe should be rounded off so as to cause him to pick his feet quickly. In the winter time calkins are necessary, hence there should be small ones on the heels, but none at the toe.

2. This is hard to reduce. Take 4 drams each of iodine and iodide of potassium, and 4 ozs. each of glycerine and alcohol. Mix and rub a little well in once daily, or blister repeatedly—say, every four weeks. Details for blistering are frequently given in these columns.

3. Her teeth are at fault. Have them dressed by a veterinarian.

V.

FATAL INDIGESTION.

I drove a horse 22 miles in five hours. When put into the stable and fed he would not eat and seemed dull, lay down, etc. I thought he had colic, and I gave him medicine, but he got worse. I then drove him about six miles and he was still no better. I doctored him all night and he got worse all the time. He would roll, groan, and breathe heavily. Towards morning he bloated hard, and stood on his feet until he fell down dead.

M. D.

Ans.—Your horse suffered from indigestion, probably caused by an extra feed before starting, and then being driven for five hours; but these cases frequently occur without appreciable cause. You do not say how you treated him, but you made a great mistake in driving him six miles while the symptoms were becoming worse. It is very probable that prompt treatment by a veterinarian would have saved your horse's life. He should have been kept quiet and comfortable, and a veterinarian would have given him a hypodermic injection of about 1 1/2 grains of eserin, or 1 grain of arecoline. The best drench you could have given would have been 2 ozs. oil of turpentine, 1 oz. fluid extract of belladonna, and a pint of raw linseed oil. This drench, with water instead of oil, should be repeated every three hours as long as necessary.

V.

HORSE OWNERS! USE

GOMBAULT'S CAUSTIC BALSAM.



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

THE LAWRENCE-WILLIAMS CO., Toronto, Canada

ABSORBINE



Cures Strained Puffy Ankles, Lymphangitis, Poll Evil, Fistula, Sores, Wire Cuts, Bruises and Swellings, Lameness, and Allays Pain Quickly without Blistering, Removing the hair, or laying the horse up. Pleasant to use, \$2.00 per bottle at dealers or delivered. Horse Book 5 D free.

ABSORBINE, JR., (mankind, \$1.00 bottle.) For Strains, Gout, Varicose Veins, Varicocele, Hydrocele, Prostatitis, kills pain.

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LYMAN, SONS & CO., Montreal, Canadian Agents.



Radiol TREATMENT

Prolongs the life of a horse's legs. Completely removes by radiation all soft swellings that disfigure and lame a horse, as Sprained Tendons, Windgalls, Bog Spavins, Capped Elbow, Big Leg, Enlarged Glands, etc.

No Blister; No Laying Up; No Hair Removed.

RADIOL TREATMENT fines down a worn horse's legs, and is a certain cure for puffy joints and Sprains, Prevents Filled Legs.

An intelligent use of the "RADIOL LEO WASH" counteracts that daily wear and tear of the legs unavoidable with the horse in constant work, whether training, racing or on the road.

One flask of "Radiol" will make a gallon of valuable leg wash.

Carlisle, Uddington, Eng. July 28, 1908.
Sirs.—Kindly forward on receipt of P. O. enclosed another bottle of "RADIOL." I have been using it with great success on a Hackney mare with a very bad windgall that the vet. had given up. Yours truly, Thos. Frantico.

WRITE FOR ILLUSTRATED BOOKLET AND USES OF "RADIOL." Ask your chemist for "RADIOL." Price \$2 a large flask, or post free from Canadian Agent:

Thos. Reid, 9 St. Nicholas St., Montreal. Manufactured by The Radiol Co., 212 Westminster Bridge Road, London, England. U. S. Agents: Messrs. Will I. Smith & Co., 2685 Michigan Avenue, Chicago.

Ring-Bone

There is no case so old or bad that we will not guarantee

Fleming's Spavin and Ringbone Paste to remove the lameness and make the horse go sound. Money refunded if it ever fails. Easy to use and one to three 45-minute applications cure. Works just as well on Blidebone and Bone Spavin. Before ordering or buying any kind of a remedy for any kind of a blemish, write for a free copy of

Fleming's Vest-Pocket Veterinary Adviser
Ninety-six pages of veterinary information with special attention to the treatment of blemishes. Durable bound, indexed and illustrated. Make a right beginning by sending for this book.

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Exporter of pedigreed stock of every description to all parts of the world. During the winter months the export of cattle of the beef and dairy breed will be a specialty. Write for prices, terms, and references.

For Sale! Percheron and French Draft Stallions, mares and colts.

Duroc-Jersey Swine, both sexes.
JACOB STEINMAN, NEW HAMBURG, ONT.
Only a stone's throw from G. T. R. depot.



VETERINARY INSTRUMENTS (Trocars, Hopples, Impregnators) for Horses, Cattle, Swine, Poultry, etc. Received only award World's Fairs, Chicago, St. Louis. Write for illustrated catalogue. Haussmann & Dunn Co., 392 So. Clark St., Chicago.

Shires, Shorthorns and Lincolns

We are now offering eight specially good young bulls, richly bred, and will be priced right; also a dozen heifers. Some choice young Shire fillies. And Lincolns of both sexes.

John Gardhouse & Sons, Highfield, Ont.
Weston Station.

A \$5,000 DAN PATCH STALLION FREE.



THIS NEW PICTURE OF
DAN PATCH 1:55
IN SIX BRILLIANT COLORS

Mailed Free

This new picture of Dan Patch 1:55, is the finest I have ever gotten out for framing. It is printed in six brilliant colors and is free of advertising. It gives his age and a list of all the fast miles paced by Dan. Being made from a "Speed Photograph" it shows Dan as lifelike as if you stood on the track and saw him in one of his marvellous and thrilling speed exhibitions. You ought to have a fine picture of the King of all Harness Horse Creation and the Fastest Harness Horse the world has ever seen. I will mail you one of these Large, Beautiful, Colored Pictures of Dan Patch 1:55 free With Postage Prepaid and full particulars concerning my plan of Giving Away a Splendid \$5,000.00 Dan Patch stallion if you will write me and

MAIL ME THE FREE COUPON PRINTED BELOW.
Address, E. B. SAVAGE, International Stock Food Co., Toronto, Canada

A \$5,000 Dan Patch Stallion FREE.

AN ABSOLUTELY FREE HAIR COUNTING CONTEST WITHOUT MONEY OR PURCHASE CONSIDERATION And Open To Any Farmer, Stockman Or Poultry Breeder. Can you count the number of hairs drawn in a picture of "Forest Patch," sired by Dan Patch, Dam by Monaco by Belmont. Write For One Of Above Dan Patch Pictures. I will ALSO mail you a photo engraving of "Forest Patch," the Fine Registered Stallion to be given away and ALSO Drawing showing Hairs To Be Counted and also stating easy conditions. The result of this contest means a small Fortune Free for some one. I paid \$60,000 for Dan Patch and have been offered \$180,000. I would have lost money if I had sold Dan for \$1,000,000.

You may secure this \$5,000.00 Dan Patch Stallion Absolutely Free. "Forest Patch" might make you a fortune of \$25,000 to \$50,000 as a great stock horse for any community because he will make a 1,200 lb. Stallion with Great Style and Beautiful Conformation.

MAIL THIS FREE COUPON TO-DAY TO

**E. B. SAVAGE
TORONTO, CANADA**

E. B. SAVAGE
International Stock
Food Co.
TORONTO

If you please mail me POSTAGE PAID one of the BEAUTIFUL SIX COLOR PICTURES of DAN PATCH 1:55, The World's Champion Harness Horse, described above and also full particulars of your plan of GIVING AWAY a \$5,000.00 DAN PATCH STALLION. I have filled out the coupon as requested, giving the number of live stock I own and my name and address

Town.....Cattle.....Hogs.....Horses.....Sheep
Name.....
Postoffice.....Province.....

WONDERFUL WORLD FAMOUS MILES BY DAN.

1 Mile in.....	1:55	30 Miles averaging.....	1:57 1/2
1 Mile in.....	1:55 1/2	45 Miles averaging.....	1:58
2 Miles in.....	1:56	73 Miles averaging.....	1:59 1/2
3 Miles in.....	1:56 1/2	Unpaced Record.....	1:58
14 Miles averaging.....	1:56 1/2	120 Miles averaging.....	2:02 1/2

Dan drew 180,000 people at Two exhibitions and over ONE MILLION PEOPLE have attended his marvellous and thrilling speed exhibitions. The tremendous crowds drawn by Dan Patch have never been equalled.

DAN HAS BROKEN WORLD RECORDS 14 TIMES.

The marvellous Dan Patch was faster than ever in 1908, although 12 years of age. His first fast mile in 1908 was in 2.00—his second in 1.58 1/2—his third in 1.58—his fourth in 1.57 1/2—his fifth in 1.56 1/2—Unequalled Other Years.

ACCIDENT ONLY PREVENTED 1:54 ON OCT. 11, 1908.

