

48

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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FOUNDED 1866

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

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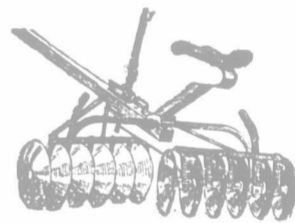
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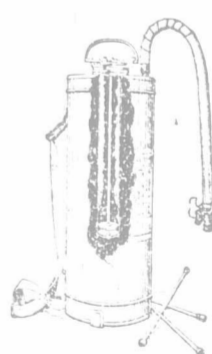
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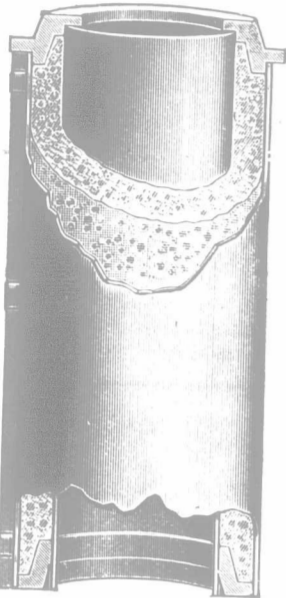
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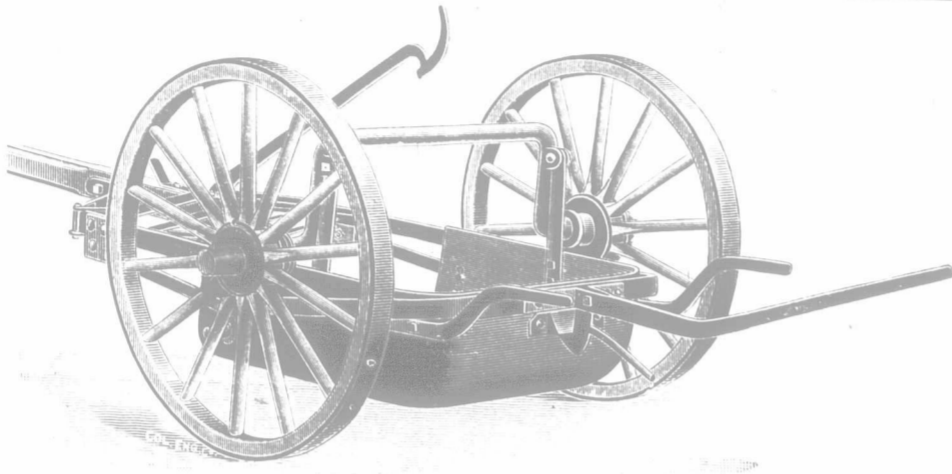
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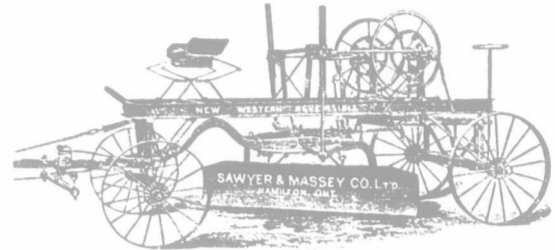
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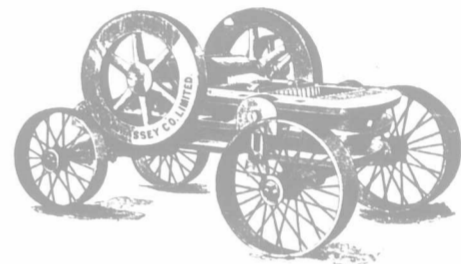
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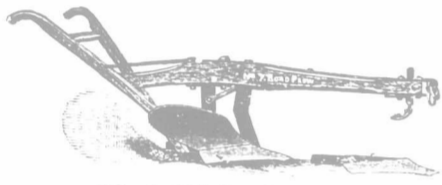
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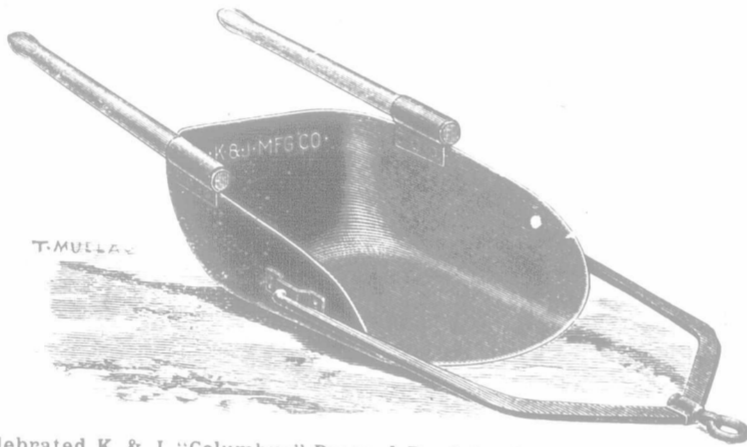
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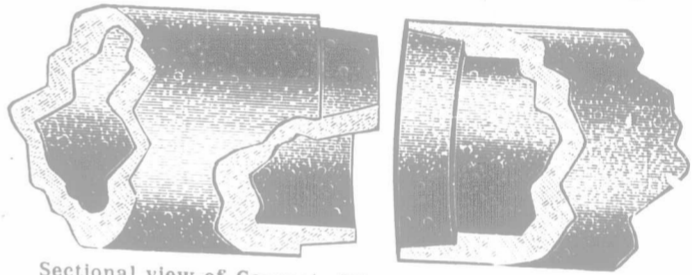
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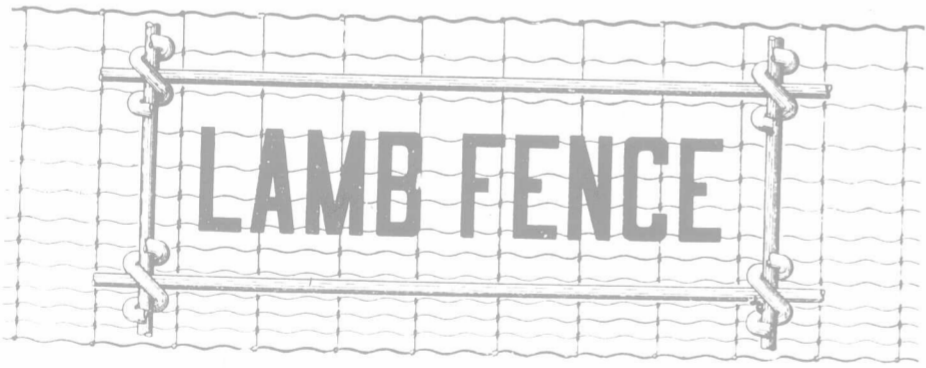
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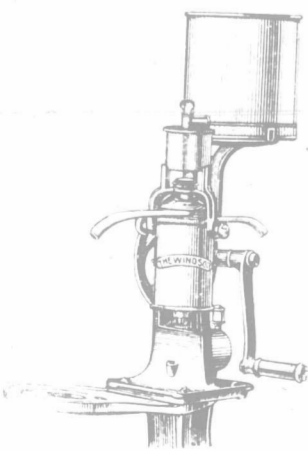


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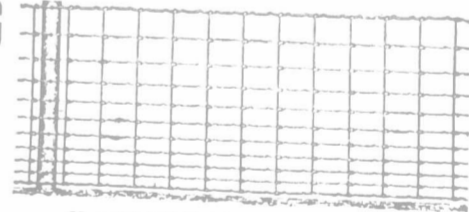
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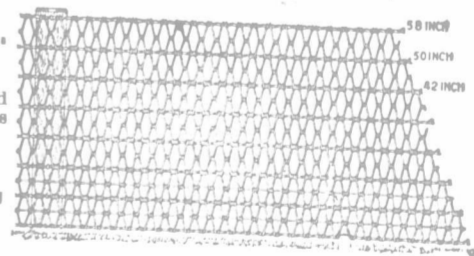
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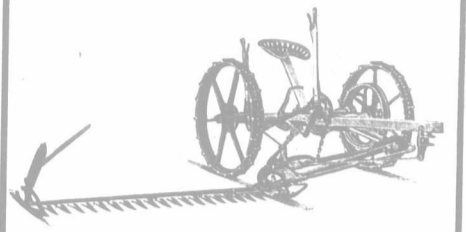
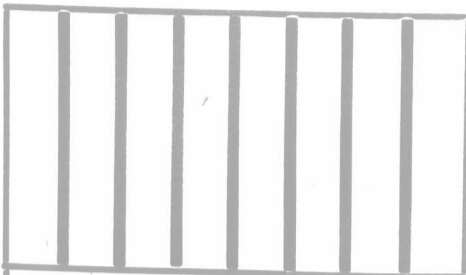
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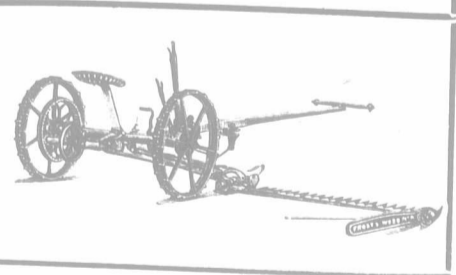
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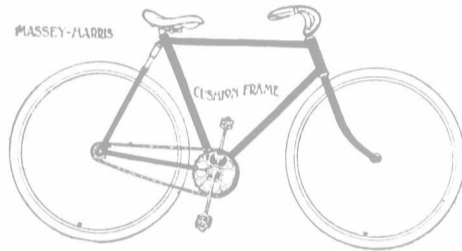
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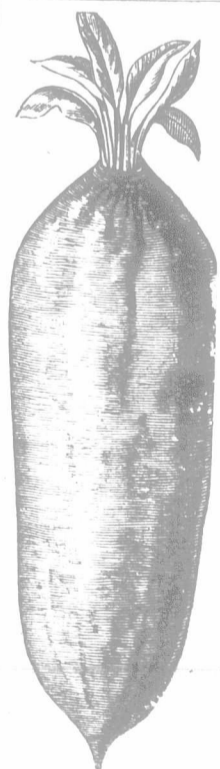
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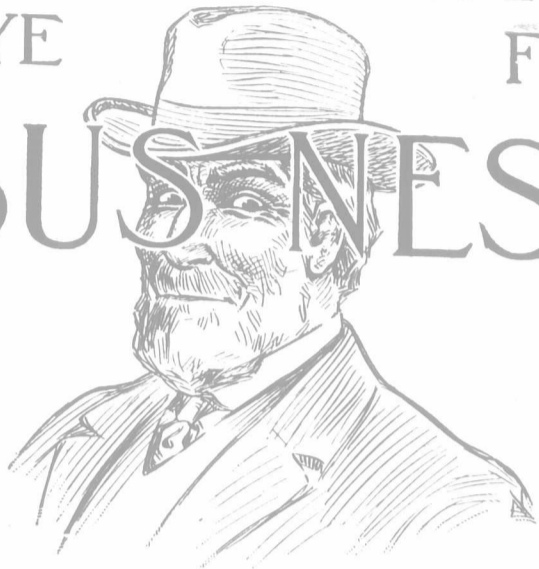
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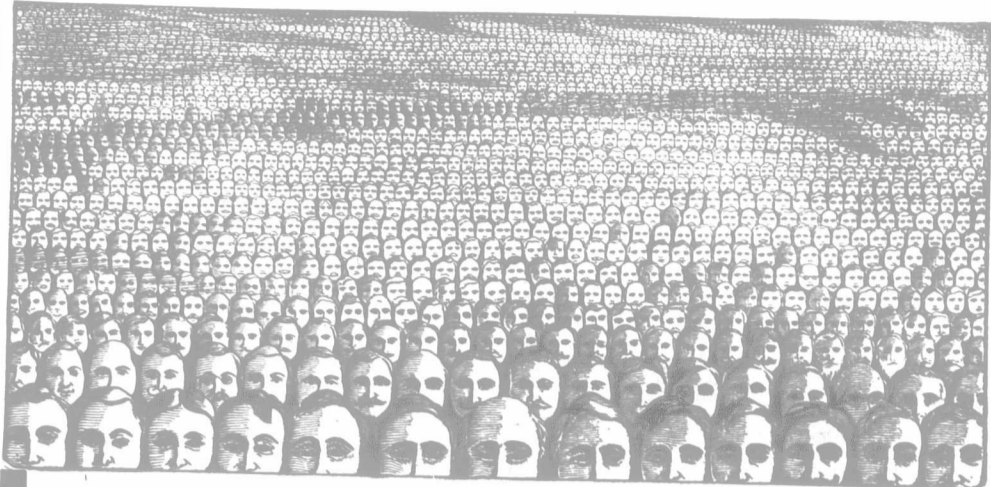


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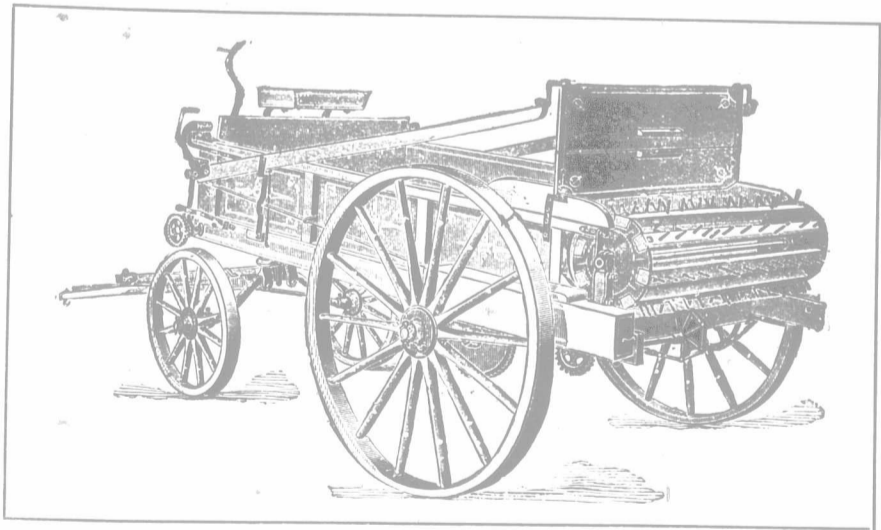
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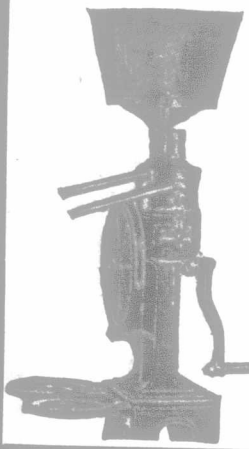


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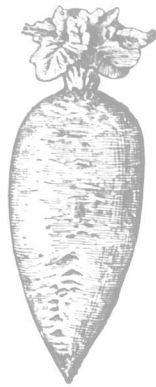
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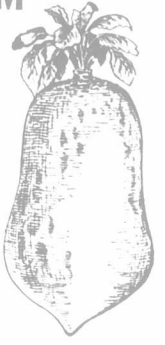
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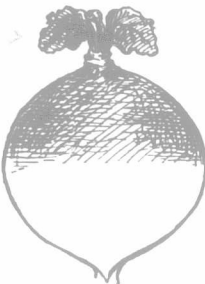
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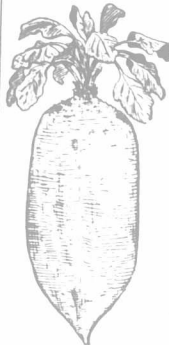


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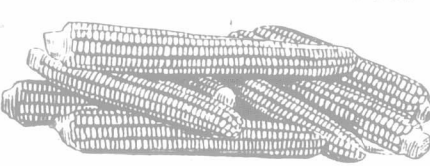
Heaviest Cropping Carrot ever known. Roots are extra large, half long, smooth and regularly tapering to a point. Flesh is solid, crisp and of a pearly white color. Very sweet. Easily harvested.

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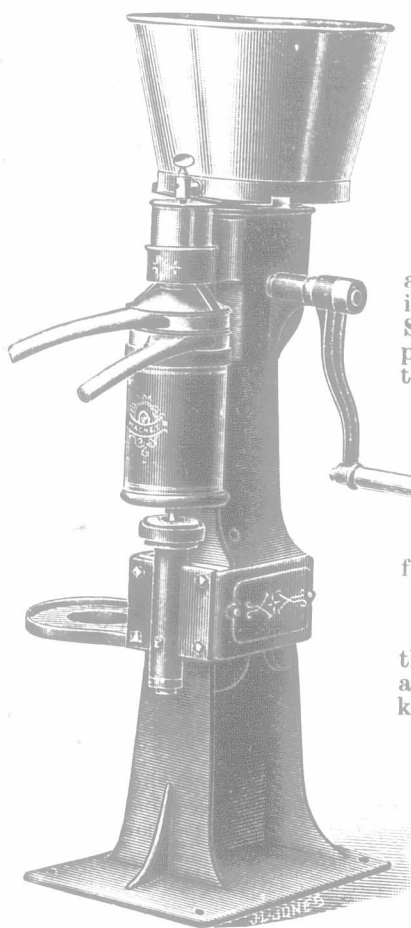
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THESE GRAND FEEDING BEETS, introduced by us lately, have found great favor with all who have grown them. They combine the fine rich qualities of the sugar beet with the long-keeping, large size and heavy-cropping qualities of the mangel. The roots are clean and tops small, white flesh, solid, tender and very sweet, and on account of the bigger part of their length growing out of the ground, they are easily harvested. They will easily outyield all the older kinds of sugar beets, and come very close to that of the heaviest yielding mangels of the intermediate type. The past season some fine roots, weighing as much as 15 lbs., were exhibited, and we have no hesitation in recommending this fine variety as the best for stock-feeding on the market at the present day. The roots are the largest, handsomest, most uniform and clearest of all sugar beets, and this, combined with their great richness and easy-harvesting quality, makes them the "beau ideal" of a root for the farm. We offer in two colors, ROSE and WHITE:

1-4 lb., 13c. 1-2 lb., 20c.
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and Home Magazine.

"PERSEVERE AND SUCCEED."

ESTABLISHED 1866.

VOL. XXXVIII.

LONDON, ONT., AND WINNIPEG, MAN., APRIL 1, 1903.

No. 571

EDITORIAL.

Inter-Imperial Postage.

The announcement made in the last issue of the "Farmer's Advocate," that Sir Wm. Mulock had succeeded in his effort to reduce the postage on Canadian periodicals going to Great Britain, has been well received by the country, and should do much to further the relations of Canada in the Old Land, as was the result of the two-cent letter rate, another of the Canadian Postmaster-General's achievements. Our readers will do well to bear in mind that they can now send papers to their friends in the Old Country at the same rate as from point to point in Canada. This privilege should be taken advantage of by those who wish to send either single copies of the "Farmer's Advocate," or the paper for a whole year, to friends across the sea. It will now, more than ever, be a good missionary abroad for Canada. We regret to say, however, that thus far the Imperial authorities have declined to reduce the postage on British periodicals coming to Canada. As to the rate of postage on papers to Australia, New Zealand, and other portions of the Empire, Sir Wm. Mulock has been conducting negotiations with the various Governments concerned in order to make a similar reduction as on periodicals to Great Britain, and may be relied upon to continue his efforts in that direction until successful. The establishment of free rural mail delivery in Canada is another reform which should be inaugurated at the earliest possible date.

A Small-souled Regulation.

The amended act admitting pure-bred animals duty free when imported for breeding purposes, shows that Congress has limited this privilege to citizens of the United States. Any "alien" who may hereafter send over for sale pedigreed animals for breeding purposes must pay duty. The full text of the amended paragraph follows:

"Any animal imported by a citizen of the United States specially for breeding purposes shall be admitted free, whether intended to be so used by the importer himself or for sale for such purpose: Provided, that no such animal shall be admitted free unless pure-bred of a recognized breed, and duly registered in the books of record established for that breed: And provided further, that certificate of such record and of the pedigree of such animal shall be produced and submitted to the customs officer, duly authenticated by the proper custodian of such book of record, together with the affidavit of the owner, agent or importer that such animal is the identical animal described in said certificate of record and pedigree: And provided further, that the Secretary of Agriculture shall determine and certify to the Secretary of the Treasury what are recognized breeds and pure-bred animals under the provisions of this paragraph. The Secretary of the Treasury may prescribe such additional regulations as may be required for the strict enforcement of this provision. Cattle, horses, sheep or other domestic animals straying across the boundary line into any foreign country, or driven

across such boundary line by the owner for temporary pasturage purposes only, together with their offspring, may be brought back to the United States within six months free of duty, under regulations to be prescribed by the Secretary of the Treasury: And provided further, that the provisions of this Act shall apply to all such animals as have been imported and are in quarantine, or otherwise in the custody of customs or other officers of the United States, at the date of the passage of this Act."

How would American horsemen, who are doing such a thriving trade in Canada, relish the imposition of similar narrow-gauge regulations by Canada? The law makers of the Dominion do not seem to be built on such small-souled lines.

For peanut politics commend us to the U. S. Congress.

Hon. W. C. Edwards, Senator.

A few issues ago the "Farmer's Advocate" took occasion to urge the filling of some of the vacancies in the Canadian Senate from the ranks of agriculturists and stockmen. This was not proposed on mere class grounds, but because agriculture being by far the most important of Canadian industries, the capability of the Senate in shaping legislation directly or indirectly affecting the interests of the farmer would be greatly improved by the presence of men who, in addition to other qualifications necessary to a legislator, are actively identified with agriculture and stock-rearing. Such a selection has just been made, in the appointment of William Cameron Edwards, M.P., who has represented Russell Co., Ont., in the House of Commons since 1887. A son of the late William Edwards, a native of Portsmouth, England, who came to Canada in 1820; his mother, Martha Cameron, of Scotland; Hon. Mr. Edwards was born in Clarence Township, Russell Co., on May 7th, 1844. Educated at the Ottawa Grammar School, he first learned lumbering, and went into business on his own account in 1868, establishing mills at Rockland and New Edinburgh, among the most extensive and prosperous in the Dominion. He is also identified with other large enterprises, but it is safe to say that his keenest personal interest has for many years been associated with his achievements as a farmer and stock-breeder, and his efforts to promote agricultural exhibitions, and whatever in his judgment would make for the advancement of the interests of the farmer. His farms at Rockland and North Nation Mills have been carried on with great success; pure-bred cattle-rearing and dairying being the outstanding features, based on a good practical system of general farming. He has established a fine collection of Ayrshire cattle, and the fame of the "Pine Grove" Shorthorns and Shropshire sheep at Rockland has become cosmopolitan throughout America, as well as in Great Britain, the best blood of which was drawn upon in the foundation of his herds and flocks. A member of the Baptist denomination, he is the exponent of equal rights and liberties in all things. He has had great experience in business and public affairs, and has been pre-eminently the architect of his own fortunes. That Mr. Edwards will long wear the honors of his Senatorship, and long promote the interests of agriculture in the Upper Chamber, we feel certain will express the wish of every stockman and farmer in Canada.

The Railway Commission Bill.

The Hon. A. G. Blair, Minister of Railways, in introducing his amended Railway Commission Bill in the House of Commons at Ottawa, on March 20th, very properly laid down this proposition, that "the first interest to be considered was agriculture, which far surpassed all other interests." It proposes in the first place to abolish the present Railway Committee of the Privy Council, and establish in its place a tribunal independent of the Government, and empowered to control the operation of railways, rates, trains, equipment, the protection of crossings, and also, we presume, freight shipments which involve part carriage by water. It will, like other railway commissions, give publicity to rates, etc., in which there is safety for the people. In its powers it is claimed to go beyond any previous legislation, and to avoid the weaknesses of other commissions. It is to be judge as to both law and fact; but there is a right to appeal to the Supreme Court when the jurisdiction of the commission is attacked, and on questions of fact to the Governor-General-in-Council or Cabinet. Is there not grave danger in the latter proviso, when great issues affecting the rights of people re transportation are at stake, that the Commission might become involved with the political exigencies of the Government of the day? The Bill aims to remove long and short haul discriminations, provide uniform rates of classification, and the Commission is empowered to alter these rates and control tolls. The Inter-colonial Railway (Government line) is exempt from the operations of the Act, and the C.P.R. partially so, owing to the ten per cent. clause in the charter.

Freight rates are classified under three heads, standard, special, and competitive. Standard rates are to be fixed by the Commission, after application by the railways; the railway schedule may or may not be accepted by the Commission, and the decision of the Commission shall stand. Special rates would cover the carriage of coal, lumber, grain and similar commodities, and competitive rates might result from reduced charges between given points under certain conditions, but the board will have the power to disallow these amendments after a certain time. The railway shall give to shippers three days' notice of any decreased rates, and ten days' notice of any increases.

The board will consist of three or five members, Mr. Blair preferring three, but the number is left blank until the bill reaches the committee stage, when all its provisions will be fully discussed. The commission is to be a court of record. The term of the appointment of commissioners shall be ten years, but they shall be eligible to re-appointment. The age limit is to be seventy-five years. The commissioners shall be removable only by the Governor-General-in-Council, and then upon cause. One member of the commission may hold a hearing, providing the matter be not contentious. The place of meetings shall be movable on consent of the Government. A majority of the Commission will decide a case.

With the scarcity of help that prevails this year, it will be more than ever necessary for the employer and employee to maintain a mutual understanding; cultivate politeness and a consideration for others. Charity covers a multitude of sins.

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JOHN WELD, MANAGER

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Railway Regulation and the Farmer.

To the Editor "Farmer's Advocate":
Sir,—In your Feb. 15th number appears an article on this subject by S. J. McLean, of Leland Stanford University, California, which to the ordinary farmer contains several extraordinary statements. He tells us that costs and distance fail to determine a rate, and that there are other essential factors. What are they—Watered stocks and bonds and "all the traffic will bear," and "the public be ———"? If this is not right, will the Professor enlighten us? He points out that there are weaknesses in the laws appointing these commissions. Here I agree with him, and if this country appoints a commission, these we want to avoid. He tells us that the judicial bodies have to pass on them at the last resort. Now, here is the rock on which all other commissions have split, and we must avoid that. We want no such provision; we want a commission with the simple powers of an ordinary jury. They have the power to try the law as well as the case; their decision is final. If the law is bad, so much the worse for the law. If we let the law be the final arbiter, there will be no end to litigation and no redress of grievances. It's no use to point to England, for they are in quite as bad a position as we in Canada in regard to freight rates. I understand that twenty miles from London you can ship goods to France and then to London for less money than you can ship direct to London. Is this a case of compromise? He points out that transportation is the most important question in Canada to-day, which is true. And this is the question our agricultural papers and farmers' institutes want to discuss, rather than how to produce goods, for all depends on the price we get when produced. We have already made two lords in connection with the C.P.R., and if it goes on charging present rates for passengers and freight, we are likely to make more. Is this a case of Empire building? Prof. McLean says Argentina is our great competitor. In this I think he is entirely mistaken. First, our great competitor, she is driving us out of the pig market in Britain; in butter she is on to us, and is coming on in cheese and bacon. As for wheat, she is a country much like our Northwest and she has a much larger extent, and can raise wheat as good as we and is selling it at such prices that we can't compete through railroad that carries passengers for one cent per mile (whereas our C.P.R. charges four or three to

five cents), and a freight rate less than half. This railroad is owned by the Government, and is not run to make money, but as their Minister of Railways declares, "to place their goods in the world's markets below all competitors." What is our Minister of Railways doing? Too busy testing cattle-guards! Mr. McLean contends that this question is beset with difficulties, some of them impossible of solution. Does Mr. McLean believe this? If so, he will find few farmers who agree with him. Is it possible that our legislators have given powers to railroad corporations so vast as to be beyond public control? This looks like an impostor of Mahomet's Koran. When he wanted to give great weight to some of his revelations, he commenced with a conundrum which no man could guess. It is needless to follow the Professor further at present, but state a few things that the farmers of Canada want:

1st, we want a commission, with ample powers to compel the railway corporations to show what they have done with the \$300,000,000 the people of Canada have given them to help build their roads, and how much of their own money they have put into them.

2nd, we want the watered stocks and bonds squeezed out, and that "witless" fifteen per cent. profit clause in their charters, that Mr. McLean tells us about, re-enforced.

3rd, we want a two-cent per mile passenger rate, and a freight rate on our heavily subsidized railways and steamships that will place our products on the markets of the world cheaper than all competitors, regardless of what the United States, Argentina, Russia or any other country may do.

This is going to be a big and long fight, and our friends will have to stand up and be counted one of these days. It would be well for our legislators and papers to show which side they are on, and not be led away by the writings of some one who may be in the employ of the corporations. FRANCIS VAN DE BOGART, Lennox Co., Ont.

[Editorial Note.—It would be unfortunate if the Canadian Railway Commission were invested only with "the simple powers of an ordinary jury." In the Province of Ontario, where our correspondent resides, it is only in a very limited class of cases that juries determine the law as well as the facts, and even in these, judges have the power to say whether there is sufficient evidence to allow the case to go to the jury at all. The question has already been raised as to whether some small purely local roads subsidized by Provincial grants could, by a declaration of the Federal Parliament that they were for the "general advantage of Canada," be made subject to Federal control. The chances of judgment, however, would be in favor of the Dominion. There will also be difficulty in controlling the C.P.R. rates, in view of the clause in the original contract which provides that its rates shall not be reduced until the road earns ten per cent. on the capital invested in its construction. When the C.P.R. received power to increase its capital stock from \$65,000,000 to \$85,000,000, a reference to the Supreme Court was agreed upon to determine just what amount actually was invested in the construction of the Canadian Pacific. The public would like to know that, and will be content with nothing less than an efficient regulation of rates on roads that have cost people so much, and the prevention of discriminations. The fight will not be over with the creation of the commission, because it is very likely that the exercise of its powers may be resisted, thus involving litigation, but if Parliament does its duty the commission should in the end secure practical sovereignty over the railways of the country. In another column we give an outline of the Railway Commission Bill as submitted to Parliament last week.

With regard to the suggestion to abandon efforts toward improvement in production, our own experience and observation, particularly during the past thirty or forty years, show that the men who have applied intelligence, skill and industry in their farming operations have succeeded, while that period is dotted all along with the wrecks of those who neglected those conditions of success. This does not exempt men from effort to redress injustice, and to battle for equal rights for the farmer. In doing this the "Farmer's Advocate" has many times excited the ire of the "powers that be," but our space in the future, as in the past, must be chiefly devoted to the problems that every day confront the farmer on the farm. This we aim to do, but not to leave the other undone a doctrine laid down 2,000 years ago by the Greatest of all Teachers.

The "Farmer's Advocate" in the West.

Readers of the "Farmer's Advocate" in Eastern Canada or the United States will find the headquarters of the Manitoba and Western edition of this paper in the Imperial Bank Block, corner of Main street and Bannatyne Ave., Winnipeg. If in need of any special information regarding the West, of a local character or in connection with agricultural or live-stock matters, persons will receive a cordial welcome, by the editorial and business staff of the paper there, who will do all in their power to make themselves of service. Visitors will, therefore, feel free to take advantage of the invitation which they extend. The paper is very comfortably and conveniently located there, and is manned by a very strong and efficient staff, who are making the "Advocate" an increasing power for good and agricultural progress in the West. It will be found in the homes of the leading farmers and stockmen all over Western Canada. As our old readers all know, a distinct edition has for many years been published specially suited to the conditions and needs of that country.

HORSES.

Manners in the Show Ring.

That horses require manners in the show-ring is a fact that is apparently considered unimportant by many exhibitors, but it is none the less a fact. All horses, young and old, whether exhibited on the halter, under saddle or in harness, should have good manners, and such cannot be given without education. Especially in the halter classes, the actions of exhibits often forces upon judges and spectators the idea that manners are not considered by the exhibitors as a necessary or desirable qualification in their horses. Horses to be shown on the halter should be taught to lead well and stand well; also, to walk and trot without shying, plunging, refusing to go, going sideways or tugging on the rein, etc. They should walk or trot as desired, in a straight line, both from and towards the judge. They should be taught to stand to attention and allow the judge to examine their mouths and handle any part that may be considered necessary. When the education has not been sufficient for results of this kind, the judge has little opportunity to judge action (an important point in any class), neither is he able to judge of age or soundness without endangering his safety. It is not rare to see an exhibit that under different condition would have won a place, leave the ring without a ribbon.

In the saddle classes, manners is a point that often is, apparently, not valued highly enough by the judges. A saddle horse without fairly good manners should not be considered in awarding the prizes, as he is not valuable for the purpose for which he is shown. He should be taught to stand steady to attention when asked, in order to allow the judge to look him over. He should show the recognized saddle gaits, viz., walk, trot and canter, and should take the different gaits promptly, responding readily to the will of his rider, indicated by rein, word, heels or knees. He should not tug on the bit, nor yet refuse to bear slightly upon it. If asked to leave the other horses in the class, he should go promptly and readily. We frequently see an otherwise good horse refuse to leave the bunch and perform alone. The hunter, in addition to the manners necessary in the saddle horse, needs good manners when performing over obstacles. He should be taught to take his jumps willingly, and in good form; should be apparently anxious, but not too eager; should not rush or tug on the bit, and should go straight between the obstacles, and should not refuse to come up to a jump nor take it.

In the harness class, manners is also an essential. A restive, nervous, fidgety horse or team or one of a team not only renders the work of the judge unpleasant and difficult, but endangers the safety of both his driver and other exhibitors. A horse that will refuse to stand or that acts badly when in motion, that will rear, plunge, kick or shy badly, should at once be ordered out of the ring, even though he be of high quality. A horse of this description is fit for neither show nor sale ring, and is not valuable for any purpose. A harness horse should be taught to walk and trot well at the will of the driver, and when drawn up for inspection by the judge should stand well to attention and allow himself to be handled with safety. He should back quietly but promptly when asked to, going straight and not rushing. Horses that under ordinary circumstances act well will occasionally become excited by band music in the show-ring. Allowance should be made in such cases, and I think it would be well if music ceased during the

exhibition of a class. This would give the horse unaccustomed to music an equal chance with those that are familiar with it and hence do not become excited.

Bad manners in the show-ring is not in all classes confined to horses. Exhibitors often act in a selfish way towards each other by trying to excite each other's horses, and hence lessen their prospect of winning. Exhibitors are also sometimes rude and discourteous to the judges, and when they are not awarded the place they think they deserve will either refuse to take any award or pass rude remarks. Such rudeness is generally punishable by the society, but the judge does not always report. Then, again, the person in charge of an exhibit frequently calls the attention of the judge to the merits of the animal as regards breeding, individuality, performance, owner, etc. This should not be allowed. If the judge wants any information he can ask for it, but exhibitors should not be allowed to volunteer information. An exhibitor should take it for granted that the judge is an honest and capable man, who recognizes merit in a horse when he sees it. He should also be sportsman enough to wish the best horse to win, and should not in any way interfere with the exhibitors of other entries, nor yet draw special attention to his own other than the visible merits of the animal demand. "WHIP."

The Hunter and Pony Shows.

As typical of the interest that is taken by Englishmen, by their wives and daughters also, no better example can be quoted than the enormous attendances which have, day after day, been found during the past three weeks at the Royal Agricultural Hall, Islington. First came the weighty Shires, moving, notwithstanding their ponderous size, with agility and grace only excelled by the grand movement and action of the noted Hackneys, whose breed monopolized this noted show hall during the second week; the third one is now being devoted to the display: (a) Thoroughbred stallions competing for what are termed King's Premiums, being the money voted by Parliament in years gone by for the Queen's Plates, as they used to be termed; (b) by the Hunter stock, and (c) by the Polo and general Pony section.

The first section drew, as it always does, a large and fashionable audience, but from the spectacular point of view it was monotonous to watch; the whole day being devoted to the awarding of the twenty-eight King's Premiums, each of which is of the value of \$750, the winning horses being allotted to certain specified districts, and bound to serve not less than fifty half-bred mares at the inclusive fee of \$10 per mare.

As to what are the results secured by this allocation of public money in support of horse-breeding, considerable difference of opinion exists. There are many who contend the result does not justify the expenditure, and viewed in a general way, it must be admitted that facts are much in favor of this contention. At the best, the produce is one which, if it hits, commands a good price; but if it misses, is next to valueless for general commercial use. However, as year succeeds year, the opposition remains quiescent, and hence public money goes each year to support this one section of the live-stock industry, the producers of which are of very limited numbers.

The Hunters' Improvement Society, whose nineteenth annual show, the present one, secured an entry of real good merit and quality, but of smaller dimensions than in either of the two preceding years. Two days were given to this section of the show, H.R.H. the Prince of Wales honoring the opening day by being present, and their Majesties the King and Queen came on the second day, on both of which the crowded hall and reserve seats fully testified how greatly this patronage of the Royal Family was appreciated by the general public. The classification was upon the lines of former years, including classes from yearlings up to the five-year-old, and in addition this year classes were provided for jumping, which, as always is the case, were very much appreciated, and certainly proved an undoubted attraction.

To those who are interested in breeding this description of stock, the show offers an unrivalled opportunity to see many of the best and most typical animals of this breed, and also a place where most of those who are interested in breeding and using Hunters can be seen and met. The dates of these annual fixtures being permanent, only differing a day or so each year, makes them most convenient for this latter purpose.

The last two days of the show were devoted to the exhibition of Polo ponies and ponies in general. It was an instructive and interesting display. The Polo men were present in full force, and their breeding classes were brought out in grand condition. The whole of the young stock demonstrated the excellent result that has been brought about by the excellent work of this society. Representative specimens of the High-land, Dartmoor, New Forest, Exmoor, Fell,

Welsh, made an interesting and instructive display. The getting together in one place of so many different varieties of the British pony is an excellent idea, and it makes up a display which is certain to bring about improvement in the breeding of these small but valuable specimens of the equine race, which now and will be, despite the advent of the motor car, of the highest commercial value and utility.

All through the agricultural press, and in most of the leading London papers, the comments upon these combined shows have been most complimentary, and the result of this year's show has been that not only has there been a much larger share of popular support accorded it, but the interest taken in the several developments aimed at, particularly in the last two sections, has become so much more popular that increased success may be reasonably anticipated in the immediate future.

STOCK.

What Should be Taught at the Present-day Veterinary College?

The above question brings to a focus the whole question of veterinary education, because whatever the answer may be, it will undoubtedly throw light on the minimum of general preliminary education which the intending veterinary student should possess, and also the shortest time in which it is possible for any man to acquire a thorough professional education.

FOR THE ADEQUATE PROTECTION OF



FARMERS ADVOCATE.

(Photo by G. H. Larsons.)

THOROUGHBRED MARE AND FOAL.

Flitters by Galopion, winner of the Derby, and foal by Mar'agon.

OWNED BY THE EARL OF CRAWE.

THE PUBLIC, THE MINIMUM OF PRELIMINARY EDUCATION AND LENGTH OF TIME OF PROFESSIONAL STUDY IN A VETERINARY COLLEGE SHOULD BE PRESCRIBED BY LAW! It is insisted upon in Great Britain, Manitoba, Quebec, and the great stock-raising States to the South; and it is incumbent on British Columbia, the Northwest Territories, and Ontario, to at once pass a similar law in order to avoid being the dumping-ground for a class of veterinarians possessing an inferior grade of professional education.

In passing, the question might be asked of the University of Toronto: What does affiliation with that institution mean in regard to veterinary education? Has not this great Provincial University been derelict in its duty, yes, prostituted itself, by lending its name and sanction to the antithesis of progress in professional education? What has the Chancellor and the other high officials of the University to say in extenuation of their course in pandering to the cupidity of the individual, to the damage of the entire profession?

Having passed the high school entrance examination of Ontario, or a standing or certificate equal to it, should be the minimum general education possessed before any person be allowed to enter the veterinary college. This standard is not at all high, and if a second-class certificate, or its equivalent, were demanded, the advantage would be all on the side of the intending student; he might not think so at the beginning, but would before he was through his professional course. The shortest time in which it should be possible for any matriculant to obtain a diploma,

and the right to practice, should be three collegiate years, each, at least, of six months' actual attendance at college by the student. I might here quote from the calendar of one of the leading U. S. Veterinary Colleges: "It is possible to earn money while attending college, but this is not advisable, as the time at best is very short.....!" and the course at that college is a three-year one!

Unless the two requirements, preliminary education necessary and length of professional study essential, are insisted upon, no up-to-date course can be mapped out that will endow a man with sufficient training to differentiate him from the diploma-holding quack. The insistence on the above requirements would not lessen the number of entrants into the profession, but it would mean that a high grade of professional men would be turned out, and as a result more profitable service be rendered to the fee-paying public.

At the outset it may be stated that the value (?) of the so-called veterinary correspondence diploma will not be discussed, beyond this statement, that only the ignorant, excited by cupidity, or those who have been misguided, will indulge in the expensive attempt to take a short cut to a profession; the uselessness of such credentials will be self-evident as the course to be mapped out here is studied, and from the fact that they have no recognized status. Similar to the agricultural, medical, legal, dental, engineering, and other professions, theory and class lectures, or studying of text-books, are insufficient to qualify a person for work in those professions; practice in the field, the hospital, the courts, the laboratory and the workshop is absolutely indis-

pensable; in that great trinity of senses, the eye and the hand must have equal place with the ear in the work of educating the future practitioner. Unless this is done, the student will not be a success, cannot make a living, or rightfully earn the fees which he may receive.

In a three-year course, the disposal of the vacation periods between the three sessions will engage the intending student's attention. When possible, both should be spent in practice with an experienced veterinarian, if general practice is to engage the attention of the student; if he is to be an investigator, one of the vacations should be spent in a first-class bacteriological laboratory. The city student would do well to spend his first vacation on a good stock farm, and thus become familiar with animals in health; the second being spent in practice as mentioned above. The veterinary college of today has several roles to fill—to educate the man for general practice, for meat and milk inspection, and for the investigation of animal diseases, especially those communicable to man. To accomplish this great work, the raw material, in the form of the

student, must be up to a certain standard, which has already been touched upon. Thoroughness in the teaching of the fundamentals is the foundation of success for the student and practitioner to be, whose interests the veterinary college is supposed to look after. The first year's work should include anatomy and physiology, histology, chemistry, materia medica and pharmacy, dentistry and horseshoeing. The laboratory should, in comparison with the lecture-room, be allotted at least, of the student's time, in the proportion of two to one. In anatomy, the great essential is dissection and quizzes on the work done, and on the acquisition of a good knowledge of anatomy depends the practitioner's success; physiology, or the workings of the animal body, must back up the construction (anatomy) of the same. Histology, or microscopic anatomy, is absolutely essential also, especially to the future investigator and meat inspector; laboratory instruction in this branch must be unstintingly given; without it, it is impossible for any person to become a pathologist. Chemistry embraces a wide field for the veterinary student, who needs to be possessed of considerable knowledge of this branch to avoid incompatibles in prescribing; to know the action of the body fluids, and to be able to perform urine analysis. Materia medica and pharmacy will include the study of drugs from both mineral, vegetable and the animal world, and also the proper methods of prescribing and dispensing those drugs. Horseshoeing explains itself; an elementary knowledge of the principles underlying the art are essential. Dentistry should also be taught the student, as it is now well-known that horses especially are much sub-

ject to tooth troubles, which, if not attended to, mean great loss to the owner. Another important reason why this subject should be taught, is to do away with any excuse for the itinerant so-called veterinary dentist, who is to-day one of the most arrant humbugs and impudent charlatans who feed on the farming community. The first year the student will have found his time pretty well employed if he has been faithful, and nothing less pays!

Second and third year studies, while harder, are probably less irksome, because more interesting to the average man. During the second year, the student should be drilled in comparative anatomy (the construction and comparison of the bodies of the different domesticated animals), a very important subject, a knowledge of which will often save bad mistakes, perhaps a human life! It was knowledge of this subject (comparative anatomy) which enabled a prominent veterinarian a few years ago to upset the testimony of many physicians in a celebrated murder trial. The prosecution produced some bones, said to be those of the murdered person, but which were shown to the court by the veterinarian to be the bones, not of a human being, but of a pig. More advanced work in physiology and chemistry is also taken up. In the second year, the midway of the professional course, the student is introduced to the theory and practice of veterinary medicine (the discussion of the causes, treatment, and prevention of animal diseases), diseases of dogs; veterinary obstetrics (the science treating of breeding, and the introduction into the world of the newborn animals); parasitism, under which is discussed the effects and identification of worms and other parasites, and their riddance from affected stock; veterinary surgery (the science involving the use of the knife), to rectify malformations, growths, etc., or for such purposes as castration, and the scientific treatment of wounds; general pathology, a discussion of diseased processes, and their identification by the naked eye or the microscope, in which discussion the student will be introduced to the science of bacteriology, which opens up the field of contagious diseases and their suppression. The third year will not only include a thorough review of the previous year's work, but also advanced instruction in the diseases, their recognition (by means of clinics) and treatment; special pathology (in which diseases are referred to the organs affected); meat and milk inspection; advanced bacteriology; veterinary jurisprudence (a course on the laws affecting the veterinarian particularly); the indications for the use of special drugs, together with their actions (therapeutics); advanced veterinary surgery, including instruction in the more important operations; veterinary sanitary science or hygiene. It will thus be seen that for the student to compass these subjects in the minimum time (three collegiate years, of six months each), he will be a very busy man, without a moment to waste. The mention of the studies must necessarily be brief, but one may be pardoned for again insisting on a bountiful measure of clinical and laboratory work, the former in the hospital and operating room, where the student will not only see, but will himself assist in the performance of all necessary operations; the dressing and removal of teeth, firing, removing portions of nerves, castration, trephining, suturing, and the hundred and one conditions that may arise in practice. In the laboratory he will test milk, analyze urine, make microscopic examinations of tissues obtained from the living and the dead; identify germs, and, perhaps, find the cause of an expensive, disastrous zoonotic disease, and by his knowledge be enabled to suggest means to suppress it; he will learn there to quickly identify a parasite in meat, which if found by one of our foreign customers would result in an embargo on all our live stock, and by his knowledge, obtained from divers sources in the course, be enabled to suggest to his farmer client and friend, ways and means of rendering stock more healthful and profitable. The thinking man or woman will at once see the importance of a thorough scientific training for this great profession, and will agree with the formulating and passing of laws which will prevent any institution attempting to give less, either through too short a time for professional study or accepting as students men without the necessary primary education.

VETERINARIAN

An American's Appreciation.

Idaho Falls, Idaho, 1903.

To the Editor "Farmer's Advocate":

Gentlemen—I received a sample copy of the "Advocate" by yesterday's mail. Accept my thanks; and be assured I will be glad to receive the same.

Enclosed herewith is a check for a portion like the "Advocate" to be sent out by way into every household, and to be sent to the Editor, who moved West recently, to the Editor.

Yours very truly,
J. ANDERSON.

Birmingham Spring Show and Sale.

At no other place can we find a larger, more varied or better selection of Shorthorn bulls than at this annual show and sale, which takes place every March in the Bingley Hall, Birmingham. Here we find very many of the best herds in the country represented, and there resort buyers from all over the world. After an absence of two years, the Argentine buyers were again to be reckoned with. One of them secured the top-price animal of the sale at 300 gs., a choicely-bred calf, from Mr. H. S. Leon's herd, Mr. Henry Dudding, equally well known for his Shorthorns as his Lincoln sheep, being the runner-up. Mr. Maclellan also secured several others for the Argentine, more went to Ohili, and many to Ireland. The demand was a very sound one, and all the best sold well. The average price for the 416 head sold, including bulls and females, was \$190.

Lord Lovat's herd from Scotland was well to the fore in the contest for the prizes and won the \$250 prize for best five bulls bred by exhibitor, Mr. G. Freeman coming in for second honors and Mr. H. S. Leon third, with Mr. J. Deane Willis as r. n. The class making the highest average was that for bulls between ten and twenty-one months old, which was £89, but there were only thirteen in the class. The highest-priced animal, £315, was in the class aged between twelve and fifteen months. There were eighty in this class, and the average was £44 16s. In the words of one who was one of the judges, Mr. Duthie, there were a lot of grand animals amongst them. This is plainly borne out by the averages realized, for save in one class there was no reserve bid allowed beyond the upset price of \$100, and few, if any, were really worth less than this very moderate reserve. Canadian buyers would receive a very hearty welcome to this sale, and they would be sure to meet with animals worthy of being taken to their country, to which so very many of the best have been taken.

A Change of Front.

Commenting on the new regulations regarding testing cattle imported from Great Britain to America, the Scottish Farmer concludes:

"The policy of the United States with reference to Channel Island cattle is peculiar. Many things in the United States are peculiar, and one more or less need not put us out. It appears that Mr. Salmon and his Bureau are convinced that Channel Island cattle bred in the Channel Islands are so absolutely free of tuberculosis that they and they alone of all cattle may now be entered at any port in the United States without undergoing the tuberculin test. This indicates a very astonishing change of front on the part of official persons. We do not understand it. The reasoning is faulty. If Channel Island cattle are so healthy, the test will not do them any harm, and it is too much to ask us to believe that their freedom from the disease is the cause of the new ordinance. According to every accepted theory, Channel Island cattle ought to be healthier in Great Britain than on the coast of France. Their alleged healthfulness does not demonstrate that human and bovine tuberculosis is not the same disease. The logic of the situation now created is the abolition of the tuberculin test in the United States. If dairy cattle of the deepest milking propensity are absolutely free of tuberculosis, there is no such disease as tuberculosis. The action of Mr. Salmon's Bureau is definable as humbug."

Big Feeding Test.

Professor W. J. Kennedy, head of the Animal Husbandry Department of the Iowa Agricultural College, has completed final arrangements for the mammoth cattle-feeding experiments to be conducted on the Cook farms, Odebolt, Iowa. The cattle have been carefully selected, and divided by Professors Kennedy and Marshall into ten lots of fifty animals each. Three separate lines of work are taken up: (1) Acclimation test; (2) light, medium, and heavy rations; (3) by-products of corn, flax seed and cotton seed, and dried blood.

None of the lots will be fed any stock foods, as the manufacturers would not enter this year's test on the same ground that they did last year and those complied with by the manufacturers of the other foods which are being fed this year. The feeding is being done by Newton C. Rew, a graduate of the College. Full details and results of the work will be published at the conclusion of the test.

Milk Fever Prevention.

In support of the theory recently presented in these columns that a probable cause of so-called milk fever, from which so many valuable cows have died, is the common and unnatural practice of milking the udder out clean immediately after calving, we note a letter in the Jersey Bulletin, by Mr. Geo. F. Weston, Supt. of Biltmore Farms and Jersey herd, in which he says that on a visit to the Island of Jersey, he was surprised to find that several of the leading owners of deep milking cows had ceased to fear milk fever, and the secret was that they had ceased to milk the cows out clean for the first three days after calving. Mr. Weston says: "When this treatment was first mentioned to me on the Island, there came before me like a flash recollections of a large number of cases in which the death of some favorite or large milking cow had been reported, attended with the explanation, 'We milked her out clean. In fact, there were times when we have done the same thing here, and I believe every breeder has done so. It now begins to look as if this was about the worst thing we could have done.'"

Dr. Wheeler, Veterinarian for Biltmore Farms, has been experimenting along the lines of this theory, and he writes that since November 1st, 1902, the system has been tried on thirty cows, fourteen of which are among the heaviest milkers in the herd, no other measures having been used, not even a pound of salts being administered, and not a single case of milk fever has occurred, nor a sign of it, which is unprecedented in the herd. Only four cows have manifested udder derangement under this treatment, three of which had had udder troubles after previous calvings, and only one, not a serious case, developed after the last calving, which might have developed anyhow. "The modus operandi consists simply in milking from two to three pounds every six hours after calving, for the first three days, or about one gallon to a gallon and a half in twenty-four hours. After the third day, may milk the cow clean. In other words, ease the udder in the same manner the calf would, only drawing the milk equally from each quarter, which the calf would not necessarily do."

Dr. Wheeler does not claim that these facts demonstrate the entire reliability of the treatment, but considers it most encouraging, and desires that others will give it a fair trial and report. The indications seem to point strongly to the wisdom of getting back to nature in this field.

Combating Animal Diseases.

Under authority of the act passed by the U. S. Congress last month, giving autocratic power to the Secretary of Agriculture in combating contagious diseases of live stock, Secretary Wilson has issued new regulations which are thus condensed:

All persons owning, managing or transporting animals, are required to exercise reasonable diligence to ascertain that the animals are not affected with any contagious or infectious disease, and have not been exposed to contagion by contact with other affected animals, or by being in pens, premises, cars or other vehicles contaminated by diseased animals, before offering them for transportation or introducing them into public stock-yards, public highways, or lines of interstate traffic. All persons having charge of affected animals, or those exposed to contagion, are required to keep them confined, and not to permit other animals to come in contact with them. Public stock-yards and feeding stations, alleys and pens, when contaminated by the presence of animals affected with or exposed to contagious or infectious disease, must be cleaned and disinfected in the manner required by the Secretary of Agriculture. Whenever a contagious or infectious disease exists the Secretary of Agriculture will quarantine the section of the country where the diseases are prevalent, and no animal can be removed until he gives authority. When it becomes necessary to slaughter animals, the owner will be compensated after the value has been ascertained. Violations of the regulations are made punishable by a fine of not less than \$100 nor more than \$1,000, or by imprisonment of not more than one year, or by both fine and imprisonment.

British Subscribers.

Persons desiring to send the "Farmer's Advocate" to friends in Great Britain, or persons in Great Britain desiring to become subscribers, can now do so at the same rate as to Canadian or United States subscribers, viz., \$1 per year, instead of \$1.50 under the former postal arrangement. The old rate is still in force regarding papers going to other colonies in foreign countries.

T. Crawford Norris, M. P. P.

The member for Lansdowne Electoral District in the Legislature of the Province of Manitoba, an excellent portrait of whom appears on this page, is a native of Peel County, Ontario, being a son of the late Mr. Arthur Norris, formerly of Snelgrove, in that county, where his early days were spent on his father's farm. Later the family removed to Omagh, near the town of Milton, in Halton County, from whence in 1887 the young man struck out for the West, and with little means at his command secured a homestead and commenced farming on his own account. That he has been successful, it is only necessary to state that besides being interested in various other business enterprises, he at present owns and operates a farm of 800 acres, and has twice had the honor of being elected to represent his constituency in the Provincial Legislature, viz., in 1896 and 1899, where he has developed such remarkable powers of debate that he is considered easily the strongest supporter of the leader of the Opposition, and in the event of change of Government, would almost certainly be considered in the search for cabinet timber. Since going to Manitoba, Mr. Norris has made two visits to the Yukon country, and the great Canadian West is to him like an open book.

Not only economy of production, but subsequent quality as well, are largely dependent on how we care for the young pigs after weaning. Formerly it was the custom to give them little attention until ready for fattening in the fall. This order is now reversed, inasmuch as we feed them equally as well at the beginning of their existence. If by improper management they receive a setback at this time, our chances of obtaining a profit from them will be materially lessened. It is well to remember that the hog is a grazing animal, and if we expect the

have reached maturity we should depend on the pastures for providing the bulk of their rations, supplementing these with a little grain. When it is desired to finish them, the grain allowance should be increased and the succulent food decreased; thus, any tendency to lay on fat, may be easily controlled; a firmness will be imparted, and the result prove satisfactory to both producer and consumer. J. HUGH MCKENNEY, Elgin Co., Ont.



T. CRAWFORD NORRIS, M. P. P.
Griswold, Manitoba.

Rearing and Feeding Spring Pigs.

The farmer who is engaged in hog-raising will generally look to the spring litters for the greatest percentage of profit. Natural conditions that are easily available at this season, enable us to reduce the cost of production to a minimum, and as the result will be directly effected by the care they receive during the growing period, a few hints on methods of management may be of interest.

Proper care of the dam previous to farrowing will influence in no small degree the future well-doing of the young pigs. It is of prime importance that she have plenty of exercise, and be fed a sloppy diet, consisting of feeds rich in protein, or flesh-forming material. If these two conditions are not neglected, there will be no danger of the sow eating her young, and the latter will be strong and healthy. After farrowing give nothing for the first twenty-four hours but a warm drink with a little wheat-brañ stirred into it. On the second day a small amount of grain may be fed, and the rations gradually brought back to their normal extent, which should be reached in about ten days. A too liberal feeding of corn and similar heat-producing foods at this stage will very often bring on fever that dries up the milk and leaves the whole litter in a stunted condition.

I always wean pigs at eight or nine weeks old, as I find if left longer the sow will often try to do it herself, which would result injuriously to the pigs, as they will not get all the nourishment they require. When two or three weeks old, they should be taught to take food independent of the mother. Give them a few sods turned bottom side up; they will soon start to root, and their "hog" nature will quickly develop. Have a corner of the pen partitioned off with a small trough placed in it, where they can help themselves without being molested, and when old enough to separate from the dam they will be practically weaned.

best results, his natural desires must be consulted. As soon as a rape or clover pasture is available, give the pigs access to at least a portion of it. Skim milk is obtainable on most farms during the spring, and should be fed with shorts, in proportion of three parts milk to one part shorts. In conjunction with the pasture, this will form an ideal food for developing bone and muscle. As they grow older, vary the rations by introducing such grains that may be at hand, as peas, barley, oats, corn, etc. In my own experience, I find it preferable to have these ground and soaked thoroughly one meal ahead. It is best not to rely entirely on any one grain, as none are sufficiently balanced to constitute the proper ratio of digestible nutrients. It is poor economy to feed a ration composed too much of one ingredient, as only a small percentage will be utilized, while the remainder passes off as waste, and is a dead loss so far as building up the animal structure is concerned. Besides this, the standard of quality will be seriously affected. For example, if we feed corn alone, we are supplying an excess of carbohydrates that tends to make the pork soft in texture. It also is a frequent cause of constipation, and this in turn is the forerunner of many diseases that are common among swine. Experimenters have demonstrated that it is only by mixing our food stuffs that anything like a correct ration can be obtained, and in doing this we are following the same system that has raised Danish bacon to a high place. Until the pigs

Feeding Steers in Manitoba.

[Address by S. A. Bedford, Brandon, at Manitoba Stock-breeders' Association meeting, Feb. 18th.]

I notice that recent English papers complain that Canadian cattle reach there much too thin for the British market, and, owing to this fact, do not bring as much as the United States stock by several cents per pound. This difference arises, no doubt, from the fact that so many steers are sent direct from our ranges without any stall feeding whatever, while the Americans stop theirs on the way from the ranges and stall-feed them in the corn-growing States.

Grass-fed cattle may be in very fair order when loaded on the cars, but the flesh is quite soft and the long journey very trying to them. If these same cattle could be kept over in Manitoba and stall-fed for four months, their condition would be greatly improved, and whatever flesh was put on would, to a large extent, remain on them until they reached the Old Country.

Although we are unable to make a success of corn-growing as a grain crop, I think you will find that the average yield per acre of coarse grain in Manitoba equals that of corn in the United States. This I find by the Washington Government's yearbook to average under 23 bushels per acre for the years 1893 to 1895. Therefore, I see no reason why our range cattle should not be held over long enough in this Province to fit them for the English market. This plan would also have the advantage of giving employment to a large number of working men who now have to go east or to the woods for winter work.

Success in cattle-feeding depends: 1st. On the class of cattle. 2nd. The character and cost of the food used. 3rd. The manner in which it is fed to the stock.

SELECTING THE STEERS.—Although a farmer may not be an expert cattle judge, most of them know a good feeder when they see him, and no doubt the stock-judging classes arranged for here will do much towards increasing knowledge along these lines. The thick, fleshy back, well-developed hind quarters and general square appearance commend themselves to him. This class of stock can only be obtained through the use of pure-bred sires, and the good that the livestock associations are doing along these lines is incalculable. We also find that a quiet temperament has much to do with quick feeding; the quieter they can be kept the better they lay on flesh. For that reason, early breaking to the halter is recommended.

THE CHARACTER OF THE FOOD.—Perhaps one of the most general mistakes among farmers in the Northwest is the use of a harsh, dry ration, without succulent matter of any kind. Although we have found it possible to fit export cattle with a ration composed exclusively of frozen wheat and wheat straw, without any succulent food, it was a long way from a perfect ration; much trouble was experienced from the cattle bloating, and no doubt considerable loss



RIDERS OF THE BAR-U ROUND-UP CAMP, SWIMMING FORD, CORRAL, HIGH RIVER, ALBERTA.

resulted in other directions, for these cattle never had the soft, silky coat and loose hide generally associated with thrifty feeders. This succulent food can be supplied in the shape of field roots of different kinds, such as turnips, mangels or sugar beets. These all succeed well in this country, and give large returns, the average yield of Purple-top swede on the Experimental Farm being about 700 bushels per acre, and Mammoth Long Red mangels have for the past six years averaged 1,100 bushels per acre. These yields are, of course, the result of good cultivation on well-fertilized soil. As many object to field roots, owing to the large amount of hand work necessary, it is well to know that equally good results can be obtained by using fodder corn, either in the shape of ensilage or, where a silo is not available, as dry fodder, cured by placing in large stooks in the field until required. Since the advent of the corn binder, hand labor is reduced to the minimum in growing this class of feed, and early varieties of flint corn give excellent yields of good fodder here, especially if grown on rich, warm soils with a southern exposure. In some portions of the Province, notably in the Red River Valley, we have large quantities of excellent wild hay, going to waste for want of some one to save it. All of this could be utilized for cattle feed. For several years we have used this class of fodder for fattening purposes. Of course, for the best results, it should be cut early and properly cured. The careless fashion some have of leaving it in the coil until it is partially decayed, is a serious mistake, but an even greater error is to leave the cutting until after fall frosts have driven most of the nutriment out of the grass, making the hay of less value than good wheat straw. In 1895 a lot of steers fed on a ration the fodder of which was composed of well-cured native marsh hay made an average gain of one pound and eleven ounces per day.

Another excellent fodder for this purpose is green cut oat sheaves. These should be of some bright and stiff strawed variety, sown as early as possible, so as to avoid rust. We have had the best success with them when cut just as the topmost oat in the head is turning brown; the sheaves are made small, bound loosely, and thoroughly cured before stacking. There is much less waste if the sheaves are run through the cutting-box and mixed with the crushed grain. In 1895 the steers fed on a ration composed principally of oat sheaves made an average gain of over two pounds per day, and this fodder was estimated to be worth \$2.50 per ton more than first-class marsh hay.

Last winter we undertook to find the comparative feeding value of Brome grass hay, Western rye hay, and spelt straw. The test was a very successful one, and it was found that the two kinds of hay were practically of the same value; the Brome-fed steers showing an average profit of \$19.84 per steer, while those fed on rye grass hay yielded a profit of \$19.81 each, or a difference of only three cents per steer.

The spelt straw showed very fair feeding qualities, but its value was only one-half as much as either of the varieties of hay, and with a discriminating cattle buyer even this valuation would be too high.

Summary.—I might extend the limits of my paper and speak of the most suitable kinds of grain for feed, and the best way of preparing and mixing the rations, but my address is already long enough. I think that we can fairly conclude that suitable animals are available here; that we have abundance of both grain and fodder suitable for the purpose, and that there is certainly a large field open in this industry for any one of sound judgment, having a taste for the work.

Warbles.

Warbles in cattle is one of the insect pests that might be exterminated if everyone gave attention to the matter. That they are painful to the cattle and injurious to hides, where these are sold, there is no doubt, but there is very little systematic effort made to improve conditions. A little time spent now, before the cattle go to grass, in pressing the grubs out or smothering them in their cells by smearing their air-holes with tar, will prevent them from further propagation. In summer the warble escapes from the backs of the cattle, falls to the ground, goes into the pupal stage, and later comes out as a fly. These flies lay on the backs of the cattle the eggs which afterwards hatch into the grub. The grub then works under the skin, and gives the animal trouble during the greater part of the winter and spring. Knowing the life history of these insects, it is seen how important it is to check them at this time of the year, as they are then most easily found and killed.

Beautiful and Instructive.

To the Editor "Farmer's Advocate":
Dear Sirs,—Your beautiful and instructive number should have the same effect on all subscribers as it did upon myself. I think it would be doing the country at large an ill, if by not keeping my subscription paid up in advance.

Yours truly,
W. G. POTTER

Manitoba's Live Stock Interests.

BY G. H. GREIG, LIVE STOCK COMMISSIONER.

The live-stock industry of the Province of Manitoba is steadily advancing in importance and magnitude, although small as yet in comparison with the great wheat-growing industry which has made the Province famous throughout the civilized world.

The abundance and cheapness of land which with comparatively little capital can be brought under cultivation, and in its virgin state yields sure and abundant crops of grain of the highest quality, is of itself sufficient inducement to the new settler to confine all his efforts to grain growing. The great fertility of the soil has made it possible to continue this exclusive grain-growing for the past twenty or twenty-five years in many districts with the most satisfactory results, but no matter how inexhaustively fertile the soil, constant cropping and cultivation without the application of manure or laying down to grass will result in reduced yields and added difficulties in handling the soil. The humus, or vegetable matter, becomes worn out, and the soil, if heavy, is not so readily warmed, is more subject to puddling and baking, or to become plastic and sticky, thus greatly increasing the labor of plowing; lighter soils also tend to become less retentive of moisture and more liable to drift.

The most readily available means of supplying humus to the soil is by the application of farm-yard manure or seeding down to grass; the latter, of course, being the only practicable way on our wheat farms. One or other of the three grasses—timothy, native rye or Brome grass—suit all localities, and will serve the purpose of filling the soil with root fibre. Once a grass rotation is adopted, fencing and subdivision of the farms will follow, and the more general introduction of live stock on the farms of Manitoba will be a natural sequence. The adoption of a grass rotation and mixed farming will enable us to continue the profitable production of No. 1 hard wheat; place agriculture on a permanently successful basis; tend to the solution of the labor and transportation problems, and build up the home life on the farm.

LIVE STOCK.

The breeding of pure-bred stock is receiving due consideration; nearly all the improved breeds are well represented, and animals of the very highest merit can be found in our leading herds. Manitoba stands second only to Ontario among the Provinces as to the number and extent of her herds of pure-bred stock.

The cattle industry is increasing rapidly, especially along the lines of beef breeding. The demand and good prices paid for beef-bred stockers for shipment to the Western ranges has tended to increase the demand for bulls of the beef breeds, and the general intelligence of our people teaches them that pure-bred sires only are profitable to use, hence the ready sale for good bulls of the desired type. Naturally, too, the ranchmen of the West are beginning to appreciate the superiority of Manitoba-bred bulls over those bred in the Eastern Provinces, as the former are thoroughly acclimated and raised under very similar conditions to those of the range country. The Cattle Breeders' Association, in co-operation with the Territorial Department of Agriculture, has assisted in forwarding several cars each year from Manitoba and Territorial points, and as these animals have given very great satisfaction in the West, it is quite evident this trade will grow to large proportions. A gratifying sign of the healthy condition of the pure-bred cattle industry of the Province is the large number of new herds established during the past year or so, and the strong demand at liberal prices for bulls fit to head herds of high-class stock.

The continued and ever-increasing inrush of new settlers makes necessary each year the importation in large numbers of horses for farm work, and insures a profitable market for all the horses that can be supplied for years to come by the farmers of the Province. A great impetus is being given to horse-breeding, and large numbers of stallions of the draft breeds are being placed throughout the country. Our conditions are well adapted to horse raising, and wherever marsh hay and low lying pastures are avoided, little difficulty is experienced.

Owing to the expense of fencing, and the prevalence of prairie wolves, sheep-breeding makes but slow progress. This industry, skilfully conducted, affords opportunities for large profits with small outlay of labor or capital, and sheep could be made to serve a good purpose in subduing the weeds on the wheat farms and converting otherwise waste products into a profitable commodity. The winter fattening of sheep on screenings and chaff is also a subject worthy of attention, and is being tried by a few progressive farmers.

The bacon hog industry is steadily increasing, and on every well-conducted farm are now to be found several brood sows. After experimenting for many years in the attempt to provide improved modern housing for swine, many of the prominent breeders find primitive methods give best results, and for breeding stock the cement-

floored piggery is being abandoned in favor of the earth-floored, straw-covered shack. The packers have demonstrated their faith in the country by keeping the capacity of their plants well ahead of the supply, and as the Manitoba product is only sufficient for about one-third of the requirements of the trade, the prospect is certainly bright for the pork producer, while the rapid settling up of the whole West ensures a good market for the breeder of pure-bred stock.

While it is a fact that buyers do not discriminate sufficiently in favor of the approved bacon type of hog, feeders are learning that the bacon hog can be produced just as cheaply as the thick fats, and the bacon breeds are steadily gaining in popularity.

With the farmer, as with any other manufacturer, it is in the production of articles of the highest quality that the greatest profit lies; therefore, the feeder and the breeder must ever remember that permanent success lies in the production of quality, whether in wheat or bacon hogs, beef cattle or draft horses. Let "quality" be our watchword.

FARM.

The Boomsters Abroad.

Flaring announcements have lately been appearing in some Canadian newspapers, and probably in the Old Country periodicals as well, booming the prospectus of a Northwest 10,000-acre wheat-growing proposition. Prospective profits are figured out on a continuous yield of thirty bushels per acre, selling at such prices (69 cents per bushel) as will pay all expenses and earn fifteen per cent. dividends (and a \$37,500 surplus) on a capitalization of \$1,000,000. The absurdity of all this is so apparent to any one familiar with the actual conditions and facts of the case as to scarcely deserve serious consideration, but it is just this sort of thing that damages Canada in the eyes of foreign investors and discounts the real merits and capabilities of the country, particularly the Northwest. It is well-known to practical men that wheat cannot be grown continuously without ruining the soil; that half the above stated average would be nearer the mark than thirty bushels per acre "duplicated each year indefinitely," and that fifty cents per bushel would be a liberal estimate of the price of wheat in the portion of the country where this Eldorado is to be projected. One thing that is pretty sure to be realized will be the bill of expenses, which we notice includes \$3,000 for the general manager and \$5,000 for clerks and office expenses. As we have often done before when such bubbles are floated before the eyes of the investing public, we would again suggest the wisdom of the homely old adage, "Let the shoemaker stick to his last."

Bean Growing.

The growing of miscellaneous crops, such as beans, hops, cucumbers, etc., is generally a profitable business, as long as the market keeps strong and prices high. At present the bean crop is beginning to claim considerable attention in Canada. This is owing to the ravages of the bean weevil in parts where the crop has habitually flourished, and the prevalence of blight, mildew and other fungous diseases in districts warmer than ours. The area suitable to bean growing is confined to the northern parts of Canada, and the southern parts of Canada, with a small area in California.

Beans grow on almost any land, but the most suitable soil is a good limestone loam. Where beans are most extensively grown, they are planted on recently plowed sod, a clover sod preferred. The plowing is done in fall or early spring, and the land well worked until the warm weather sets in. Nothing is to be gained by sowing very early; an uneven crop is sure to result. From the first to the twentieth of June, depending upon the season and the variety of beans to be sown, is about the time to sow. The grain drill is generally used for sowing. The beans are planted in rows about two and one-half feet apart, and from one-half to one bushel per acre of seed of the smaller varieties and as much as six pecks of the large kidney beans is sown. The cultivation of the bean is similar to that given other inter-tilled crops: weeds should be kept down and a mulch formed. Cultivation in wet weather should be avoided, as it tends to favor the development of blight and mildew.

Formerly, beans were pulled by hand, but a machine is now made to cut the stalk off below the ground, and to gather two rows into one swath. The swath is then forked into bunches, and left to dry for a few days. In showery weather it is necessary to turn the bunches frequently until they are well dried. The crop is then stored in the barn like any other grain crop, and threshed either with the machine or by hand. Before marketing the grain is thoroughly cleaned, and in most instances hand-picked; this removes all dirt and every split kernel. The split and cull beans are very concentrated nitrogenous food, and should not be fed singly to stock, but are best mixed with oats or other grains.

Spring Seeding in Nova Scotia.

Every farmer should ask himself: Have I made the necessary preparations for doing this work as quickly and advantageously as possible? And if not, make these necessary arrangements before the rush of work comes on.

Very few farmers seem to realize the importance of having their grain sown early in the season. They appear to think that a week or two, earlier or later, will make no material difference, and plan their work accordingly. But this, unhappily, is not true. Experiments show that a delay of one week in seeding an adjoining plot of ground often means a loss in yield of 20 to 30 per cent., and a delay of two weeks sometimes causes a loss of 30, to 45 per cent.; and, further, that nearly all grain will give the best returns if sown as soon in the spring as the soil is in good condition to work. If this fact were well known, I am sure farmers would make greater preparations for spring seeding, and be in a position to do this work in much less time than is usual.

Then, what about the seed which you intend sowing? Will it all germinate, and is it free from weed seeds? These are two very important questions, which every farmer should be able to answer, at least, for his own satisfaction and profit. How many farmers in all Nova Scotia are in a position to satisfactorily answer those questions? Every year many acres of good land yield little more than half the crop that they should, because they are seeded with grain of which only a part will germinate.

Information regarding the vitality of your seed grain can be acquired without expense and with but little labor. Make a box, say 16x12 inches and 3 inches deep, and fill it with good soil. Then take an average sample (50 to 100 seeds) of each variety of grain which you intend to sow; plant in even rows, and put in a warm place to germinate. Clover and grass seeds may be sprouted between moistened layers of building paper. These simple methods will give each farmer information regarding the vitality of the seed which he intends sowing, and may be worth many dollars to him if he selects his seed grain accordingly.

Too many precautions cannot be taken to avoid sowing weed seeds along with grain. Most of our weeds have been spread or introduced in this way, and in some cases have almost ruined the farm and its owner. All grain should be carefully cleaned and examined before it is sown, and if one buys grass and clover seed, buy only that which is guaranteed pure. Some of the grass and clover seeds on the market contain at least 10 per cent. of weed seeds, and would be expensive if we were paid something for sowing them. Examine them carefully before purchasing.

Another feature in connection with spring seeding which I would like to mention is the preparation of the ground. Some farmers whom I know suffer severe losses, in small yields of grain, as the result of a poorly-prepared seed-bed, which is often caused more by bad methods than from want of labor expended. I have often noticed that some farmers would plow four or five days in succession, and when they tried to harrow this ground it would not pulverize at all, but would break up in lumps, because the hot spring sun had dried out the water and baked the furrows almost as hard as bricks. If each day's plowing had been harrowed that evening or the following morning, the soil would have pulverized and a mulch formed, which would have kept the soil in good condition for seeding and prevented the escape of moisture by evaporation, which at this season of the year is very important. Some good farmers practice harrowing all their bare or plowed land as soon in the spring as it is in fit condition to work. This forms a mulch, which prevents baking of the surface and loss of moisture—two very essential features in good farming. Each farmer could easily practice this method and prove for himself whether it is of any advantage.

"BLUENOSE."
Cumberland Co., N.S., March 25th, 1903.

Concrete Replacing Stone.

The Reading Railway has practically substituted concrete for stone in all of its important bridge and other work, where heavy stone masonry was heretofore used. An engineering official of the company said that the use of concrete was fully twenty per cent. cheaper than first-class heavy stone masonry, and that the results were equally satisfactory. The preliminary expenses in connection with bridge work, such as the building of coffer dams, excavations for pier and abutment foundations, are the same, whether the structure is of stone or concrete. The concrete, he said, was put down in layers, and if of first-class material it hardened with years. One advantage in concrete over stone, especially for heavy pier foundations, he said, was that the entire mass, being perfectly solid, there was not that danger to the structure in case a portion of the foundation should become undermined, as in the case of stone.

Mangel and Corn Growing.

We well remember a remark made at an institute meeting by a middle-aged farmer, who not only had a scanty book education, but who knew very little about farming when he began for himself, yet had risen to the front rank as a farmer and stock-breeder. He said, "Grow a good deal of the bulky foods, such as mangels and corn; no other crops give such a yield, and you can keep more stock and improve your farm." The remark had great weight, coming from such a man. It is quite noticeable, and is a hopeful sign for the future, that with the change in Ontario from grain-growing to stock-raising, the area devoted to these crops has increased so greatly. We may truly say that owing to this change we hear much less than we did a few years ago of land impoverishment.