On Oct. 11, 1908, at Lexington, Ky., Dan Patch paced the greatest mile of his life and Only an Accident Prevented his having a record of 1:54. He paced the first quarter in 29 seconds—the second quarter in 27 1/2 seconds, being a 1:50 clip—was at the half in 56 1/2 seconds, a 1.53 clip—the third quarter in 29 seconds and was at the three quarters in 1:25 1/2 and was finishing strong at the seven-eighths pole when the pacemaker broke a blood vessel in his nostril and slackened up at once which crowded Dan in toward the fence and forced him to slacken his tremendous stride of 22 feet, and yet Dan Patch finished the mile in 1:56 1/2, which the Horse Papers and all Horsemen admit was the Fastest and Greatest Performance in the life of the World Famous Harness Horse King. This accident is all that prevented Dan from pacing this mile in 1:54. **Look Out For Dan In 1909.**

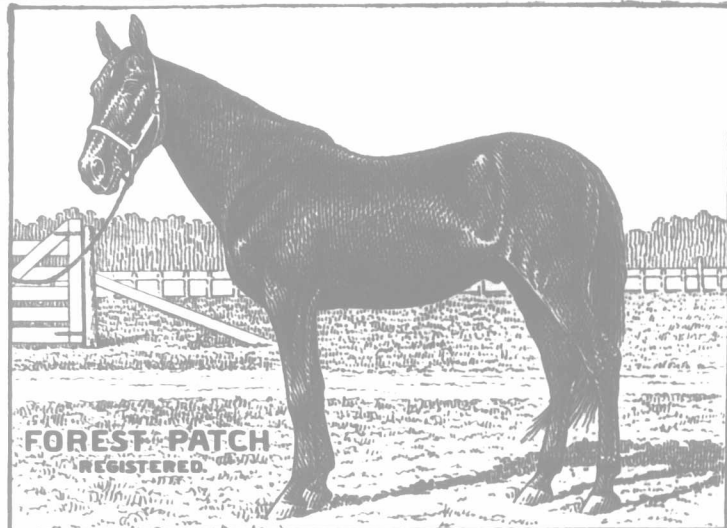
After eating "International Stock Food," the Greatest Animal Tonic, for over Six Years Dan Patch 1:55, has paced more Extremely Fast Miles than all the Combined similar miles of all the Trotters and Pacers that have ever lived. Dan's splendid physical condition after six years of continuous miles under two minutes is the wonder of the entire horse world. This preparation gives Dan purer blood, more strength, better appetite and digestion, more nerve force and speed. We Originated "International Stock Food" over twenty years ago and have constantly used it for our own Horses, and other stock. If it gives such results for Dan Patch 1:55, it will give paying results for your stock. It is sold by Two Hundred and Fifty Thousand Dealers on a "Spot Cash Guarantee" to refund your money if not satisfactory. We Also Own "International Stock Food Farm" of 700 acres, 10 miles from Minneapolis. On the farm we have over 200 head of Stallions, Brood Mares, Colts, Trotters and Pacers. Our leading Stallions are Dan Patch 1:55, Directum 2:05 1/2, Arion 2:07 1/2 and Roy Wilkes 2:06 1/2. We will be pleased to have you visit our stables at any time and see the actual, every day results of using "International Stock Food" for horses of all ages and conditions. We hereby agree to pay you \$5,000 Cash if it is not given to our Stallions, Brood Mares, Colts and speed horses every day. "International Stock Food" has stood the great test of over twenty years constant use by over Two Million Farmers and Stock Owners. Its sale has reached around the world until the stock owners of Canada, Japan, China, Australia, South Africa, etc., join with the stock owners of European Countries and The United States in pronouncing "International Stock Food" the Greatest Blood Purifying Tonic and aid to digestion that has ever been placed on the market. **These Indisputable Facts** absolutely prove that our world famous **3 FEEDS FOR ONE CENT** is a "Trade Mark," [No. 52791], for Highest Quality, combined with remarkable cheapness to use. It Purifies The Blood, Strengthens The System and Greatly Aids Digestion and Assimilation so that each animal obtains More Nutrition from all grain eaten. We guarantee it equally as good for all kinds of stock and perfectly harmless even if taken into the human system. One tablespoonful mixed with the regular grain feed will Save You at least THREE QUARTS OF OATS for each horse Every Day and the same proportion in feeding all other kinds of stock. We are simply asking you to use "International Stock Food" on our positive guarantee that it will save you money, over its cost, and keep your stock healthy and vigorous. "International Stock Food" has been the Standard of The World for Over Twenty Years as a purely vegetable, cheap, medicinal tonic to use in small amounts mixed with the regular grain feed.

Do you realize that a large majority of the Leading Live Stock Breeders of Canada and the United States always use "International Stock Food" as a great health tonic and aid to digestion in preparing their animals for the fairs and live stock shows? Ask them the results. Do you realize what a tremendous and indisputable endorsement for "International Stock Food" is the fact that over two million of the best farmers and breeders have been constant, every day users for over twenty years? Would they continue the use for twenty years if it did not pay? Do you realize that "International Stock Food" must have very superior money making qualities for Farmers, Breeders and Stock Owners in order to stand such a practical test for over twenty years? Do you realize that you are losing money by not using International Stock Food every day for your stock?

Actual test on your own stock will prove superior, paying merits. We offer to let you test it entirely at our own risk. Is our offer fair? If you desire any special information in regard to its use we will be pleased to have you write us. Its use is endorsed by every High Class Horse or Farm Paper, 250,000 Dealers and 2,000,000 Stockmen throughout the world. Merit Alone Brings Such A Universal endorsement From All The Different Countries Of The World.

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LARGEST STOCK FOOD FACTORIES IN THE WORLD.
CASH CAPITAL PAID IN \$2,000,000.

Address, E. B. SAVAGE,
Proprietor of International Stock Food Co.
TORONTO, CAN.



THIS \$5000. DAN PATCH STALLION FREE

Mr. Savage has mailed us a large photograph of "Forest Patch" the young Dan Patch Stallion he will give away in his novel counting contest. We can assure you that This Small Engraving is an exact reproduction of this fine, young, registered stallion that weighs 1040 pounds as a three year old. This indicates that he will weigh over 1200 and have the size and conformation to command a large breeding patronage in any community. You can see from this photo-engraving exactly what Mr. Savage is offering and people who know him are not surprised that he makes this great offer from his World Famous Horse Breeding Farm. He is vitally interested in the live stock industry. His offer will awaken new interest in every locality in the breeding of better horses.

Chapped Hands AND Cold-Sores

Are your hands chapped, cracked, or sore? Have you "cold cracks" which open and bleed when the skin is drawn tight? Have you a cold sore, frost bite, chilblains, or a "raw" place, which at times makes it agony for you to go about your household duties? If so, Zam-Buk will give you relief, and will heal the frost-damaged skin. Anoint the sore places at night. Zam-Buk's rich healing essences will sink into the wounds, end the smarting, and will heal quickly.

Read this Lady's Experience.

Mrs. Yellen, of Portland, says:—"I consider it only my duty to tell you of the great benefit I have derived from Zam-Buk. My hands were so sore and cracked that it was agony to put them near water. When I did so they would smart and burn as if I had scalded them. I seemed quite unable to get relief from anything I put on them until I tried Zam-Buk and it succeeded when all else had failed. It closed the big cracks, gave me ease, soothed the inflammation, and in a very short time healed my hands completely. It is a wonderful healer and should be in every home."

Zam-Buk also cures chafing, rashes, winter eczema, piles, ulcers, festering sores, sore hands and feet, abscesses, pimples, ring-worm, etc. cuts, burns, bruises, scalds, sprains. Used as an embrocation, it cures rheumatism, sciatica, neuralgia, etc. Of all druggists and stores, or post free from the Zam-Buk Co., Toronto. Price 50 c. a box, \$1.00 for 12 boxes.

Zam-Buk

SEND Receive 5 Wool Remnants suitable for BOYS' KNEE PANTS, up to 11 \$1.00 years. Give age, and we will cut out pants free. Add 25c. for postage.
N. SOUTHCOTT & CO.,
8 COOTE BLOCK, LONDON, CANADA.

When Rudyard Kipling visited Cecil Rhodes on his South African fruit farm, Mr. Rhodes went around his farm before breakfast, and Mr. Kipling was good and hungry before he returned. When Mr. Rhodes came back, he found his trees laden with placards inscribed in huge black letters with 'Famine,' 'Pity the Starving,' etc. On reaching the front door he read: 'For the human race breakfast tones the mind, invigorates the body. It has sustained thousands; it will sustain you. See that you get it.' 'Why die when a little breakfast prolongs life?' In the breakfast room Kipling was found reading his paper, but the expression of innocence on his face was rather overdone.

Black Watch Remarkable for richness and pleasing flavor. The big black plug chewing tobacco.

2267

GOSSIP.