Mangels are sown as soon after grain-seeding as the land can be got ready; generally in the early part of May. Ideas on the kind of ground suitable and the preparation needed have changed greatly. Not many years ago it was thought that only on stubble land, worked deep as well as fine, and on drills where the seed had to be sown with a costly little seeder for the purpose, was there any use of sowing mangels. Now some successful growers sow on the flat with an ordinary grain-drill, in rows 25 to 30 inches apart. Mr. Thos. McMillan plows clover soil in the fall, manures on the surface in winter, gives surface cultivation in spring, and sows in this way. Other good farmers who sow in the same way, do it on stubble land, on which manure has been plowed under in fall, and either plowed again in spring or surface worked. Still others contend that best results, even on sod land, are secured by throwing up low drills and sowing with root

some time and the whole thing is turned under at once. Corn delights in a somewhat open condition of the soil, with an abundance of roughage, in such as leaves and roots of grass, and manure, and any one of the methods mentioned gives ideal conditions. It may not be practicable for some to get these ideal conditions, but splendid corn crops can be grown under other conditions. Any kind of sod land, no matter how long laid down, is good for corn, but cutworms are in some seasons very destructive. Many excellent corn-growers do not plant on sod of any kind, but use for this purpose only stubble land. No special condition of the soil, with reference to crops previously grown, need be rejected as unsuitable. Rotted manure applied and plowed under in fall has the effect of making corn ripen earlier than if applied fresh in spring, otherwise there is little difference. The main problem is to get plenty of it. As with mangels, so with corn, it is almost impossible to overdose. Whatever the previous condition of the land, at planting time it should on the surface be reasonably fine and freshly worked. If a rain, after land is prepared, has delayed operations, it is well generally to rework before planting. Some difference of opinion exists as to whether sowing with drill or planting in hills is best; the balance of opinion, with quality in mind, being in favor of hill planting. Three and a half feet each way, and four plants to a hill, seems to be accepted as the standard. A marker should be used which can be guided, and there is neither use nor excuse for crooked lines. Hills should be planted two or three inches from where the lines intersect, to avoid the gutter. Only seed that is known to be good should be used, as much loss results if replanting has to be done. A few years ago the 20th of May was thought early enough for corn to be planted, but the tendency has been to plant earlier and earlier, until now some good authorities say the best time, even in northern counties, is from the 12th to 15th of May. Safety probably lies in a middle course.

Soil Cultivation for Spring Seeding.

Seed time will soon be here again. Now is the time to make preparation. It should be definitely settled where the different kinds of grain are to be sown and what shall be seeded down with the grasses and clovers. For all the spring grains I like the land fall plowed. In preparing the seed-bed, I want it as fine as possible. This is particularly true for land to be seeded down. Owing to the wet season last year, many farmers did not get their land all fall plowed. In plowing land in the spring, I do not want to plow it deep, and if the land is dry enough I would roll about as fast as the ground is plowed. My object in doing this is to avoid cutting off the capillary tubes, or moisture conveyers of the soil, at too great a depth from the surface. This is a very important problem if the season should prove a dry one, and often one extreme follows another. A fine tilth on the surface or dust blanket will serve to hold the moisture where it is most desired about the seeds and roots of the young plants. A sufficient supply of soil moisture, such as is held by each little particle of soil, is exceptionally important; all plants use a great deal of moisture. It has been estimated that in a dry season, to grow one ton of potatoes, three tons of water is required, or if 200 bushels be grown per acre, 600 tons of water is necessary. There are few soils which if well tilled do not carry 300 tons of water to the acre in the first eight inches of soil. Water is necessary to dissolve the plant food and to carry it to different parts of the plant. The plant retains its turgidity or stiffness because of the presence of plenty of water. Then to hold this moisture, which is so very important, our method of preparing the seed-bed should correspond to the best known methods for retaining this moisture. In hoe crops this question is solved by frequent shallow cultivation, and in our grain crops by leaving the ground a little loose on the surface, as is obtained by following the roller with a harrow. Later on, if grass seed is not sown, a light harrow or weeder may be used on the grain when three or four inches high. Sometimes it is more advisable not to use the roller until the grain is up four or five inches; then using it helps to loosen the surface as well as even the ground.

Spring plowing should not be done deeper than three or four inches at the most, where grain crops are grown. If for hoe crops, and good after-cultivation is carried on, in the case of heavy soil it may be advisable to plow six or seven inches. Where manure has been applied to plowed land for grain crops, I would simply work it in with the implements used in the preparation of the seed-bed, such as the cultivators and the harrows. The principles to be observed are to keep all the humus and plant food possible near the surface. In conclusion, I wish to observe that seeding should be done just as early as the land can be suitably fitted. Harrowing over the ground helps to dry it out, and prevents a good deal of baking and consequent lumpiness.

Prince Edward Co. T. G. RAYNOR.



GEO. HARCOURT, B. S. A.
Superintendent of Institutes and Agricultural Societies,
Northwest Territories.

seeder. They claim that when a grain drill is used, a gutter is left over the seed, in which a hard crust is apt to form, to the injury of the sprouting plants, and that in a wet season especially, there is an advantage in raised drills. The writer's preference would be to have land stirred deeply in spring, but not plowed; after being made sufficiently fine, throw up drills 28 inches wide and sow with root seeder, 1 1/4 inches deep, and the day following roll with land roller, which lowers the drills, and by pressing the soil firmly about the seed, makes germination more certain. Among so many possible ways of growing the crop, no one has much excuse for being without these useful roots. They will succeed on any kind of soil, but do best on clay. From four to five pounds of seed per acre should be sown. Salt at the rate of 200 to 300 pounds per acre, usually applied before seed is sown, but can as well be put on later, much increases the yield. Up to time of sowing about three things only are essential for successful mangel growing: 1st, Plenty of manure, the more of it there is the bigger the crop; 2nd, fine seed-bed; 3rd, early sowing.

Corn, like mangels, will succeed on almost any kind of soil, and with methods of preparation that differ greatly, if only the land be rich and dry. In some seasons, any kind of land is dry enough, and some kind of a crop can be raised even on poor land, but speaking generally, success is dependent on these two conditions. There is no better preparation for a crop of corn than a clover sod well manured. Some farmers manure and plow under in the fall; some plow in fall and manure on the surface in winter or spring; still others defer plowing until spring, when the clover will have made considerable growth, especially if manure has been applied for

The Office of Insects in the World.

My attention has been drawn by the Editor of the "Farmer's Advocate" to the following paragraph in the prospectus of a work by Dr. James McLean, of San Francisco, California, on "The Origin of Destructive Insect Plagues, etc.":

"Rev. Dr. C. J. S. Bethune, in his article on 'How Insects Pass the Winter,' which appears in the last Christmas 'Farmer's Advocate,' of Ontario, Canada, permits his theological training to attribute the origin of destructive insects to the Most High, as in describing the various methods such insects adopt to prolong their existence, he declares, page 940, that 'enough survive to continue the species and perform the useful work that the Creator intends them to do!' And on page 941 he writes: 'The insect that just now is attracting the most attention in Ontario, on account of the immense losses it has occasioned, is the pea weevil. In consequence of its ravages, it has reduced the cultivation of peas by 70,000 acres, and caused a loss of about five million dollars in Ontario alone!' It will thus be seen that even preachers are blind to the fact that man's persistent disobedience to the loving will of God, ever since the earth was placed in his care to 'replenish and subdue it,' has brought about the existing dreadful conditions from which we justly suffer."

I have not seen the treatise referred to, and do not, therefore, know what Dr. McLean's theories are. I may, however, state very briefly my own views. I do not consider that there is any contradiction between the statements he has quoted. I have long maintained that in a natural condition there are no such things as noxious insects. Every created organism, whether animal or vegetable, has a special office to fill in the order of nature. There is a complete system of checks and counter-checks, by means of which no species of animal or plant is allowed to become superabundant, or to be exterminated. Insects of many kinds perform the office of scavengers, by removing dead or diseased substances; others are pruners, and reduce exuberant vegetation; others, again, are parasitic, and prevent the undue multiplication of individuals, and so on. But when man appears upon the scene, great changes are effected, and equilibrium is disturbed. Large tracts of land are denuded of the original forests and other vegetation, and are given up to a few varieties of plants, brought for the most part from other parts of the world; certain species of insects whose office it was to keep these in check, find a vast amount of suitable food provided, and, therefore, increase and multiply beyond measure, while oftentimes their counter-checks have not been introduced with them. These creatures, working havoc among man's plantations, are accordingly regarded, and justly so, as "noxious insects," and the farmer, gardener or fruit-grower is compelled to fight against them in order to save the produce of his toil.

In order to be brief, only a general statement has been made—to enter into particulars would require a volume. I quite agree with Dr. McLean, that it is by man himself that nature's harmony has been destroyed, and that in consequence man has to suffer and contend against the unhappy results.

C. J. S. BETHUNE.

Rural Telephone in Post Office.

I believe that telephones would be of benefit to farmers generally, for calling medical aid and in sending for repairs for machinery, because in most cases they have to be brought from the nearest city; also in calling for market quotations in case of having carloads of grain stored, as well as in saving many a long trip where the towns are so far apart. I do not believe, however, that many persons in a radius of twelve miles would be in favor of having it or paying anything towards it, the chief objection being want of knowledge regarding the instrument and the real benefit it would be to them. I truly believe, myself, if the instrument could be put into our post offices throughout the country it is really the most practical way. Our nearest railway station is Carnduff, fifteen miles; Glen Ewen, twelve. Do you not think the high winds of the West would make it difficult to operate them, by hindering the messages from going correctly? I believe if agitated through the medium of the press for a time, it might possibly be introduced much sooner than one would think. The press is a great power in such matters, educating the public mind.

W. J. DOWKES.

The Best of its Class.

Salcoats, Assa. The "Farmer's Advocate" writes: "I consider the 'Salcoats' the best of its class that has come under my notice, and have never missed the chance of specifying it as a good one for it."

Soil Condition.

The excessive rains of last summer and fall have left much of our land in an unusual condition. In few localities was fall plowing very much advanced when winter set in, and as a consequence much remains to be plowed this spring. Having this larger amount of work to do before seeding, there is a danger that the land will not be as well prepared for crops as otherwise would be the case. With these conditions before us for seeding time, it is evident that a favorable growing season will more than ever be desired. But these are only the superficial results of last season's heavy downpours. There are still other unfavorable results of so much rain. One of those, perhaps the chief, is the leached out condition of the soil. By this we mean the leaching or carrying to lower depths by the excess of water, much of the soluble plant food that is ordinarily liberated and retained at the surface. In the summer seasons this liberation, or elaboration of plant food, takes place near the surface of the soil, and in winter the action of the frost also carries it on. As spring plowing will turn down much of the plant food liberated by the frost, and as much of that elaborated during last summer has been carried to considerable depths, it is at once evident that this spring's crops will start growth under a considerable disadvantage, and that every effort should be employed to improve the unfavorable conditions.

The first step in this direction will be to plow



DR. ELLIOTT,
Commissioner of Agriculture for the Territories.

shallow, where plowing is necessary, and to follow this plowing with as thorough cultivation as time will permit of giving, as fineing the soil permits of the quicker action of the weather and other agencies in liberating plant food from the particles of earth. The next step will be to keep the manure, wherever it is applied, as near the surface as possible. With this treatment it will decompose most rapidly, and so furnish food for the plants early in their growth. Being at the surface, it is also more convenient to the roots of the plants.

These methods will furnish new food to the crops, but an effort must also be made to reclaim or capture the fertility that has been leached to lower levels. In some soils deep plowing will accomplish this, but deep plowing is expensive work, and would not be advisable for spring crops. It also brings to the surface much crude soil that would dilute the humus or the black soil of the surface, besides turning much of the surface fertility to the bottom of the furrow. A quicker, cheaper and more satisfactory method of getting this plant food to the top of the ground is to sow red clover wherever the nurse crop will permit its growing. The long roots of the clover plant make it peculiarly adapted for this work. These roots, reaching to considerable depths and sending their small rootlets out in all directions, gather together the disseminated plant food and bring it to the surface, where it may be retained by plowing the crop under, or if the crop is removed the great mass of roots will still retain much of the elements of plant food, which will gradually be given up, as these roots decay, to succeeding crops. By the liberal sowing of red clover this spring much of the evil effects of the excessive rains of last summer will be offset, and the lost plant food, which is too valuable to lose, will be reclaimed.

The New Commissioner of Agriculture.

Dr. W. Elliott, Com. of Agriculture for the N.-W. T., whose photo appears in this issue, was born on a farm about two miles north of Mitchell, Ontario, where his brothers still live. He entered the country school at the age of seven, passed the entrance examination to the high school at the age of thirteen, and at fifteen took his second class certificate, but being too young to be allowed to teach school, he spent his summers on the farm and his winters at the Mitchell High School for three years, boarding at home. During those winters he was obliged to attend from fifteen to twenty-five head of cattle, night and morning, and in summer he did all kinds of farm work. Many of the old residents there will remember the lad who frequently stood ten hours a day on the horse-power that ran his elder brother's threshing machine, as this was before the days of steam threshing. Not only did he learn to manage the power, but also to feed and attend the machine.

On his eighteenth birthday he became eligible to enter a training school for the teaching profession, and at once began training for that occupation. He taught successfully till '85, when he entered the Toronto Normal School to receive further training as a teacher. After graduating from this school he again taught four years, and in the fall of '89 entered Toronto University as a medical student. During the summer vacation of '90 he managed the old homestead of 150 acres, then owned by his younger brothers, his father having died a year before. He also rented another farm, and had the satisfaction of finding that the profits from this little venture were sufficient to pay the major part of the expenses of his next university term. During all holidays, when teaching or attending university, he was at home on the farm, and he has the reputation of never having shirked his duty. He graduated from Toronto University in '93, obtaining the silver medal for general proficiency in all final subjects, and in a couple of months came to Wolseley, N.-W.T., where he has succeeded in building up a very large practice. In '98 he first ran for the Northwest Assembly, and was elected over Mr. Levi Thomson, an old-timer, and one of the most respected men in the country, by a majority of fifty-three.

At the general election in May, 1902, he was opposed by Mr. M. Snow, a well-known old resident and successful farmer, but the Doctor was elected by 308 majority. While in the Assembly he was Chairman of the Public Accounts Committee and the Municipal Law Committee, and on Feb. 4th took the oath as Commissioner of Agriculture, and on the 18th day of the same month was re-elected by acclamation. Dr. Elliott is in every respect a self-made man. He has been a successful farmer, student teacher and physician, a record that augurs well for the future of a man who has been entrusted with a great responsibility, in which he will have exceptional opportunities for advancing the best interests of the greatest farming territory in the world.

Likes Tin Roofs.

Having read in the "Farmer's Advocate" of March 2nd, regarding tin roofing, I might say that I have been putting on nothing else but tin roofs for the last twenty years on my buildings; black iron or Canada plate, as it is called, and find it is far ahead of any shingles we can get now. I have a roof that is on over twenty years, and am sure it is as good as when it was put on. It received a coat of tar about every five years, which does not cost much. I have used now between 70 and 75 boxes, size of sheet 18x24, and 52 sheets to the box; that is the best. I put it on myself, and I do not think any of it cost me more than \$2.50 per square. I paint it with red ochre and boiled paint oil before it is put on the roof. Half of the tin roofs are spoiled by putting white lead or red in the paint, which causes it to rust; it would be better without any paint at all than to put on any kind of lead. I put it on the old way on the flat and double the sheet once in the center; that is enough for any outbuilding, but for a house it would be better to be doubled twice, and anyone with a little practice can put on from two to two and a half squares a day quite handily.

Chateauguay Co., Que.

C. P. R. Land Sales.

In a recent report the C.P.R. report the demand for land largely on the increase. Comparing January and February of this year with the corresponding months of 1902, we find the following:

	Acres.	Amount.
January, 1902	109,846.99	\$347,761.91
January, 1903	102,583.29	428,611.21
February, 1902	78,039.43	256,156.70
February, 1903	183,554.82	749,235.13

Sales are not confined to any particular district. Naturally they are greater in the Territories than in Manitoba, as the greater portion of the Company's lands in the Province have already been disposed of.

Weed Seeds.

A few helpful words regarding the identification of the seeds of some noxious weeds should be in place at this season.

During the past few weeks the writer has examined many samples of grass and clover seeds taken from stocks offered for sale at various points. It is a lamentable fact that in most cases these have been found to contain large quantities of the seeds of many species of troublesome weeds. Similar examinations in previous years have proven that such is usually the case.

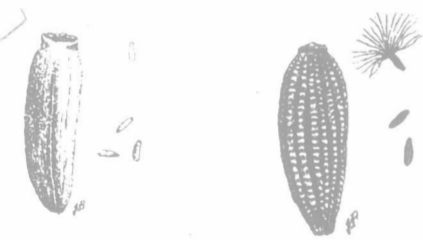
Farmers have learned through experience that in dealing with weeds, the old adage, "An ounce of prevention is worth a pound of cure," is an exceedingly wise one, and all know that days and weeks of hard and discouraging labor with the hoe, the spade and the cultivator, may be avoided by sowing clean seed; yet, few have learned to identify the seeds of many of our worst weeds. Most of us are familiar with the seeds of wild oats, wild tares, chess and perhaps, couch grass, and a few others, which are as large, or nearly as large, as the cereal grains; but the appearance of the seeds of ragweed, bindweed, false flax, peppergrass, white cockle, and many others, is quite unknown, although they are even more distinct in character than peas, oats, wheat, and barley. With the aid of a good magnifying glass the distinguishing characters of the various weed seeds can easily be seen, and every farmer should have a glass for this purpose. A suitable one can be bought for from 50 cents to \$1.00.

[Note.—A very good magnifying glass for this purpose may be secured by securing one new subscriber for the "Farmer's Advocate."—Ed.]

In no case should seed be purchased (especially grass or clover seed) until a sample has been carefully examined by the intending purchaser, and he has satisfied himself that it is comparatively free from weed seeds. Let it be remembered that examining a sample does not mean pouring it from one hand into the other, giving it a casual glance and saying, "I guess that is pretty clean." To examine a sample it should be spread out on a sheet of white paper and carefully gone over, so that every seed is seen. All the seeds which are not true to sample should be picked out, and afterwards separated into their various kinds. Then you have a definite knowledge of the amount of the different impurities in the sample, and can easily calculate the amount in a bushel, or in the quantity which you sow per acre.

Following are descriptions and illustrations of a number of the weed seeds most commonly found in grass and clover seeds, and of a few which are also found in seed grain. In each case the large drawing represents the seed as seen under a good magnifying glass, and the small drawing to the right shows its natural size.

In Fig. 1 is seen the seed of Canada thistle (*Cnicus arvensis*). It is of a greyish color, is about one-eighth inch long, rather smooth, and, when fresh, has a tuft of long silky hairs attached to its upper end.



1—Canada Thistle. 2—Perennial Sow Thistle.

Fig. 2—Perennial sow thistle (*Sonchus arvensis*). This seed is of a deep reddish brown color, is about one-eighth inch long, has a corrugated surface, and a tuft of silky hairs at its upper end.

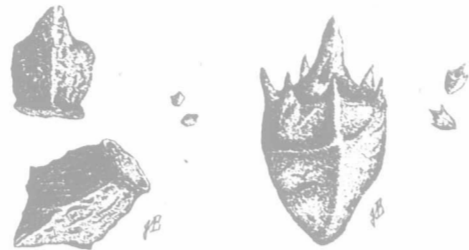
Fig. 3—Ox-eye daisy (*Chrysanthemum leucanthemum*). The seed is one-twelfth inch long, and is ribbed lengthwise, with alternate white and black ribs. It is very commonly found in timothy seed.



3—Ox-eye Daisy. 4—Burdock.

Fig. 4—Burdock (*Atractium lappa*). The seeds are of a greyish brown color, with darker spots. They are about three-eighths inch long, and have a somewhat roughened surface.

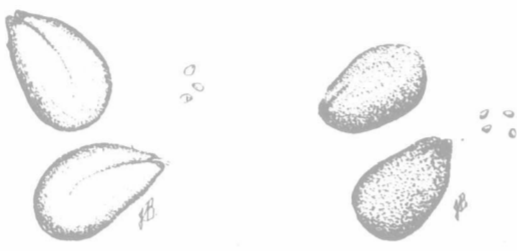
Fig. 5—Blueweed (*Achium vulgare*). The seeds are grey, one-eighth inch long, and roughly angular in form.



5—Blueweed. 6—Ragweed.

Fig. 6—Ragweed (*Ambrosia artemisiifolia*). These seeds vary in color from green to brown. They are about three-sixteenths inch long, and have a sharp tip, surrounded by a circle of spines. They are found in abundance in seed grain, as well as in grass and clover seeds.

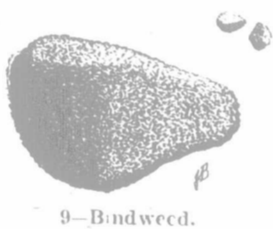
Fig. 7—Peppergrass (*Lepidium Virginicum*). Seed is of a reddish brown color, rather flat, one-sixteenth inch long, and when viewed with a lens shows a pimpled surface. It is one of the most common impurities in timothy and clover seed.



7—Peppergrass. 8—False Flax.

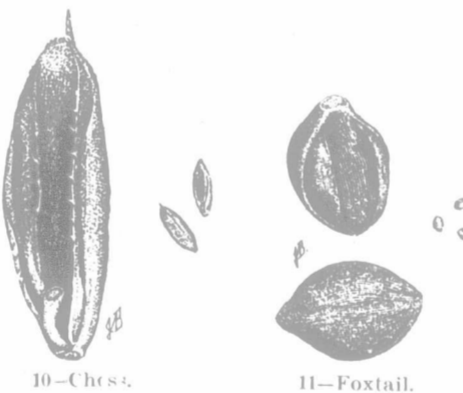
The seed of false flax (*Camelina sativa*), Fig. 8, is somewhat darker in color than that of peppergrass, and is smaller and not so flat. It is most abundant in timothy seed, but is also found in clover.

Fig. 9 shows the seed of bindweed (*Convolvulus arvensis*). It is black, rather angular in form, and has a rough surface. It is about the size of a small vetch seed. Every farmer should know this seed, because bindweed, when it has once obtained a foothold, is probably more difficult to eradicate than any other weed known in the Province.



9—Bindweed.

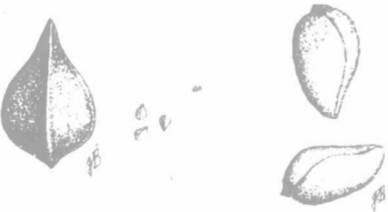
Fig. 10 represents the seed of chess (*Bromus secalinus*), which is familiar to most farmers, and is commonly found in seed wheat.



10—Chess. 11—Foxtail.

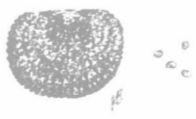
Fig. 11 gives back and front views of the seed of foxtail (*Setaria glauca*). It varies in color from yellow to a deep brown, is about one-eighth inch long, and has a slightly wrinkled surface. It is very common in grass and clover seed.

The seed of curled dock or yellow dock (*Rumex crispus*) is shown at Fig. 12. It is shiny brown in color, and triangular in form, with a tapering point, and is found in abundance in clover seed.



12—Curled Dock or Yellow Dock. 13—Wormseed Mustard.

Fig. 13—Wormseed mustard (*Erysimum cheiranthoides*). This seed is very small, is of a yellowish brown color, and has a furrow on one side. It somewhat resembles hulled timothy seed, and is found as an impurity in timothy and clover seed.



14—White Cockle.

The seed of white cockle (*Lycium alba*), Fig. 14, is kidney shaped, light grey in color, and is covered with small tubercles, which give it a very rough surface.

Fig. 15 shows front and back views of the seed of rib grass (*Plantago lanceolata*). It has a rich brown color, is shaped somewhat like a canoe, and its surface is smooth and shiny. It is exceedingly common in clover seed.



15—Rib Grass. 16—Lamb's-quarters.

In Fig. 16 are shown two seeds of lamb's-quarters (*Chenopodium album*). These seeds are quite black, but in some cases a portion of a light hull adheres to the seed, giving it a greyish appearance.

The above descriptions are necessarily very brief, but in connection with the illustrations they should enable a farmer to identify any of the species considered. J. BUCHANAN.

[Note.—The cuts for the above article were kindly loaned by the Canadian Correspondence College, Toronto.]

Sugar Beet Growing.

Sugar beets, like other crops, are known to be partial to certain conditions of soil, cultivation, climate and other influences, but because good crops are grown under a great variety of conditions the ideal treatment is often ignored.

A loamy soil is naturally most suited to the growth of sugar beets, and the preparation of such soil, or any soil, should begin a considerable time previous to the seeding of the crop. The soil, to get the best results, must be made fertile without being made overly rich in nitrogen or very freely laden with crude humus, such as straw, clover, roots, etc., and this is where sugar beets differ from other root crops. In the preparation of land for turnips, mangels or potatoes, fresh manure, or an excess of nitrogen secured from any source, whether it be clover or manure, does not do any particular harm. But with sugar beets the straws, or grass roots, tend to cause a branching of the roots, which decreases the usefulness of beets for sugar-making purposes, and a soil particularly rich in nitrogen tends to prolong the growth of the beets after the season for storing up sugar has come; it being understood that the storing of sugar takes place in the fine days of September and October, after the tops have begun to wither. Stones or roots act in the same way as does coarse manure, causing the branching of the roots.

To make a soil fertile, without having it overly rich in nitrogen or charged with undecayed manure, the manure is applied in fall or winter on, preferably, a clover sod, and a crop of some kind of grain is taken off the field the following year. The soil is then well prepared in the fall and spring, and sowed to sugar beets about the twentieth of May. As a special manure, wood ashes applied in the summer to the crop often give good results. Deep fall-plowing is necessary to make a deep soil, but spring-plowing is not advisable under ordinary circumstances. The seed is sown in rows, on the flat, with a grain drill, eighteen to twenty-one inches apart, and should be distributed evenly and thickly. About fifteen pounds to the acre is generally sown. Gaps in the row or misses have the effect of prolonging the growth of the roots growing beside them, and consequently these do not mature with the rest of the crop. Cultivation should be thorough, and the thinning even, leaving the beets about seven or eight inches apart. Uniformity in the beet crop is a strong feature, as it is usually accompanied by a uniformity of sugar content.

No definite time can be set for pulling beets, but it is certain that there is a best time, and that it is just when the beets have reached maturity and have stored up their content of sugar, and just before the weather becomes too unfavorable to handle roots. This time will, of course, depend on the climate conditions of each particular year.

The Best All-round Paper.

Lacombe, Alta., 1903.

To the Editor "Farmer's Advocate"

Dear Sirs,—We think that the "Advocate" is the best all-round paper published for this country, containing the most reliable information.

We are always anxious, fearing that it may be delayed.

Yours very truly,

R. C. WEBSTER.

DAIRY.

Cleaning Farm Separators.

We are always prepared to hear or see some new thing, especially in connection with dairy farming, but perhaps the most surprising statement we have heard made lately is that cream separators need cleaning only once or twice a week. We know this notion never originated with the farmer or his wife, nor with any person who has anything more to do with milk than to sell separators. But the salesmen, in order to secure the trade, are in the habit of making all kinds of unreasonable statements, among which is that it is not necessary to wash up the separator after each skimming. Perhaps it is not so remarkable that this statement should be made as that it should be believed, and it is believed by a great many, as we ourselves have seen several unwashed machines in waiting for the next supply of milk.

This condition of affairs explains a great many things. In many cases people complain that they do not get as good butter by using the separator as by other methods of skimming. Buttermakers in creameries cannot understand why certain patrons' cream is bad when they use the separator. Cream-separating creameries claim they can make a better product than the creameries that gather cream.

The farmer wonders why his calves and young pigs do not do better on skim milk, and perhaps the machine has rather an unclean smell. All these conditions hinge on the care and cleanliness of the separator. A machine that is left with traces of milk in the hopper, bowl or other parts, is one of the best breeding grounds for injurious bacteria, and a certain source of contamination to all the milk or cream passing through it. In fact, the separator has been called a clarifier of milk, and an examination of the separator slime would certainly justify the name, as forty per cent. of the bacteria of milk have been found in the slime. Scrupulous cleanliness is the price of success in all branches of dairying, and when a separator agent tells you that you do not need to clean his particular machine more than three times a week, you may just set the remark down as a business technicality. He is making the most of the fact that verbal agreements do not always hold good. There is no machine or utensil about the milkhouse or dairy that does not need the saving graces of soap and water as often as it is used.

Who Shall Separate?

The advantages and disadvantages of cream-gathering and milk-separating creameries has of late been pretty fully discussed from a dairyman's standpoint. To the farmer the question looks somewhat different, for while he is anxious to see Canadian butter slated at the top for quality and price, he also wants to secure the best results from his skim milk, and to him this is a question of considerable importance, since stock of all kinds have appreciated in value. Dairy men say, and we believe it is true, that they can make a better quality of butter from milk separated at the creamery than from cream gathered from house to house and hauled to the creamery in cans or tanks. The farmer, on the other hand, claims that he can raise better calves and hogs from milk separated on his own farm, and in this case the farmer is master of the situation. The farmer's case is just this: Calves and hogs must be fed regularly, and the sweeter and fresher the milk the better the stock will grow. Calves cannot wait for the milkman to come back from the creamery before having their morning's milk; neither does the farmer want to feed milk that has been drawn to the creamery and back, when he can have it within an hour after it has come from the cow. If the milk is sent to the creamery to be skimmed, the evening's milk is not available for feeding until nearly noon the following day, and that is not a time that anyone is going to feed calves or hogs. This work properly belongs to the morning and evening chores, and the milk must be had at these hours. The cream-gathering system operates in the best interests of the farmers, and we can depend upon the ingenuity and ability of the dairymen to develop a system of handling the cream whereby as good butter as is made in any creamery can be made from the product of the Canadian cow.

Instructing Instructors.

The Directors of the Eastern Dairymen's Association have arranged with the Kingston Dairy School to have a course for instructors in cheese-making and those wishing to qualify for instructors, at the school from April 1st to April 11th. The opening addresses will be given on April 1st, beginning at 9 a.m., and it is important that all who desire to take this course should be present at that time. The work to be taken up will include such topics as relate to the duties of instructors, in addition to the subjects usually taught in the school. This instruction will naturally be somewhat more advanced than that given the students in the regular courses.

J. W. HART.

A New Milk Record.

After doing creditable work for a number of years, the Holstein cow, Sadie Vale Concordia, owned by Messrs. McAdam & VonHeyne, N.Y., has at last broken all records for milk production. Her performance consisted in producing 695 pounds 3 ounces of milk in seven days. According to the methods used by Holstein breeders in calculating the butter yield from the fat content of the milk, this performance would give Sadie Vale 30 pounds 10 ounces of butter to her credit. We are not advised, however, that this amount of butter was actually made from the amount of milk given. The lowest record ever made by this cow was 317 pounds 10 ounces of milk in her two-year-old form. The performance at her last official test will stand for a time as the best on record, but with the improvement that is taking place in our dairy stock, we may expect other cows, jealous of this performance and true to female instinct, to equal and surpass the record of the notorious Sadie Vale Concordia.

Separate Cans for Patrons.

One of the innovations to be introduced into general use in the near future in dairying, is the gathering in separate cans each patron's cream. The tanks in use in many parts are not an unqualified success. The best interests of both patron and manufacturer can only be secured when the cream of each individual is received at the creamery in separate cans, and where possible, the cream giving varying tests churned in separate lots. The plan of gathering in separate cans has been tried in a few cases and has been found to be quite practicable, as well as highly satisfactory. The great object and duty of dairymen this season is to considerably improve the quality of Canadian butter, and this is one of the means that will be adopted to further that end.

Mr. Smith's Resignation.

Mr. Arch. Smith, who has rendered such efficient assistance to the dairy industry as Superintendent of the Western Dairy School, has tendered his resignation, to take effect at the close of the present term. It is understood that he will be engaged in the purchase of Canadian dairy products for one of the largest produce firms in England. He has also purchased an interest in a number of creameries in Western Ontario, to which he will devote a portion of his time. His place in the Strathroy school will not be easily filled.

POULTRY.

Fertility of Eggs.

A correspondent writes us asking: "How long after ducks are mated must one wait before the eggs will be fertile; and, if a new male is put with hens, how soon will the eggs be fit for hatching and the old strain eliminated?"

These are some of the problems that are being investigated by advanced poultrymen to-day. As to the drake and ducks, we are not advised of any results of experiments, but in the case of the hens, results obtained at the Ontario Agricultural College answer the question in part. At that station Prof. Graham found that, taking six hens that had not been with a male for months, the eggs laid on the first two days after the introduction of the male were all infertile, and on the following days the percentage of fertile eggs was: On the third day, thirty per cent.; fourth day, forty-two per cent.; fifth day, fifty per cent.; sixth day, sixty per cent.; seventh day, seventy per cent.; tenth day, seventy-four per cent. To determine how long after the male had been removed the eggs would be fertile, the eggs from other hens were tested. For the first four days after the male had been removed, seventy per cent. of the eggs were fertile; on the fifth day, sixty-one per cent.; on the seventh day, forty-nine per cent.; on the eighth day, twelve per cent., and on the ninth day only two per cent. were fertile; those laid on the tenth day were all infertile. Different results are obtained from experiments with turkeys; one mating of this class of birds being sufficient to fertilize the eggs for a whole season. Just what light these results throw on the question of mating ducks we are not prepared to say. Neither can we say with certainty that by following the outline of these experiments and introducing a new rooster, the blood of the previously used cock will be lost sight of. Excellent authorities claim that the effects of a certain mating will be noticed long after fresh blood has been introduced, but it is safe to say that the longer the pure-bred cock remains with the flock the less will be apparent the characteristics of previous matings.

What Breed?

With the coming of spring and the beginning of the hatching season, many people decide to make an improvement in their poultry flocks. In the past such decisions frequently have led to the unintelligent purchase of pure-bred stock without regard to the characteristics of that particular class, consequently much dissatisfaction has arisen in some quarters with pure-bred stock. In venturing into pure-bred poultry, it should be remembered that there are greater differences between some of the different breeds than between pure-bred and mongrel poultry, and often very great differences in individuals of the same breed. It is necessary, therefore, before buying pure-bred stock or eggs from such, to know just what is wanted, and to know to what extent the breed selected will fill that want. For instance, if a person wanted to raise table fowl of medium weight, of good quality and with yellow skin, he would not be advancing to that end by purchasing Leghorns, Andalusians, Minorcas, Brahmans, or Langshans. For this purpose Plymouth Rocks or Wyandottes will give the best satisfaction, or if the same class of bird is desired with a white skin, the Buff Orpington would give good results. For guidance it may be laid down as an approximate rule that for egg production the Leghorns (all colors), the Minorcas and Blue Andalusians are in the lead; for large size in table fowl, with white skin, and for sitters, the Brahmans, Langshans and Cochins excel; and for general-purpose birds, for the production of eggs, sitting and table use, the Rocks, Wyandottes and Buff Orpingtons "have their innings." Other breeds have their peculiarities, and are profitable to those who go in for novelties and exhibition fowl, but if the average person decides what he wants and selects from the above breeds to fill that want, he has taken a long advance step in the production of improved poultry.

Poultry Raising in Assiniboia.

As I have for the past three years sent you a full report of my poultry business, I think another is unnecessary, as I have proved that in poor years, as also in good, the farm poultry is profitable. I am sure others, who have better advantages, can make it even more profitable than I have done. I am satisfied that with equal attention it is the best paying part of the farm business. No other, with the same outlay of time, money and labor, can come near it.

I have conducted some experiments with breeds, part of which have succeeded and part failed. I tried Buff Rocks. They are a pretty and hardy bird, but do not satisfy me in results. I find that they do not breed perfect as to type, always having some black feathers or feathers on legs in the second generation. Then, again, they are not as good layers as the Barred Rocks, and when dressed for cooking the flesh is not nearly of so good quality. Taking all these things into consideration, after giving them a fair trial, I have given them up. Perhaps other of your correspondents may have succeeded better. If so, I would be pleased to hear of it.

I have tried also for three years Golden Laced Wyandottes, and am very well pleased with the present results. They are a neat, good-tempered bird; breed true to type; are better winter layers than Barred Rocks, and fully as good in summer. They are good, kind mothers, and their flesh is as good as any that I know of. I prefer their rose-combs to the high ones of the Rocks, and their weight is about the same. However, take them all around, I think the Barred Rock is hard to beat, either in appearance or quality.

I have just a word to say about nests. There is so much written about egg-eating hens, and I find so many people complain bitterly of that habit, that I wonder they do not adopt the only sure cure, and consign the nuisances to the culinary department. If this habit is confirmed in a flock, there is no other sure cure but to kill them all off and begin over again. Now, as an ounce of prevention is worth a pound of cure, I will venture to place before your readers a very simple plan of my own. There are patent nest-boxes and expensively home-made ones which are effective, but when a woman is obliged to contrive these things for herself, it is sometimes helpful to hear of what some other woman has done.

For the nests themselves, use any sized box you may find lying around which your menkind will not be likely to confiscate. Perhaps it will be large enough for two or more nests, and it may be only for one. If you are going to partition it off into compartments, let it lie on one side, and only have the partitions reach to within eight inches or so of the bottom when it is so laid. Then nail a strip across the front to keep the eggs from falling out, and put some nice clean straw or hay inside. After this is done, set your box in position, either high or low, it does not matter which. Then hunt up some old grain-bag, open it along the sides and end, mend the large holes just so the light will not penetrate too fully, and nail it along the upper side

of your nest-box, leaving it a few inches open at one end. Hens are full of curiosity, and they will soon creep behind this curtain and find it a nice place to conceal their eggs. It is dark enough so that they will come out as soon as the egg is laid, and another hen will not see or meddle with the egg when she goes in for the same purpose.

I do not know whether I have made this plan clear or not, but I have single nests, and several side by side in a box, all contrived after the same fashion, and find them safe and easily made.
MRS. A. NEVILLE.

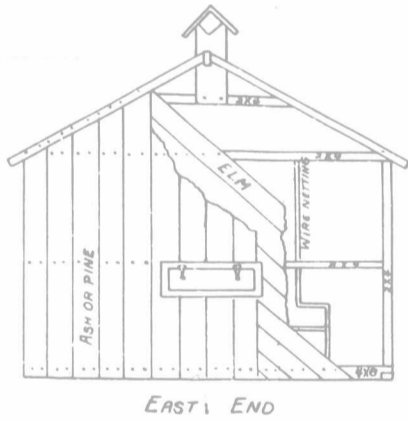
Selection.

Everyone would like to have the ideal hen that begins laying in November, keeps it up all winter, and raises a flock of nice plump cockerels and good laying pullets in the summer when eggs are cheap. To secure such a class of poultry, we would say get some pure-bred foundation stock, and then select for the desired end. Selection is the groundwork of improvement, not only in poultry, but also in all farm stock. December laying strains do not come by chance. To get this trait, the pullets are hatched early, fed well to maturity, well-cared for in the fall, and when there is a marked tendency shown by a few individuals to get down to earnest work, the eggs of these few are used the following year for hatching, and so the work for improvement goes on. The same course is followed in producing table fowl. Everyone can practice this improvement if the trouble is taken, and when the work is undertaken intelligently and with determination the trouble is considerably decreased. The lean, long-legged hen, and the over-fat, idle individual, should go to the kitchen early in their existence; then when spring comes and the time for hatching begins, the eggs from the most desirable types need only be used. This systematic selection is the only way in which we can increase the usefulness of our poultry and the profits of poultry-raising.