O. SORBY'S CLYDESDALES.

Mr. O. Sorby, of Guelph, Ont., has lately arrived home from Scotland with a large and exceptionally choice selection of Clydesdale stallions. For over thirty years Mr. Sorby has made annual and bi-annual importations; his selections have always been noted for superior excellence of type and quality; he makes free to say that for size and quality, beautifully blended, this lot is away the best he ever brought over. Bred on the most fashionable lines, nearly every one has for sire and dam Scotland's most noted winners, besides nearly every one is either a winner himself or has had one of the choice premiums in the home of the breed, where a careful and critical selection is made. In his stables just now are about twenty head, including the noted champions and sires of champions, Moncreiffe Marquis and King's Seal. Among the newly-arrived lot is the noted sire, Flash Sturdy (11710), for several years chief stock horse for the Limavady Stud Company, sired by the noted prize-winner, Prince Sturdy, dam by Flashwood, grandam by Garnet Cross. He is a bay, now eight years old, up to a ton or over in weight, with a stylish top and an ideal bottom; a right good kind, and a proven sire. Montrave Wisdom (12258) is an exceptionally well-bred six-year-old, by the champion, Baron's Pride, dam Wild Rose, a full sister to the champion mare, Royal Rose, by the great Macgregor. He is thus a full-blood brother to the noted H. & A. S. first-prize horse, Ruby Pride. Montrave Wisdom had the Bute Premium as a three-year-old, and in 1907 was chief stock horse at Drawdykes Castle, Carlisle, the property of Mr. Wood, the breeder of the great horse, Everlasting. In Scotland, this horse was recognized as one of the great sires and a coming horse of fame. New Blend (13112) is a four-year-old, by the unbeaten champion, Everlasting, dam by the champion, Baron's Pride, grandam the dam of the Cawdor Cup champion, Royal Gartley, right royal breeding and a right royal horse. As a yearling he sold for 250 guineas at the Blacon Point sale; this year he had the Adrossan Premium. Evermore (13470) is a black three-year-old, by Everlasting, dam by Prince of Carruchan, winner of the Cawdor Cup four times. For high-class, type, quality and size, this colt is a show horse from the ground up. Last year, as a two-year-old, he won first at Linlithgow, Falkirk, Sterling and Bathgate; certainly one of the best three-year-olds ever imported. This year he had the Newton-Stewart Premium. Golden Bar is a bay two-year-old, by the champion, Everlasting, dam by Prince of Scotland, grandam by Macgregor. This colt is a marvel; in condition he would weigh a ton, and when developed should go up to 2,400 lbs. This, coupled with his superb quality of underpinning and beautiful contour of mould, make him a model of the breed, one with few equals; to see him is to admire him; a coming champion, sure. Ranger is another two-year-old by the noted prize horse, Pride of Blacon, dam by the favorite breeding horse, Up-to-Time, grandam by Royal Gartley, and the dam of Acme. This is a big, smooth, quality colt, one which has a future in the Canadian show-rings. Among the others, equally as well bred and equally as good, are several two-year-olds and a pair of extra choice yearlings; also a pair of superior fillies, one of them by General French, won first this year at Dumbarton. Mr. Sorby also brought one Hackney stallion, a chestnut, three years old, son of the great sire Copper King. This is a rare good one that will make things interesting for all comers at the fall shows. Mr. Sorby will not exhibit at the Horse Show in January. A cordial invitation is extended to interested parties to visit the farm and inspect the winners and premium horses in their own stables at Guelph. Parties met at Guelph on notification.

"What are you studying about?" asked Officer Casey.

"O! am studying a great question," replied the janitor philosopher, as he lit his pipe.

"Maybe I can solve it."

"Thin troy. Which gets out of date the quickest, a battleship or a woman's hat?"

SHORTHORNS BY AUCTION

In the Village of Markdale,



Tuesday, Jan. 19, 1909.

AT 1 P. M.

SHARP.

Dr. T. S. Sproule, M.P., Markdale, Ont.

WILL SELL AT THE MARKDALE HOUSE, MARKDALE, ONT., HIS ENTIRE HERD OF

FORTY-FIVE (45) HEAD

of Scotch and Scotch-topped Shorthorns by auction, without reserve. Among which are 7 bulls, pure Scotch and Scotch-topped, from 10 months to 2 years of age. High-class herd headers among them. The females are Floras, Margarets, Lady Janes and others, tracing to Beauty, imp., the whole making an offering of high-class quality, breeding and character.

TERMS: 9 Months on approved joint notes; 5% off for cash. Catalogues. Capt. T. E. Robson, Auctioneer.

Angus Cattle for Sale—A few choice females and young bulls, Prices right. Three miles west of Erin station. C. P. R., 16 miles north-east of Guelph.

J. W. BURT, Coningsby P.O., Ont.

Aberdeen—For sale: The right sort, some of them by Klondyke, imp. Drumbo station.
Angus WALTER HALL, Washington, Ontario.

Cattle and Sheep Metal ear labels, with owner's name and address, and numbers. Sample and prices mailed free. F. G. James, Bowmanville, Ont.

Poultry Tonic

INCREASES EGG PRODUCTION. CURES DISEASE.
1½ lbs., 25c. By Mail, 35c.
MADE IN CANADA



Louse Killer

KILLS LICE ON POULTRY AND STOCK.
SATISFACTION GUARANTEED
1-lb. Can, 25c. By Mail, 35c.

THE HACKNEY STOCK TONIC COMPANY, TORONTO, ONTARIO.

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 phone.
WM. SMITH, Columbus, Ontario
Brooklin and Myrtle Sts.

Pleasant Valley Herd

Present offering: 7 high-class young bulls by imp. Ben Loman = 45160 = (80468) and Bud's Emblem = 63860 =, and good imp. and Canadian-bred dams. Write for particulars and prices, or visit personally.
GEO. AMOS & SON, Moffat Station and P.O. Moffat is 11 miles east of Guelph on C. P. R.

10 Imported Scotch Shorthorn Bulls 10

Personally selected from the leading Scotch herds. Now in quarantine. Will be for sale at my farm first week in January. They are of such noted families as Broadhooks, Butterfly, Claret, Clara, Roan Lady and Jilt. I also have for sale four bull calves from imp. sire and dam, and a number of good breeding, will please you. Farm ¼ mile from Burlington Junction station, G. T. R.

FRED. BARNETT, MANAGER.

J. F. MITCHELL, BURLINGTON, ONT.

Scotch Shorthorns

Four young bulls recently imported, one Brawith Bud, a grandson of Bapton Diamond; two Kiblean Beautys and one a Marr Emma; also Canadian-bred bulls, and a grand lot of heifers.
H. J. Davis, Woodstock, Ont.
Long-distance Bell 'phone. C. P. R. & G. T. R.

VALLEY HOME Shorthorns and Berkshires

For sale: Six young bulls fit for service, and young cows and heifers; some are choice show animals. Also ten fine young Berkshire sows of prolific strains. Write, or come and see our stock. Visitors welcome.
S. J. Pearson, Son & Co., Meadowvale, Ont.
Stations: Meadowvale, C. P. R., and Brampton, G. T. R.

Stoneleigh E. JEFFS & SONS, breeders of Shorthorns, Leicesters and Berkshires. Young stock of various ages and both sexes for sale. Bond Head P.O. Bradford and Beeton stations, G. T. R.



SPRING VALLEY SHORTHORNS.

Ten bulls from 9 to 15 months, including two recently imported bulls from noted herds in Scotland; also Broadhooks Chancellor, winner of 1st at Toronto; and a lot more of the same stamp. These bulls will be priced right. Don't fail to see them before you buy.

KYLE BROS., AYR, ONT., P. O. and STATION.

SUBSCRIBE FOR "THE FARMER'S ADVOCATE AND HOME MAGAZINE."

GOSSIP.

Mr. O. Sorby, of Guelph, writes that he has just disposed of one of his newly-imported Clydesdale stallions, Flash Sturdy (11710), to George Henderson, of Keady, Ont. This is the third stallion Mr. Henderson has purchased from Mr. Sorby, and it is altogether likely he will do as well for Mr. Henderson as the others have done. Flash Sturdy is a magnificent, large, thick, powerful stallion of extra good quality. He was stud horse for four seasons to the Limavady Stud Company, and proved himself an excellent breeder—so Mr. Henderson's patrons will consider their interests by using him.

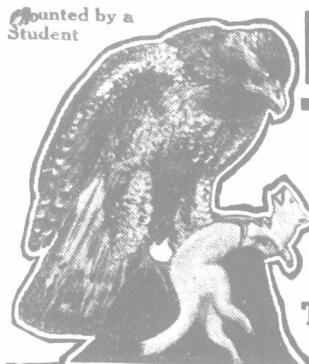
Some fairly successful auction sales were held in the Western States in the last month. On December 9th, Hector Cowan, Paulina, Iowa, sold 37 head for an average of \$168.50, the highest price being \$475 for a three-year-old cow. On Dec. 11th, John Rasmess, Lake City, Iowa, sold 40 for an average of \$162.25, the top price being \$740, for the imported six-year-old cow, Patience 31st. On December 15th, F. A. Edwards, Webster City, Iowa, sold 40 for an average of \$197.30, the highest price being \$480, for Miss Ramsden 3rd. On December 16th, F. M. Zenor, Woolstock, Iowa, disposed of 47 head at an average of \$118.85, the top figure being \$455, for Lavender Princess 3rd. On December 17th, John Leslie, Conrad, Iowa, sold 39 head for an average of \$109.40.

J. Crouch & Son, La Fayette, Ind., write: "At the recent International Live-stock Exposition in Chicago, our exhibit of 75 head of Percheron, Belgian and German Coach stallions and mares was the largest and best exhibit ever made by any exhibitor at the International. We made the remarkable record of winning every first-prize ribbon in the Percheron, Belgian and German Coach stallion classes we showed in, except two, and in these classes we won second. We also won four grand-champion ribbons. No greater lot of high-class horses can be found in America. We have now in our barns at La Fayette over 200 Percheron, Belgian and German Coach stallions and mares, ready for sale, and will price them as low as any responsible firm can afford to sell them."

W. RIVERS' HOLSTEINS.

The splendid herd of Record-of-Merit Holsteins, the property of Mr. Walburn Rivers, Folders' Corners, Oxford County, Ont., are now in prime condition, numbering about thirty head, seventeen of which are of milking age, and all but one are in the Record of Merit, headed by the very richly-bred bull, Lord Wayne Mechthilde Calamity, who is also in the Record of Merit, through the official records of his daughters, practically every one of which are going in the Record at their first freshening, inheriting to a remarkable degree the producing qualities of their ancestors. Mr. Rivers has just finished an official test of four of his daughters. Daisy De Kol Wayne, two years old, calved in June last, made over 10 lbs. of butter in the 7-day test, and gave 36 lbs. of milk a day. Duchess' Christmas Gift, two years old, made 13 lbs. butter and 40 lbs. milk that tested 4 per cent. Queen Abbekirk Wayne, three years old, made 16 lbs. butter and gave 58 lbs. milk. Princess Calamity Wayne, four years old, made 18 lbs. butter and gave 65 lbs. milk. These mentioned are representative of the entire lot in milk, and serve to show the high-class character of the herd. All the daughters of the stock bull are now being bred to King Posch De Kol, whose dam, Queen De Kol 3rd, has a record of 21 lbs. butter in 7 days, and 65 lbs. milk in one day. For sale are all this year's crop of calves of both sexes, bred from Record-of-Merit sire and dam, a most desirable lot, both in young bulls and heifers. In bulls fit for service, there is only one left, sired by the old stock bull, and out of the Record-of-Merit cow, Iolena Fairmount 3rd's Albino A. This is a choice young bull, and being so richly bred, is fit to go at the head of any herd. Some of the younger bulls and heifers for sale are sired by the stock bull, others are sired by King Posch De Kol, and all are out of Record cows. Heifers bred like these, for sale, are very scarce.

Mounted by a Student



LEARN TO MOUNT BIRDS AND ANIMALS!

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Let us teach you the wonderful art of Taxidermy. You can learn at home in your spare time to mount birds, animals, game heads, fishes; to tan all kinds of hides and furs; make rugs, fine robes, etc. Professionals make from \$2,000 to \$3,000 a year. We teach all branches of this art by mail and show you how to open a business of your own. In your spare time you can easily earn from \$15 to \$25 a week. A mounted quail sells for \$3 and can be mounted in one hour; a mounted deer head brings \$25 and can be easily prepared in half a day. Big demand for completed work.

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Mount your own trophies. Decorate your home and den with beautiful mounted specimens. Save Taxidermists' bills. Many of the birds and animals you now kill and throw away can be turned into CASH. You will be SURPRISED at the large amount of money you can easily make if you wish. You can learn to do perfect work in a few weeks. Thousands of successful students—men, women and boys.



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One Student says: "From October to March I made \$500.00 clear from my Taxidermy work and attended to all my work besides. Your lessons are fine and I would not take \$500.00 for them if I could not get another set. Every sportsman in the country should know Taxidermy. I recommend your school heartily to everyone."

We Absolutely Guarantee Success or Refund Tuition Fees FREE for a limited time only, our beautiful Illustrated Book on Taxidermy, Sample Copy of the TAXIDERMY MAGAZINE, Sample Diploma and full information how we teach this fascinating art by mail. POST YOURSELF on this wonderful opportunity. Your name and address on a postal will do but send for the free books at once. Don't delay—send right now, today.

NORTHWESTERN SCHOOL OF TAXIDERMY—BOX 9999—OMAHA, NEB.

WILL MAKE PRICES ON THE FOLLOWING LIST OF Shorthorns, Clydesdales, Shropshires and Cotswolds That No Man Keeping Live Stock Can Afford To Overlook: dam, amongst the best. The filly is good and has the quality wanted in a show mare. A small number of Good young Shropshire and Cotswold ewes in lamb to high-class imported sires.

Shorthorn Cattle AND LINCOLN SHEEP.

Females of all ages for sale of the thick-fleshed, low-down kind that have been raised naturally, neither stuffed nor starved. Twenty-five Lincoln ewes, bred to our best imported stud ram, also a few choice yearling rams. Prices very reasonable for quick sale.

A. Edward Meyer, P. O. Box 378, Guelph, Ontario, Breeds SCOTCH SHORTHORNS Exclusively

Two imported bulls, tried sires, very valuable, will sell or exchange at moderate price. One Clydesdale filly coming three, from imported sire and dam, amongst the best. The filly is good and has the quality wanted in a show mare. A small number of Good young Shropshire and Cotswold ewes in lamb to high-class imported sires.

Scotch Shorthorns

BULLS: 4 choice yearlings, IMPORTED; 8 yearlings and a number of choice calves of our own breeding. FEMALES: A number of cows and heifers forward in calf, including showyard material. Tempting prices. W. G. PETTIT & SONS, FREEMAN, ONT. Bell telephone at each farm. Farms only 1/2 and 1 1/2 miles from Burlington Jct., G. T. R.

SHORTHORNS CLYDESDALES

Nine bulls from 8 to 20 months old, reds and roans; 10 yearling heifers and a few cows. Will sell very cheap to make room in stables. One pair of bay mares and one dark brown, heavy draft and two spring colts. JAMES McARTHUR, Gobles, Ontario.

1854 MAPLE LODGE 1908 STOCK FARM 1908

A few extra good young SHORTHORN bulls and heifers for sale. LEICESTER ram lambs by the grand champion ram, "Sanford." Right good ones, and a few choice ewes. A. W. SMITH, MAPLE LODGE P. O., ONT. Lucan Crossing Station, G. T. Ry.

SOME SHOW PROPOSITIONS IN BOTH MALE AND FEMALE SHORTHORNS

as well as a number of the useful sort of both sexes. Prices right. Large lot to select from. Up-to-date in breeding, etc. Catalogue. JOHN CLANCY, Manager. H. Cargill & Son, Cargill, Ont.

Scotch Shorthorns

Canada's greatest living sire, Milled's Royal, heads my herd. For sale are young bulls and heifers, show stuff and Toronto winners, out of Stamford, Lady Ythan, Claret, Emeline, Matchless and Belona dams. A visit will be appreciated. GEO. GIER, Grand Valley P. O., Ont. Waldemar Sta., C. P. R.

TWO IMP. BULLS of excellent quality, color and breeding.

One 7 months old, sired by imp. Joy of Morning—32070—; dam Blossom 2nd, imp. Also heifer calves and young cows, and heifers in calf. And choicely-bred Yorkshires of either sex. Prices very moderate. GEO. D. FLETCHER, BINKHAM P. O., ONT. Erie Station, C. P. R.

Shorthorns! BELMAR PARC

John Douglas, Peter White, Manager. Pembroke, Ont.

Calves for sale by our grand quartette of breeding and show bulls: Nonpareil Archer, Imp. Proud Gift, Imp. Marigold Sailor. Nonpareil Eclipse. Females, imported and from imported stock, in calf to these bulls. An unsurpassed lot of yearling heifers.

Shorthorns for Sale—Broadhocks Prince

55002 (imp.), Scottish Hero—65793—; also eight grand bulls, 6 to 15 months; also cows and heifers of the best dairy sort and of excellent breeding. Prices right, and on terms to suit purchaser. DAVID MILNE, Ethel, Ontario.

Greengill Shorthorns!

We offer for sale our herd bull, imp. Lord Roseberry, also young bulls and females all ages, either imp. or from imp. stock. Prices right. Long-distance phone R. Mitchell & Sons, Nelson P. O., Ont. Burlington Jct. Sta.

First Sale of Salem Shorthorns, Feb. 3, 1909

J. A. WATT, SALEM, ONT. ELORA, G. T. R. AND C. P. R.

Scotch Shorthorns

We now offer four heifer calves 10 and 11 months old. All reds. Bred from imp. sire and dams. Will be sold right. C. RANKIN & SONS, Wyebridge P. O., Ont. Wyevale Stn.