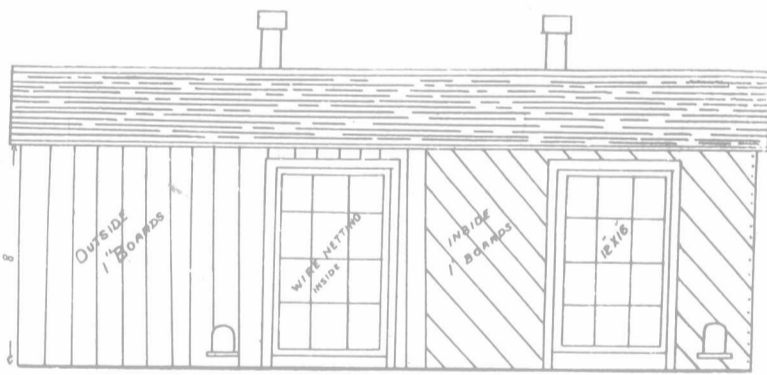
B. C. Poultry House.

In reply to the request of your correspondent, J. S. G., in your issue of the 2nd March, 1903, asking for a plan for a henhouse, I enclose a plan I had prepared a short time ago for myself, and which I think fills the requirements fairly well for a limited number of hens. The space in rear of the nest boxes is intended for feeding the sitting hens separate from the others, and the room in the west end is intended for a feed room, etc.
JAS. H. KENNEDY.

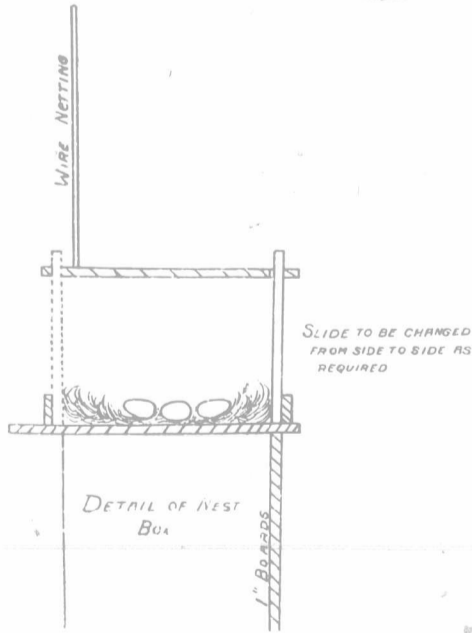
Yale and Cariboo, B.C.



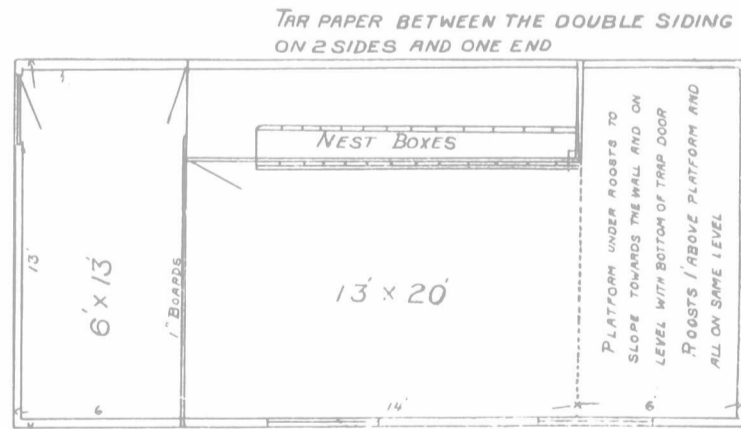
EAST END



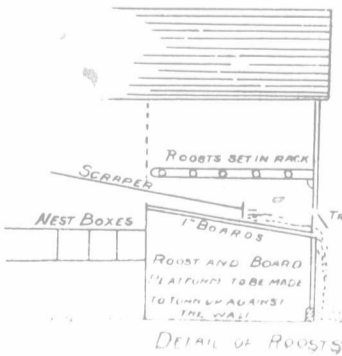
SOUTH SIDE



DETAIL OF NEST BOX



TAR PAPER BETWEEN THE DOUBLE SIDING ON 2 SIDES AND ONE END



DETAIL OF ROOSTS

MATERIAL

- 2 sills, 4" x 6" x 26.
- 2 sills, 4" x 6" x 13.
- 10 posts, 2" x 4" x 8.
- 2 plates, 4" x 4" x 26.
- 5 tie beams, 2" x 4" x 13.
- 20 rafters, 2" x 4" x 8.
- 850 ft. B. M. inside siding, etc.
- 650 ft. B. M. outside siding, 16.
- 150 ft. B. M. sheeting.
- 3 M. shingles.
- 100 ft. pine, doors, ventilators, etc.
- 2 window sash.
- 20 yds. chicken wire netting.
- 4 prs. strap hinges.
- 3 rolls tar paper.
- 1 cord gravel for floor.
- Nails, glass.

HEN COOP 13x26

Producing Laying Strains.

Perhaps the most useful experiments in the poultry business are carried on at the Maine State University Farm. Here hens must have a record of at least 200 eggs per annum, and by breeding from these individuals the egg-producing trait is firmly fixed in the breed. Cockerels from such breeding are sold to the farmers throughout the State, thus disseminating the good work. Work along these lines, we believe will be of infinitely more value to the breeds than the extreme efforts put forth to produce fancy markings, regardless of the usefulness of the birds for eggs or meat.

GARDEN AND ORCHARD.

"Foolish and Wasteful."

The attention of the "Farmer's Advocate" has been called by several parties to a supposed new method of destroying insect pests and fungous diseases on fruit trees, by filling a hole bored in the trunk with a mixture, the ingredients of which were supposed to be dissolved in the sap and carried up through the limbs and leaves. The notion is not new. It has cropped up on several occasions during recent years, first in one place and then another. The claim is even made that the injection would so affect the nature of the tree that the insects would keep off, and it would prove effective for four years' time. In one large-sized apple tree, to which our attention was called, an inch auger had been bored to the heart of the trunk, into which a dry powder, resembling in color a mixture of ashes and sulphur, was packed. The opening was then stopped up with a plug of wood, about two inches long, and left to do its deadly work on the codling moth, aphid, San Jose scale, leaf curl, black-knot, spot, and all the other enemies of the fruit-grower. Simply to "introduce the process," township rights are sold at "\$200 up, according to location, but this price will be at least doubled after this year." This gives the holder of the township franchise the right to plug trees at 25 cents each. The materials to be used in treating the trees are supplied to the right holders at what is described as "comparatively little cost," but with "full instructions." This particular "discovery" is said to have been made several years ago, but circumstances prevented its being developed till this season. Where smaller trees are treated, a smaller auger or bit is used to bore the holes. In order that the public might judge what confidence could be placed in such a plan, we submitted the authorized statement of the process to Mr. Dearness, Professor of Botany in the Western Univer-

sity, and Vice-Principal of the London Normal School, and his statement is given herewith. From this it is clear that, even though the stuff were soluble, and that it contained a fungicide and insecticide that could ever reach the pests as described, in the tree examined it was placed beyond the circulatory medium entirely, and was, therefore, useless. It is said that several parties have invested in township rights in Ontario:

"In answer to your inquiry before me, it is my belief that it is utterly useless to attempt to inject a drug or a food into a tree or plant through incisions or holes made in its trunk or stem. The leaves, with their substitutes, and the roots, are the natural absorbing surfaces of the plant. These correspond to the respiratory and alimentary surfaces—the stomach and the lungs of the animal. But, unlike the animal, the plant does not possess open vessels of circulation, corresponding to the veins and arteries of the animal, into which foreign substances can be injected and distributed. There are well-marked paths or tracts for the movements of the raw and the digested fluids of the plant, and there is a slow general diffusion through all the parenchymatous tissue. In the exogenous stem—and there is only one woody plant of the other kind that grows outdoors in this country—there is a very shallow layer of these tissues just under the external bark. Girdling a tree is a complete circular disconnection of this layer. If the drug be soluble, the wood interior to the "girdling" depth and the pith will freely absorb it, but from these it cannot enter into the circulation of the tree. The proper place to introduce a soluble drug is by the rootlets. It is impossible to introduce substances that will not dissolve into the circulation of a tree by any means. That a drug can be introduced into the circulation of a plant, which, without injuring it, will act as an insecticide is unreasonable. The tree would thus be poisoned as effectually as the insect. The attempt to administer a drug, even if it had the virtue of an insect deterrent, by holes bored in the trunk, is foolish and wasteful—wasteful both of the drug, because so little of it can enter the circulation by that means, and of the tree's strength, by the amount that will be required to heal the wounds.

"J. DEARNESS."

[Editor's Note.—See page 325 for report by Prof. Shuff.]

Growing Onions.

One of our subscribers writes asking us to describe the culture of onions. He has a rich piece of land, that was well manured and cultivated last fall, in which he intends growing the crop. Land so prepared is in excellent shape for onions. Being fall plowed, all it will need is good surface cultivation this spring, as onions do best on a firm soil, and the moisture will move in such a prepared plot better than where spring plowing is done. When the land is ready to work it can be cultivated up and the seed sown in rows sixteen inches apart. The seed should be so thick that about eighteen will lay to the foot in the rows, thus requiring four or five pounds per acre. The seed is covered about one inch deep. For best results, the seed should be in before the middle of May. Before sowing the seed it is well to test its vitality, so that a better knowledge of the amount of seed to sow will be obtained. Too thick sowing of onion seed should be avoided, as the after thinning is a slow process. Good seed only should be used, as inferior seed often produces scallions or thick-necked onions.

When the plants break through the soil, cultivation should begin whether there are weeds or not. Straight rows make this work much easier, if the garden cultivator is used. Weeds should never be allowed to grow, and if they are kept in check the onions will probably get sufficient cultivation. When the plants are about one inch in diameter, an application of a nitrogenous fertilizer or hen manure will hasten their growth. As onions grow on the surface, they will stand considerable crowding, and are better for it. When nearly full-grown the tops of good onions become weak about the neck and fall over. After remaining this way until the tops and roots are dry, the bulbs can be pulled and left to dry for a few days; turning frequently will hasten this process. In Ontario this stage will be reached about the beginning of September. In moist seasons considerable care will be required to get the onions dried. They should never be left in the ground after they are ready to pull, as there will be danger of them starting a second growth. The best place to keep them after they have been dried, is in a dry, cool shed; in cellars they invariably sprout. Some good varieties are Red Wethersfield, Yellow Danvers and Extra Early Red.

Onions are also raised from sets, small onions which are planted in the spring. These sets are got by sowing the seed late in the season in poor soil. The seed is sown very thick, so that they are much crowded, and everything is done to prevent a large growth. Onions grown from the sets are surer and earlier than those grown from seed. Growing or buying the sets is the chief drawback to this plan of culture. Within recent years

gardeners have begun the practice of starting the seed in boxes, and then transplanting the young onions into the rows. By this means the crop gets an early start and is evenly planted, but it, of course, involves more work.

Mistakes in Orchard Management.

A common mistake all over the country is in trying to grow too many trees on an acre. The minimum distance for apples should be 30 x 30 feet. This will give 48 trees per acre, quite close enough, and will do very well where the land is a little rolling. On level land it would be better to plant still wider apart. In the apple districts of Western New York there is usually only about 25 trees to the acre. Apple trees require plenty of air and sunshine. The soil beneath the tree should not be all the time shaded. The sunshine should fall on it part of the day at least. The best quality of fruit is found where the trees have plenty of room. It is impossible to spray the trees properly where they are crowded too closely together; and now that planting time has arrived, intending planters should avoid this mistake and set their trees well apart, and plant where the land is a little rolling in preference to perfectly level land. This gives soil drainage, and also atmospheric drainage, both very important conditions. Don't accept trees for planting that are not in good condition. The bark should be smooth and healthy, the roots moist and not too much mutilated by removal, and having plenty of small fibres to give the tree a good start. The future life and usefulness of the tree depends very much upon the kind of a start it gets.

Don't plant too many varieties. This mistake is just as common as too close planting; but growers are not alone responsible for this mistake. They don't always get what they order, and they don't know it until the trees come into bearing. Learn how to graft. It's a simple process, easily learned. You cannot be a successful fruit-grower if you don't know how. You can then turn the unprofitable, undesirable varieties into the kind you want, and it won't take much time or work to do it either. Many of the best commercial orchards in the country are top-grafted; but, remember, a tree should be top-worked while it is young and vigorous.

SPRAYING.

The first spraying is done on the bare trees, just when the buds begin to swell, and it's a debatable question whether it is best to use the full Bordeaux mixture or the bluestone solution alone. The latter is usually recommended for the first spraying, and consists of two pounds bluestone to forty gallons water. The second spraying should be just before the blossoms unfold, and as there is then some foliage, the full Bordeaux mixture must be used—four lbs. of bluestone and four lbs. fresh lime to forty gallons water—and if any leaf-eating insects are present, Paris green, from four to eight ounces, must be added. The same formula is applied again just after the blossoms have fallen from the trees. The necessity for further applications in the case of apples will depend much upon the season climatic conditions. Plum trees should be sprayed with this mixture just as soon as the blossoms have fallen and the young fruit formed. Frequent applications have in many instances prevented the rot.

The pear leaf mite is one of the worst insects affecting the pear, and the only time that spraying is effective is just when the buds are bursting into leaf. They hide in the scales of the buds during winter, and you must get after them with whale-oil soap, two pounds dissolved in five gallons of water, and give them a pretty good dose of it. The green and black aphids that affect the cherry trees, and, in fact, other fruit trees as well, need to be treated the same just when the leaves are coming out. Later on they get on the under side of the leaf, and you can't get at them. Spray red currants and gooseberries with Bordeaux and Paris green, just as soon as the leaves are out. This is the best way to treat the currant worm. Don't attempt to spray without a good pump; get the best. Spraying can't be done right with a poor pump; but it is a comparatively easy and rapid operation with a good outfit.

GRAFTING.

Chas. Campbell, Norfolk Co., Ont., writes asking for some information on grafting fruit trees.

The scions for grafting may be cut late in the fall or early in the spring, when the trees are dormant, and should never be cut when the wood is frozen. If they have not been already cut, the sooner it is done now the better, before any frost starts. Of course in experienced hands grafting can be successfully grafted after growth has started, and the buds even bursting into leaf; but for a beginner it is better to have them cut while dormant. The best way to cut them is to use a sharp sawdust until the scion is cut, and then use a sharp knife as the scion is cut. It is better to cut the scion in the fall, and then store it in a cool place until the spring. It is better to cut the scion in the fall, and then store it in a cool place until the spring.

opening of the leaf buds, providing the scions to be used have been cut while dormant and kept in proper condition; but the early grafts are the best, and make the best growth. Plums should always be grafted early; they should be done before the apples. Choose a fine warm day for the operation, when the wax will work without artificial heat. Three-quarters of a pound of tallow to one pound of beeswax and two pounds rosin make a good wax; or linseed oil may be used instead of the tallow if desired. Put all together and melt over a slow fire, and when melted pour a little at a time into water and pull until it is nearly white. Grease the hands to prevent it sticking.

In cutting scions for grafting, a great advantage is gained by proper selection. They should be taken from a young, healthy, bearing tree; they should be the terminal twigs (last year's growth), on the leading limbs, and if taken from the trees in the orchard that bear the best crops and produce the finest specimens of fruit, they will carry that quality with them and will perpetuate it in the tree on which they are grafted.

THE JAPAN PLUMS.

The area of profitable plum culture, so far as the best of the European class is concerned, is somewhat limited. Practically, it may be said to be mostly confined in Ontario to the Niagara Peninsula and the Georgian Bay district. But the introduction of the Japan plums has extended the area of profitable culture. They are more hardy than the Domestic class, and will grow and thrive and bear good crops where the others will fail, and the quality of many of them is very good indeed; and while we may not find any of them that for cooking and canning would rank with such varieties as Reine Claude or Prince's Gage, or Union Purple, yet they are far superior to the American class, *Prunus Americana*. The latter, though hardy, are mostly poor in quality.

Many people have planted plum trees for years, only to have them grow for a while, perhaps produce one crop, and then fail. This is very discouraging, but before giving up in disgust, they should try a few trees of the Japan varieties—Red June, Abundance, Burbank and Satsuma would be a very good selection. The Red June ripens about three weeks earlier than other varieties; it is quite as good as Abundance, and a little larger. Satsuma is peculiar, in the flesh being a very deep red. These plums are strong growers on good soil and with good care, and they should be headed in to make strong, stocky heads. This is especially true of the Burbank, which is a rampant grower and of a spreading habit of growth. The Japans are not so liable to disease as the other varieties, such as rot and black-knot, and no one should entirely abandon the attempt to grow a few plums until they have tried the Japan varieties. The European varieties will do fairly well for a year or two when top-worked on hardy native stock, but they grow so much faster than the stock that the union is imperfect, and they are short-lived.

Asparagus.

As a table vegetable, asparagus holds a unique position. It is the first of the season's produce, and comes just when the system craves some fresh vegetable. Unfortunately it is not widely grown, but where it has a place in the garden its advent in the early spring receives a warmer welcome than the green peas of later date. The fondness for asparagus is not as universal as for some other vegetables. The taste must be acquired to a certain extent, but the lesson is not hard to learn. To those who have not got this plant in their gardens, we recommend that an advance step be taken this spring and a small plantation started. It is one of the easiest of plants to grow, almost rivaling rhubarb in this respect, and remains a long time in the soil. The plants may be started from seed, or from year-old plants. Where the former method is followed, the seed is sown in good garden soil, in drills about sixteen inches apart. An ounce of seed should produce about four hundred plants. Radish or lettuce may be sown with the asparagus, as it is a slow grower. At one year old the plants are ready to transplant to a permanent bed. By taking the plants from an old bed or by buying them, a year's time may be gained. The plants are set in trenches, about three or four feet apart, and from six to twelve inches deep. From one and one-half to three feet apart in the row is a safe distance to plant. About one hundred plants will be sufficient for the ordinary family. When the plants have been set and covered, the trench is gradually filled, until at the end of the season the land is about level, and the plant will be a good height. In the fall, when they have died, they are cut off and the land lightly plowed or cultivated about three inches deep. In the spring the land is again cultivated, as there will be very little crop for use this year. The weeds are kept down during the summer and the fall treatment given as in the previous year. The third year will produce plenty of shoots for the table. After they have been taken and the season is over, the same treatment is given the bed as in previous years.

The Apple Orchard.

BY H. S. PEART.
(Continued.)

With regard to the pruning of apple trees, it is difficult to tell anyone how it should be done without actually performing the work. With upright growing trees like the Spy, the aim should be to keep the head down; with spreading trees, such as the Greening, we must aim to keep the head high enough to permit of cultivation. All branches which grow across the tree and interfere with branches growing in the desired direction must be removed. Keep the head of the tree symmetrical, and high enough from the ground to allow of cultivation, but not so high as to make the picking of the fruit difficult. The head of an apple tree must be just so open that a man may climb through without difficulty. Sunlight must be admitted to the inside of the tree, but not so strongly as to scald the large branches. Sunlight is very essential to the proper coloring and ripening of the fruit. All watersprouts or suckers should be removed as they appear throughout the season.

Pruning should be done every year, so that large branches need never be removed. The removal of large branches causes a severe check to the tree. Most growers do the bulk of their pruning in the late winter or early spring, as time is scarcely as valuable at that season of the year. Summer pruning is recommended only when trees are vigorous and unfruitful, as any severe check will cause the fruit buds to start. An old pruner's rule is to look at the tree and see what it needs to keep the head symmetrical; high enough from the ground to permit of cultivation; low enough to make picking convenient; open enough to allow a man to climb through the head and admit sunlight, and to leave the tree in an attractive form.

The apple has, perhaps, more insect pests than any other one fruit. The codling moth annually destroys many thousand barrels of our fruit. It should be looked after in the early spring, and a spray of one pound of Paris green to one hundred and fifty gallons of water, together with a little milk of lime to prevent burning the foliage, sprayed on just before the blossom opens, and again as soon as the petals fall, has given good results. Bandaging the trees with burlap, and going over the bands every few weeks and killing the larvæ and pupæ which are hiding in them, is being practiced at present.

Foliage pests are held in check by using Paris green in the same proportions as for the codling moth. Many larvæ are killed in this way, but as the adult insects are so difficult to kill, and require such a strong solution, there is a danger of burning the foliage; we must study the life history of the foes and attend to them at the correct season.

For scale insects, such as the San Jose scale, Putnam scale and oyster-shell bark-louse, crude petroleum or whale-oil soap have given good results, but new methods are being advocated now which we hope may prove more beneficial.

A large volume might be filled with methods for combating pests, but as the Department of Agriculture is continually experimenting, I will say no more here.

The scab on the apple seems to thrive best in damp, cool weather, so that the season seems to have much to do with controlling its growth. For this reason we must watch very closely for any appearance of blight on our trees in the spring. The use of Bordeaux mixture is the surest method of combating the fungous diseases. Trees which are not bearing are greatly benefited by spraying with Bordeaux mixture, as it destroys the fungous growth on both leaves and wood, and leaves the tree in a more healthy condition.

Many growers are top-grafting their summer and autumn varieties with winter varieties; in this way they overcome a very serious loss. Winter fruit of good quality will find a ready market any time. A very noticeable fact regarding the top-working, as spoken of above, is that the fruit matures a few weeks earlier than the same varieties on the natural stocks.

Much might be written regarding varieties to plant, but here space will not permit. The Baldwin is the one, above all others, which has given large yields and good prices generally. Many such as King, Greening, Northern Spy, Greenvain, Ontario and others, are worthy of a place in our orchards. We must, however, study our own district in order to tell exactly what varieties will give the best results. Too many varieties in one orchard is not a good thing for commercial purposes, as the more fruit we have of one class the better. We must aim at having a bright, showy, solid apple, with good cooking and keeping qualities, combined with a pleasing flavor. This has led to the top-grafting of many inferior varieties, and the trees are now giving good results.

Our best varieties are mostly the winter species. Summer and autumn fruit is only suitable for home use, as it will not keep long.

APIARY.

The Foul Brood Law.

BY MORLEY PETTIT.

One of the most serious difficulties with which beekeepers have to contend is the disease known as foul brood. Men of experience, who read bee literature and attend conventions, are enabled to become familiar with its symptoms and to combat it upon its first appearance in their hives; but a great many, through lack of thought and knowledge, attribute its effects to "bad luck," offer no resistance, and from the very nature of things their infected hives become a menace to their more progressive neighbors. For protection against such, and for their own benefit, a law was placed on the Ontario statutes some years ago, whereby any one who conceals the fact that foul brood exists among his bees is liable to a heavy penalty. It is his duty to report to the President of the Ontario Beekeepers' Association the presence of this disease, wherever it is known to be. The President then notifies the Provincial Inspector of Apiaries, who visits the yard, decides whether the disease is really present, and gives instructions for treatment.

Right here is the chief trouble with the act as it now stands. There are said to be about 10,000 beekeepers in Ontario. Each of the 10,000 apiaries should be inspected every three or four years until the disease is wiped out. The inspecting should be done before the middle of the main honey-flow, that treatment, where necessary, may be given before it is close. For reasons known to every beekeeper, brood chambers, especially when suspected of foul brood, should not be overhauled when no honey is coming in. The single inspector then is, or should be, expected to visit at least 2,000 apiaries scattered over the Province of Ontario inside of a few weeks—a physical impossibility. Even if a single inspector could do the work, it is quite unnecessary to go to the expense of sending a man from one end of the Province to the other, when in every county or district are men fully qualified to perform the duties of inspector in their vicinity.

The law should be so amended that each district would have one or more sub-inspectors, resident in the district, and appointed by the local association.

Hints for April.

BY MORLEY PETTIT.

As there is a general movement towards early setting out, and as the unnatural weather of March has made the cellars uncomfortably warm, many will have placed their bees on summer stands ere this. The advisability of setting out in March, except in extreme cases, is still an open question. A warm March should make one particularly cautious, as it is pretty sure to be followed by a cold April. But if the cellar temperature is high, the bees grow more restless every day, and signs of dysentery appear, there seems no other course to pursue.

Those who have not set out their bees should do so as soon as possible after April first. It is an old rule, and one which, though sometimes questioned, can safely be observed, that the day chosen for carrying out should be suitable for bees to fly before evening—bright, warm, and comparatively calm. Such days are often preceded by a frost at night, when doors and windows should be thrown open to allow the cool night air to quiet the bees, and make them less liable to leave the hives and sting as they are being carried from the cellar early next morning. The ideal time for carrying out is in the night, by moonlight. It does away with annoyance and loss by flying bees, because even if the night be warm, there is not light enough to induce them to fly. Then covers and alighting boards can be adjusted, and entrances closed to about four inches, to keep out robber bees before they begin to fly.

A careful watch should be kept the first few days to see that no hives are being robbed by other colonies. The covers should be particularly warm and tight, and the hives sheltered from cold winds. Even the entrances should be covered with slanting boards whenever it is too cold for flying. The hive is now an incubator, you understand, in which are being hatched the workers for the coming season, and we must do all in our power to assist the brooding bees to keep it warm. Out-door wintered bees should not be unpacked until time for clipping queens and putting on covers; but it is a good plan to remove the covers occasionally on fine days, to allow the packing to dry and dry out. If possible, the bottom-boards should be exchanged for clean ones, or at least be cleared of dead bees.

QUESTIONS AND ANSWERS.

1st.—Questions asked by bona-fide subscribers to the "Farmer's Advocate" are answered in this department free.
2nd.—Our purpose is to give help in real difficulties; therefore, we reserve the right to discard enquiries not of general interest, or which appear to be asked out of mere curiosity.
3rd.—Questions should be clearly stated and plainly written, on one side of the paper only, and must be accompanied by the full name and address of the writer, as a guarantee of good faith, though the name is not necessarily for publication.
4th.—In veterinary questions, the symptoms especially must be fully and clearly stated, otherwise satisfactory replies cannot be given.

Veterinary.

[Answered by our Veterinary Editor.]

Subscribers are kindly requested to read the conditions at the head of this department before writing or mailing their enquiries.



DOUKHOBOR WOMEN.

ABORTION.

Mare that has been idle all winter, aborted two months before full term. Three years ago she was worked until a few days before foaling, and she produced a dead fetus. Is there any use in breeding her again?
Lennox Co., Ont.

Ans.—It is impossible to say what caused abortion, as it may be caused by a slip, blow, fright, foul odor, etc. It is also hard to say what caused the death of the first foal. It is good practice to give a pregnant mare regular exercise or light work until parturition is near, being careful to avoid slipping, over exertion, etc., and feeding reasonable quantities of pure, easily digested food. If I owned this mare I would breed her again.

BLOODY MILK.

My cow gives bloody milk from all four teats. It was the color of brown paint when she calved, but is gradually getting whiter.
Norfolk Co., Ont.

Ans.—Bloody milk is due to rupture of some of the small bloodvessels in the udder. There is a congenital weakness in the bloodvessels in some cases, and in such the recurrence of the trouble cannot be prevented, but the condition is liable to occur in any cow, especially at the time of calving. Bathe the udder well and often with cold water, and administer one ounce tincture of iron in a pint of cold water, twice daily, until blood ceases to appear in the milk.



DOUKHOBOR MEN.

CONTRACTED FOOT.

Have mare with a contracted foot, and is quite lame. Have lately been getting her shod by good blacksmith.
Essex Co., Ont.

Ans.—Apply a linseed poultice to the foot affected for two nights in succession, then apply a blister, composed of cantharides, one dram; biniodide of mercury, one dram; lard, one ounce, to the coronet, once a month, for two or three months. If possible, turn out to pasture for a month after the first blister.

MARE NEARLY BLIND.

1. My mare was supposed to have been struck on the eye last fall. There is a little scratch or scar about the middle of the pupil. Both eyes are covered with a bluish cloud, with darker spots and streaks through it.
2. Mention a good condition powder for horses.
3. How should a tooth rasp or float be used?
Ontario.

Ans.—1. It is probable your mare has a constitutional disease called periodic or specific ophthalmia. If so, she will eventually go blind, and you cannot prevent it. The condition may have been caused by an injury, and if so recovery should take place. An operation would be of no use. Put a few drops of the following into each eye, twice daily, and protect from sunlight and drafts: Nitrate of silver, ten grs.; distilled water, two ounces. Recovery will be slow.

2. Equal parts sulphate of iron, gentian, ginger, nux vomica, and bicarbonate of soda. Give a dessertspoonful night and morning in soft food. This makes a good condition powder, but I do not advise giving drugs to horses unless they are sick. As a rule, if their teeth are all right, and they are well fed, condition powders are not needed, and if their teeth be out of order, no drugs will be followed by satisfactory results.

3. It requires considerable experience, and rasps of different shapes, also a mouth speculum, to dress a horse's teeth properly. When operating without a speculum, the operator puts his left hand into the mouth and presses the tongue between the molars of the left side; with the rasp in the right hand he rasps the sharp corners off the inside edge of the lower molars and the outer edge of the upper row, being sure to reach all the teeth. Change hands for the right side.

BARBED-WIRE WOUND.

In September last my mare cut her coronet with barbed wire; the limb appeared to be cut half through. The wound healed slowly, and she is still very lame. The muscles of the shoulder have fallen away. Would it be wrong to work her?
Bruce Co., Ont.

Ans.—Wounds in this region heal slowly. If the hoof is involved the horn must be kept well pared away around the edges and the foot poulticed for a few hours each day with linseed meal. The fleshy wound should be dressed regularly with one part carbolic acid to twenty parts sweet oil. The shrinking of the muscles of the shoulder is due to inaction on account of the lameness; when the lameness disappears the muscles will regain their normal condition. She certainly should not be worked. It would be a well marked case of cruelty to animals.

PERIODIC OPHTHALMIA.

Five-year-old horse has trouble in his eyes. The veterinarian says it is periodic ophthalmia. The man from whom I bought him says he had pink eye as a two-year-old.
Lincoln Co., Ont.

Ans.—As you give no symptoms, it is impossible for me to give an opinion, but doubtless your veterinarian is correct, and there is no cure. He will, in all probability, eventually go blind. All that can be done is to treat each attack by putting him in a partially darkened stall; protect from strong light and drafts; bathe the eyes well and often with warm water, and put a few drops of the following into each eye, twice daily: Sulphate of atropia, ten grs.; distilled water, two ounces. The attacks cannot be prevented.

PARTIAL PARALYSIS AND LAMINITIS.

1. Mare has occasional attacks of general debility, with partial loss of appetite. She is dull and eats little, appears stiff over kidneys, and is inclined to roll from side to side. Her food consists of good timothy hay and two quarts boiled oats once daily, also a few turnips. I have given condition powders, with no good results.

2. Mare got loose and ate too much barley; she is a little stiff.
New Westminster, B.C.

Ans.—1. Your mare has partial paralysis. Purge her with eight drams aloes and two drams ginger. Give two drams nux vomica three times daily. As her appetite improves, feed more oats; give at least two quarts of whole oats, or their equivalent of boiled ones, three times daily.

2. This mare was foundered from an over-feed of barley. Prompt treatment would have effected a perfect cure, but it will be more difficult to treat now that it has become chronic. Clip the hair off all round the hoof, for about two inches up the pastern, and blister repeatedly with two drs. biniodide of mercury, two drams cantharides, and two ounces vasoline.

SHEEP SCAB.

There are several flocks of sheep in this vicinity, which are afflicted with scab. Could you, through the columns of your valuable paper, give us any cure for same, and how to apply it?
Wellington Co., Ont.

Ans.—If you write Dr. J. G. Rutherford, Dept. of Agriculture, Ottawa, he will notify an inspector to see that the disease is cleared up.

CRIPPLED PIGS AND VICIOUS STALLION.

1. Purchased seven fat pigs, weighing one hundred pounds each. Next day four became lame in right hind leg, and soon complete cripples, and died in four days. I turked the others out, and cut off their feed, and they escaped.

2. Stallion will not allow his feet to be handled. We cannot shoe him. Some advise giving laudanum. Is it safe? J. B. C.
York Co., Ont.

Ans.—1. The pigs became crippled and died from digestive trouble and want of exercise. The treatment you adopted for the three that are still alive was correct. In addition it would have been good practice to have purged them with about six ounces Epsom salts.

2. If coaxing and kindness will not succeed in getting the stallion to allow the handling of his feet, he must be forced to submit. The application of a twitch on his upper lip and another on his ear, may suffice. If not, a rope attached to the foot and through a pulley near the ceiling, and his foot held up, will probably succeed; if not, hobbles can be put on, the brute cast, and one foot liberated at a time and held by a special rope.

MAMMITIS AND INDURATED UDDER

Cow dropped her fourth calf in February. After second calf the hind quarters of her udder gave lumpy, bloody milk. The quarters are the same now, and there is a sore lump about the size of an apple that was caused by a kick. Is the condition hereditary? J. E. M.
Temiscaming, Ont.

Ans.—The lumpy and bloody milk is caused by inflammation of the udder. Purge her with two pounds Epsom salts; apply hot poultices to the udder, and rub well with camphorated oil, three times daily. The lump can be reduced by rubbing twice daily with compound iodine ointment. It is probable the trouble has all been caused by the kick mentioned, and hence is not hereditary, and not likely to appear in her daughters or the produce of her sons.

CHOREA IN DOG.

Dog is stiff, jaws snap; there appears to be a beating on top of head, as though an abscess were forming. He moves with difficulty; has coarse, husky bark, and eats very little. J. F.
York Co., Ont.

Ans.—Your dog has chorea, and it is doubtful if he will recover. Keep him in a comfortable, dry, well-ventilated place; purge with thirty grs. jalap and two grs. calomel; follow up with ten gr. doses bromide of potassium, three times daily. Give him anything he will eat, but in small quantities. If an abscess form, open and allow the escape of pus, and dress daily with a five per cent. solution of carbolic acid. If you value him, it would be well to show him to your veterinarian.

ERYTHEMA.

Brood mare that was fed highly on oats, with a small percentage of barley, has broken out with a sort of itch on all her legs, from hocks and knees to feet. She bites and scratches the parts. I have been washing her legs with soap suds and applying copperas water, but this does not effect a cure. She is a Clydesdale. A. F.
Middlesex Co., Ont.

Ans.—Your mare has a skin disease called erythema. Many hairy-legged horses are predisposed to it. Do not wash at all. If the legs get wet and muddy, allow them to dry and then brush. If she were not in foal, a purgative of aloes would be good treatment, but this is unsafe on pregnant mares. Feed largely on bran and roots, very little grain. Give two ounces Fowler's solution of arsenic, twice daily, and dress the legs with corrosive sublimate, one part; water, 700 parts.

CURB AND CONTRACTED HOOF.

1. Colt, two years old, has curb. Please give treatment.

2. The front feet of two-year-old colt are small and the frogs of same are poorly developed. Can anything be done to promote the growth of feet, and the development of frogs? W. S. M.
Lanark Co., Ont.

Ans.—1. Clip the hair off the curb and apply a blister as follows: Cantharides, one dram; bicarbide of mercury, one dram; lard, one ounce. Apply lightly, once a month for three months.

2. As your colt is young, a run at pasture this summer will be all that is required; a field with damp parts in it by preference. A blister to the coronets would stimulate the growth of hoof, if they still require treatment after the run on pasture.

BLIND HORSES' TEETH.

Can the teeth of a blind horse be filed so that he can eat better? Or should he be fed on soft feed, so he can do without the teeth? Middlesex Co., Ont. W. B.

Ans.—Yes. Have a veterinarian do the job for you.

THE ADMINISTRATION OF ARSENIC.

I see in your issue of Feb. 16th, you recommend the administration of two ounces Fowler's solution of arsenic, twice daily, making about 17½ grs., as an ounce contains about 4 1-3 grs. Do you not think it is dangerous to give such large doses? S. S. D., V.S.
Durham Co., Ont.

Ans.—I have never known doses of this size to cause symptoms of poisoning or intestinal irritation, and I have prescribed such doses regularly for twenty years. Finlay Dun gives two to ten grs. as the dose, or one-half to one and a half ounces of Fowler's solution. He also states that the toxic or poisonous dose is estimated by Kaufmann to be from 240 to 720 grs. Hertwig gave eight horses doses beginning with 20 grs. and gradually increased to 60 grs., and continued from thirty to forty days without observing bad effects. At the same time, there are cases cited in which much smaller doses, even as small as five grs., have caused serious results. Although my experience has taught me that there is no danger in the doses mentioned, it might be wise to prescribe smaller doses for administration by unprofessional men, as they would not be likely to observe toxic symptoms if they should appear, as in very rare cases will occur.

ITCHY LEGS.

Four-year-old Clyde has itchy legs; she rubs and bites them. Is in good condition and driven occasionally. A. D.
York Co., Ont.

Ans.—The symptoms are of a very general nature. Withhold feed for twenty-four hours, then give eight drams of powdered aloes and two drams of ginger, made into a ball with syrup. After this feed on light, cooling feed for a few days. Give plenty of exercise. If the legs have broken out in sores, wash well with warm soft water and castile soap; dry by rubbing well with dry, clean sawdust, and apply three times per day a solution containing one part carbolic acid to twenty parts water. When the sores begin to heal, rub with vaseline, mutton tallow, or other fresh grease.

HEAVES.

My fourteen-year-old mare commenced breathing hard last fall; sometimes she makes a strange noise and staggers and coughs, and thick lumps are discharged from mouth, with bloody water from her nose. P. W. S.
Essex Co., Ont.

Ans.—She has either heaves or a growth in the nasal chambers. If the former, little can be done more than feeding food of first-class quality, dampened with lime water; feed considerable grain and less hay than usual. If there be a growth, an operation by a veterinarian is necessary.

NASAL GLEET AND CHRONIC SORE THROAT.

Two-year-old colt has had a discharge from his nose and difficulty in swallowing ever since he was six months old. W. H.
Haldimand Co., Ont.

Ans.—Your colt has nasal gleet, and in a chronic case like this, it is probable an operation by a veterinarian will be necessary. You might try giving one dram sulphate of copper, night and morning, for a few weeks, and if no benefit results, take him to your veterinarian for examination, and if necessary an operation. A blister will remove the soreness of the throat.

HALF OF UDDER NOT FULLY DEVELOPED.

One side of cow's udder does not give as much milk as the other, the teats are smaller, and the quarters feel rather withered. The udder is large and fat. N. McP.
Ontario Co., Ont.