Brownlee Shorthorns

Three young bulls left yet, 14 to 16 months. Will sell at a bargain. Also a few heifers. Very reasonable. Good milking strains. C. P. R. station. D. BROWN, AYR, ONT.

DEHORN YOUR CATTLE

Wonderful how it improves them. Heifers develop into better milkers. Steers fatten quicker. KEystone DEHORNER does it. Cuts clean—hurts little—does not bruise flesh or crush bone. Write for free booklet. R. H. McKENNA, Late of Fleton, Ont. 219 Robert St. Toronto

HAWTHORN HERD OF DEEP-MILKING Shorthorns

For Sale: 6 young bulls and 10 heifers, sired by Aberdeen Hero (imp.)—28340—. Some bred to the Lavender bull, Lavender Lorne—68706—. WM. GRAINGER & SON, Lindsboro, Ontario.

SHORTHORNS!

Five bulls, sired by Lord Lieutenant, imp., one from imported dam. Cows and heifers from Lord Lieutenant, and now bred to Good Morning, imp., our present stock bull. All will be priced low, considering quality and breeding. Office near both stations. SCOTT BROS., HIGHGATE, ONT. M. C. Ry. P. M. Ry.

MAPLE HOME SHORTHORNS

Our present offering is several very choice and richly-bred one- and two-year-old heifers, and three yearling bulls. Away above the average. Pure Scotch and Scotch-bred. A. D. SCHMIDT & SONS, Elmira, Ont.

Shorthorns, Cotswolds, Berkshires.

In Shorthorns, over 50 head—cows, heifers and calves from 2 to 8 months. In Cotswolds, shearing ewes and ram and ewe lambs. In Berkshires, a few young sows. Chas. E. Bonnycastle, Campbellford, Ont. Post Office and Station.

Spruce Lodge Shorthorns and Leicesters.

In Shorthorns, we are offering young bulls and heifers, by imp. sires and out of heavy-milking dams. In Leicesters, we have a grand lot of shearing rams and ram lambs, and one and two year old ewes of No. 1 quality. W. A. DOUGLAS, TUSCARORA P. O., ONT. Coleston Station.

CLOVER DELL SHORTHORNS

My herd are profitable milking Shorthorns. For sale are one and two year old heifers, and three young bulls. The dams of these bulls are money-makers. I. A. Wakely, Bolton, Ont., P. O. and Station. Farm within 1/2 mile of station.

Athelstane Shorthorns

For sale: 5 young bulls and females—all ages. Some extra choice heifers. All of popular Scotch families. Roan Chief (imp.)—6085— heads the herd. WM. WALDIE, Box 324, Stratford, Ontario.

Brampton Jerseys

Unbroken record of several years success at all leading Canadian exhibitions is unequalled by any other herd of any kind or breed of live stock on the American continent. When buying a family cow, a stock bull or a dairy herd, buy only the best. Our public record proves that we have them.

B. H. BULL & SON, Brampton, Ont.

ARE YOU IN WANT OF A CHOICE BULL TO HEAD YOUR HERD?

We are offering choice bull calves sired by Fountain's Boyle, who won first prize at Toronto, London and Ottawa, who also headed first-prize herd at Toronto and Ottawa. Also offering some choice heifers. D. DUNCAN, DON, ONT. DUNCAN STATION, C. N. O.

JERSEYS We have the get of Ethel's John, a 75 FOR SALE per cent. Mary Ann of St. Lambert bull; also of Minette's Star, a son of Brampton Minette, Brampton Monarch (imported), Blue Blood, and Financial King. Write for what you want. H.S. Pipes & Son, Amherst, Nova Scotia.

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YOUR DANGER BEGINS WHEN YOUR BACK ACHES.

It is the First and the Sure Sign of
Kidney Disease.

Doan's Kidney Pills

cure the aching back by curing the aching kidneys beneath—for it is really the kidneys aching and not the back.

They act directly on the kidneys and make them strong and healthy, thereby causing pure blood to circulate throughout the whole system.

Mrs. Frank Foos, Woodside, N.B., writes:—"I was a great sufferer with backache for over a year, and could get nothing to relieve me until I took two boxes of Doan's Kidney Pills and now I do not feel any pain whatever, and can eat and sleep well; something I could not do before.

Doan's Kidney Pills are 50 cents per box or 3 boxes for \$1.25 at all dealers or mailed direct on receipt of price by The Doan Kidney Pill Co., Toronto, Ont.

LAKEVIEW HOLSTEINS

Herd headed by Count Hengerveld Fayne De Kol. His dam, Grace Fayne 2nd, 26-30 lbs. butter in 7 days, is dam of world's champion 4-year-old butter cow. Sire Count Hengerveld De Kol, 70 A. R. O. daughters, including world's champion milk cow. For sale: 1 service bull; 10 bull calves, by 20-lb. butter cows. 75 head to select from.

W. D. BRECKON, Mgr., Bronte, Ont.

IMPERIAL HOLSTEINS!

For sale: 13 bulls of serviceable age, sired by Tidy Abbekirk Mercedes Posch, whose 7 nearest dams have records within a fraction of 27 lbs. Out of show cows, with high official records. A high-class lot of young bulls. **W. H. SIMMONS**, New Durham, Ont., Oxford County.

WOODBINE STOCK FARM

Offers a few fine young Holstein bulls and bull calves, sired by Sir Mechthilde Posch. Sire's dam holds world's largest two-day public test record, dam Ianthe Jewel Mechthilde, 27.65 lbs. butter in 7 days; average test, 4.46 per cent. fat; out of dams with superior breeding and quality.

Shipping stations—Paris, G. T. R.; Ayr, C. P. R. **A. KENNEDY**, Ayr, Ont.

Ridgedale Farm Holsteins—For sale: 4 bull calves from one to ten months old; 2 heifer calves. All bred from choice dams. Also a pair of choice cows supposed to be in calf. **R. W. WALKER**, Utica P. O., Ont. Port Perry (G. T. R.) and Myrtle (C. P. R.) stations, Ontario Co.

HOLSTEINS FOR SALE.

Both male and female, including my present stock bull, Cornucopia Alban De Kol, in ported.

J. A. CASKEY, MADOC, ONT.

DON'T Buy a HOLSTEIN BULL till you get my prices on choice goods from 14 months to 1 month old, from best producing strains. "Fairview Stock Farm." **FRED ABBOTT**, Harrietsville, Ont.

NO PLACE LIKE HOME.

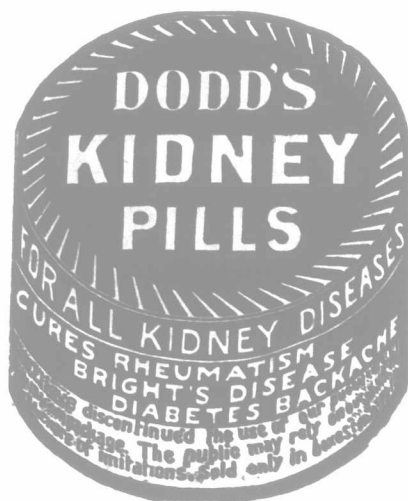
The artist was of the impressionist school. He had just given the last touches to a purple-and-blue canvas when his wife came into the studio.

"My dear," said he, "this is the landscape I wanted you to suggest a title for."

"Why not call it 'Home'?" she said after a long look.

"'Home'?" Why?"

"Because there's no place like it," she replied meekly.



GOSSIP.

At an auction sale last month, Geo. A. Heyl, Washington, Ill., is reported to have realized an average of \$179.33 for 53 Shetland ponies. The highest price was \$450. Six others brought from \$200 to \$350 each.

If you hire a horse at a livery stable you ought to treat him as if he were your own. If you drive out 10 miles you ought not to attend to your own wants until you see him properly cared for. If an honest man you will remember that you are under a twofold obligation to that animal—an obligation to its owner and an obligation to the animal. You are the debtor of both, and though you pay the price of the horse no money can release you from the duty and moral claim involved in the bargain between yourself and the owner. To neglect the poor speechless beast that cannot appeal to the commiseration of a passer-by is simply unpardonable, and the man who is guilty of such neglect is worse than a man.—Our Dumb Animals.

T. D. ELLIOTT'S NEW IMPORTATION.

Mr. T. D. Elliott, of Bolton, Ont., arrived home a short time ago with his new importation of 14 Clydesdale stallions, 2 Clydesdale fillies and one Thoroughbred stallion, selected in Scotland, with due regard to their superior excellence and right royal breeding. The first feature of the lot that particularly forces itself on the mind of the visitor is the great size of every one of them. There is scarcely one of the lot that will not make a ton and over horse. Coupled with this is the exceptionally grand quality of their underpinning, their clean flat bone, their well-sprung ankles, their big, well-tapered feet, and the beautiful silky hair of their legs. Visitors and intending purchasers will find this as choice a lot of Clydesdales as was ever seen together in Canada, and a lot that when properly conditioned will carry off a good share of leading honors in any company. Several of them are first-prize winners in Scotland, and represent the get of such sires as the Cawdor Cup winner, Hiawatha; the champion, Baron's Pride; the Royal and Highland winner, Silver Cup; the Highland and A. S. winner, Baron's Best; the noted show horse and winner, Garty Squire; the Kirkcudbright prize horse, Ascot; etc.; and having for dams such noted mares as the 1,000-gs. Queen of the Roses; the noted prize mare, Romolo, and got by such sires as Hiawatha; Prince Gallant; the £3,000 unbeaten Prince of Albion; Macgregor; Royal Favorite; Darnley's Hero; etc. In the matter of age there are one 9 years old, one 4 years old, four 4 years of age, seven 2 years of age, and one 1 year old. The fillies are both 2 years of age; one of them got by Baron Hood, the other by Garty Brand. The first named is a right good quality filly that will yet make her mark in the showing; the other bigger, and a filly that will make a right good kind. Among the stallions is the big, thick, smooth three-year-old, Sir Daniel (13578), by Hiawatha; dam by Prince of Albion; g.-d. by Macgregor. This colt as a yearling won first at Bishopton and Paisley, and fourth at Glasgow; as a two-year-old he was first at Kilmarnock; and this year had the Three £50 premium. He is a right royal good kind. Abbotshall (13947) is a bay two-year-old, a coming champion, that as a yearling won first at Fife and Dunfermline, and this year as a two-year-old was again first at Fife. Albion's Glory (14557) is another exceptionally choice two-year-old, got by Royal Emperor; dam by Prince Gallant. Owing to the pedigrees not being returned from Ottawa at the time of our visit, we are unable to give the names and breeding of any more of them. Suffice it to say, we were pleasantly surprised at the high-class quality and big size of the entire lot; practically every one when in condition will make a horse fit to go in any show-ring. The Thoroughbred stallion is Buclu, a dark brown, 6 years old, a living model of the great champion, Mikado, and, we believe, just as high class a show horse; certainly the best Thoroughbred stallion it has been our privilege to look over for many a day. Bolton is on the Sudbury and Owen Sound branch of the C. P. R. Long-distance Bell 'phone connection.

Maple Line Holsteins and Oxfords—For Sale: 17 cows and heifers, due to calve in April and May, and stock bull, whose dam has official record of nearly 19 lbs. at three years old. Also a few choice Oxford Down ewes. **W. A. BRYANT**, Cairngorm, Ont. Middlesex Co.

The Maples Holstein Herd!

RECORD OF MERIT COWS. Headed by Lord Wayne Mechthilde Calamity, also in the Record of Merit. Nothing for sale but choice bull calves.

WALBURN RIVERS, Folders, Ont. **HOLSTEINS** Choice bull calves from high-producing and Record of Merit dams. White Rocks and Buff Orpingtons. Winners of silver cup and sixteen regular and special prizes at Galt and Hespeler shows. **David Rife & Sons, Hespeler, Ont.**

Now is the time to buy a bull for service next year, because we sell **CHEAPER** now than we do next spring. Why not write to us **RIGHT AWAY** for a **BARGAIN** and see us.

E. & F. MALLORY,
FRANKFORD, ONTARIO.

LYNDALE HOLSTEINS Offers for sale 5 young bulls from Record of Merit cows, and sired by Count De Kol Pietertje. Also 2 bulls sired by Sara Hengerveld Korndyke, and a number of heifers bred to this bull. **BROWN BROS., LYN, ONTARIO.**

OIL CAKE

J. & J. Livingston Brand

DOMINION LINSEED OIL CO., LIMITED,
BADEN, ONTARIO. 31 Mill St., MONTREAL, QUE.

The finest feed known for stock. Once a user, always a user. Sold either fine or coarse ground. Write:

FAIRVIEW HERD HOLSTEINS

The greatest A. R. O. herd of in northern New York. Headed by Pontiac Korndyke, the greatest sire of the breed, having five daughters whose seven-day records average 29 3/4 pounds each, and over 43% fat. Assisted by Rag Apple Korndyke, a son of Pontiac Korndyke, out of Pontiac Rag Apple, 31.62 pounds butter in 7 days, and 126.56 pounds in 30 days, at 4 years old. Cows and heifers in calf to the above two bulls for sale, also young bulls sired by them out of large-record cows. Write, or come and inspect our herd. **E. H. DOLLAR, Hevelton, St. Law. Co., N. Y., near Prescott, Ont.**

MAPLE HILL HOLSTEIN - FRIESIANS!

Two cows due to calve inside of six weeks. Two cows giving milk, bred to Prince Posch Pietertje C. **G. W. CLEMONS, ST. GEORGE, ONT.** **EVERGREEN STOCK FARM** offers for sale choice young **HOLSTEIN BULLS**, from 10 to 12 months old, sired by sons of Mercena 3rd and Tidy Abbecker, each of which made over 27 lbs. of butter per week, and 80 lbs. milk per day. Also choice young females. Write for prices. **F. E. PETTIT, Burgessville, Ont.**

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls. 100 head to select from. Imported **Pontiac Hermes**, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented.

Putnam station, near Ingersoll.

H. E. GEORGE, Crampton, Ont.

Centre and Hillview Holsteins

125 head to select from. 35 in the R. O. M. Stock bulls Bonheur Statesman, high official backing, and is closely related to Colantha 4th's Johanna; Brookbank Butter Boy. All nearest dams over 20 lbs. From these sires, out of R. O. M. dams, are several young bulls and a few heifers. Prices right. **P. D. EDE, Oxford Centre, Ont. Woodstock Station.**

Riverside Holsteins

For sale: Seven young bulls from two to nine months old, out of Record of Merit cows, sired by Sir Pietertje Posch De Boer, whose dam and sire's dam average in official test 25.87 lbs. butter in 7 days, and 87.6 lbs. milk in 1 day.

J. W. Richardson, Caledonia, Ont.

Only Bull Calves FOR SALE, HOLSTEINS and AYRSHIRES,

Of the best performing strains. **GEO. RICE, ANNANDALE STOCK FARM, TILLSONBURG, ONTARIO.**

Maple Glen HOLSTEINS

For sale: Two bull calves born April 28th. One sired by Brightest Canary; dam of calf has 22 1/2 lbs. butter record, over 4 per cent. fat. The other from 19.48-lb. 2-year-old A. R. O. test, sired by a bull with a 22 1/2-lb. tested dam, with 93 lbs. milk 1 day. Also a 4-year-old cow due in Oct., sire's g.-dam sister of Carmen Sylvia. **G. A. Gilroy, Glen Buell, Ont.**

BUSINESS HOLSTEINS!

Over 60 head to select from. Milk yield from 60 to 85 lbs. a day, and from 35 to 47 lbs. a day for 2-yr.-olds. There are 10 2-yr.-old heifers, 8 1-yr.-olds, and a number of heifer calves. Bulls from 1-yr.-old down. Priced right. Truthfully described. **W. Higginson, Inkerman, Ont.**



Stoneycroft Ayrshires

Choice young bulls and heifers of the very best breeding, combining show and dairy quality.

Large Improved Yorkshire Pigs from imported sires and dams, now ready to ship.

Stoneycroft Stock Farm, Ste. Anne de Bellevue, Que.

HOWGLEN AYRSHIRES!

For sale: 75 pure-bred registered Ayrshires, all ages; prizewinners; many imported. Apply to **ALLAN P. BLUE**, Eustis, Quebec.

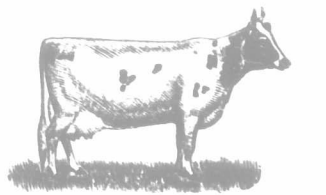
AYRSHIRES

Bull and heifer calves from producing dams. Right good ones. **Hickory Hill Stock Farm, Dundas Station and telegraph. N. DYMENT, Clappison, Ont.**

Burnside's Champion Ayrshires

My 1907 importation of 75 head being about all disposed of, I am preparing to import again. Mr. And Mitchell, the world's most extensive dealer and breeder of Ayrshires, is at present securing for me the best young bulls from the best herds in Scotland. Send in your order now for a choice bull and a female or two. Bulls will be out of quarantine in time for spring service. Correspondence solicited. Long-distance 'phone in house.

R. R. NESS, Howick, Que.



Ayrshires from a Prizewinning Herd—

Have some nice bull and heifer calves for sale at reasonable prices. For particulars, etc., write to **WM. STEWART & SON**, Campbellford Stn. **Menie P. O., Ont.**

"How old are you, Jimmie?"

"Two years older than Johnnie."

"How old is Johnnie?"

"I don't know."

Prizewinning Ayrshires

FOR SALE: 5 High-class Bulls, from 6 to 24 months of age; 10 Cows and Heifers, from 6 months to 5 years of age.