Ans.—This is a congenital conformation, not due to disease. Hand rubbing may be followed by good results, by stimulating the quarters to increased activity. The administration of drugs would do no good.

LUMP JAW.

My heifer has lump jaw; bone not affected. Would it be advisable to have the tumor dissected out? E. L. P.
Ontario Co., Ont.

Ans.—Yes; all affected tissue must be removed, else the growth will reappear.

RINGBONE.

I have a young mare with ringbones on front feet; it has been lame from a colt. Is there any way to remove them without leaving a blemish, and how? R. R.
Durham Co., Ont.

Ans.—See article in our last issue, "Bone diseases of horses' legs." For treatment call in a good veterinarian.

Subscribers are kindly requested to read the conditions of this department before writing or calling their enquiries.

Miscellaneous.**PACKING PORK ON FARM.**

1. Will you kindly tell me in your next paper how to put pork away for summer use without having it too salty, and how to cure the hams something like one buys?

2. Also kindly tell me how to be successful in raising young turkeys? MRS. B. S.
Simcoe Co., Ont.

Ans.—1. First have young, well-finished hogs. Kill them when the weather is cold, about January, and allow the carcass to become well cooled before cutting it up. When the meat has been cut there are several methods of treating it, the success of any one way depending largely upon the packer, or the taste of the user. To salt pork dry, take a mixture of four pounds of good, fine salt, one and one-half pounds of good brown sugar, and four ounces of saltpetre, and apply it to each one hundred pounds of meat. Repeat this application three times for hams and shoulders, and twice for bacon, rubbing the mixture well in, but always waiting until the first application has struck in. It will require about three weeks to complete the job. The hams and shoulders are then smoked with birch chips or corncobs, after which they may be wrapped in cotton bags and hung in a dark room. The bacon may be packed in salt in clean boxes. To pickle hams and shoulders, have a clean pure cask. Use of salt, seven pounds; granulated sugar, one and one-half pounds, and four ounces of saltpetre for every 100 pounds of meat; rub well in, pack the meat closely in the cask, using all the salt, then cover the whole with cold water, and roll the cask about once a week. In about fifty days the hams may be taken out, washed or soaked for twelve hours, and then smoked for about forty-eight hours. After smoking they are wrapped and hung in a dark cool room, where they will keep indefinitely.

2. See poultry department, March 16th issue.

GRASSES AND RAPE FOR PASTURE.

1. On a farm composed in part of clay and loam, and another farm of a gravelly soil, how will brome hay do? Does it do better than timothy, which is the standard hay here?

2. We are in the habit of taking two crops of grain off a field, seeding to hay in the second year. Would it pay to sow red clover with the grain the first year, and let milk cows have the run of it for pasture?

3. Which would be best, clover or rape, or is anything better than these? S. P. B.
Chateauguay Co., P.Q.

Ans.—1. In experiments at the Ontario Agricultural College, brome grass did not produce as much hay or pasturage as did some of the other grasses; Western rye grass, timothy and orchard grass all gave better yields. The best results from the use of brome grass are got on prairie lands.

2. On land such as described, a mixture of grasses for pasture might consist of red clover, five pounds; timothy, three pounds; orchard grass, three pounds; alfalfa, four pounds; and white clover, two pounds. A number of grasses will, in every case, give better pasture than one single variety. Those mentioned in the mixture flourish at different intervals during the summer, and thus keep the pasture fresh. If the field is to be left in pasture for more than two years, it will be found advisable to sow red top and blue grass seed when the red clover begins to thin out.

3. There is nothing of their kind better than clover and rape. Clover can be used for a soiling crop in June, or can be cured for hay, and should be largely grown on every farm. Both it and rape make good fall pasture, if sown in the grain. Sow the clover at seeding time, about eight or ten pounds to the acre; it will do the land good, even if not used for pasture. The rape can be sown when the grain is three or four inches high, and covered by going over the field with the hay rake. Rape is also grown alone for fall feed; for this purpose it is sown in rows, 21 to 26 inches apart, much like turnips, and may be sown on raised ridges, or on the level. Some dairymen object to the feeding of rape to milk cows, as it sometimes imparts a strong flavor to the milk.

SUBSCRIBING FOR SHARES.

Eighteen months ago I was canvassed by an agent for the sale of certain Industrial stocks. The agent was accompanied by a prominent neighbor, who persuaded me that it would be a good thing for the farmers, as well as a good investment. I was induced to subscribe some stock in the company. I now think the stock is of very little value, and do not want to put my money into it. Can the company compel me to pay the amount subscribed, or is there any way to avoid payment? Durham Co., Ont. EXPERIENCE.

Ans.—Going upon the statement of facts submitted, alone, we have to say that the company is probably in a position to legally compel you to carry out your contract, and that there appears to be no way by which you may avoid doing so.

EMPLOYMENT AND DISMISSAL OF TEACHER.

1. Can trustees of a rural public school in Ontario employ a teacher who is not legally qualified and does not hold any certificate?
2. Would the trustees be personally liable for the services of such teacher?
3. Would the trustees be liable for neglect of duty under the Public School Act, for engaging such teacher?
4. What would be necessary for the ratepayers to do in order to have such teacher dismissed?

Addington Co., Ont.
RATEPAYER.

Ans.—1. We consider that they would be acting in disregard of the Public Schools Act (1, Edw. VII., Chap. 39, Sec. 65, S.-S. 5, and Sec. 2, S.-S. 1) in so doing. Section 65 (5) makes it a duty of the trustees to determine the teachers to be employed, and expressly empowers them to do so. But by Section 2 (1) "teacher" is to be interpreted to mean any person holding a legal certificate of qualification; and inferentially the trustees must make their selection from such teachers.

2. Probably not.
3. The trustees would be personally responsible for the amount of any school moneys forfeited or lost to the school section in consequence of neglect of duty on their part during their continuance in office.
4. We do not see that the ratepayers are in a position to bring about such dismissal. Certainly they cannot do so otherwise than through the trustees for the time being.

CATTLE ON RAPE.

Is it better to let cattle feed on rape continuously, or for only a few hours at a time? When kept continuously on rape, are cattle better with or without access to water? Is the danger from bloating greater during hot than during cool weather? Is the danger increased by heavy frost or light snow on the plants in the late fall?

Bruce Co., Ont.
A. McK.

Ans.—Rape comes into use for pasture after the stock have been for some time on hard grass, and if they are put upon the rape suddenly, or when it is wet, and allowed to eat all they will, bloating is liable to result. The best time to introduce rape to the stock is upon a dry day, after they have had considerable other feed. They may be left on the rape for a few hours a day until they become accustomed to it. The tendency to bloat is always increased when the rape is wet from rain, dew, frost or snow. The cattle should have access to water, but it is hardly likely they will drink much. Salt also should be available.

ARCHITECTURAL COURSE OF STUDY.

What course of study must a person take before becoming a qualified architect? Is there a book on architecture; if so, what is the price?

1. C.
Huron Co., Ont.

Ans.—When a person has spent five years of work in an architect's office he is considered qualified to do architectural work. Most of our young men spend a year or two in the larger offices of New York, Chicago, or other American cities, before beginning business independently. You would do well to consult a local man as to details of the business. The books on the subject are very diversified, there being no one we know of that we could recommend unless we knew what particular branch you wish to study. Consult a local man in this matter also.

CURING PORK—WEIGHT BY MEASUREMENT.

Please give a recipe for curing green pork in warm weather. I notice a rule given for determining the weight of cattle by measurement, in March 2nd number. Does it give the live-weight or dressed carcass? What is meant by diameter?

Lincoln Co., Ont.
A. W. M.

1. See elsewhere in this issue.
2. Live-weight.
3. A straight line through the center of a plain figure or solid, terminating at the boundaries thereof. The diameter of a circle can be found by dividing the circumference by 3 1-7.

TENANT REMOVING FIXTURES.

The landlord not being willing to build a pigpen, and my lease having nearly expired, how could I build one so that when I move I could take it down or sell it?

Durham Co., Ont.
SUBSCRIBER.

Ans.—Your lease, if in the ordinary "statutory short form," probably provides that you may remove your fixtures. But in any event, you can no doubt contrive to so build the proposed pen that it will be removable without injury to the freehold—that is to say, to the land or to permanent buildings, or other erections fixed or attached to the land; and if you so build you can legally remove the structure, provided you do so before the end of your term and occasion no damage, such as mentioned.

UP-TO-DATE STALLS WANTED.

There is considerable barn building in this locality this year. Anything new, or up-to-date in cow stalls or horse stalls will be appreciated by "Advocate" readers.

J. B. POOLE.
Wentworth Co., Ont.

AN UNPAID LEGATEE.

I am very grateful for your prompt and thorough reply to my legal questions. I enclose them herewith, and make bold to further seek the wisdom of your legal adviser in a few more on the same subject. For his further information, perhaps, I should say that the extract of the will enclosed is all that relates to C., except that after the word equivalent, it goes on to state, "But if my brother D. do give or cause to be given the fifty acres to C., then all he (C.) shall receive shall be \$50." When C. was twenty-five years old he rented D.'s farm, at the same time obtaining from him a written (lawyer's) agreement, to the effect that so long as C. remained on the farm working it, D. would be bound to leave him the farm at his demise. From domestic troubles, C. found it impossible to continue working the place, and so the agreement was destroyed.

1. Could this circumstance be made the basis of a legal claim by B., that D. has given the farm to C.? A. died when C. (the youngest) was 11 years old, and another member of the family, also a minor. On reaching majority the latter, with the other members (a son and the mother), signed an instrument binding themselves to abide by the conditions of the will relating to them. C. has never done so.

2. (a) Can he enter a successful claim as heir at law, and (b) in event of division of the property, on what basis (in respect of time) would it be divided, and (c) what proportion of that valuation would be his, the other son and mother having since died, after receiving their portion as under the will, as has also the other living member, having given B. a quit claim on the estate to that effect? The other brother died thirteen years ago, leaving the interest on a part of his personal property (in a verbal will) to the mother—at her death the principal to go to C. The money was paid to C. by B. at the mother's death, three years ago. The rest of the brother's property at his death was turned over by B., as per the brother's request, to the other living member of the family.

3. Can B. now set up a legal claim (as an heir at law) to any of the property, he having acted as administrator of this verbal will?

4. Can C. claim under A.'s will, and also as an heir?

Perth Co., Ont.
X. Y.

Ans.—We would answer all four questions in the negative.

FEEDING HOGS SALT—CUTTING POPLAR TREES.

1. Is salt good for hogs, and if so in what quantity. I read in an English farm paper that the hog did not need salt, and, in fact, that there was a danger of killing him with it. I have, however, just finished a bunch of twelve, which were fed at least one-half gallon of salt per week, and which never seemed to thrive better, weighing 195 pounds at six months.

2. Have a number of poplar trees, ten inches at base, and about 35 feet high. Would like to cut the top as low down as possible without killing them. What height would you advise cutting them, and at what time of the year?

Bruce Co., Ont.
G. McD.

Ans.—1. Yes; hogs need salt, especially if they are fed largely upon grain. Mix the salt with an equal amount of wood ashes for best results.

2. You may cut your trees as low down as you wish. By cutting right at the surface of the ground the young suckers will form new roots, and will not depend upon the old stump for connection with the ground. Try and have a slanting cut on the stump, so that it will turn the water off, and thus prevent rot before the new growth is well established. Cut any time when the tree is dormant. In cold districts the latter part of winter or early spring is a good time.

EMPTY HIVE AND OTHER QUERIES.

1. On opening one of my hives I found no bees, neither living or dead. There was considerable honey, and also a mouse's nest in the bottom. Could you tell me what became of the bees; did they desert, or would the mouse eat them?

2. In summer is it better to have bees on ground with board in under, or in elevated position?

3. Is there any way to prevent mice getting in?

4. Where can I obtain foundations for hives?

Peel Co.
J. F. M.

Ans.—1. The odor and disturbance of the mouse may have caused the bees to desert the hive, or they may have been affected with dysentery and run out of the hive to die. In the latter case there would be a considerable soiling of combs and hive. Mice do not, as a rule, eat bees without leaving scraps of the insects to tell the tale.

2. They should be elevated four to six inches from the ground.

3. Yes. Have no opening more than three-eighths inch wide. It may be any length.

4. Comb foundation can be obtained from any dealer in beekeepers' supplies. Such would do well to advertise in the "Farmer's Advocate."

STUBBLE SHEARING.

What is meant by stubble shearing of sheep? Grey Co., Ont.
J. R. E.

Ans.—See letters on early shearing in this issue. Stubble shearing means leaving an inch or more of the old wool for the purpose of making the sheep look larger when the showing or selling season arrives. The practice is sometimes carried to ridiculous extremes, nearly one-half the length of wool being left on certain places to hide defects in the formation, the intention evidently being to deceive judges and buyers. A competent judge, however, is apt to consider it a confession of weakness, and will not be deceived by it, as the dry and dead appearance of the old wool is quite apparent, and only leads to a more critical examination for discovery of the failing attempted to be covered up. It is probable that in not a few cases prizes have been lost owing to the suspicion or prejudice created by this practice. The best condition of fleece is secured by close shearing.

A HORSE TRADE.

A. came to B. and wanted to trade horses. Said his horse was too slow, and wanted B.'s fast one; said his horse was eight years old; wanted to know how old B.'s was. B. said ten or eleven. A. examined B.'s horse and said he thought he was about ten years old. A. said if you like I'll give you an even trade. B. said, pull off your harness, and they traded. In a week A. found out the horse he got was near twenty years old, and A. went to B. and demanded his horse back again. Can he take the horse or come on B. for damages? B. knew at the time of trading that his horse was near twenty years old.

Algoma, Ont.
HORSE TRADER.

Ans.—His proper course would be to sue for damages for the misrepresentation.

U. S. EXPERIMENT STATION REPORTS—PROFITS ON TURKEYS—TIMOTHY SEED YIELDS.

1. Will the Agricultural Colleges of the United States send reports of their experimental farm work free to Canadians for the asking? How should a letter be addressed to reach Cornell University and Columbia University, United States?

2. Can any of the subscribers who make turkey-raising a specialty, give figures to show profits on, say, a flock of one hundred?

3. What is a fair yield of timothy seed per acre?

Peterboro Co., Ont.
ROBT. GRAHAM.

Ans.—1. Most of them will. For Cornell University write Prof. I. P. Roberts, Ithaca, N. Y.; Columbia University, New York City, N. Y.

2. Will some of our turkey-raisers answer this question?

3. Fifteen bushels might be considered fair, but much higher yields have been reported. What say our readers?

ACCIDENT TO HORSE SOLD.

1. Is there any law in regard to auction sales, as to who is responsible for an animal after it has been knocked down to a person (it being customary for proprietor to take them out and into stable again)?

2. Should an animal break a leg, or be otherwise injured, who would be responsible, this being a credit sale?

Ont.
J. D. D.

Ans.—1. Yes; and the law upon the subject is tolerably clear, any difficulty regarding the matter being usually in respect of the facts.

2. The statement of case is not sufficient to enable us to form an opinion. In addition to the fact of an accident happening to the animal after it had been made the subject of a sale, upon terms of credit, there must be several more circumstances important to be considered in answering the question put.

BUYING AN UNSOUND HORSE.

Please let me know the law regarding the selling of a horse.

1. Does one hundred dollars (providing no guarantee is given) warrant it or not?

2. If a man buys it, and he finds it is not sound, can he return it, or has he to keep it and have no redress?

Ontario.
SUBSCRIBER.

Ans.—1. No.

2. Your statement of facts does not disclose any case for redress; and in the absence of a warranty, and of wilful misrepresentation on the part of the vendor, relied upon by the purchaser and material to be considered, it is improbable that the purchaser has any remedy.

BOOK FOR HORSEMEN.

Kindly advise me as to the best book, where it can be purchased and price, dealing with horses' diseases and their cure, and that also gives pointers in regard to them?

Bruce Co., Ont.
W. J. MUIR.

Ans.—See Feb. 16th issue, 1903, page 159, for review of "Veterinary notes for horse owners," by Capt. Hayes, price \$4. This work is especially strong regarding diseases and their treatment. Another work of a general character is "Horse Breeding," by Sanders, \$1.50. Both may be ordered through this office.

RAPE—FLORIDA VELVET BEAN—STRAW.

1. Would you kindly let me know through your paper the best time to sow rape? We are heavily stocked this year, and would like to sow earlier than usual.
2. Can you tell me anything about the Florida Velvet bean as a forage plant? Is it adapted to the country?
3. What is the value of straw to help out shortage, but mainly for manure to build up run-down land? Where clover hay can be bought cheap, would it pay to handle straw at any price?

Huron Co., Ont.

Ans.—1. Rape sown for pasture will usually reach a maximum growth in from eight to twelve weeks. It is usually sown after the season for planting corn, in order to furnish fall pasture for cattle and sheep, but where desired earlier, it can be safely sown as soon as the land warms up in the spring. To insure a continuous supply, it should be sown at intervals throughout the spring and early summer. When eaten down, if stock is removed for a time it will grow up again.

2. The Velvet bean is one of the new forage plants introduced into Florida from Brazil; it is naturally a tender plant, and we would not suppose it would be suitable in our country.

3. In this case straw has two distinct values. If it were wanted simply for feed, and clover hay could be had plentifully, the straw would be worth very little; but where its manurial value is a consideration, one can afford to pay considerably more for it. Generally speaking, the straw that is used for bedding, when mixed with the manure, has a value considerably above its market price. So then, when the value of straw as a food and its value as a manure are both considered, it is pretty safe to use sufficient to make the manure handle conveniently. The feeding value of clover hay practically prohibits its use as an absorbent in the manure, hence the necessity of using both straw and clover hay where they can be obtained.

ASSESSMENT OF VILLAGE FARMS.

By Sec. 12, Municipal Act, farm lands within corporations cannot be taxed for more than adjoining township rates, providing such towns to have been incorporated before 1866, which the village was. The farmers have applied to the village council for a reduction of their taxes. The council have met some of the farmers on the street and have offered them eleven mills, which they accepted, and even signed an agreement. Now they propose to offer the remainder as follows: Thirteen, fourteen, and even seventeen mills.

1. Can they legally grade us in that way, or can they be compelled to give us all one and the same rate?
2. Should they not have called a meeting of the farmers together? The township rate is 8 3-10 mills; village rate, 20 4-10 mills. The village contains 1,600 acres, with a population of about 900, there being something like 800 acres of farm lands or more.

Ans.—1. They cannot legally do what they propose.

2. They were not obliged to do that. The Act cited is not the one which regulates the matter. It is by Sec. 29 of the Assessment Act (R. S. O. 1897, Chap. 224), that special provision is made for the assessment of grounds used as farms, situate within the limits of cities, towns or villages, and not in immediate demand for building purposes.

BUTTER-FAT TO BUTTER.

1. What is meant by a pound of butter-fat?
2. At thirty cents a pound of butter-fat, how much would that be for a pound of butter?

Algoma, Ont. S. G. F.

Ans.—1. Butter-fat is the fat contained in milk or cream, and is the chief constituent of butter. As distinguished from butter, it is the pure fat, while butter is a combination of butter-fat and other solid constituents in milk. When cream is churned, there is always more butter made than the amount of fat calculated from the test. This increase of the butter over the test is called the overrun, and varies between ten and sixteen per cent.; that is, one hundred pounds of butter-fat, as determined by the Babcock test, will make from 110 to 116 pounds of butter.

2. At thirty cents per pound for butter-fat, the value of a pound of butter would depend on the overrun; if the overrun were ten per cent., butter would be worth thirty-three cents per pound.

BREACH OF WARRANTY.

I purchased at a fancy price a registered Tamworth sow, which was guaranteed to be bred to a pure-bred Tamworth boar. With the sow I received her pedigree. Her litter of pigs were all spotted with black. I intended to sell these pigs for breeding purposes. Am I entitled to any damages?

Ont.

Ans.—Yes, your action would be the remedy for damages for breach of warranty.

MANY QUERIES.

1. Pigs of all ages are continually rubbing and scratching, but have no lice.
2. A cow has a swollen udder; she is freshly calved and well fed.
3. Our chicken-pen is badly infested with red lice. What is the quickest way to get rid of them?
4. An old mare has very severe spells of coughing; she is kept in a stable under the barn.
5. A good driving mare was found one morning with a badly swollen leg, just above the hock, and in great pain. Please prescribe.

Huron Co.

OLD SUBSCRIBER.

Ans.—1. We feel pretty certain that the pigs have lice. Clean the pen out well and apply a good coat of whitewash to the walls, ceiling and floors. Keep the pen clean and dry, and rub or spray the hogs with fish oil or sheep dip.

2. The cow should have had immediate treatment. The udder should be poulticed, or frequently fomented with hot water; the milk drawn frequently, and the swollen part rubbed with iodine. Light feed should be given, and in severe cases the cow should be purged with two pounds of Epsom salts. A liniment consisting of alcohol, 3 fluidounces; turpentine, 2 fluidounces; spirits of ammonia, 1 ounce; gum camphor, 4 drams, in 1 pint of water, is good to rub on. If abscesses form they should be opened. Such cases require prompt attention.

3. Clean the house out well, and give it a thorough whitewashing. Put dust and ashes where the hens can use them; put a little sulphur in the nests.

4. It is hard to tell from the description given, but dampening her feed will probably give relief.

5. It is difficult to say from description whether your mare is suffering from a strain or lymphantitis. If the former, foment with hot water, and then apply a blister as follows: Cantharides pulv., 1 dram; adeps, 1 oz., and rest for as long as required. If lymphantitis, give horse a purgative ball according to size of horse, and apply white lotion to the leg three times daily, after which give gentle exercise and careful feeding when not at work. White lotion: Lead acetate, 1 dram; zinc sulphate, $\frac{1}{4}$ dram; aqua, 1 pint. Make into lotion. Ball: Aloes barsb., 8 drams; Fl. ext. belladonna, $\frac{1}{2}$ dram; molasses, sufficient to make a ball.

QUACK GRASS.

Will you, or some of your readers, give me some scheme to clean a field of quack grass. I have summer-fallowed it, by first plowing and afterwards using the gang and cultivator at intervals, then sowed to fall wheat. The first crop is generally heavy and clean, but the following crops are full of the grass. Would you advise sowing buckwheat? The land is heavy clay.

Ontario Co. J. B. W.

Ans.—If you would follow the wheat crop with good cultivation all fall, leaving the land during winter in ridges exposed to the frost, and then sow to roots, corn, or rape, it would give the grass a greater check; or if you seeded the wheat with clover and worked the land up well after the first crop, then put the field to a hoed crop, it would answer well. We see no advantage in growing buckwheat. The object is to prevent the plants seeding, or, in fact, to prevent them forming any green stems, which make food available for the roots to grow and propagate. The weed is very difficult to eradicate in a wet season, therefore use the dry times to the best advantage.

LEAKY TEAT IN HEIFER.

Two-year-old heifer just calved, leaks milk from a hole in the side of the teat. This hole seems as natural, and very like the one in end of teat. Can anything be done to stop the leakage?

Prince Edward Co. J. F.

Ans.—Nothing can be done while the heifer is milking, but when dry again, the hole might be scarified and painted with flexible collodion, but such cases, unless too troublesome, are best treated on the principle, "let alone."

SOFT-SHELLED EGGS.

I have a Pekin duck which lays soft-shelled eggs. She is young, and in good condition, has full access to ditch and other water.

Middlesex Co. A SUBSCRIBER.

Ans.—The trouble may be due to one of several causes—lack of lime, over-fat condition or general debility. Remedy the first two conditions by giving access to grit, shells, old plaster, etc., and reduce the feed if she is over-fat. If neither of these conditions are responsible for the trouble, separate her from the male, make her comfortable, feed strengthening food, containing plenty of vegetable matter. Probably a combination of unfavorable conditions have caused the complaint—combine the remedies.

DRYING UP A COW.

I have a cow which I wish to fatten; is giving a good supply of milk. Please tell me how you can dry her up in the shortest time possible?

Oxford County. A. B. McK.

Ans.—Feed her on timothy hay, chaff and a little ensilage or roots. Milk her just as seldom as possible, leaving some milk in her udder. Most authorities say "the way to dry a cow up is to stop milking her."

CROPS FOR MUCK AND GRAVEL.

I have a seven-acre lot of low ground, pure muck down to rock or hardpan. What is the most profitable crop to raise on it?

2. Also a piece of very light poor gravel, close to rock, that has raised buckwheat until run out. What is best to do with it?

Leeds Co., Ont. M. G. B.

Ans.—1. A muck bed is generally excessively rich in nitrogen and deficient in other essential elements. It is necessary, therefore, to give such soils a special manure or fertilizer, consisting of potash and phosphoric acid. These may be got by applying kainite and superphosphate (commercial fertilizers). If there is a sourness in the muck, lime will improve it (see another query). When wood ashes can be had, these may be used in place of kainite; in fact, they should always be used on the farm. The purchased superphosphate is the best source of phosphoric acid. When the land has been thus manured, the best crops to grow will be potatoes, roots, corn, and oats might be tried; also, if hogs are kept, artichokes might be profitably grown on part of the plot.

2. The gravel field needs plenty of manure, frequently applied; plow down a green crop frequently, do not plow deeply. When the land is got into fair tilth, try alfalfa, if the rock is not too close to the surface.

FORAGE CROPS—LIME.

1. Would you please let me know what would be the best crop to sow for cow pasture on a hillside, of about three acres? The hill is so steep that it is difficult to harvest a crop. Would sand vetches do well in South Grey? What crop would you recommend?

2. How many bushels of lime per acre is needed on a sour soil?

Grey Co., Ont. C. S.

Ans.—1. For permanent pasture we would recommend sowing alfalfa. It may be difficult to get it started on a hill, such as you have, but by persistent effort it could be accomplished. In this case we would sow oats as a nurse crop, and mow them for feed, having them all cut before they begin to ripen. If late summer feed is required, half the plot might be sown to corn or rape, and the seeding of alfalfa left over for another year. Sand vetches would probably grow, but they are a difficult crop to grow, requiring considerable cultivation.

2. In the Old Country, where lime is much used, from forty to sixty bushels per acre are applied. The lime is put in small heaps, about six yards apart, and covered with the damp earth, when it is slacked it is spread evenly over the land and harrowed in. There are so many degrees of acidity that it is difficult to say exactly the amount of lime to use. Experiment a little.

KILLING SOW THISTLE.

Could you let me know the most effectual way to kill sow thistle? I have quite a lot of it, and don't know how to get rid of it. Will land salt kill it? I have been told it will, and others say a hoed crop will fix it.

Wellington Co. C. W.

Ans.—You have got a bad weed, if it is the perennial variety, and you must study the nature of it, so that you will know just when to act. Your object should be to prevent the weed producing leaves, as it is the green part of a plant that elaborates the food for the roots. Summer-fallowing and hoed crops check its growth, but the cultivation must be thorough. The ground must be frequently stirred to bring the roots to the surface to rot or wither. One season's operations will not kill it; you must be persistent. Salt sufficient to kill the thistle would destroy other vegetation. Spraying with copper sulphate, as for mustard, has been recommended, but has not been extensively used on sow thistle. You might do well to try it; it will do the crops no harm.

VALUE OF RED-TOP AND BLUE-JOINT.

1. Give your opinion of red-top and blue-joint (wild hay) as feed for horses and cattle. What price would you pay for each, if well-cured timothy is say \$10.00 per ton? 2. What age should a sow reach before breeding?

Muskoka. W. P.

Ans.—1. The value of these grasses for feed is always increased if they are mixed together or with timothy or clover. When timothy hay sells for \$10, from \$6 to \$7 would be a good price to pay for the other grasses. Their chief value is for pasture.

2. When she is from six to eight months old, according to size.

BREEDING OF BULL.

Please inform me through your valuable paper the sire and the grandsire of the Shorthorn bull, Sir Oliver 2nd =26554=, on the bull's side, or if he is in any way related to Royal Sailor.

Wellington Co., Ont. T. R.

Ans.—Sir Oliver 2nd =26554=, was got by Donald D. =22605=; he by Clipper King =16293=, and he by Imp. Sussex =6438=. Sir Oliver 2nd is, therefore, not related to Imp. Royal Sailor =18959=, who was sired by Sea King [61769]; dam Red Lady, by William of Orange.

WEIGHT BY MEASUREMENT.

I find an answer to W. J. H. Huron's "Weight of Cattle by Measurement," which does not seem to work out right, or perhaps I do not understand it right. Could you give me an example or two, and make it more plain?
Glenarry Co., Ont.

Ans.—The rule given is one that was formerly used in the Old Country before scales came generally in use. It is only an approximation, however, and in some cases not that. To show the method of applying the rule, take, for example, an animal that girths seven feet and measures six feet in length. The feet are first reduced to inches. The animal's body is then considered as a cylinder, and we want to find its cubical contents. We first take the circumference and divide it by twenty-two sevenths; this will give the diameter, which, in this case, is 24.9 inches (for convenience say 25 inches). This is then squared— $25 \times 25 = 625$ inches. Multiply this by .7854, and we get the area of the end of the cylinder, \times the area by the length (84 inches) and we get the cubical contents, \div this by 576 to get the number of imperial stones, and multiply by 14 to get the weight in pounds = 999.6. Since giving the rule in our March 2nd issue, another and more simple rule has come to our notice. Whether it is more accurate or not we cannot tell, but we publish it, trusting it will be interesting to our readers. Multiply the girth in inches, immediately behind the shoulder, by the length (as taken in the other rule) in inches, and divide by 144. If the girth is from 3 to 5 feet, multiply by 16; if from 5 to 7 feet, multiply by 23; if from 7 to 9 feet, multiply by 31 to get the number of pounds live weight.

CONDENSED MILK.

1. Where patrons furnish milk to a milk-condensing factory, are they paid according to test; if not, what is the minimum test?

2. Would a herd of pure Holsteins keep up the butter-fat content?

3. Which has been found the most profitable, to raise a few heifer calves or to buy in fresh cows?

4. What does it cost to raise a heifer calf, in cases where the farmer has not got a separator?

Ans.—1. See March 15th issue, 1902.
2. It would depend entirely on the individuals of the herd. Some of the cows of this breed give milk that tests quite high, while others do not do as well; on an average they would, most probably, keep the test above the minimum.
3. It all depends on circumstances. Where milk is in great demand, as in certain parts of Ontario, calves are not raised. In other parts it is found to be a profitable business to raise heifers for the intensive dairy districts. We do not commend the practice of destroying the heifer calves of a dairy herd, and think some arrangements should be made to raise them.
4. The question has not been reduced to a financial basis that would apply in all parts of Canada. The different uses to which the milk or other feed can be put, and the returns from such uses are so variable that the question cannot be answered in dollars and cents.

SOWING TURNIPS—PASTURING ALSIKE.

1. Which plan of sowing turnips will give the largest yield, sowing in drills or on the flat? Land is a rich clay loam, and will be manured in the spring?

2. Does the rule in March 2nd issue apply to live or dead cattle?

3. Is it better to pasture alsike or cut it before letting it go to seed, to prevent too great length of straw?

4. How much oat chop and bran should be fed to a four-months-old calf?

Ans.—1. Sowing in drills is generally more satisfactory, but as much depends upon the rainfall and the preparation and cultivation of the land, sowing in drills alone will not insure a good crop.
2. Live weight.
3. By cutting with the mower the second growth is given a more even start, and, consequently, will ripen more evenly. Alsike is quite frequently pastured, however, where there is a scarcity of grass for the stock.
4. About one pint, equal parts, twice per day.

SIZE OF WATER PIPE.

Will a three-quarter inch iron pipe run the water from a spring to a yard 80 rods away, with a fall of about 15 feet, without choking, supposing it first falls 25 feet and then rises 10 feet, or will it be necessary to use a hydraulic ram? Will it freeze if the pipes are not buried below the usual depth of frost?
Ont.

Ans.—Yes; the water will rise to the level of its head. There is not much danger of running water freezing in pipes quite near the surface, but it is better to be on the safe side; say 2 1/2 to 3 feet deep.

CRIMSON CLOVER.

Would crimson clover sown on June 1st make sufficient growth to plow under before sowing to wheat? If not, what would be best to sow? The land is in fair condition.
Oxford Co., Ont.

Ans.—Yes. By sowing peas with the clover better results might be expected.

HARROWS.

I have to harrow among small stumps of birch, poplar and the like of recently-cleared rocky land, some dead and some green yet. Which kind of a harrow would you advise for that purpose, spring harrow, disk harrow, or straight-tooth harrow, and where do you believe I could get a good one?
Cameron Township.

Ans.—The straight-toothed harrow would be most suitable for the purpose. If you could get the V-shaped article that we in Old Ontario used in our pioneer days, it would serve the purpose well. You had better get a set of iron harrows from one of the firms advertising in this paper. For work among the stumps you can use one or two of the sections.

CEMENT IN FOUNDATION.

1. I intend putting a foundation under my barn. The bottom will be of stonework, with eight feet of brick between the stone and sills. Would it be better to use cement in the stonework, or a mixture of lime and cement? Does cement set without watering when in a wall 22 inches thick?

2. Would it be better to have an arched roof on root house or a flat one?
Huron Co., Ont.

Ans.—1. Use all cement with coarse sand and gravel. It will set of itself.

2. An arched roof would be strongest, but flat roofs are made that will bear any reasonable weight. We have in mind a roof over a coal bin that carries a three-thousand-pound load, with no other support than 4 x 4 scantling and light cross-beams.

WIREWORMS.

We have a field that was badly infested with wireworms last year, part of the crop being entirely destroyed. What treatment should it receive in order to destroy them?
York Co., Ont.

Ans.—The best remedy for wireworms is to cultivate the land frequently. The larvæ (grub stage) of wireworms requires two or three years to mature, and this time is most generally passed in sod land. If, therefore, the sod is plowed in the fall the frost destroys the immature grubs. The mature beetle may also be destroyed by late summer and fall plowing. The larva goes into its pupa-case in late summer, and most generally emerges the following spring. By plowing and exposing the dormant beetle to the weather the pest can be materially checked. After the wireworms have begun to work there seems to be no remedy for them. All kinds of poison and chemicals have been tried, but the wireworm is as tough as its name. In small areas, however, corn meal poisoned with Paris green and placed in small piles about the field sometimes reduces their numbers. The adult stage is the familiar chick beetle. If the field has not been fall plowed a good chance to check the worms has been missed, although they probably will not be as bad in that particular field this year. In future, other fields must not be left to sod more than two seasons, and then fall plowed, if possible.

EGG PRESERVATIVE.

Which is the better way to keep eggs—from the time they are plentiful until the winter, so that we may get good market—is cold-storage or pickling best? If cold-storage, how is it done? If pickled, what kind and how is it made? We think there is a glycerine pickle; is it expensive?
Cape Breton Island.

Ans.—Cold-storage, either by means of ice or by a refrigerator machine, will preserve eggs, but is rather expensive, if one has to build the plant. In some of the larger cities, eggs are kept this way for one cent per dozen for the summer. Pickling is, perhaps, a cheaper way to keep eggs over summer. The best pickle we know of is that made of water-glass solution. Water-glass, or sodium silicate, is for sale at any drug store, in a semi-fluid condition. This is mixed with twenty parts water, and poured over the eggs until the top layer is covered. The eggs are left in this solution until they are required for market. Barrels cut in halves make good casks for storing. When buying in large quantities, water-glass should be had for about \$2.50 to \$3 per cwt. Eggs preserved in the "Glycerine Pickle" returned eighty per cent. bad at the end of a season, where the experiment was tried.

NOTES AND NEWS.

The Wellington Field Naturalists' Club reports red-winged blackbirds, white-rumped shrikes, phobes and winter wrens as having arrived before March 26th, and flocks of Canadian geese were on that day seen flying northwards. The red-winged blackbirds are later by ten days than last year, the white-rumped shrikes earlier by two days, the phobes by a day, the winter wrens by eleven days, and the Canadian geese by twelve days. Shepherd's-purse and moosewood were found flowering on the same date.

Fairs Association Meeting.

At a meeting held in Ottawa, March 10th, of delegates from all the counties in the Ottawa Valley, it was decided to leave the matter of arranging the dates and judges of the fairs in the Ottawa Valley in the hands of Mr. G. C. Creelman.

Prof. Shutt's Report on Tree Plugging Process.

The owner of the apple tree referred to in the article entitled "Foolish and Wasteful," on page 319 of this issue, desiring that the stuff should be tested, removed the plug and contents, as put in by the agent, a sample of which we sent to Prof. Shutt, Chemist at the Dominion Experimental Farms. It was found to be simply a mixture of sulphur and charcoal, with a few fragments of wood, evidently made by the auger that bored the hole. A quantitative analysis gave the following result: sulphur, 94.3; charcoal, containing a little ash, etc., 5.7; total, 100. Prof. Shutt writes us that such a mixture could not be of the slightest possible value in protecting the tree against the ravages of insects and fungi, nor in stimulating the growth as claimed by the promoter. It would be absolutely inert and inactive, simply remaining in the tree where put, and incapable of entering the sap circulation. Such methods are frequently exploited and sold to people who wish to save themselves the trouble of spraying. They are all of the same general character. One called the "Royal Insect Destroyer," promoted by a party in Roanoke, Va., is reported to contain a mixture of gunpowder, sulphur, copperas and saltpetre. On the principle of the scheme, Prof. Shutt adds that it is extremely improbable if any chemical could thus be introduced into the sap circulation, and entirely out of the question with such insoluble substances as sulphur and charcoal. Further, if it were possible, there is no doubt but that a quantity sufficient to deter insects and fungi from attacking the fruit and leaves would materially affect the health of the tree, and, in all probability, cause its death.

Shire Horse Show in London.

The last week in February and the first two weeks in March saw remarkable activity in the horse business in Old London. The interest began with the annual Shire Horse Show. The entries, though fairly satisfactory, were not as large as in recent previous years, but the quality of the exhibit was well maintained. A remarkable feature in connection with the Shire horse is his popularity with the rich classes, among whom his breeding is followed as a hobby, a pastime and, in some instances, as a profitable occupation. This feature made itself manifest this year in the conspicuous absence of farmers' names from the catalogues and prize lists. This, however, does not decrease the popularity of the Shire with the farmers. The championship in the stallion classes again fell to Stroxton Tom, Messrs. Forshaw & Sons' eleven-year-old horse, who was winner of the same honor last year. His reserve this year was the three-year-old Birdsell Menestrel, same owners. When the females had finished their contest, Lord Rothschild's Solace, nine years old, by Lord Arthur; dam Madame Albani, by Prince William, was in possession of the Gold Challenge Cup and champion cup for the best mare, her stable companion, Guilder Rose, standing as her reserve. The gold medal which is presented to the breeder of the championship mare thus fell to His Majesty the King, who received the token from the president of the Shire Horse Society amid the wildest enthusiasm.