All bred from the deepest-milking strains.

A. Kennedy & Son, Vernon, Ontario,

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GOSSIP.

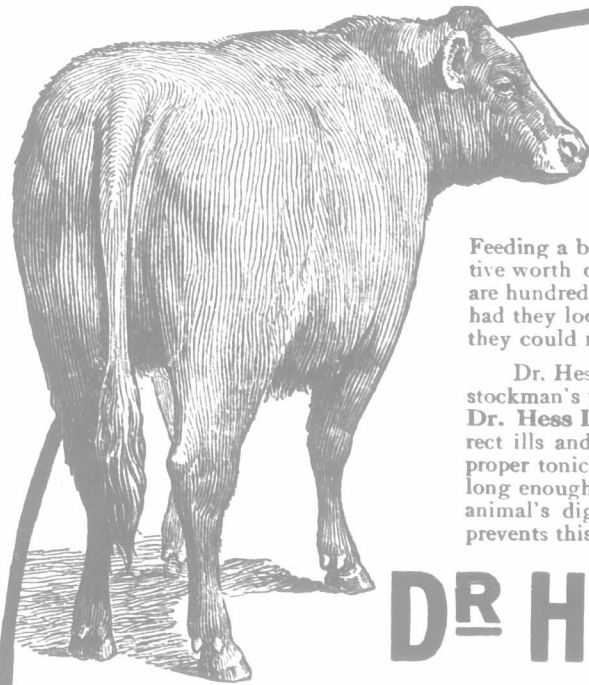
SHIRES, SHORTHORNS AND LINCOLNS.

Practically since the introduction into Canada of Shire horses, Shorthorn cattle and Lincoln sheep, the name of Gardhouse has been intimately associated with the importation and breeding of these lines of pure-bred stock. Very many of the leading studs, herds and flocks of the above breeds in Canada and the United States had as a foundation animals bred or imported by the Gardhouses. The present firm of John Gardhouse & Sons are too well known to need any introduction, the superior excellence of their stock, and the success of their entries at the Canadian National Exhibition at Toronto for a great many years, is proof positive that while there may be other breeders producing as good stock, there are few, if any, better. Just now their Shires number about a dozen, all either imported or from imported stock, winners at Toronto and elsewhere. The stallion in service is Imp. Royal King 3rd, an exceptionally high-class representative of the breed, up to a big size, with a grand lot of quality. Last fall at Toronto, he was first and champion. The several brood mares are a big, thick lot, and nearly all imported. In younger stock there are several fillies from foals up to two years of age, among which are show stuff of a high order; any of them are for sale. The Shorthorns number about 70 head, Scotch-bred, imported, and Canadian-bred, on blood lines representing the Cecelia, C. Lovely, Claret, Roan Lady, Brawth Hud, Miss Ramsden, Rosebud, Rosemary, Rolla and Jilt families. The younger ones are the get of Imp. Prince Louis, a Lancaster-bred bull; Imp. Scottish Prince, a Matilda, and a winner of first and senior championship at Toronto, and the present stock bull, Imp. Prince of Archers, a Cruickshank Butterfly, son of Royal Ensign, dam by Superior Archer. He is one of the very low-down and exceedingly thick sort, a wonderful doer, and is proving a very superior sire, demonstrated in the young bulls on hand, eight from 6 to 12 months of age, some of which are out of imported cows and exceedingly well bred. Out of this lot can be got a herd-header of very superior merit, and at a very reasonable price. One of them is Archer's First, a roan two-year-old, a Roan Lady-bred bull. This promises to be a coming champion, a remarkably perfect specimen of the breed. In heifers there are about a dozen yearlings, eight of them by the stock bull, two by Scottish Prince, the other two by Imp. Deeside Chief, a Roan Lady. Besides there are several high-class show heifers. Anything will be priced, as there are a number for sale. The Lincolns number about 80 head. This is one of the best flocks in the country. For sale are about 20 ewe lambs and a number of shearing ewes, two shearing rams and eight ram lambs. Now is the time to start or strengthen a flock of sheep; next year they will be away up in price. Write Mr. Gardhouse to Highfield P. O., or call up long-distance 'phone at Weston, connected with the farm.

TRADE TOPIC.

A BOON FOR HUNTERS AND FISHERMEN.

It is now said to be possible and easy for anyone to know how to preserve animals, birds and fishes so that they look exactly like the living creatures. This art, taxidermy, possesses great fascination for all who undertake it. Formerly only a few professional taxidermists knew the secret of doing this work, and they guarded their knowledge well. Now, however, it is claimed that the very best and easiest systems of taxidermy may be secured by anyone interested in the art, and it is said that a few weeks' practice enables the hunter to mount his trophies just as well as a professional can do it, and at practically no cost. Big profits are made by many persons by selling their mounted specimens and mounting for others. Beautiful decorations for the home can be prepared, and the art offers a splendid recreation for spare time. The art is now taught by mail by the Northwestern School of Taxidermy, of Omaha, Neb., P. S. Readers interested in the subject can secure full particulars and a beautiful prospectus by writing the above school at the address given.



Get the Good Of Your Feed

Feeding a beef animal is one thing—getting the whole nutritive worth of your grain and hay is another. Many feeders are hundreds of dollars poorer to-day than they would have been had they looked to it that their stall-fed steers got only what ration they could most fully digest and completely assimilate.

Dr. Hess (M. D., D. V. S.) is a practical stockman. Increasing the stockman's profit by increasing digestion has become known as "The Dr. Hess Idea." Dr. Hess believes that nature can be assisted to correct ills and to work out best results in every instance, by the use of a proper tonic. Every man of experience knows that heavy feeding, continued long enough to "fit" a steer, often defeats its own purpose by upsetting the animal's digestion. "The Dr. Hess Idea" worked out in daily practice prevents this and relieves all the minor stock ailments.

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Dr. Hess Stock Food by improving the appetite increases the consumption of roughage and by increasing digestion lessens the amount of nutrition wasted in the manure. Sold on a written guarantee.

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I am offering 20 choice shearing Shropshire ewes of my own breeding, from imp. Minton and Buttar dams, and bred to a first-class imp. ram; also 20 extra good Cotswold ewes of first-class breeding. They must be sold to make room.

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Claremont Stn., C.P.R.

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20 lambs from imp. stock; both sexes. A choice bunch of shearings, both sexes. Low prices in lots for quick sale.

WM. BARNET & SON, Breeders and Importers,
Fergus, C.P.R. and G.T.R. Living Springs, Ont.

OXFORD DOWN SHEEP AT FARNHAM FARM.

We have 50 yearling ewes, all bred to our imported ram, champion at Toronto Exhibition, 1908, which we will sell at especially reduced prices for the next thirty days, in lots to suit purchaser. Also a few yearling rams and ram lambs by imported sires. Terms reasonable.

HENRY ARKELL & SON, ARKELL, ONTARIO.
Arkell, C. P. R. Guelph, G. T. R.

FAIRVIEW SHROPSHIRE EWES

For sale at very moderate prices. They were sired by a champion ram. And are being bred to another champion. Are of first-class type and quality. Write for circular and prices.

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John Dryden & Son, Brooklin, Ont.

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Flock of the most approved type. We offer good animals at reasonable prices.

W. D. MONKMAN, BOND HEAD, ONT.

CLAYFIELD Buy now of the Champion Cotswold Flock of America, 1906. Flock headers, ranch rams, ewes of different FARM! ages. All of first-class quality, and prices reasonable. Write, or call on J. C. ROSS, Box 61, Jarvis, Ont.

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10 good yearling rams, including the first and third prize winners at London. Also some good breeding ewes, which must be sold, as the flock is being reduced.

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GOOD WOOL,
GREAT WEIGHT.

This highly valuable ENGLISH BREED OF SHEEP is unrivalled in its rapid and WONDERFULLY EARLY MATURITY, hardiness of constitution, adapted to all climates, and in quality of MUTTON and LARGE PROPORTION OF LEAN MEAT IS UNSURPASSED. Full information of

Secretary, Hampshire Down Sheep Breeders' Association,
SALISBURY, ENGLAND.

Maple Villa For sale: Sunset, imp., 2 yrs. old—a grand ram and a Oxford Downs grand, good sire; 15 shearing ewes; 4 shearing rams; this year's lambs of both sexes. A high-class lot. Yorkshires of both sexes and all ages. Satisfaction is guaranteed. J. A. Gerawell, Bond Head P. O., Ont. Beeton or Bradford Sta.

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.

HAMPSHIRE DOWN SHEEP!

Yearling rams and yearling ewes. All bred from imp. sire and dams. Price reasonable. L. E. MORGAN, MILLIKEN, ONTARIO. Bell 'Phone. P. O. and Stn. (G. T. R.)

IMPORTED HORNED DORSETS

I have for sale a few of both sexes, the get of last year's champion all round the circuit, Imp. Romulus 2nd. Canada's banner flock of Dorsets.

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Willowdale Berkshires!

Won the leading honors at Toronto this fall. For sale are both sexes and all ages, from imp. stock on both sides. Show things a specialty. Everything guaranteed as represented. **J. J. WILSON, MILTON, ONT., P. O. AND STATION. C. P. R. AND G. T. E.**

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are the easily-fed, quick-maturing kind. The sort the farmers want.
All ages for sale. 100 sows bred now.

JAMES WILSON & SONS,

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Hilton Stock Farm

Hoists and Tamworths.
Present offering: 6 yearling heifers and several younger ones. All very choice. Of Tamworths, pigs of all ages and both sexes, pairs not akin.
R. O. MORROW & SON, Hilton, Ont.
Brighton Tel. and Stn.



Pine Grove Berkshires!

Present offering: Sows bred and ready to breed, including my winners at the late Winter Fair, Guelph. Boars fit for service. Younger ones of both sexes. Guaranteed as represented. Write your wants.
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Milton, C. P. R.; Georgetown, G. T. R.



Pine Grove Yorkshires At the late Guelph Winter Show we won decidedly the best of it in the bacon classes. Our Yorkshires are noted for superior excellence. Both sexes and all ages for sale.
J. Featherstone & Son, Streetsville, Ont.

NEWCASTLE Tamworths, Sherborns and Cotswolds. I can furnish right now a large number of extra choice boars fit for service, some sows in pig, and any quantity about two months old, of such noted sires as imported Cholderton Golden Secret, Colwill's Choice, and Newcastle Warrior—champion boars at Toronto National several years in succession, and out of great big show sows. A few choice heifers; some safe in calf. Bulls ready for service. Will be sold very reasonable for the next 30 days. Also ten ram lambs and two shearing rams. **A. A. Colwill, Newcastle, Ont.**

ELMFIELD YORKSHIRES 50 young pigs for sale, both sexes. Young sows bred to imported boar, also sows to Canadian-bred boar due to farrow about 1st October. **G. B. Muma, Ayr, Ont. C. P. R.; Paris, G. T. R.**

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For pamphlet giving full particulars of simple home treatment, 20 years' success. Over 1,000 testimonials in one year. Sole proprietors: **Trench's Remedies, Limited, Dublin.**

"What a peculiar chauffeur you have."
"Yes, it's my coachman. He does well—only he can't drive without his whip."

GOSSIP.

T. H. HASSARD'S NEW IMPORTATION

Mr. T. H. Hassard, late of Millbrook, now of Markham, Ont., has lately returned from Scotland with an importation of 25 head of Clydesdale stallions and one Hackney stallion. Before leaving for Scotland, Mr. Hassard said he was going to bring over the best lot he ever imported—and he has kept his word. We very much doubt if ever before was there a lot of Clydesdales imported to Canada by any man or firm the equal of this lot. True, they are not all world-beaters, but certainly there are a number of exceedingly high-class horses; horses that when made up will weigh up to 21,000 lbs., of superb mould and on faultless bottoms. We must say that parties visiting Hassard's barns at Markham will see as perfect specimens of Clydesdale ideality as the breed produces. And on breeding lines, while they are bred in the purple, particular attention was paid to keep as far as possible from injudicious inbreeding. A synopsis of the breeding of a few of them we give below. Deserving of first mention is the brown eight-year-old, Golden Gleam (11730), by the great sire Gold Mine; dam by Royal Alexander. Few horses of the calibre of this one has ever been imported. In condition he will easily weigh a ton, with superb quality and character throughout. The district that gets his service will be fortunate. He is a high-class sire and very sure. Brave Nelson (12872) is a black five-year-old, by Prince Tom; dam by Raiburn. He is a massive, big, thick horse, on the best kind of underpinning, a duplicate of the double champion, Right Forward. Prince Togo (13146), a brown seven-year-old, by Prince Robert; dam by William the Conqueror, is a horse which, when in condition, will weigh 2,150 lbs. Combined with that is smoothness and quality, topped off with style and character. He is a proven sire of sterling worth. Carcellus (14548) is a brown five-year-old, by Marcellus; dam by Prince of Caruchan. Here is a great show horse; a cracker from top to bottom; a horse that will bear the closest inspection. Admiration (12797), a brown five-year-old, is a full brother to the champion, Labori, got by Hiawatha; dam by Craichmore Darnley. He is up to a ton in weight, smooth to a turn, and full of quality; a show horse all over. Dunure Nikko (14102) is a brown two-year-old, that in Scotland this year, at the Highland, beat the Toronto champion, Landsdowne, sired by Hiawatha; dam by Prince of Albion; g.-d. by Top Gallant; breeding unexcelled, and a coming champion. Baron Midscat (14001) is a bay three-year-old, by Baron Solway; dam by Midscat Prince. Here is something very choice, smooth, even and stylish, on a perfect bottom; a show colt of a high order. These mentioned are only representative of the lot. In age there are one 8 years old, one 7 years old, one 6 years old, three 5 years old, three 4 years old, seven 3 years old, nine 2 years old, and one 1 year old. Many of these were winners in Scotland, and are capable of winning here. A dozen or more of them will be on exhibition at the Horse Show at the West Toronto Stock-yards on January 13th, 14th and 15th. Inspection is invited, as Mr. Hassard is not afraid of comparison when condition is taken into account. They are for sale at reasonable prices, and on terms to suit. The Hackney stallion brought out was Helbeck (9268), a seven-year-old chestnut, by the great sire Ruby; dam by Cadet. For two years this horse was at the head of the great Morton Stud, which speaks for him a recommend unassailable. He has grand all-around action; and style galore. Other Hackney stallions on hand are the Toronto champion, Marion Cassius (10032), Atwick Astonishment (9101), Flat Top Swell (8474), Croome Swell (9540), Norbury Chieftain (9361); and the Hackney pony stallions Royal Review (10033) and Eastwood Toff (10031), also the Hackney pony filly, Little Clip (18834). All these are for sale at easy prices, as Mr. Hassard intends going out of Hackneys. They are a choice lot, and sure to please on inspection.

Paul, at the age of four, was asked one morning by his papa, "What is the name of the first meal of the day?"

"Oatmeal," responded little Paul, promptly.



WEAK MEN, GINGER UP!

Arouse Yourself, Feel the Spark of Life in Your Nerves, Recover the Vigor You Have Lost.

If you are a man whose youthful vitality has been wasted by indiscretions, excesses or overwork, I want to assure you that there is a positive remedy for your trouble. If your condition is that of exhaustion or feebleness, the very element which you have wasted, viz., human electricity, can be put back into your body. When you get it back your weakness will disappear, and you will become strong in nerve, brain, muscle, and every organ, and filled with joy that you are once more a perfect specimen of manhood. **DR. McLAUGHLIN'S ELECTRIC BELT** will fill your system with the power you have lost. It does this in a gentle, glowing, soothing way while you sleep. You get up in the morning refreshed, all aches and pains disappear, and you feel strong enough to attempt and accomplish what any other man can or may. It makes you feel like a new man, because it restores and develops the vigor originally given to men by nature.

Pick out the men who have worn my Belt. See them, with head erect, chest expanded, the glow of health in their cheeks, courage in their hearts, and a clasp of the hand that tells you: "I am a man."

To those who are tired of paying without results, and to those who doubt if anything will help them, I make this offer: If you will secure me my

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I will let you have my Belt without paying me one cent in advance.

The Dr. McLaughlin Electric Belt is a cure for all signs of Breakdown in Men and Women. The Vitality of the body is Electricity—the force in the Nerve Cells. My Electric Belt will give you back this power and enable you to fight on in the Battle of Life!

The Dr. McLaughlin Electric Belt cures Neurasthenia, Hypochondria, Nervous Prostration or Nervous Weakness, Headache, Sleeplessness, Stomach Trouble, Indigestion, Constipation, Weakness of the Kidneys, Lane Back, Rheumatism, Lumbago, Sciatica, Neuralgia, Poor Circulation, Urinal Trouble, Weakness of the Organs, Night Losses, all evidences of Premature Decay.

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Dr. McLaughlin: Dear Sir,—One year ago last February I was taken with Nervous Exhaustion (the doctors pronounced it). I suffered all the tortures of that disease; was all run down, so weak I could hardly do anything at all. Since I began to use your Belt there has been a marked improvement in my condition in the different ways mentioned. I have slept well every night since wearing your Belt, which is one of the greatest blessings of mankind. I have a great deal more ambition; work used to seem such a mountain, now it seems more a pleasure; more strength and vim; memory better; digestion better; constipation about gone, which I was bothered with a great deal; head feels better, and I feel far better in every way. Yours truly, **NELSON ROSE, South Bay, Ont.**

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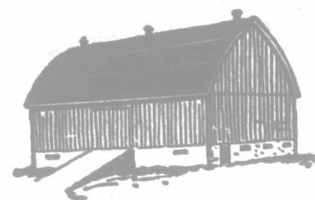
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