Gas Lime on Land.

To the Editor "Farmer's Advocate"
Sir,—In your issue of February 2nd, I noticed an article on the use of gas lime on land. I might state that I have made several trials of it and had beneficial results on clay soil. We can obtain all we wish of the stuff merely for the drawing away. We usually haul it in winter, and spread it out of the sleighs on the plowed ground on top of the snow at the rate of two team loads to the acre, or, more accurately speaking, about four tons per acre, which I consider sufficient. We found it loosened our clay soil considerably and left its effects for a length of time after application. Care must be taken to mix it in well with the soil so as not to have too much in any one spot.
Laval Co., P. Q.

Fruit Regulations Appreciated.

The aggressive work of the Dominion Department of Agriculture on behalf of the fruit industry is exciting considerable interest and comment in Great Britain. At a recent meeting of the National Federation of Fruiteers, at Birmingham, Mr. Geo. Patterson, of Liverpool, who visited Canada last fall, endorsed the Government for its policy, especially in passing the Fruit Marks Act, and also for the practical instruction given to growers by the officers of the Fruit Division. The Federation ordered that the letters received by the secretary from Mr. Mackinnon, Chief of the Fruit Division, Ottawa, on trade matters, be printed and copies distributed among the various secretaries, and that a vote of thanks be extended to Mr. Mackinnon for his communications.

Death of Charles Fishbeck.

Readers of the "Farmer's Advocate" who were privileged to know him will regret the announcement of the death, from paralysis, on March 21st, of Judge Charles Fishbeck, of Howell, Michigan, a prominent breeder of Shorthorn cattle, who had visited Canada two or three times a year in the last five years, making purchases at public sales and by private treaty. In 1888, he was elected Judge of Probate for his district and re-elected in 1892. He leaves a large estate to his widow and his only daughter.

The Ninth Horse Show and Military Tournament.

The prize list of the ninth Canadian Horse Show have already been distributed. The fewer events in the heavy draft classes will detract a little from the interest of the show, but the classes for the best draft pairs and singles have been retained, also the class for pairs sired by a registered Clydesdale stallion is listed. These being among the most popular classes at previous shows, the public will be pleased to see them retained. In pure-breds, there are classes for Thoroughbred stallion, Carriage or Coach stallions, Standard-bred stallions, and Hackney stallions and mares. In most of the classes, including the pure-breds and excepting sweepstakes, three places will receive money. The special classes are expected to bring out goodly numbers. Remember the dates, April 29th and 30th and May 1st and 2nd.

Eastern Ontario Good Roads Association.

The second annual convention of the Eastern Ontario Good Roads Association was held in Ottawa, March 12th and 13th. While the attendance was not large, there were delegates present from every county in the Ottawa Valley, and also a few from Central and Western Ontario. What was better than a large attendance was an unusual interest in every meeting and an evident enthusiasm from the president and secretary down to the farmer who dropped in from the market. A great many of the delegates were either county or township councillors, men well posted on the kind of work which had been done in their districts and the particular needs of the people. The work of the Association extends over a period of but two years. During that time it has been successful in commuting statute labor in quite a number of the townships in Eastern Ontario, and, without exception, the change in the system has been both popular and advantageous. The fact that several other townships are this year abolishing the system indicates that statute labor has served its time, and it is destined to go in the very near future. In the majority of cases, its utility has been exhausted.

During the past year, six sample stretches of stone road, averaging in length three-quarters of a mile, have been completed by the Good Roads Train. The cost of construction of these roads averaged about \$885.00 per mile, and this, considering the satisfaction they have given, is regarded as quite normal. Stone roads are quickly becoming popular in this part of the Province, where the abundance of suitable stone indicates that in a few years they will be vastly more common than at present. Bridge-building and the methods of building and the cost of cement culverts formed the topic for discussion at one of the forenoon sessions.

Arrangements are already well under way for the holding of a Dominion Good Roads convention in Ottawa next March. Every county in the Dominion is to be asked to send delegates, and it is expected to be the largest gathering ever held in the interest of improved highways.

Employees Banqueted.

On the 13th of March, the Frost Fence Co. entertained about sixty of their agents at their factory in Welland. The representatives were shown over the works and became familiar with the manufacture of all the different parts of the fence. In the evening, the entertainment took the nature of a banquet in the Opera House, where a splendid programme of music was furnished, a sumptuous repast served, and a good toast list disposed of. The company consider their efforts satisfactory in every respect, as their agents are more satisfied than ever that they are placing on the market a first-class fence.

Pure-bred Stock for British Guiana.

A few weeks ago, the Poultry Division of the Dominion Department of Agriculture shipped seven pure-bred Plymouth Rocks to the Government of British Guiana. Notice has since been received of their safe arrival. Another order has been received, this time for cattle, and there has just been shipped one pure-bred Shorthorn bull and three excellent Ayrshire Holstein heifers.

Eden Bank Creamery.

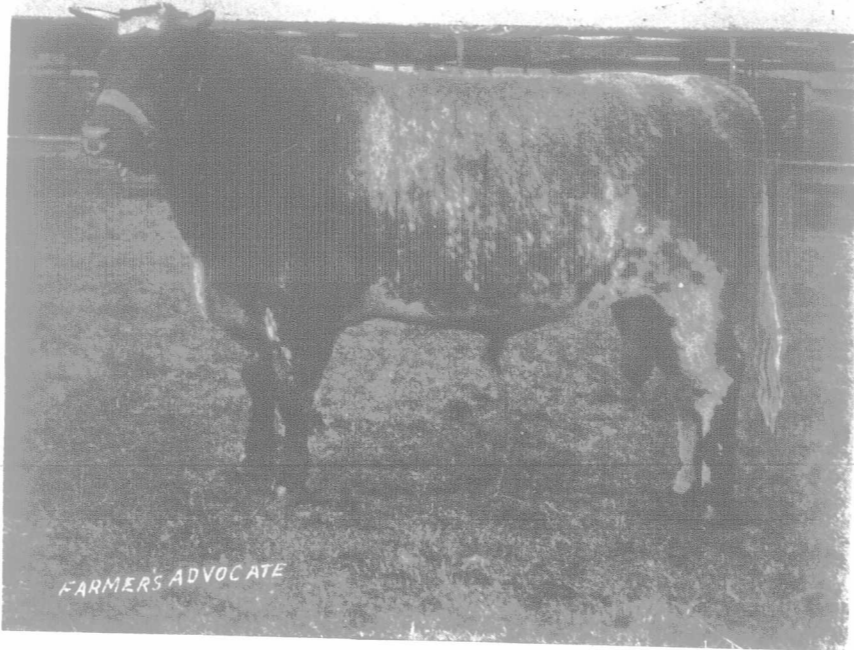
The report of the directors of the Eden Bank Creamery at Sardis, B. C., shows that the creamery received, during the last season, milk and cream testing 101,590 lbs. of butter-fat, which made 118,500 lbs. of butter. This butter sold for an average price (after deducting commissions and freight) of 24.72 cents per pound, an advance of 31 cent per pound over the average price of 1901.

Special Horse Judging Class.

The special horse-judging classes at Guelph, last month, arranged for Farmers' Institute workers and others, proved to be decidedly helpful to those attending. Prof. Reed, of the Agricultural College, directed the work and conducted the classes, and, through the liberality of the Canadian Horse Breeders' Association, the class enjoyed an address from Mr. Godfrey, Secretary of the American Hackney Horse Breeders' Association. Col. D. McCrea, of Guelph, also assisted Dr. Reed in the classes. Clydesdale and Thoroughbred horses were passed upon by the students, and, judging by the interest manifested, there is every reason to believe that these judging classes have served the purpose intended of them. The significance of type, style, action and other characteristics of the horse have been too little understood in the past, and it is hoped that the training received at these special courses will do much to remedy the evils resulting from such lack of knowledge in breeding operations. Interest is at least stimulated, and more thought will be given the subject in the future by all who come under the direct or indirect influence of the judging classes.

Extension of Markets Division.

Mr. W. W. Moore has been appointed Chief of the Extension of Markets Division of the Dominion Department of Agriculture. The work that has been carried on by Prof. Robertson, under this head, has grown so extensively of late that it has been considered wise to establish a separate division. Mr. Moore has been in the Department for a number of years. He visited South Africa in connection with the shipments of Canadian products there during the late war, and on his return had charge of all the shipping of supplies for the Imperial Government.



(Photo by G. H. Parsons.) **BREAK OF DAY (76217).**
Two-year-old Shorthorn bull. Winner of many prizes at principal English Shows.
THE PROPERTY OF MR. C. W. KELLOCK, AUDLEM, CHESHIRE.

The Ontario Veterinary College.

The closing exercises of the O. V. C., Toronto, took place on March 26th, with the Principal, Dr. Andrew Smith, presiding, supported on the platform by His Worship the Mayor; Dr. Rutherford, Chief Veterinary Inspector, Ottawa; Col. Lloyd, Newmarket; Dr. Cowan, Guelph; Dr. Brenton, Detroit, Mich.; Dr. J. F. Duncan; Professors Lang and Amyot, Toronto University, and Dr. King Smith. After a few introductory remarks by the principal, the mayor addressed the graduating class, numbering over 100, gathered from all parts of the world. His Worship congratulated Dr. Smith upon the position attained by the college. Dr. Duncan presented the prizes, and addresses were delivered by Prof. Lang, Col. Lloyd, Dr. Cowan, Dr. Brenton and Dr. Rutherford. The examiners spoke in high terms of the graduating class. Mr. F. B. Lambie, gold medalist, presented the principal with a large picture of the graduating class of 1903, and, with enthusiastic cheers for the King, Dr. Smith and the college, the proceedings closed.

The Cattle-guards Question.

Mr. E. A. Lancaster, M. P., of St. Catharines, Ont., has again introduced in the House of Commons his Cattle-guard Bill, the substance of which simply is to compel the railways to use a guard that will turn cattle. In other words, it makes the railway companies responsible for cattle killed on the tracks if they do not protect the highway crossings with proper guards. This is practically as the law used to be. He asked that Parliament itself pronounce upon the principle and not refer it to the Railway Commission, where it was blocked last session. Dr. Stewart, M. P., remarked that the committee was the guardian of bills of that sort. Pending the report of the famous Cattle-guards Commission, the bill was not to be mentioned.

South Perth, Ont.

This beautiful March weather is causing many to think that spring has come, and preparations for seeding are well under way. Some are getting their grain ground at the barn, others are taking it to the mill load after load, so that they will not have to drop work during seeding time to provide for the wants of the stock. Unfortunately, most of the farmers this year were caught napping. The snow disappeared sooner than they expected, and went without giving anyone a day's notice to get a load of chop by the sleigh. The roads are particularly bad here this spring. Whether it is due to less gravel being applied in consequence of the abolition of statute labor or whether to climatic conditions is not very clear, but certain it is that in many places the very middle of the roadway is a veritable slough, where the wheels of the passing vehicle go to the hubs. And there seems to be no particular conditions to account for this state of affairs. We have noticed it where the snow lay heavily, and also where the road was nearly bare all winter. In many cases, the sides of hills are the very worst, which one would think must surely have been well drained naturally. However, there seems to be one sure preventive of bad roads, and that is a good coat of gravel. Where such was applied, we notice the road is hard and dry. This would seem to be an effectual but very costly method of preventing spring heaving. Yet we can put up with bad roads in the spring, provided they are good for the rest of the year, which has been the case since the grader has been used so extensively, but it is a question whether the grader can ever do away with the need for large quantities of gravel.

This immediate neighborhood was at one time a large producer of alsike clover seed. It is said that bees were plentiful here then, but that they were removed, and the clover ceased to yield paying returns. Be that as it may, we recently saw a good paying crop of alsike threshed from a field near which the writer has located a large apiary, and many practical farmers have abundant faith in the "theory," which, by the way, with scientists, is not theory, but an established fact, that bees are essential to the development of alsike clover seed. Wheat and clover have come through in good condition, and reports from most beekeepers are that their colonies have wintered well.

There is considerable property changing hands this spring, and at the sales all kinds of live stock bring high prices. Good stockers go at 4c. to 6c. per lb. (more than they would bring on the Toronto market after being fitted up). Horses are "out of sight." Hogs always did sell well in this section of the country, but now they are away up. Hens, which a few years ago sold at 12c. to 15c. each, now bring 35c. to 40c. A by-law to grant exemption of taxes for ten years to the promoters of a cement factory was recently submitted to the ratepayers of the township of Blanshard and defeated by a small majority. Evidently, people are not much in favor of granting anything in the nature of a bonus or subsidy, even though they run the risk of losing a good business venture. J. H. B.

A Dominion Exhibition.

An order-in-council, approving of a grant of \$50,000 for a Dominion Exhibition at Toronto this year, has been passed at Ottawa. This, we presume, practically settles the question, and whatever opinions may be entertained as to the reasonableness or otherwise of undertaking to prepare for an adequate display of the Dominion products in the space of four or five months, a brave attempt should now be made to improve the time and appropriation to the best possible advantage in bringing together as good a display as possible under the circumstances in all lines of live stock, agricultural, horticultural and dairy products, and also of the products of our mines and forests, in order that visitors from other lands may be given some idea of the capabilities of the country. Dr. Orlando Orr, the new manager, announces that arrangements are being made for exhibits from the different Provinces, and that another special feature of the exhibition this year will be the display of many important processes of manufacture in all stages.

Spring Seed Fairs.

Spring seed fairs have been held in a few districts of Western Ontario for upwards of thirty years. The farmers in these districts find them very convenient, and would not think of doing without them. This spring has seen the inception of several new ones in the western part of Ontario, and several are also to be held in the Maritime Provinces, one in Quebec, and one in Eastern Ontario. G. H. Clark, Chief of Seed Division of the Dominion Department of Agriculture, has made arrangements to hold fairs at Woodstock, N. B., March 27th and 28th; Sussex, April 1st; Charlottetown, April 3rd; Truro, N. S., April 8th; Ottawa, April 11th, and Sherbrooke, Que., April 15th. The object of these fairs is to bring together farmers having seed grain or potatoes to sell and those who wish to purchase or exchange. Those having a supply of seed may bring it or a representative sample and exhibit it along with others. As an extra inducement to bring out pure seed, thoroughly cleaned, prizes are usually offered for the best samples (usually of at least one bushel) of leading varieties. Lectures and discussions on timely topics by leading growers or authorities on seeds usually occupy part of the afternoon or evening.

Choice Seeds for Testing.

The members of the Ontario Agricultural and Experimental Union are pleased to state that for 1903 they are prepared to distribute into every township of Ontario material for experiments with fodder crops, roots, grains, grasses, clovers and fertilizers.

Table with 3 columns: No., Experiments, Plots. Lists 30 different agricultural experiments and the number of plots allocated to each.

The size of each plot in each of the first twenty-six experiments is to be two rods long by one rod wide; in Nos. 27, 28 and 29, one rod square; and in No. 30, four rods square (one-tenth of an acre).

Each person in Ontario who wishes to join in the work may choose any one of the experiments for 1903, and apply for the same. The material will be furnished in the order in which the applications are received until the supply is exhausted.

Co-operation in Agricultural Implements.

The progress of co-operation among the husbandmen of Europe is well known. In Denmark, Belgium and other countries, a great part of the goods sold in the farming community are supplied through these societies.

Hackney Horse Show.

During the first week in March, the Hackney Breeders held their annual show in the Agricultural Hall, London, England. Interest has been developing in the Hackney horse during the last few years, and as a consequence the show was larger in every respect than ever before.

Seed Selection Competition.

To the Editor "Farmer's Advocate": As a competitor in the Macdonald Seed Grain Competition, and having observed certain advantages in the methods therein, I consider it my duty to emphasize the same.

MARKETS.

Toronto Markets.

The cattle market is showing some activity, and drovers report that were the roads in better condition more cattle would be delivered. Owing to light deliveries and better demand for butchers' cattle, trade was brisk and prices firmer.

Chicago Markets.

Chicago, March 30.—Cattle—Steady; good to prime steers, \$5 to \$5.50; poor to medium, \$3.80 to \$4.75; stockers and heifers, \$2.75 to \$4.75; cows, \$1.50 to \$4.50; heifers, \$2.50 to \$5.10; canners, \$1.50 to \$2.75; bulls, \$2.50 to \$4.50; calves, \$3.50 to \$6.75; Texas-fed steers, \$4 to \$4.50.

Buffalo Markets.

East Buffalo, March 30.—Cattle—Butcher grades, 10c. to 15c. higher; heavy about steady; stockers and feeders strong; prime steers, \$5.25 to \$5.40; shipping, \$5 to \$5.20; butchers', \$4.40 to \$4.90; heifers, \$3.75 to \$4.75; cows, \$3 to \$4.25; bulls, \$3 to \$4.25; feeders, \$4 to \$4.70; stockers, \$3.65 to \$4.30; stock heifers, \$3 to \$3.75; fresh cows and springers, good to strong, common steady; good to choice, \$45 to \$55; medium to good, \$30 to \$43; common, \$22 to \$28.

British Cattle Markets.

London, March 30.—American cattle, 6½d.; Canadian, 6½d.; Argentines, 5½d. to 6½d.; sheep, 6½d. to 7d.



And ev'ry bird and ev'ry tree,
And ev'ry opening flower,
Proclaim His glorious victory,
His resurrection power.
The folds are glad, the fields rejoice,
With vernal verdure spread;
The little hills lift up their voice,
And shout that Death is dead."
—Easter Hymn.

Amy's Birthday Flowers.

BY ELIZABETH M'CRACKEN.

Mrs. Dale's fingers trembled, and her lips trembled too, as she stood before her mirror, tying her bonnet strings and pinning her veil. Amy had usually tied her bonnet and pinned her veil.

It was almost a year since she had one day folded Amy's hands and slipped into them the last flowers that the ever would hold in the world, but she had not yet grown accustomed to doing for herself all the little things those once busy hands had done for her.

During the time that was almost a year she had missed Amy with that loneliness with which a mother does miss the daughter who goes away into the great, strange silence just when she is old enough to be her mother's friend as well as her child. Mrs. Dale missed all those things that had made up Amy's life, and, perhaps most, she missed the little things that Amy had done for her, and that now she did for herself.

Then, too, Amy had been her only daughter. Mrs. Dale's two sons were in college, and her husband was away from home all day. She had many interests, and many duties, too, yet she was very lonely. She was much more lonely without Amy than even her husband or her sons could know.

As she stood before the mirror, tying her bonnet strings and pinning her veil, her heart was even heavier than it usually was. The next day would be Amy's birthday, and instead of preparing gifts and surprises, Mrs. Dale was about to go into the city to buy the most beautiful flowers she could find to lay on the girl's grave. Amy had loved flowers, and the next day would be her first birthday in that, other world, that world in which mothers are never left lonely.

Mrs. Dale was thinking all this to herself as she went into the city on the trolley-car. It was September, and it was afternoon. The car went past fields beginning to turn brown, and between lines of trees beginning to show among their green sometimes a red leaf or a leaf of bright gold. The sun made the leaves all the brighter, and it gilded the brown fields, too, and made the trees cast long shadows. Amy had always been so glad that her birthday had fallen on one of the mystic days that come just before September slips into October.

Her mother thought of that, too. She thought of so many things about which Amy had been glad. She was a little less sad and lonely as she remembered some of them. She thought and remembered all the time that she was in the trolley-car, and even after she was in the city, and walking along the crowded street to a florist's shop on one of its corners.

When she reached the florist's shop she stopped, and stood looking at the flowers in the shop windows.

"What shall I get?" she said to herself. "Roses, white roses; Amy always loved them. Or violets—it is rather early for violets, though. Or lilies—I might get lilies."

For a moment she almost forgot that she was not buying them to give into Amy's eager hands. She was not very rich, and she began to consider. She compared in her mind the number of roses with the number of lilies that she might get. She decided upon the roses.

"They are sweeter and simpler to a young girl like Amy," she said to herself.

She turned away from the shop windows, and was just about to open the door to go when she saw coming up the street toward her Amy's girl friends. She paused and waited. Mrs. Dale always had been very friendly with the girls, and they had even a greater interest in them. She had especially liked Eleanor Greer.

The girl was coming so rapidly up the street that she would have passed the florist's shop without seeing Mrs. Dale if that lady had not spoken to her.

"My dear Eleanor, you certainly are in a hurry," she said.

Eleanor came to a sudden stop. "O Mrs. Dale, dear Mrs. Dale, I am so glad to see you!" She took Mrs. Dale's hand and held it for a moment. Eleanor

had loved Amy, and she, too, had been lonely without her. She, too, remembered that the next day would have been Amy's birthday. She said not a word, but she held Mrs. Dale's hand very closely, and looked into her eyes; and Amy's mother understood the unspoken sympathy.

"How are you, my dear child?" was all that she said, for she did not yet speak very often of the daughter who had died.

"I am very well," Eleanor said, "and very busy. I read the history of music and teach children music, and I study music and practise music—just as usual, dear Mrs. Dale." She smiled, just a little wistfully, Mrs. Dale thought.

Prompted by the thought, she asked gently, "And are you happy, Eleanor, dear?"

Eleanor hesitated for an instant, and then she smiled again and said, "Yes—usually I am. Just at present I am sighing for the luxuries of life."

Mrs. Dale was relieved. She knew that Eleanor was too sensible to sigh very long for anything. "What do you mean by the luxuries of life, dear?" she asked.

"Now really, Mrs. Dale!" Eleanor protested brightly; then, with more color in her face, she added, "Just now they are the eight concerts that the Beethoven Society is going to give."

Mrs. Dale smiled in sympathy. "They are certainly the greatest of luxuries to music lovers," she agreed.

"And to music teachers who must spend their money for—other things," Eleanor added, with a laugh. "Please don't think I'm really unhappy because I can't afford to go, Mrs. Dale. I'm not; I'm just croaking a little. It's such a help to any one to hear good music—especially to a music teacher—and such a joy! But I'm not unhappy about it; I'm glad I can do other things. I don't feel a bit like croaking any more since I've seen you!"

"You dear child!" exclaimed Mrs. Dale, warmly. She knew that most of the things that Eleanor did were done for other persons, and done willingly and bravely. "You dear child!" she repeated.

Eleanor pressed her hand closely. "I must fly to my next pupil, Mrs. Dale. May I come to see you to-morrow—perhaps late in the afternoon?" she whispered.

The quick tears came into Amy's mother's eyes. "Yes, do!" she said. "Good-bye, my dear!"

Eleanor sped up the street to her next pupil, and Mrs. Dale turned to enter the florist's shop and buy the white roses.

"Eleanor is a dear, good child," she thought, "so brave and unselfish! It is a pity she can't go to those concerts. They would give her such help, and such happiness, too! I wish I could give her a ticket to them. Amy would be so pleased; she loved Eleanor. If to-morrow were not Amy's birthday, and I were not going to get the flowers for her grave, I should be able to do that for Eleanor. She would let me, because I am Amy's mother. I wonder—"

She stood quite still. A pleasant new possibility came into her mind. She turned away from the florist's shop. In less than an hour she was going home, past the yellowing fields and sunset-lighted trees. She had no flowers with her, but the look in her eyes was less sad and less lonely for Amy.

In the last few moments of daylight she wrote a little note to Eleanor. The girl wept tears, half-happy, half-sad, as she read:

My Dear Child,—To-morrow, as you know, is Amy's birthday. If Amy were here I should give her something to celebrate it. Amy is not here, but you are, dear; and you are a girl like Amy, and her friend. Will you not take the gift for her, and go and listen to the glorious music that you so love and can so well make helpful to yourself and others? Come to see me soon, and believe me, Your warm friend,

Amy Spencer Dale.

Slipped into the note, Eleanor found a ticket to the Beethoven Society concert. Amy's mother had sent it very happily, but after it had gone she sat alone in the gathering twilight, wishing that she had just one flower to take on the next day to Amy's grave. "Amy would have liked me to do that," she thought, "but still—on her first birthday—"

She did not finish the sentence, for just at that moment little Marjorie Williams, who lived next door, came running in.

"O Mrs. Dale," she cried, "I've been to the woods with father, and I've brought you some flowers!" She ran up to Mrs. Dale, and dropped into her arms a great mass of glowing goldenrod and blue autumn daisies. Then she kissed her and danced away home.

Mrs. Dale gathered the goldenrod and daisies in her arms, and pressed her cheek softly against them. The next morning she took them and laid them on Amy's grave. Strangely, her heart felt lighter than it had felt since Amy died.

She did not know why, but when Eleanor came, later in the day, and kissed her again and again, and thanked her with wet eyes for the gift, she began to know. Never after did she cover Amy's grave with costly, quick-fading flowers.

Instead, at Christmas and at Easter and on Amy's birthday, she did some lovely kindness for some other child for Amy's sake. Sometimes it was small, sometimes it was large; but always it was something that made the child happier and better, and consequently more fit to be to the world.

THE QUIET HOUR.

"What Think Ye of Christ?"

"The energies of all parties engaged in this conflict are gathered ever more and more around the Person of Christ as the central point at which the matter must be determined."—Dorner.

We live in an age of religious discussion. One man believes this, another believes that, while a third believes nothing—but none of them are satisfied to leave the subject of religion undiscussed. The Bible is a battle-field where many a wordy war is waged; every book, every sentence, is criticised and put to the proof. But all the time one great question, ringing down the ages, is put individually to each of us—a question which we neglect to answer at our peril. We may not be able to give an opinion about Egyptian or Babylonian inscriptions, but let us see to it that the most important question of all is not left unanswered, "What think ye of Christ?" Jesus asks that question of you and of me, as He asked the Pharisees long ago; He still says to those who claim to be disciples, "Whom say ye that I am?"

The answer to that question makes all the difference between light and darkness here, as well as after death. Either we are helpless and alone, with no one to answer our prayers, with no meaning in sorrow or pain; or else we are in the hands of One who sits as a "refiner and purifier of silver." If the Son of God really became one with man, raising our human nature infinitely by the marvellous indwelling of

"God's presence and His very Self,
And essence all divine,"

then it is indeed a glorious thing to be alive. Let us not be content merely to exist—

"'Tis life whereof our nerves are scant,
More life and fuller than I want."

How are we to get this life? Our Lord Himself answers, "Search the Scriptures, for in them ye think ye have eternal life; and they are they which testify of Me." Then he adds the sad truth: "And ye will not come to Me that ye might have life." The world is willing enough to talk about Jesus of Nazareth. Generation after generation is forced to admit, "I find in Him no fault at all." Every unprejudiced critic must own that "Never man spake like this Man." But that is not enough, for He only reveals Himself to disciples. He manifests Himself to those who are willing to obey God. "If any man will do His will, he shall know of the doctrine, whether it be of God." What think ye of Christ, as the Gospels paint Him? It has often been pointed out that four principal characteristics distinguish Jesus of Nazareth from all other good men. The first is that His preaching centers in Himself—"I am the light of the world; I am the bread of life; I am the way, the truth, and the life." How often does He make such declarations as these? Would they be accepted from any other lips? Bowen says: "All other servants of the Most High preach Him whom they serve. If Luther or Wesley had held themselves up as the standard round which men must rally, their names would have been drowned in a sea of derision and contempt." Jesus declares that He has power to give forgiveness, rest, peace, joy, eternal life, to whomsoever He will: more than this, He demands as His right the first love of all men, and their loyalty even unto death. What other man could put forth such claims with any hope of their being accepted?—and the fact remains, that multitudes which no man can number have gladly and joyfully submitted to His authority.

Secondly, He is not only innocent in the eyes of men, but also in His own eyes. The challenge, "Which of you convinceth me of sin?" has never been taken up. Never once does He plead for forgiveness, or own that He has made even a trifling mistake. With all other men, the nearer they climb to God the more they feel their own sinfulness. This Man declares Himself to be meek and lowly, yet there is no shadow of self-reproach or self-accusation. Dare any man accuse Him of conceit?

Thirdly, this young Carpenter claims the right and the power to judge all men. Who but God could weigh accurately the motives and actions of countless millions of souls, balancing hereditary influences and the power of training and circumstances, without danger of making one mistake in the final decision?

Fourthly, He never once places Himself on a level with other men in regard to His relation with God. The disciples are told to say "our" Father, but the Master always says "My" Father, or "your" Father, and openly proclaimed Himself to be the Son of God. Another title which marks this Man out as the representative of humanity, one that He applies to Himself more than fifty times in the Gospels, is "The Son of Man." As Bowen says: "Here again He will

not join Himself with His disciples, will stand foot to foot with them."

One who studies the wonderful picture of Christ, as given in the Gospels, can hardly fail to exclaim with Pilate, "Behold the Man!" What other man in all history can compare with Him for a moment? But we must do more than behold; our business is to copy the perfect Example set us, and then He will reveal Himself ever more and more plainly, for—

"He cometh still,
Where any seek to know and do his will;
Where any earth-born child, 'mid shadows dim,
Yearneth for closer intercourse with Him,
And where one contrite spirit heaves its sigh,
There, as of old, the Saviour draweth nigh,
The kingdom of thine heart to Him extend,
And thou shall have an advent without end."

HOPE.

Be on the Watch.

A gentleman stopped suddenly before a sign that told him messenger boys were to be had inside. He hesitated, and then went in.

"How many boys have you in just now?" he asked.

"Six," was the reply; "it's dull to-day."

"Then they're all here," said the gentleman, looking round, while the boys themselves were all attention, wondering "what was up."

"Boys," said the gentleman, eyeing them scrutinizingly, "I suppose you know there is an exhibition of trained dogs to-night?"

The faces of the boys showed that they were perfectly aware of that fact, and that they might give him some points in regard to it.

"Well, I'm looking for a boy to take a blind man to see it."

A titter was the first response; then followed a variety of expressions, as: "A blind man!" "You're foolin'!" "What could a blind man see?" and "You can't guy us that way!"

"I'm not guying; I'm in earnest," said Mr. Davis, and then, looking at one of the boys who had said nothing, he asked:

"Well, what do you think of it?"

"I think I could do it," was the reply. "Yes, I'm sure I could, sir."

"How do you propose to make him see it?"

"Through my eyes, sir. That's the only way he could see it."

"You're the boy I'm after," said Mr. Davis, and he arranged for him to meet the blind man.

The exhibition was in a large theatre, and the blind man and his guide had a box to themselves, where they could disturb no one; but Mr. Davis, from his seat in the audience, knew that the boy was telling what went on so that the blind man could understand, and others in the audience became interested in the messenger boy and his companion, who, though carrying on an animated conversation, seemed absorbed and excited over everything that went on. Indeed, no one applauded more heartily than the blind man himself.

The following day Mr. Davis again appeared among the messenger boys, and after a few words with the manager, said:

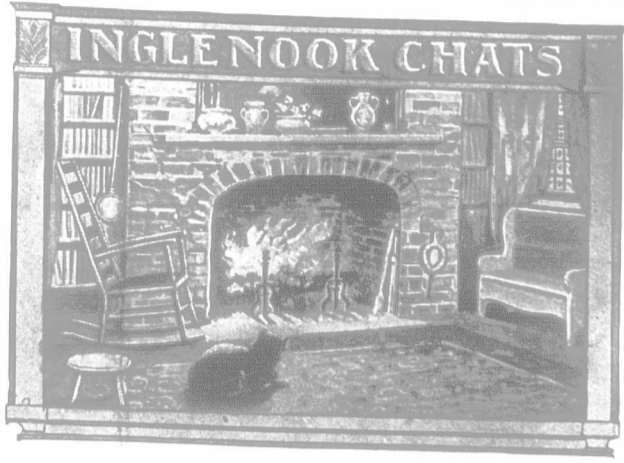
"Boys, there was a chance offered every one of you yesterday—a chance for lifting yourselves up in the world—but only one of you grasped it. My friend, the blind man, has felt for some time that he might get much pleasure out of life if he could find some young eyes to do his seeing for him, with an owner who would report intelligently. My stopping here yesterday was with the thought that possibly such a pair of eyes could be found here. It was an opportunity held out to every one of you, but only one understood and grasped it. For the rest of you it was a lost opportunity, for my friend is delighted with the experiment—says he is sure I hit upon the one boy in town who will suit him, and has offered him a good position, with a fine salary. Messenger boys are easy to get, but a boy who can make a blind man see is at a premium. And yet you might—well, you see, that boy, although he did not know it, was on the watch for a good opportunity, and when it came he knew how to manage it. It is the only way to keep good opportunities from slipping away, boys: you must be on the watch for them."—[Canadian Churchman.

"A Safe Refuge."

The mantle of Landseer has certainly fallen upon the shoulders and inspired the brush of the painter of this speaking picture. In dog language, the baffled little tormentors of the hunted pussy plainly acknowledge themselves beaten; pussy smiles serene and content in her safe refuge, the paws of the magnificent creature protecting her, and the beneficent monster himself, by not a wave of his tail or a movement of his jaws, deigns to acknowledge the presence of the yapping and snarling little beasts which can do her no further harm. Mr. Sperling has given us another version of "Dignity and Impudence," with the inference that the big bullies, which,

alas! exist as but too frequent blots upon creation, are more often to be found on two legs than on four.

H. A. B.



My dear Guests,—

"In these green days,
Life flows afresh; and young-ey'd health exalts
The whole creation round. Contentment walks
The sunny glade, and feels an inward bliss
Spring o'er his mind, beyond the power of Kings
To purchase."
—Thomson.

Who could talk of commonplace tasks or moralize o'er prosy realities when all the latent poesy in one's being wakes to new life, and every pulse is thrilling at the magic touch of spring?

"She comes! The loosen'd rivulets run;
The frost-bead melts upon her golden hair;
Her mantle, slowly greening in the sun,
Now wraps her close, now arching leaves her bare
To breaths of balmier air."

Out in the woodland, in sequestered nooks, perchance we may find some remnants of the winter's almost departed glory, while near at hand, if we look closely, we may discover many three-cleft leaves, whose delicate veining and shading is surpassed in beauty only by the dainty white or heliotrope blossoms springing from the same root; if, before, we doubted the reality of the coming of the springtime, their delicious fragrance wafts us full assurance of the fact. But we must become as children, and bend low to mother earth ere she shall discover to us these frail beauties, for they are very modest, and nestle closely to her breast, so that only very observant eyes notice their hiding-places. The thick-spotted leaves of the dog-tooth violet appear in profusion about the same time, and soon their golden bells will reward our search. Yet a few days more and the exquisite but fast-fading blood-root will rear its snowy petals in rivalry to its neighbor, the white trillium; while violets, spring beauty, dicentra, wild phlox, and that fragile blossom that somewhat resembles our garden mignonette, all assemble to hear the sermonettes of "Mr. Jack-in-the-pulpit. A very pleasing preacher he must be, for his audience never seems to tire of him, but congregate faithfully year after year, at the appointed time.

What joy to live in the country at this glad

season! The person who has never rambled through the woods in search of the first wild-flowers, and come home with hands well laden, has missed one of the cardinal joys of life. The flower gatherer should not be insatiable, however, but leave some blooms to fulfil their most important mission, viz., to propagate their kind, that those who follow in future years may share the delight they furnish.

How well I remember, in the old school-days, the gala appearance of the teacher's desk every bright spring morning! We children vied with one another in presenting her with the choicest treasures of the neighboring fields and woods, feeling well repaid by the smile of appreciation with which they were received. When we allow our thoughts to wander retrospectively to the bright hours of childhood, we are apt to long regretfully for those days

"When life was like a story, holding neither sob nor sigh,
In the olden golden glory of the days gone by."

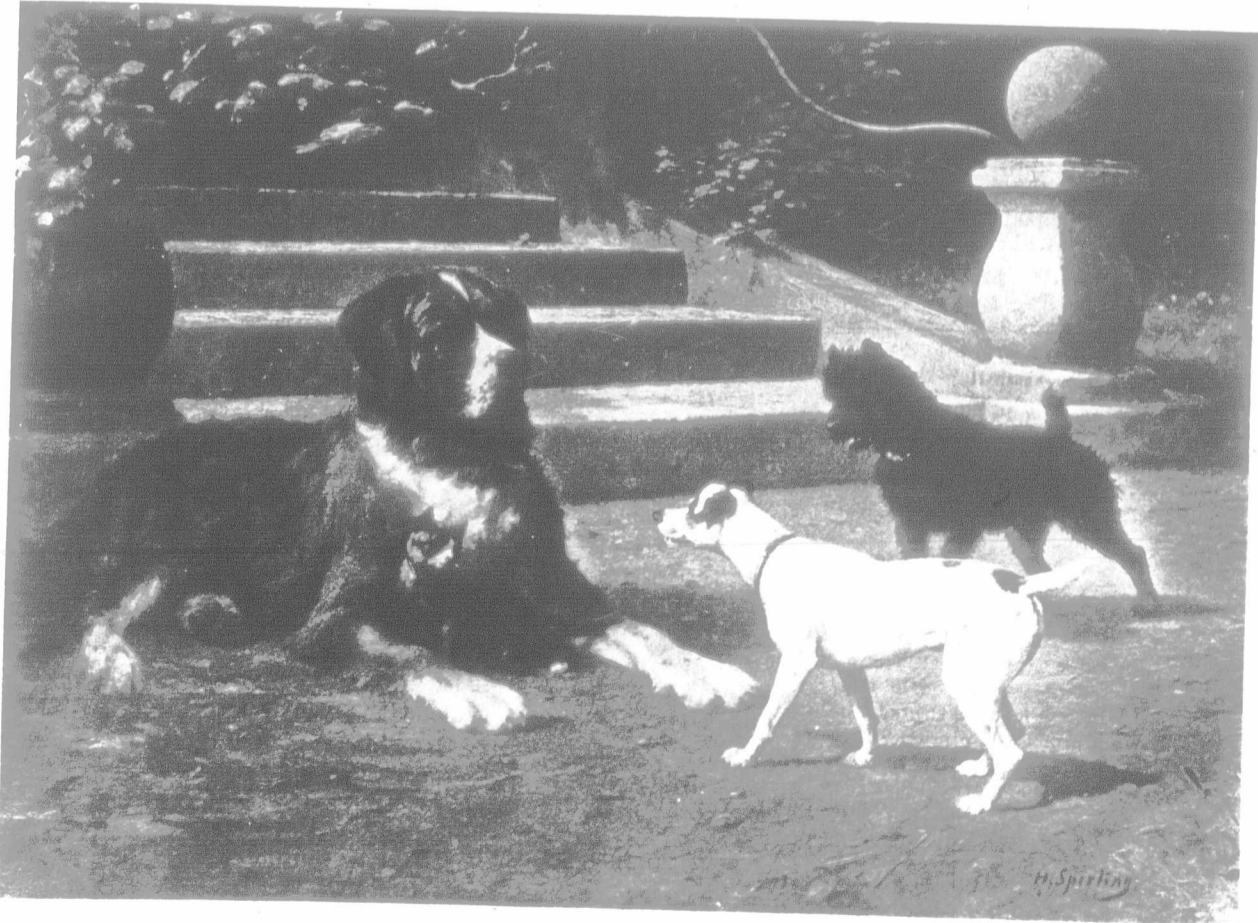
Those golden moments cannot return, but we might experience once again some of their old-time joy if we would, child-like, live more in touch with nature in her many moods. Some suppose that the cares the years have brought us have dulled our sense of enjoyment in these simple pleasures, but I think, on the contrary, that the heart that is world-worn and weary realizes in fuller measure the peace, the quiet restfulness, that comes from communing with nature. Occasionally, then, when sunshine and bird-song invitingly call you, fling care to the winds, and live again, at least in fancy, a few of your childhood's hours, roaming o'er fields and through woodlands, noting the deepening emerald of the grass, the swelling of the buds, and the bursting into bloom of spring's first fair wildlings. What though your housecleaning lags for a day, is it not as important to brush the cobwebs from your heart and spirits as to banish those that hide in the less-frequented apartments of your home? Do both, by all means; certainly do the former at any cost, and you shall be better fitted to accomplish the latter.

Effie C. Freeman.—You can procure the Perry pictures from the Perry Picture Co., Malden, Mass., at the rate of one-cent each for twenty-five or more. A two-cent stamp will obtain a complete catalogue. If you order any before getting catalogue, it will be necessary to mention whether you prefer landscapes, flowers, animals, etc. I trust that you may find some that will be helpful to you in your work. I shall be glad to hear from you again.

THE HOSTESS.

Ingle Nook Chats, Pakenham, Ont.

"Smoking on the car?" exclaimed the disgusted woman, as Dennis Flaherty, with his short-stemmed pipe, took the seat beside her.
"O! am!" rejoined Dennis, between long and determined puffs. "And av ye don't loike ut, go wan up front. These sates is resairved for smokers."
"If you were my husband, I'd give you poison."
"Would ye, now?" (Puff, puff.) "O! think, av ye wor me woife"—puff, puff—"O!d take ut."



"A SAFE REFUGE."

(H. Sperling.)

In Ways that We Know Not.

I sometimes think God lets our sorrows gather
Till joy is hidden by pain's heavy cloud,
That in the darkness we may find "Our Father"—
We need him when the heart and head are bowed.
I sometimes think He lets friends fail and falter,
To show us earthly gifts are insecure;
The bleeding hearts we lay upon His altar,
Of healing and of solace may be sure.
I sometimes think he strews our path with roses,
And when we find that each one hides a thorn
He takes us by the hand and gently shows us
That not to live to self has man been born.
I sometimes think when he seems all unheeding,
Turning deaf ears unto our wild request,
In silent pity His great heart is bleeding
Because to grant us it were not the best.
I always think, in His divine compassion,
Not one will perish from His loving hands:
Knowing our weakness and strength of passion,
He pities us—because He understands.

M. Hedderwick Prowne.

"We Are the Regiment."**AN INCIDENT OF THE ROCKIES.**

Miss Pauline Johnson tells this little incident related while the passengers on the Imperial Limited were tied up in the Rockies during a recent washout:

When the American passengers learned we were "tied up" in the heart of the Blackfoots they shuddered—but they did not know the meaning of the scarlet tunic of the N.W.M. police. We had to tell them that old, old story we never tire of telling a Yankee, of the days subsequent to our 1885 rebellion, when 600 Canadian Indians invited themselves to sojourn across the border, and found scant welcome in a country that had, according to the "great white father at Washington," "quite enough Indians of their own." Ottawa and Washington held a conclave, and arrived at the decision that "Canada would care for her own Indians if Yankeeland would please escort them to the border." Yankeeland did—gladly. Six hundred not too friendly, discontented, quietly wild Indians were escorted to the boundary line by a bunch of American cavalry, 300 strong. At the boundary were two British soldiers, astride two handsome horses, a corporal and a private of the Northwest Mounted Police. The American colonel and the Canadian corporal held speech.

"Where," demanded the American officer, "is your escort for these 600 ugly redskins?"

"We are here," replied the corporal "Canuck."

"Yes, yes, I see," was the answer, "but where is your regiment?"

"We are the regiment," said corporal "Canuck."

"But there are only two of you," gasped the American colonel.

"Yes, but we wear the British scarlet," said corporal "Canuck."

It was enough.

The 600 unruly Indians marched silently across the border. The two mounted policemen fell quietly to the rear and conducted the hostiles a hundred miles northward, where they would fret Uncle Sam no more. It is on record that the American officer in command of that cavalry 300 strong lifted his voice and swore. The incident was recorded and discussed at Washington, D. C. The cost of the affair to Uncle Sam was the pay and living of 300 men and officers. The cost to Canada was \$1 a day for three days to two mounted policemen. Corporal "Canuck" made history when he said "Yes, but we wear British scarlet." And so our American fellow-passengers fell asleep like children, well knowing that Corporal Adams and his eight Yukon men would

"Keep the peace of the people,
And the honor of British law."

The Spring Awakening.

The little gray squirrel is rubbing his eyes,
For his sleep was long and sound,
And the woodchuck peeps at the glowing skies
From his chamber underground,
Old bruin is shambling from out his den
With a dazed and stupid air,
And song-birds are flying back again,
A message of spring to bear.
The butterfly crawls from its chrysalis,
The beetles rouse from their nap,
And blossoms awake at the south wind's kiss
And the rain-drop's gentle tap.
From their icy fetters the streamlets leap,
The woodlands with music ring,
All things are awakening from winter sleep
To welcome the merry spring.

—From Our Dumb Animals.

To Remove Mud Stains.

All traces of mud can easily be removed from black clothes by rubbing the spots with a raw potato cut in halves.

Our Own.

If I had known in the morning
How wearily all the day,
The words unkind
Would trouble my mind
I said when you went away,
I had been more careful, darling,
Nor given you needless pain;
But we vex "our own"
With look and tone
We might never take back again.

For though in the quiet evening
You may give me the kiss of peace,
Yet it might be
That never for me
The pain of the heart should cease
How many go forth in the morning
That never come home at night,
And hearts have broken,
For harsh words spoken,
That sorrow can ne'er set right.

We have careful thoughts for the stranger,
And smiles for the sometime guest,
But off for "our own"
The bitter tone,

Though we love "our own" the best.
Ah! lips with the curve impatient,
Ah! brow with that look of scorn,
'Twere a cruel fate,
Were the night too late
To undo the work of morn.

—Margaret E. Sangster.

Found in the Snow.

An old clergyman was once riding to his home in Marienburg, near the Gulf of Riga (if you want to know where that is, look it up in your atlas). Suddenly the horse stopped and refused to step over some object in the path. The rider got down and found that a poor little baby, about a year old, was nearly buried in the snow. The good pastor took the child home, and she lived happily with him and his housekeeper until she was about thirteen. Then Catherine, as she was called, was sent away by the only father she had ever known, to visit his sister. In a few days she heard that the Russians were bombarding Marienburg, and at once said she must go back to her dear father. The messenger who had brought the news said by this time all the people in the town must be dead or taken prisoner.

"Then I will die with them, or be a prisoner," said Catherine, as she galloped off. Just outside Marienburg she was challenged by a young officer. He was kind in his manner, but commanded the Russian soldiers to take her before the General, who informed the poor girl that she was a prisoner, and would be his servant. Catherine begged to be allowed to go to the battlefield that she might find her father's body and have it buried, promising that afterwards she would return and give herself up.

"How do I know that you will not escape if I grant your request?" said the General, glancing at the young officer who had followed her into the tent.

"You have my word," she answered proudly, and the General allowed her to go. She searched in the darkness among the wounded and dead, but without finding her father's body. Then the young officer appeared, carrying a lantern, and helped in the search. At last Catherine got very discouraged, and sat down, crying bitterly.

"Take my purse, and run away," said the stranger, "now you have a good chance to escape."

"Sir, I shall keep my word," she answered, and getting up, began to search again. At last the wounded pastor was found, and Catherine was allowed to nurse him, promising to return as a servant to the General when her father recovered.

Now, if this had been a fairy tale, instead of a true story, you would expect to hear that the kind young officer was a prince in disguise, and that he married the brave maiden, and they lived happily ever after. Well, you wouldn't be very far wrong, for he turned out to be the Czar or Emperor of Russia. He was so charmed with Catherine's courage, truthfulness and grateful affection for her adopted father, that he asked her to marry him, and she became the Empress of Russia.

Perhaps you may never have the chance to distinguish yourself before the eyes of the world, but if you do the best you can, you may really be as great as Catherine—as brave, truthful and kind.

"A Mother Hubbard cloak of blue,
And eyes that rivaled it in hue;
A little 'poke,' and tied within
Two rosy cheeks and dimpled chin;

"Long golden curls that caught the light,
A little childish smile so bright
That passers turned, and smiled to see
The little lass that walked with me.

"Through the long sermon, grave and still,
My little neighbor used her will
To keep the tiny hands from playing,
To keep the childish thoughts from straying.

"At last, towards home our steps were bound,
With the good lessons we have found,
Again the passers smiled to see
The little lass who walked with me.

"And Mamie's tongue was now untied;
She to my question thus replied,
'What was the text the Rector read?'
'She do things that she can,' she said."

COUSIN DOROTHY.

Humorous.

In a little New England village lived a lawyer famous for drawing wills, in which branch of the business he had long enjoyed a monopoly of the business of the county.

On the death of a certain respected citizen there was much speculation as to the value of the property, and the village gossip undertook to find out the facts. He hunted up the lawyer and said, rather bluntly:

"I suppose you made Blank's will?"

"Yes."

"Then you probably know how much he left. Would you mind telling me?"

"Not at all," answered the lawyer, deliberately. "He left everything he had."

COUSIN DOROTHY.

THE CHILDREN'S CORNER**Kiss and be Friends.**

Hal and Mabel had a tiff
One bright Saturday.
They were cross as cross could be,
He was dumb and so was she,
Kept it up till after tea—
Both refused to play.
Hal was tapping on the glass,
Longing to be friends;
Wishing that he could decide
To put down and conquer pride—
Thinking, "If I only tried,
I could make amends."

Round the corner Mabel crept,
Stooped beneath the sill,
Then upon her tiptoes stood,
Said, "Oh, Harry, let's be good!
I would kiss you if I could,
Are you angry still?"
Like a flash his lips were pressed
To the window pane.
Such a good chance for a kiss
Mabel surely will not miss.
'Making up' is full of bliss,
Sunshine after rain.

COUSIN DOROTHY.

Domestic Economy.

ALL ABOUT LAMPS.

A housewife who has to use lamps a great deal, desires to know what will keep the wicks from smoking. If the wick is soaked in vinegar before it is put in the lamp, and thoroughly dried, it will not smoke. The bowl of the lamp should be kept full of oil; but when the lamp is not in use, the wick should be turned down low, to keep the oil from oozing out upon the burner.

The common kerosene lamp which is used in almost every household will give a bright, clear light, and it will be a source of comfort to the family if properly kept. Never use inferior burners. They are cheaper at first, but they soon get out of fix, so the wicks cannot be turned up or down, and do not give a good light. A clean lamp gives no disagreeable odor when burning.

Lamp chimneys are not liable to break upon exposure to changes of temperature if they are put in a pan of cold water and allowed to heat gradually until the water is boiling hot. When you wish to clean the flues, wash them in suds made by dissolving pearline in hot water, rinse in clean, warm water, and wipe dry with a towel free from lint. Polish with old newspaper. See that the flues all fit closely. Lamps should always be filled by daylight; and always put in a new wick before the old one is burned out.

FURNISHING SMALL ROOMS.

In furnishing a small room two necessary points must be considered: First, that space is gained by making things as flat as possible against the wall; and, second, that stiffness is prevented then by introducing plants and breaking the lines by pulling out a table a little or turning a chair.

A low seat sixteen inches in height, running around a corner and along one side of the room to some break of door or window, saves space and furniture, and adds a charming effect. It should be upholstered, and have only an occasionally rather small and carefully selected pillow. Low book-shelves, too, built against the wall, furnish without furniture, but care must be taken that they are not extended in too continuous a straight line. A carpet of a solid color greatly increases the effect of space.

HOW TO DRINK MILK.

Sip milk slowly. Take four minutes at least to finish a tumblerful, and take only a good teaspoonful at one sip. This is the ideal way in which to drink milk. When milk finds its way into the stomach, it is instantly curdled. If you drink a large quantity at once it is curdled into one big mass, only on the outside of which the juices of the stomach can work.

If you drink it in little sips, each sip is curdled up by itself, and the whole glassful finally finds itself in a loose lump, made up of little lumps, through, around and among which the stomach's juices may percolate and dissolve the whole speedily and simultaneously. Many people who like milk, and know its value as a strength-giver, think they cannot use it because it gives them indigestion. Most of them could use it freely if they would drink it in the way described.

TO BRIGHTEN A CARPET.

Wiping a carpet with a cloth wrung out in warm water and ammonia in which a tablespoonful of kerosene has been mixed, cleans and brightens the colors wonderfully.

ORDERING SEEDS.

Of course you have begun to think about ordering seeds. Many of you, no doubt, have already made out your lists. I hope you have not neglected to include sweet peas. Of all our annuals these are my favorites. They are so sweet, so beautiful, so lovable! They make me think of butterflies when I see them hovering over the vines, nodding, dancing in every breeze, so bright and cheerful that you feel like smiling at them as you would on a group of happy children. Have so many of them that you can cut from them every day for yourself and for your friends. If you want to grow them well, you must sow them very early—in April—and quite deep. It is a good plan to dig a little trench for the seed, five or six inches deep, and sow them in it, covering only an inch or two at first. As the young plants start up, cover more and more, until you have the earth levelled about them. In this way you get the roots down in the soil where they will not be likely to suffer if dry weather comes your way. The secret of success with sweet peas is early and deep planting.

LEMON VERBENA.

Be sure to put down this plant in your list this spring. Small ones in thumb pots grow very rapidly through the summer, and one leaf is so fragrant it will perfume the handkerchief if it is put in the pocket. In the fall, take up carefully, put in a large pot or box, and place in the cellar. Cut the top off, dry the leaves and make several bags, place the dry leaves in, and put among the sheets and pillow cases or in drawers. The perfume will last for months.

FLOWERS FOR SPRING.

All lovers of flowers are now beginning to study what it is best to plant and sow the coming spring; but do all understand that many flowers that were considered perennials and bulbs can be grown from seed and will bloom the first season? Last season instead of buying dahlia bulbs, which are quite expensive, I purchased two



HOLE HEAD, AND "PARSON AND CLERK."

packets of seed, one double and one single, sowed in a box the first of April, transplanted out the middle of May, and had blooms the first of August, and such a variety of colors in the double and such beautiful blotched and striped ones in the single I was richly repaid for all trouble. Hollyhocks sown in March blossomed the last of August. The Marguerite carnation, a most beautiful and fragrant flower, bloomed in four months, and now in February is still blooming. Cosmos also richly repays a little trouble in sowing early, producing beautiful flowers in September, and blooming profusely until frost.

Something about Devonshire.

Teignmouth folks are naturally proud of their long stretch of sandy beach, which extends from the harbor-mouth to Hole Head, the big headland of red sandstone through which the train passes between Teignmouth and Dawlish. This is a distance of over two miles, and can only be traversed on foot at low tide, although at very exceptionally low tides in summer the adventurous may go still further, and scramble over the rocks at its base, the principal of which are known as "The Parson and Clerk," and about which there is of course a legend, and one very much to the discredit of any "cloth," whether clerical or lay. The story goes that a vicar of Dawlish and his clerk had been over to Teignmouth collecting tithes, and were riding home together. The night was wet and wild, and they lost their way. They came to a house hitherto unknown to them, with windows brightly lighted, and from which issued sounds of mirth and gaiety. A window was thrown open, and a cordial invitation to come in was shouted to them. From that moment they seemed bewitched, "for they said words and sang songs unfit for

to do, but although they had been on dry ground but the moment before, they found the tide rising higher and higher. Boisterous laughter echoed around, but the guide had vanished. They shouted and he came back, revealed to them by a bright flash of light. It was the devil himself, jeering and pointing to the sea, into which they had ridden. Morning dawned, but the parson and clerk were never found again. Their horses were caught straying on the beach, and at Hole Head there have stood ever since, daily washed by the tide, the two irregular-shaped rocks bearing their names." To which story there is a moral. The outline of the parson rock remains much as I remember it, but there seems a comical twist about the neck of the unfortunate old clerk, who is standing much farther out at sea, which seems to threaten his losing his head altogether. From the Dawlish side the outline is so changed that one would imagine that the clerk had disappeared bodily, and that it was the parson's effigy only which remained, the confusion in one's mind being accounted for by a side view of still another prominent rock, chipped off as

from the cliff, known to fame as "The old maid." But to what vagary or misfortune the old lady owed the honor of a natural monument, deponent sayeth not. Probably she was the giddy young parson's maiden aunt, who, wading in to rescue him, was petrified with fright, and ended by sharing his melancholy fate.

I know no more delightful walk than that along the sea-wall as far as one can go upon the Teignmouth side to the big cliff, Hole Head, the scene of the tragic story I have tried to tell you. Just before the entrance to the tunnel, you come to some steep stone steps, rather slippery, but protected by iron railings. These lead you down to an archway under the railway, where by a somewhat narrow ledge you pass to the foot of a most charming little byway called "Smugglers' Lane," once the scene, so it is said, of wild escapades and bloody encounters between the coast-guard and the defrauders of the revenue, the coast lending itself to the adaptation of its caves as hiding places, and the lane to the conveyance of the smuggled goods to receivers inland. If I am fortunate enough to have space permitted for the insertion of my little picture of Smugglers' Lane, you will see that much of its wilder beauty is gone, for it is, on either side, the limit of the grounds of private residents who, according to their several tastes, plant laurels, laurestinus, or other thickly-growing shrubs to ensure their privacy, and most jealously do they guard it by lock and latch-key whereby to let themselves get outside, but never to let any inquisitive tourist get inside, so that it is left to one's imagination to picture how romantic and beautiful must be their surroundings. Most of the residences must have fine views of the sea, and possibly some may have, by steps in the rocks or by other ingenious contrivances, means of access to the shore. A rustic bridge, such as you may see in the picture, across one elevation to another, connecting one property or that of two neighbors situated on either side of one of Devonshire's pretty green roads, is by no means an unusual feature, and a very effective one too, but I must confess to a longing to get through one of those jealously guarded gates, and upon one of those pretty bridges, and see what it is all really like below for myself. But to do that is, I know, a futile wish, for truly an Englishman's house is his castle, and he takes every precaution to make sure that it shall be so. Before I leave Smugglers' Lane and say good-bye to you for the present, I should mention that the section of it shown in the illustration is that of a part which is considerably more level than the rest. You have climbed up to that level as to a temporary resting place. You have passed the running brook of clear water by its side, and you have seen the leaves of the fern and the bracken and the tangle of ivy and other wild plants through a fence which prevented your filling your hands with them, and now you have to make up your mind for another scramble forwards, until you get to the Dawlish Road, by which you can either return to Teignmouth, or if you are so inclined, go on to Dawlish and return by train. But whether you elect to do the one or the other, you are pretty sure to take a good long rest upon one of the broad iron benches you will find considerably placed in this, as in many other places around the neighborhood, for the comfort and convenience of pedestrians. H. A. B.



SMUGGLERS' LANE, WITH LAUREL TREES.

parish priest or layman." The story goes on to say that "with giddy heads and unsteady legs they went to get their horses, declaring they must have a guide, even if it were the devil himself; whereat the same man who had invited them, in undertone to put them on their way to Dawlish, he led them on to the top of the road, and then bade them go straight on. Thus they essayed

"I don't exactly put it in words," returned the boy, "but if yer really wanter know, I can show yer."

An Old Farmer's Slate.

"A farmer," says the Rural New Yorker, "does not always think of what is needful and may be done when leisure times occur. I recall to mind a large and successful farmer, who at his death left his affairs in a prosperous condition, and his premises in complete order. His neighbors often wondered at the ease with which he conducted his operations. He never hurried, but the right thing was always done at the right time, and his work never lagged. The improvement he made was in odd spells when the routine of regular farm-work was broken by rainy weather, or after finishing the work on a crop and while waiting for another to get to the proper stage.

"He kept a large slate hanging in the kitchen, where all his workmen could see it, and whenever a job occurred to him he noted it on the slate.

For instance, some of his entries ran thus: 'Make a gate for the brook lot.' 'Clean out the ditch in the wheat-field.' 'Lay a new floor on the scaffold over the barn floor.' 'Bury the large stone in the middle lot.' 'Get some trees to mill for making garden-fence pickets.' 'Plant shade-trees along the roadside.' 'Dig the alders out of the wild mustard that came up where the threshing machine stood in the field last year.'

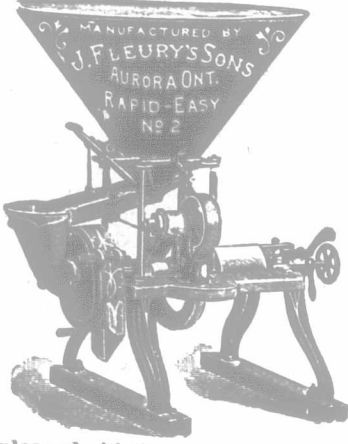
"In this way his slate was filled, and if a leisure half-day occurred his men all had plenty of work, and if the master happened to be absent, the slate told the workmen what to do. After a time it was his custom to lay out the day's work on a slate each evening previous, and when a job was finished the record was erased. To get the slate clean was the ambition of the workmen."

Such a slate as this would be a useful thing

on every farm and in every home. Suppose you try it, and write down wants, needs, jobs and plans, and then clear the slate when you can.

A German clergyman, who was travelling, stopped at an hotel much frequented by wags and jokers. The host, not being used to have a clergyman at his table, looked at him with surprise; the guests used all their artillery of wit upon him without eliciting a remark. The clergyman ate his dinner quietly, apparently without observing the gibes and sneers of his neighbors. One of them at last, in despair at his forbearance, said to him, "Well, I wonder at your patience! Have you not heard all that has been said to you?" "Oh, yes; but I am used to it. Do you know who I am?" "No, sir." "Well, I will inform you I am chaplain of a lunatic asylum; such remarks have no effect upon me."

"RAPID-EASY" GRINDERS



THESE are the machines that DO THE WORK. For use with ANY POWER. SMOOTH and EASY-RUNNING; good work and a BIG LOT of it in a day. MORE WORK with SAME POWER than ANY OTHER Grinder.

"I started a No. 1 Grinder yesterday with four horses on sweep power. It ran very nicely. We ground some oats, and it made a very good job of them, also some wheat, peas, rye and barley, all mixed together, and it made a fine job of them." JOS. STEFLE, Barrie, Ont.

March 16th, 1903. "The people to whom I sold the Grinder (No. 2) do a lot of grinding. They put through 175 bags last Thursday. They are well pleased with the machine." ADAM MCGILL, Paisley, Ont.

"I run your No. 3 'RAPID-EASY' Grinder by engine, and grind oats from 60 to 75 bushels per hour, barley and spelt 80 bushels per hour. I run the machine at 1,400 per minute. The engine runs it easily, and the work could not be better. I grind for the public, and the farmers are pleased with the work I am doing. I can highly recommend your Grinder." JACK BOLACK, Baldur, Man.

PROVINCIAL AGENTS:

Lithograph hanger and information on application to: The Fairchild Co., Winnipeg, Man.; The T. J. Trapp Co., New Westminster, B. C.; W. R. Megaw, Vernon, B. C.; A. A. Johnston, 212 St. Paul St., Montreal, Que.; P. T. Legare, Quebec, Que.; J. Clark & Son, Fredericton, N.B.; The Lounsbury Co., Newcastle, N. B.; W. R. Dibblee & Son, Woodstock, N. B.; The Sussex Mercantile Co., Sussex, N. B.; Bligh & Prince, Truro, N. S.; Hilsley & Harvey, Pt. Williams, N. S.; A. Horne & Co., Charlottetown, P. E. I.; J. M. Clark, Summerside, P. E. I., or

J. FLEURY'S SONS, Aurora, Ontario, Canada. Write to-day. Medals—World's Fairs, Chicago and Paris. Write to-day. -om

Government Tests have proven that 80 per cent of all the unsprayed fruits going to waste might be marketed at top prices if sprayed with a SPRAMOTOR. Nine-tenths of the labor can be saved where much whitewashing or painting is necessary. We want you to know why Spramotors will save your fruit while ordinary sprayers fail. The buying of a Sprayer is the matter of a moment, yet a mistake is a costly experience. It means the loss of your labor and chemical, and affects your profits. We want you to know why the Spramotor was awarded First Place in the Spraying Contest, and the Gold Medal at the Pan American Exposition. We want you to know why Sprayers should be made of good brass. We want you to know why Spramotors have more points of excellence than all others combined. We want to supply you with the facts, and help you to avoid mistakes. Will you let us try? Send for our Treatise, "A Gold Mine on Your Farm," on the diseases of fruit trees and their remedies. It's Free. SPRAMOTOR CO., BUFFALO, N. Y. and LONDON, CAN.

Windmills. GET A CANADIAN AIRMOTOR TO DO Your Pumping, and employ your own time to better use. SAVES A LOT OF DRUDGERY. Will tickle your family, especially the HIRED MAN. WILL MAKE LIFE WORTH LIVING. WRITE US: Ont. Wind Engine & Pump Co. TORONTO, ONT. (LIMITED).

NOTICE. SHEEP DIP AND CATTLE WASH.—As a satisfactory sheep dip and cattle wash and an effective disinfectant, Little's fluid sheep dip, advertised in this paper, by Mr. Robt. Wightman, druggist, Owen Sound, Ont., has no superior. It mixes readily with cold water, and is ready for use in a minute. Use soft water, and pour the water on the fluid, not the fluid on the water. If desired to be used warm, mix first with cold water and then add hot water. It is convenient and effective in the destruction of ticks, lice or other vermin, on sheep, cattle or poultry, and as a remedy for scab, scurf or ringworm, for mange, grease and cracked heels or itching mane or tail in horses it is invaluable. For disinfecting sinks, closets, stables, etc., it answers admirably, while for the purposes of cleansing and healing wounds and for flushing cows in cases of abortion or other vaginal troubles it is at once convenient, safe and effective. No farm house or stable should be without it kept constantly on hand. It has stood the test of years, and its worth is well known to stockmen everywhere.

Short Course in Stock Judging.

The second short course in stock judging at the O. A. C., Guelph, closed at noon on March 28th. Though not a large class, it was an enthusiastic one, and the interest was maintained to the last moment. Some thirty men, comprising Farmers' Institute workers, expert judges, and a number of others, took advantage of the work in cattle, sheep and swine. Hon. John Dryden; Mr. A. W. Smith, Maple Lodge; Mr. Jno. Gardhouse, Highfield; and several others, assisted with beef cattle, and there were enough good judges among the members of the class to make the discussions interesting. The class is much indebted to Col. D. McCrae, Mr. Jas. Bowman, and the F. W. Stone Stock Co. for capital representatives of Galloway, Aberdeen-Angus and Hereford cattle, respectively.

Messrs. A. W. Smith, W. Whitelaw, Jno. Jackson, Henry Arkell and others rendered valuable assistance with the sheep. Messrs. Whitelaw, Arkell and Geo. Telfer, Paris, kindly loaned representative animals for the class to practice upon, in addition to the classes made up from the college flocks.

In swine, Messrs. J. E. Brethour, Wm. Jones, R. H. Harding, and Major Hood helped things along and made matters interesting; and in dairy cattle, A. C. Hallman, D. Drummond and others gave a helping hand. The evening before the close of the course, a little informal meeting of the class was held, when a vote of thanks was tendered the members of the college staff, and a large number of the delegates expressed their satisfaction with the course in very flattering terms.

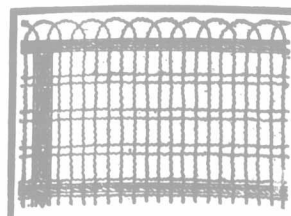
It is to be regretted that an impression has got abroad that the short course is designed to manufacture expert judges to order. This impression has been strengthened by notes in the public press, evidently penned by reporters who have not the faintest conception of the objects of the short course. The short course, as originally planned, was designed simply to stimulate interest in the very important subject of stock-judging, and to give those who were not familiar with the art a foundation upon which to build. In addition to this, it was designed to bring together men who are already good judges, in the hope that the exchange of ideas which such an occasion affords would tend towards securing a greater harmony of opinion regarding desirable and objectionable types. The course which has just closed was especially planned with the second object in view, and many recognized expert judges of various classes of stock took advantage of it, and expressed themselves as highly pleased. To assume, however, that because a man attends such a short course, he is to be labelled an expert judge, is manifestly absurd, and the College authorities are extremely sorry that such an impression should go abroad, as nothing could be further from their intentions in inaugurating the short courses.

KENDALL'S SPAVIN CURE. USED FOURTEEN YEARS WITH GOOD RESULTS. 721 E. 164 St., New York, Sept. 8, 1902. DR. B. J. KENDALL CO., Gentlemen:—I have used your Spavin Cure on my horses for the past fourteen years and it has always given me good results in every particular. I also have one of your books that I have found very useful. If you have any later edition of the "Treatise on the Horse and his Diseases," will you kindly send me one. Respectfully yours, B. F. FRISBIE. It is an absolutely reliable remedy for Spavins, Splints, Curbs, Ringbones, etc. Removes the buncle and leaves no scar. Price \$1; six for \$5. As a liniment for family use it has no equal. Ask your druggist for KENDALL'S SPAVIN CURE, also "A Treatise on the Horse," the book free, or address DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.

THE LARIMER DITCHING PLOUGH. Farmers glad with good crops. Good crops from well-drained fields. Drained fields by the Drain Plough. Is operating in all the Provinces of Canada. Rich and poor have it, and speak well of it. All information from SCOTT BROS., WILLIAMSTOWN, ONT. HIGH-CLASS GERMAN COACH STALLION FOR SALE CHEAP. Adam, No. 508, H. E. S. B., of Germany, also No. 559, Vol. I., G. H. and O. C. H. S. B. of A. Adam is an extra good sire of smooth carriage horses. At two years old was taken into the German Government Stud. Come and see, or address ROBERT ANDERSON, Salford P. O., Ont. Four miles south of Ingersoll.

GOSSIP. Now is the time to secure settings of pure-bred eggs. Fresh blood in the flock will leave its mark in improved appearance and usefulness. In the advertising columns, Mr. A. E. Sherrington offers Barred Rock eggs for sale. These eggs are produced by good strains and are not contaminated by other breeds, as Barred Rocks are the only variety kept on the farm. An imported bird of Hawkin's Royal Blue strain and one of Bradley Bros.' show birds are used in the flock. IMPORTANT AUCTION SALE OF YORKSHIRES. Messrs. D. C. Flatt & Son, Millgrove, Ont., request us to announce that on June 25th, at the Hamilton Stock-yards Sale Pavilion, Hamilton, Ont., they will hold an extensive auction sale of imported Yorkshire hogs—boars and sows of various ages—of the most approved type, many of which will be suitable for show-yard material, having been selected from leading herds in Great Britain with a view to the requirements of the trade of this country. Fuller announcements and further particulars may be looked for in future issues of the "Advocate."

insisting on... this page, kindly mention the FARMER'S ADVOCATE.



Page Metal Ornamental Fence
 Handsome, durable and low priced. Specially suitable for front and division fences in town lots, cemeteries, orchards, etc. Retail for 20 CENTS PER RUNNING FOOT. Just about the cheapest fence you can put up. Write for full particulars. Use Page Farm Fence and Poultry Netting.
 The Page Wire Fence Co., Limited, Walkerville, Ontario.
 Montreal, P. Q., and St. John, N. B.

UNRESERVED DISPERSION SALE

We will sell by public auction, at our farm, "Ridgewood Park," one mile from the town of Goderich, Ont.,

TUESDAY, APRIL 14TH, 1903,
 17 HEAD REGISTERED

SHORTHORN CATTLE

10 female and 7 bulls, of choice breeding. Conveyances will meet 11 and 1.20 trains. Catalogues furnished on application.

GEO. JACKSON, PORT PERRY, AUCTIONEERS. **E.C. & E.C. ATTRILL, GODERICH, ONTARIO.**
THOS. GUNDRY.

DISPERSION SALE of 30 Shorthorns

Property of the **LATE COL. TYRWHITT,**

WEDNESDAY, APRIL 8th, 1903,
 At 1 o'clock Sharp,

There will be offered for sale the entire herd of the late Colonel Tyrwhitt, at the family residence, near Bradford, comprising one 6-year-old bull (Royal Standard 27134), five two-year-old and three yearling bulls, eleven cows, five heifers, four heifer and one bull calves. All the above are registered animals. Also two Clydesdale teams, two ladies drivers, a flock of twenty-four Cotswold ewes and a ram, four Yorkshire brood sows, a boar and a number of store pigs; six Bronze turkeys.

Bradford is on main line of Grand Trunk, Northern Division, 40 miles from Toronto. Conveyances will meet all trains during the day. Catalogue on application to

CAPT. T. E. ROBSON, AUCTIONEER.

MRS. TYRWHITT, Bradford, Ont.

Farnham Oxfords and Shorthorns

My present offering—125 one and two year old rams, sired by Bryan's 125, Hampton Hero 4th, Royal Windsor 4th, and Kempsford Hero 8th (all imported), 35 of which are flock headers, the balance strong, vigorous ranch rams. Also 50 choice yearling ewes, and the rare, nice ten-months-old bull, Royal Arcanum 45133, by Imp. Sityton Conqueror, and four heifers, from 10 to 20 months old, by 20th Crown Jewel.
 Guelph four miles.
HENRY ARKELL, Arkell P. O. and Station.



NOTICES.

MILNER WAGONS—With a factory thoroughly modern in all its appointments, carefully selected, well-seasoned stock, and a staff of experienced employees, it is no wonder the Milner Petrolia Wagon Co., Petrolia, Ont., has so rapidly established its name and fame in the minds of Canadian farmers. The firm is extremely fortunate in the possession of such a strong catch phrase, "Milner Means Merit," for not only does the trio of M's boast the proper vocal ring, but it sums up the goodness of the company's wagons in terse, telling style.

THE AYLMEY SPRAYER—A very attractive series of advertisements are being run in another column by the Aylmer Iron Works Co., Aylmer, Ont., which recently received an order for the entire equipment for the Nova Scotia Government's model orchards. Being in the latest poetry-prose style of writing, they are well worth reading, even if you haven't any present intention of buying a spraying outfit. We anticipate the next ad. by quoting from it the "dirge of the bugs":

"No more gladness, naught but sadness,
 Bitter tears fill Bug-land now;
 Ev'ry day ascends our prayer,
 Take away the Aylmer Sprayer,
 'Take it quick, we care not how.'"

Settlers' Low Rates West.

Via Chicago and North-Western Ry., every day from Feb. 15th to April 30th. Colonist one-way second-class tickets at extremely low rates from stations in Ontario and Quebec to points in Colorado, Utah, Montana, Nevada, Idaho, Oregon, Washington and California, also to Victoria, Vancouver, New Westminster, Nelson, Rossland, etc., etc. Full particulars, rates and folders can be obtained from B. H. Bennett, General Agent, 2 East King street, Toronto, Ont.

NINTH ANNUAL

Canadian Horse Show

Under the joint auspices of the Canadian Horse Breeders' Association and the Toronto Hunt, held in conjunction with the

Fifth Military Tournament

The Armouries, Toronto, Canada,

On Wednesday, Thursday, Friday and Saturday,

April 29, 30, May 1 and 2, 1903,

Entries close on Saturday, April 18th, 1903, and should be addressed to

HENRY WADE, TORONTO.
 Parliament Buildings.

WOODSTOCK

STEEL WINDMILLS

Galvanized or Painted. For Power or Pumping.

DANDY Windmill

with Graphite Bearings, runs easy and controls itself in the storm.

GRINDERS, PUMPS, WATER TANKS, DRINKING BASINS AND SAW BENCHES.

WOODSTOCK WIND-MOTOR CO., WOODSTOCK, ONT. (Ltd)

A. J. WATSON, CASTLEBERG, ONTARIO, CAN.
 Offers for sale young Shorthorn bulls and heifers of the choicest Scotch breeding. Also one five-year-old bull, grandson of imported Indian Chief.



IMPORTANT DISPERSION SALE OF

Imported Scotch Shorthorns

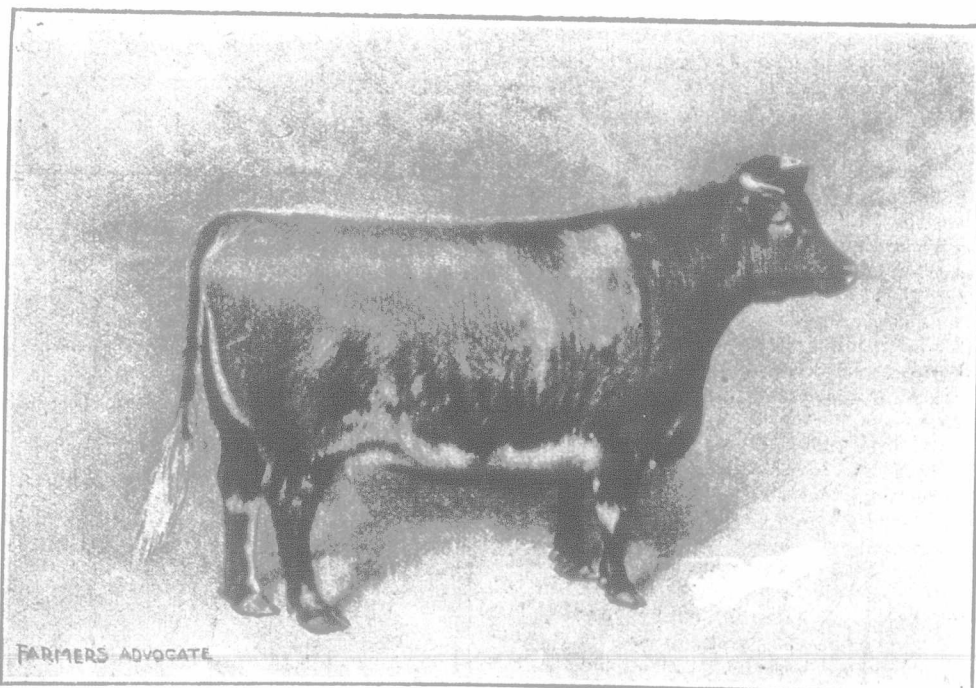
At the Village of

Markham, Ontario,

on the Midland branch of the G. T. R., 22 miles from Toronto, and three miles from Locust Hill Station, C. P. R., on

Wednesday,

May 13, 1903



The entire herds of Imported Shorthorns belonging to

GEO. ISAAC, Bomanton,

AND

JOHN ISAAC, Markham,

consisting of

45 HEAD

All young and in prime breeding condition. These cattle were selected from many of the best herds in Scotland, and many of them will make show animals. The females of breeding age have been bred to first-class Scotch bulls. This is such an opportunity to secure imported cattle as will not soon occur again.

CATALOGUES WILL BE MAILED ON APPLICATION TO

JOHN ISAAC, MARKHAM, ONT.

CAPT. T. E. ROBSON, AUCTIONEER, ILBERTON.

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

GOSSIP.

Lieut.-Col. R. McEwen, of Byron, Ont., has gone to St. Louis, Mo., to attend the Specialty Collie Club's big show, where he has the honor of being the only judge of collies.

In the March 16th issue of the "Farmer's Advocate," appeared an illustrated description of the excellent system of swine rearing pursued by Mr. Robert Clarke, of Ottawa, whose farm is located in Carleton Co., Ont., and not Ottawa Co., P. Q., as stated.

In changing their ad. to make a special offer for this month, R. Reid & Co., of Hintonburg, report a very successful period of sales. One Ayrshire bull remains, and he is a good one, having secured second place in his class at Toronto last fall. The Berkshires and Tamworths are all a good, serviceable lot, and will be sold at clearing-out spring prices.

At the draft sale from the Shorthorn herd of Mr. Wm. Bell, Alnwick, Northumberland, England, on March 18th, the 54 head sold brought an average of \$350. The 15 bulls, all but one bred by Mr. Bell, an extra good lot, made an average of \$635. The roan two-year-old, Baron Ratcheugh, recently illustrated in the "Advocate," bred by Mr. Bell, winner of second at the Royal Show at Carlisle, 1902, brought the highest price of the day, \$2,626, being bought by Mr. McLennan for South America. Two other bulls sold for 200 guineas each.

A PROLIFIC EWE.

Mr. Wm. A. Orr, Bronte, Ont., writes the "Farmer's Advocate" as follows: "One of my registered Shropshire ewes gave birth to four fine large lambs a few days ago. She had triplets the first time, twins the second, triplets the third time, and this year four, which makes twelve in four years."

OFFICIAL RECORDS OF HOLSTEIN-FRIESIAN COWS.

Some of the best records made from February 10th to March 14th, 1903, are given below:

Sadie Vale Concordia 32259, age 10 years 2 months 24 days. Record for twenty-eight days: days after calving, 5; milk, 2,565.6 lbs.; butter-fat, 92.327 lbs., equivalent to 115 lbs. 6.5 ozs. butter 80 per cent. fat, or 107 lbs. 11.4 ozs. 85.7 per cent. fat. Best seven consecutive days: Days after calving, 14; milk, 694.3 lbs.; butter-fat, 24.508 lbs., equivalent butter 80 per cent. fat, 30 lbs. 10.2 ozs., or 28 lbs. 9.5 ozs. 85.7 per cent. fat. Owner, McAdam & Van Heyne, Deansboro, N. Y.

May Hartog Pauline De Kof 45124, age 4 years 11 months 8 days. Record for thirty days: Days after calving, 14; milk, 2,552.5 lbs.; butter-fat, 89.637 lbs., equivalent butter 80 per cent. fat, 112 lbs. 0.7 oz., or 104 lbs. 9.2 ozs. 85.7 per cent. fat. Best seven consecutive days: Days after calving, 20; milk, 633.2 lbs.; butter-fat, 23.417 lbs.; equivalent butter 80 per cent. fat, 29 lbs. 4.3 ozs., or 27 lbs. 5.1 ozs. 85.7 per cent. fat. Owner, H. D. Roe, Augusta, N. J.

Army's An 4th 50398, age 4 years 1 month 3 days. Record for thirty days: Days after calving, 8; milk, 2,311 lbs.; butter-fat 71.780 lbs., equivalent butter 80 per cent. fat, 89 lbs. 11.06 ozs., or 83 lbs. 11.9 ozs. 85.7 per cent. fat. Best seven consecutive days: Days after calving, 20; milk, 585.6 lbs.; butter-fat 17.822 lbs., equivalent butter 80 per cent. fat, 22 lbs. 4.4 ozs., or 20 lbs. 12.7 ozs. 85.7 per cent. fat. Owner, H. D. Roe, Augusta, N. J.

Lady Oak Fern 44126, age 5 years 11 months 4 days. Record for thirty days: Days after calving, 13; milk, 1,875.4 lbs.; butter-fat 70.311 lbs., equivalent butter 80 per cent. fat, 87 lbs. 11.2 ozs., or 82 lbs. 0.5 oz. 85.7 per cent. fat. Best seven consecutive days: Days after calving, 27; milk, 459.3 lbs.; butter-fat 17.136 lbs., equivalent butter 80 per cent. fat, 21 lbs. 12.3 ozs., or 19 lbs. 12.3 ozs. 85.7 per cent. fat. Owner, H. D. Roe, Watertown, W. V.

NOTICES.

MESSRS. DARCH & HUNTER'S well-known seed house, London, Ont., this season issue no less than five catalogues covering farm seeds, flowers and vegetables, beekeepers' supplies, dairy supplies and poultry supplies, which indicates the wide range of their business, making it very advantageous to their patrons. Readers should post themselves by securing these catalogues, and also note their announcement in this issue of the "Farmer's Advocate," regarding the great Queen of Denmark sugar beet.

TWENTIETH CENTURY HARVESTING.—We have received from the McCormick Division, International Harvester Co., Chicago, Ill., a copy of their 1903 booklet, in which appears a beautifully illustrated description of the modern "Header" for use in the world's big harvest fields. It is an artistic as well as a useful production, describing up-to-date machinery of the highest class. If interested in the advances being made in this respect—and who is not?—drop a post card for a copy of the booklet to above address.

THE WHEEL.—After going through the experiences incident upon the introduction of any popular commodity, the manufacturers of bicycles are now turning out wheels to supply the demand of a normal market. That bicycling was not purely a fad is evidenced by the fact that the sale of wheels last year showed a marked increase over those of 1897—a year that seemed to be a record-breaker for the use of bicycles. In the front rank of manufacturers of good wheels in Canada stands the Cycle Motor Company, of Toronto. Their goods are listed on another page, and orders by mail will receive prompt attention.

THE MAXWELL LABOR SAVERS.—The new catalogue, describing the farm implements manufactured by David Maxwell & Sons, St. Mary's, Ont., has been issued for the present season, and it contains several features deserving of careful examination by our readers at this time. Copies can doubtless be obtained by request from any local representative of the company or from the headquarters at St. Mary's. In view of the excellence of the output of this long-established and progressive company, it need not surprise one to learn that in spite of increased building and productive capacity generally, that in some departments they have been obliged to run the works both night and day in order to prepare to meet the demand. With prospects of another big hay crop, owing to the thorough saturation of the soil with moisture, and in view of the shortage of hand labor, haying machinery will be at a premium, and just here Maxwell's hay tedder, side-delivery rake and loader command special attention. All three have been brought about as near practical perfection as possible, and all three are necessary in taking off quickly and economically a hay crop. The tedder is invaluable in curing hay, especially in damp, "catchy" weather, the side-delivery rake puts the hay in straight, even-sized windrows, and the loader belted the wagon dispenses with the heaviest of all the field labor of haying, viz., pitching on by hand. The Maxwell weeder and other seasonable implements described also merit the careful attention of our readers at this season. The following from the Agriculturist at the Ontario Agricultural College speaks for itself:

Messrs. David Maxwell & Sons, St. Mary's, Ont.:

Gentlemen.—The hay loader and side-delivery rake purchased from you last summer have given excellent satisfaction, and I regard them as very important labor savers.

G. I. PAX

"But who can Paint like Nature!"

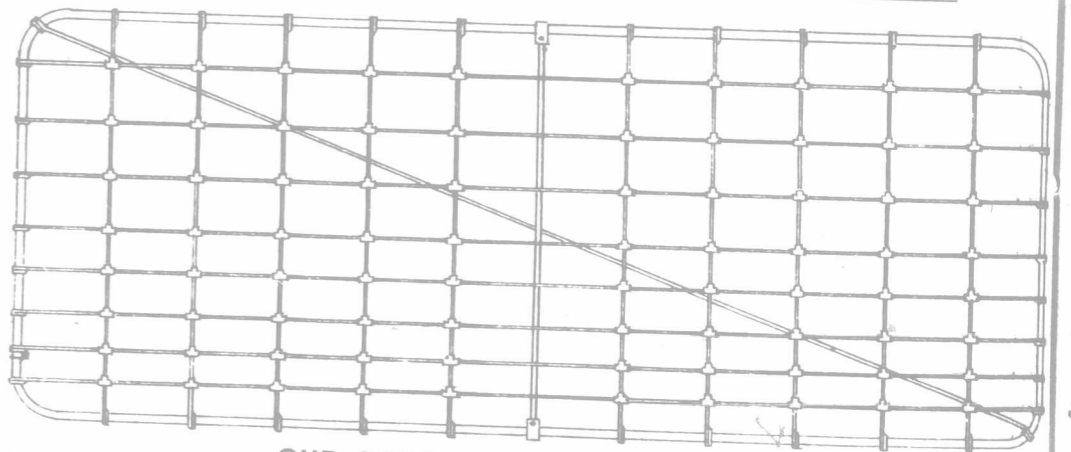
It is not given to us to paint like nature, but the Canada Paint Company take the crude pigments which nature so generously provides, and fashions them into a number of striking and serviceable colors for the use of the community. To go straight to the point, if you are interested in good, durable paint, patronize your local dealer who carries a full line of the Canada Paint Company's manufactures. If he has not got the color you require, ask him to write to the largest makers in Canada, The Canada Paint Company.



CLIP YOUR HORSES
with 20th Century Clipper **ONLY \$5**

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

CHICAGO FLEXIBLE SHAFT CO.
209 Ontario St., CHICAGO, ILL.



OUR STEEL FRAME GATE.

The above cut represents our Steel Frame Gate, and is wired with coil spring steel wire; cross wires securely fastened with our Anchor Clasp, making the gate one complete piece.

Agents make good money selling our Fencing and Gates. Write for catalogue and prices.

ESPLEN FRAME & CO., STRATFORD, ONT.

A GREAT COMBINATION!



Good Cows
AND A
U.S. SEPARATOR
FILL THE
FARMER'S
POCKETS
WITH
MONEY!

The U. S. Separator gets all the cream from the milk,
The cream makes the butter,
The skim-milk makes the calf,
All bring in the cash.

Send for Catalogue

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

For further information, please refer to page 334, mention the FARMER'S ADVOCATE.

ESTABLISHED 50 YEARS.

Ye Olde Firme of Heintzman & Co.

ESTABLISHED 50 YEARS.

HERE IS A MAIL-ORDER OPPORTUNITY IN

Bargain Organs

CHOICE OF 14 ORGANS AT SENSATIONAL PRICES.

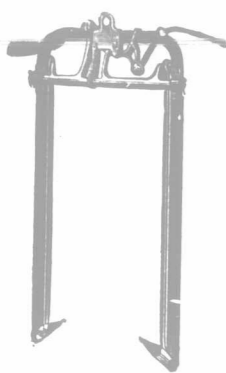
THIS LIST is prepared especially for buyers out of town. We have established a remarkable business in organs and pianos through the mails. Our customers stretch from ocean to ocean. Completest satisfaction is guaranteed. We willingly refund money if instruments are not just as we describe them. Here is a list of 14 organs, all carefully overhauled at our own works before offered for sale. Respond quickly and secure good choice.

- Thomas Organ, Woodstock, Ont.: Walnut piano case, handsome veneered marquetry panels, 6 octaves, 13 stops, including vox humana stop, 5 sets of reeds and sub-bass set, treble and bass couplers, grand organ and knee swell. This is an exceptionally fine organ, and has been used less than three months. Regular price, \$145; special price.....\$92.50
- Doherty Organ: Walnut piano case, extra handsome carved panels, 13 stops, 6 octaves, 5 sets of reeds, treble and bass couplers, grand organ and knee swell. This is a very fine parlor organ, and has been used less than four months. Regular price \$140; special price.....\$89.50
- Thomas Organ: Chapel case, suitable for Sunday School or small Church, with mouse-proof pedals, 13 stops, 5 sets of reeds. Used less than three months. Regular price, \$95; special.....\$61.00
- Dominion Organ: High back, nicely-panelled case, 5 octaves, 11 stops, 5 sets of reeds and sub-bass, octave coupler and grand organ and knee swell. Regular price, \$145; special.....\$75.00
- Dominion Organ: Nicely panelled, walnut case, with 5 octaves, 13 stops, 7 sets of reeds, very suitable for Sunday School or small Church, octave coupler, grand organ and knee swell. Regular price, \$125; special price.....\$55.00
- Dominion Organ: High back, panelled walnut case, 5 octaves, 10 stops, 4 sets of reeds, octave coupler, grand organ and knee swell; a nice parlor organ. Regular price, \$125; special.....\$53.00
- Dominion Organ: High back, panelled case, 5 octaves, 10 stops, 3 sets of reeds and sub-bass set, octave coupler and knee swell. Regular price, \$125; special.....\$51.00
- Thomas Organ: High back, 5 octaves, 11 stops, 4 sets of reeds, treble and bass couplers, grand organ and knee swell. Regular price, \$115; special.....\$47.00
- James & Co. Organ: High back, 5 octaves, 10 stops, 4 sets of reeds, bass and treble coupler. Regular price, \$115; special price.....\$45.00
- Kilgour Organ: High back, 5 octaves, 11 stops, 4 sets of reeds, treble and bass couplers, grand organ and knee swell. Regular price, \$110; special price.....\$43.00
- Dominion Organ: High back, 5 octaves, 4 sets of reeds, octave coupler, 8 stops, nicely-panelled case and grand organ and knee swell; good parlor organ. Regular price, \$115; special.....\$41.00
- Powell Organ: High back, 9 stops, 5 octaves, 4 sets of reeds, and knee swell; a very handsome case. Regular price, \$95; special price.....\$40.00
- Thomas Organ: High back, 5 octaves, 4 sets of reeds, 9 stops, grand organ and knee swell. Regular price, \$85; special price.....\$39.00
- Karn Organ: Medium high back, 5 octaves, 9 stops, 4 sets of reeds, octave coupler, grand organ and knee swell. Regular price, \$85; special price.....\$37.00

LITTLE PRICES. PAYMENTS TO SUIT CUSTOMERS.

THESE ORGANS are sold under the following conditions: Organs under \$50, \$5 cash and \$3 per month; organs over \$50, \$10 cash and \$4 per month. Discount of 10 per cent. off for cash. Freight paid to any point in Ontario, and satisfactory arrangements made to other Provinces. If monthly payments are not convenient, quarterly or half-yearly payments can be arranged to suit.

YE OLDE FIRME OF
HEINTZMAN & CO.,
115-117 KING STREET WEST, TORONTO.



PROVAN'S PATENT REVERSIBLE Carriers, Fork and Slings

FOR ROUND IRON, WOOD OR ANGLE STEEL TRACKS,

Have now become a standard of excellence with the farmers of Canada and the United States. At the World's Fair, Chicago, 1893, the only medal and diploma given on hay carriers, forks and slings was awarded to us on these implements. Following is a copy of the judges' award: AWARD.—"For open trip hook to receive the sling; automatic clutch, adjustable for size of load desired; ingenious design of stop-block, which enables perfect control of carriage; no springs required for locking car, which has motion in all directions; compact form of fork, which can be tripped in any position; the car is reversible and of double action; for novelty, ingenuity and usefulness, excellence of material and construction." Correspondence solicited. Manufactured by

JAMES W. PROVAN,
Special discount for cash. OSHAWA, ONT., CAN.

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

NOTICES.

DITCHING PLOWS—Labor is scarce, and ditching is hard, expensive work. This is the age of machinery, and it may be a profitable investment to purchase one of Scott Bros.' ditching plows. They dig the trench, and that is the hardest part in draining. See the plow advertised in another column.

SHEEP DIP—Look up Kemp's Sheep Dip advertisement in this issue, on page 346. It is claimed to be the best and cheapest tick destroyer in the market. If your druggist has not got it in stock, the agent for the Dominion of Canada, Mr. W. W. Stephen, Meaford, will send it, express paid, for one dollar. This is a first-rate offer.

THE DANDY WINDMILL—Intending purchasers of windmills would do well to study the advantageous features of the "Dandy," manufactured by the Woodstock Wind Motor Company. It has graphite bearings, and operates with commendable ease and safety under all conditions. Even in storms, it may be depended upon to thoroughly control itself. The firm also makes grinders, pumps, water tanks, drinking basins and saw benches, all of which will be found reliable in design and construction.

THE KIND OF SEEDS THAT YIELD—For nearly half a century Ferry's seeds have been known, until farmer and gardener alike have learned to depend upon their wonderfully reliable growing and yielding qualities. It is better to pay a little more for the seed and be assured of a great deal more at the harvest by sowing Ferry's seeds. The Seed Annual, which is sent free, postpaid, will be found unusually interesting and instructive. Write for it to-day. Address D. M. Ferry & Co., Windsor, Ont.

PREFERS BUG DEATH—The Maine Farmer, of a recent date, contains a signed article by the editor, Dr. G. M. Twitchell, in which he argues against the use of arsenical compounds in spraying as more or less injurious to leaves and blossoms, and, consequently, detrimental to plant development, particularly in the case of potatoes, which he emphasizes as one of the great staple crops of the State. He gives his testimony very emphatically in favor of the use of the preparation known as Bug Death, as a non-injurious (to the plant or bees), safe and effective agent. By its use, he is satisfied that the plant can be protected from disease and insect pests, and its growth consequently promoted. Dr. Twitchell states that he is not, directly or indirectly, interested in the manufacture or sale of that or any other compound, but expresses his opinion solely in the public interest.

BOOK REVIEW.

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

"THE CANADIAN GARDEN."

Mrs. Annie L. Jack, whose name is not unfamiliar to "Farmer's Advocate" readers, has written an admirable handbook on the above subject. It is really surprising how much valuable information she has interestingly packed in so compact a form. It deals with the lawn, the kitchen, fruit and vegetable garden, respectively, in an exceedingly practical way, and concludes with a good chapter, telling what should be done each month, just as a reminder. Busy women and others who want suggestions in the direction indicated will welcome this book, which Wm. Briggs (Toronto) has published in good convenient style. It makes its appearance just when wanted, at the beginning of the season, and may be ordered through this office at 50 cents. It is thoroughly Canadian, and a credit to the country.

You Must Get the Book.

You who are sick and are waiting—you must get my book.

Most, if you hope to get well, for I know that these diseases, when chronic, are seldom cured in common ways.

Must is a strong word, but it's true. You will know soon or late that a permanent cure demands my help.

I will mail you an order—good at any drug store—for six bottles Dr. Shoop's Restorative. You may take it a month on trial. If it succeeds, the cost is \$5.50. If it fails, I will pay the druggist myself—and your mere word shall decide it.

No other physician ever made such an offer. No other remedy could stand such a test. For your own sake, don't neglect it, when you risk not a penny, and success means health.

I have spent a lifetime in learning how to strengthen weak inside nerves. My Restorative brings back that power which alone operates the vital organs. I treat a weak organ as I would a weak engine, by giving it the power to act. My way always succeeds, save when a cause like cancer makes a cure impossible. And most of these chronic diseases cannot be cured without it.

You'll know this when you read my book.

Simply state which book you want, and address Dr. Shoop, Box 52, Racine, Wis.

Book No. 1 on Dyspepsia.
Book No. 2 on the Heart.
Book No. 3 on the Kidneys.
Book No. 4 for Women.
Book No. 5 for Men (sealed).
Book No. 6 on Rheumatism.

Mild cases, not chronic, are often cured by one or two bottles. At all druggists.

Our Seeds

Have been the standard of excellence for nearly half a century. We send by mail, postpaid, Seeds, Plants, Bulbs; larger parcels by express or freight. Direct deal will insure you the best and save you money. Try us. Your address on a postal will bring you our elegant catalogue, free.

J. A. SIMMERS,
TORONTO, ONT.

BRITISH COLUMBIA FARMS

Mild climate, the best dairy country in North America. No blizzards. No cyclones. No droughts. No hot winds. No summer frosts. No cloudbursts. The heaviest crops per acre in Canada. We make this statement without fear of contradiction. Cool nights and good water. The best price for all kinds of farm produce. **THE CALIFORNIA OF CANADA**, with land at one-tenth the price.

Write for farm pamphlet to
THE SETTLERS' ASSOCIATION,
BOX 540 VANCOUVER, B. C.
Please refer to this paper.

Fruit and Shade Tree Preservation Shield

JOHN CHAMBERS, Toronto's Parks Commissioner, says: "It is the best I have ever seen."

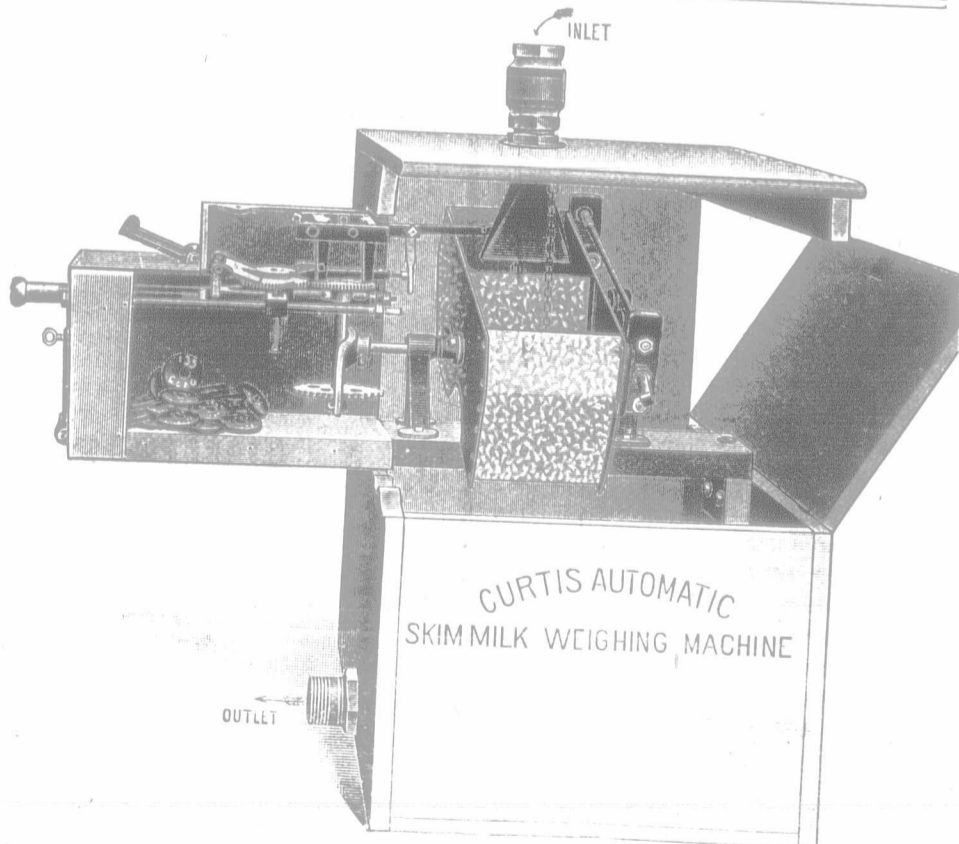


PRESERVES FRUIT AND SHADE TREES from all damage from insect pests. The only effective device. Supplied in rolls of 100 feet. A simple tool furnished to cut and adjust lengths to fit any tree. The Shield bars access to the branches. The chemically-treated felt collar kills them. For particulars address—

TREE PRESERVATION CO., Ltd.,

84 Wellington St. West.

TORONTO, ONTARIO.

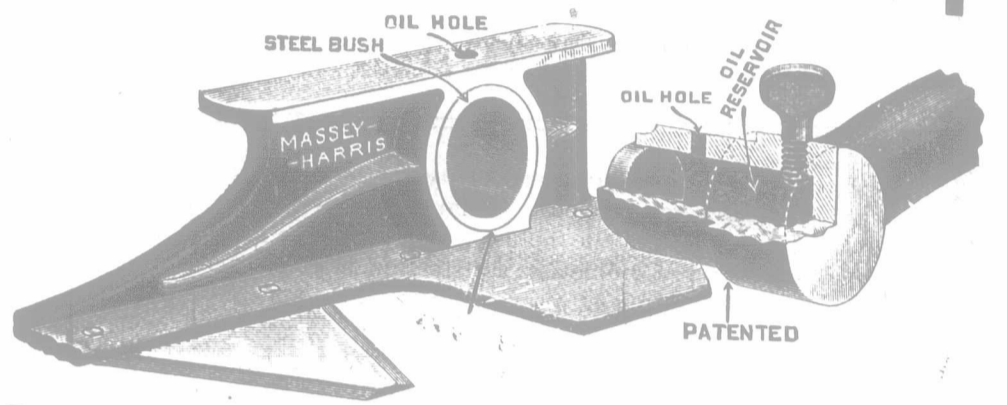


Are you a patron of a cheese factory or creamery?
Do you get your just portion of whey or milk?

Creamery Package Mfg. Co., Cowansville, Quebec.

THE PITMAN ON THE Massey-Harris Mower

IS EQUIPPED WITH ROOMY OIL CHAMBERS AT EITHER END.



The oil is drawn up by suction through the oil hole by the natural action of the Pitman.

These patented features, to be found on Massey-Harris Mowers only, add greatly to the life of the bearings.

The Plymouth Trade-mark stands for everything that is best in

BINDER TWINE



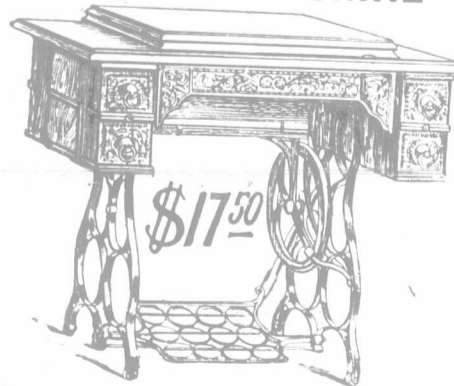
Its excellence is in its

**Quality,
Length,
Evenness and
Strength.**

Would advise you to place your orders early with our agents.

PLYMOUTH BINDER TWINE AGENCY,
Distributors for Eastern Canada.
ABERDEEN CHAMBERS, TORONTO.

NOT ONE MACHINE HAS BEEN RETURNED.

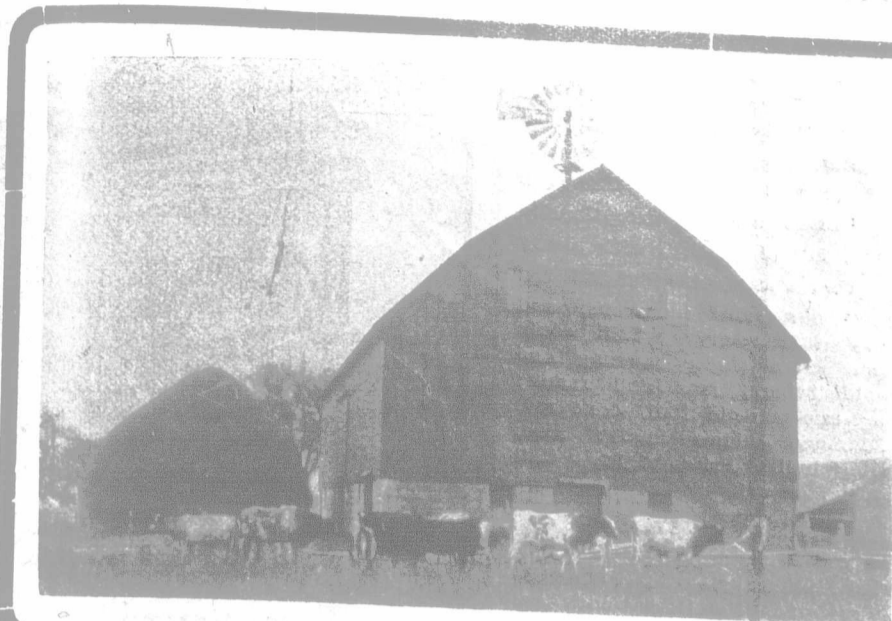


WE have been sending out our Sewing Machines for Free Trial for nearly two years. They have gone to every part of Canada, from Prince Edward Island to British Columbia, without one dollar being sent in advance. Not one of these machines has ever been returned. Every one sent out has proved satisfactory, and has been retained and paid for. Our booklet contains 4 pages of letters received from those who have tried them.

We take no risk in sending out our sewing machines on Free Trial. They are better in all essential features than any of the high-priced machines, and they cost only about half as much. We have 8 styles, varying in price from \$17.50 to \$35. For \$21.50 we furnish a machine guaranteed for 20 years, and with more hard-ened and tempered parts than any of the high-priced machines. Let us send you one on Free Trial, and then test it and compare it with the high-priced machines in your own home. Our little pamphlet, "All About Sewing Machines," explains their important parts and tells how to test them. It will be sent to any address on application.

WINDSOR SUPPLY CO., Windsor, Ont.

In answering inquiries, please refer to this page. Kindly mention the FARMER'S ADVOCATE.



This is Mr. T. L. Pardo's (M. P. P.)
New Basement Barn
 The finest and largest in Kent Co., Ont.
**WALLS AND FLOORS BUILT WITH
 THOROLD CEMENT**

What Mr. T. L. Pardo says:
 Cedar Springs, Kent Co., Ont., Nov. 21, 1899.
 Estate of John Battle, Thorold, Ont.
 Dear Sirs.—I write to say that we have now fully completed the stabling in my new barn, and I am well pleased with the work done throughout the whole building, which is 51x100 feet, with the basement walls 9 feet high, and a silo 14x14 feet, same height as walls built in a corner of the basement wall, there being a concrete floor throughout the whole butting. We used in all 200 bags of your Thorold Cement in this work, with the result that our walls and floors are as hard as rock itself.

Yours truly,
 T. L. PARDO.
EST. JOHN BATTLE
 Manufacturers of "Thorold" Cement
 and Dealers in Portland Cements,
THOROLD, ONT.

SUPERIOR DISC DRILLS



SUPERIOR DRILLS ARE NOW ON SALE IN CANADA.

The above illustration shows the SUPERIOR SINGLE DISC DRILL. It is an interchangeable Drill. It can be supplied with Double Discs or Shoes, as purchaser may desire. To change from one style to another it is only necessary to remove draw-bars and discs. The bars bolt to front of frame. SUPERIOR DRILLS are made of the best material. They are strong and durable. They save seed, time, worry and repair bills. They do more work with less labor to both man and team than any other drill. SUPERIOR DRILLS successfully sow all kinds of grain, under any condition of seeding, in every section of the grain-growing world.

WRITE FOR FREE CATALOGUE AND INFORMATION TO
AMERICAN SEEDING MACHINE CO., - Superior Branch, - SPRINGFIELD, OHIO, U. S. A.

CONSUMPTION

CAN BE CURED.

Consumption uninterrupted means speedy and certain death. The generous offer that is being made by Dr. Slocum, the great lung specialist. Sunshine and hope for stricken families.

Confident of the value of his discoveries, he will send free four sample bottles upon application, to any person suffering from throat, chest, lung and pulmonary affections.

TREATMENT FREE.

To enable despairing sufferers everywhere to obtain speedy help before too late, Dr. Slocum offers

FULL FREE TREATMENT

CONSISTING OF FOUR LARGE SAMPLES to every reader of this paper.

You are invited to test what this system will do for you, if you are sick, by writing for a

FREE TRIAL TREATMENT

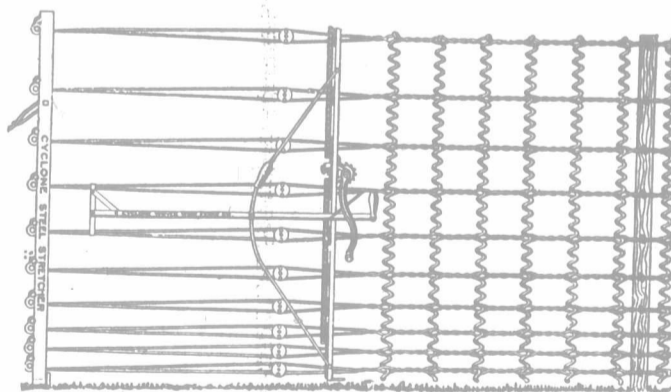
and the Four Free Preparations will be forwarded you at once, with complete directions for use.

The Slocum System is a positive cure for Consumption, that most insidious disease, and for all Lung Troubles and Disorders, complicated by Loss of Flesh, Coughs, Catarrh, Asthma, Bronchitis and Heart Troubles.

Simply write to the T. A. Slocum Chemical Company, Limited, 179 King Street West, Toronto, giving post office and express address, and the free medicine (the Slocum Cure) will be promptly sent.

Persons in Canada seeing Slocum's free offer in American papers will please send for samples to Toronto. Mention this paper.

THE CYCLONE SWEEPS THEM ALL.



Fence Weaving Machinery.

Lawn and Cemetery Fence.

Wire Wholesale and Retail.

Cyclone Woven Wire Fence Co., LIMITED.

TORONTO, - ONT.
 Write for circulars, on



CARRIAGES

AT FIRST COST.

By our system of selling carriages direct to the customer, you can purchase a buggy, phaeton or other high-grade carriage, or harness, one-third less than from a local dealer. Why not?

Deal direct with the Maker

And save two profits! We give the broadest guarantee with each purchase. You can return the vehicle, and we will pay freight both ways, if you are not thoroughly satisfied. Our complete illustrated catalogue, showing many styles of vehicles and harness, with detail description of each, mailed free. Address:

INTERNATIONAL CARRIAGE COMPANY, Brighton, Ontario.

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

GOSSIP.

The Central Ontario Pure-bred Stock Association held a sale of twenty young Shorthorns—principally bulls—at Campbellcroft, on March 18th. The average was about \$66. The efficient management of the event was largely due to the enterprising secretary, W. B. Campbell, Campbellcroft; the president, J. W. Martyn, Canton, and R. L. Holdsworth, Port Hope. Mr. Henry Wade, Registrar of Live Stock, Toronto, made an opening address, and afterwards received a hearty vote of thanks.

Messrs. C. & J. Carruthers, of Coburg, Ont., write us saying: "We have made a good number of sales through our advertisement of Shorthorns in the 'Advocate.' Mr. Ed. Robinson, of Markham, took several cows and heifers, and Hon. Thos. Greenway, Manitoba, got a good bull. Some of our stock has gone as far east as Prince Edward Island. We have also good demand for Yorkshires and Berksheires and for Barred Plymouth Rocks, of which we are looking orders for eggs for hatching; also, for spring pigs when weaned. Have also a good litter of Berksheires, four months old, which we are offering for sale."

Mr. Edwin Battye, Gore Bay, Ont., who advertises Shorthorns in another column, writes us: "I have sold recently to James McCutcheon, of Sandfield Island, one heifer calf, out of Jilt 22nd (imp.), and by Royal Emperor =40416= (79809). This heifer is a grand individual. Also, two yearling heifers, Mina May 2nd and a Crimson Flower heifer, Duchess of York. These are in calf to Royal Emperor. These make ten females and one imported bull sold to Mr. McCutcheon in the last few months and gives him a grand herd, as they are all good individually and of splendid breeding. Sold to Herbert Wright, of Guelph, Imp. Honeysuckle 2nd and heifer calf, Red Lady, by Royal Emperor (imp.). Honeysuckle 2nd is by Rosario (75471), out of Honeysuckle, by Coldstream (60510), and is in calf again to Royal Emperor. She is a nice young cow, with lots of cow character—what the Scotchman calls "a lady coo," and in this, her first calf, gives evidence of her breeding qualities. Royal Emperor, =40416=, bred by W. S. Marr, was sired by Bapton Emperor; dam Roan Lady 32nd, by Wanderer; grandam Red Lady 18th, by William of Orange. Red Lady 18th was the dam of Watt's Royal Sailor, and Bapton Emperor sold, as a yearling, for 800 guineas, was bred by J. D. Willis, was first-prize yearling and champion male at the Royal Show at Maidstone in 1899; first and champion at Liverpool, and first at Exeter and Windsor same year. The herd has wintered well and is looking its best."

IMPORTATION OF WHITEFACES.

At the recent Hereford sale of F. A. Nave, Attica, Ind., O'Neil Bros., of Southgate, Ont., added liberally from the choice ones to their herd of whitefaces. Among the number purchased were Salisbury Lass and a bull calf by Pretorian; the imported cow, Portia, by Post Orbit, with bull calf by Protector; Lemon, with bull calf by Protector; and Theovelt, a very richly-covered four-year-old cow, by the great bull, Sweepstakes, and her bull calf by Golden Star. To head their herd, the O'Neil Bros. purchased from W. S. Van Natta & Son the royally-bred bull, Onward. Onward is twenty-seven months old, and weighs 1,900 lbs. His sire is the great March On, and his dam Columbia is also the dam of Christopher and Columbine, whose show-yard records will not soon be forgotten. It is needless to say that this importation will immensely improve the Southgate Herefords, and the "Farmer's Advocate" congratulates Messrs. O'Neil on so valuable an addition to their herd. Mr. Nave's sale is an annual affair and attracts large crowds, as in this herd the very best of Hereford bulls have left their stamp. Protector, the \$6,500 bull, a champion in England, stands here. The top price realized at this sale was \$860.00, for a Dale heifer. Royal Daisy, the dam of March On, brought \$800, but the Corrector show cow, Benison, by Dale, went as low as \$650. For the bulls—a fair lot—the top price was \$325.00.

WINNING THEIR WAY ON QUALITY ALONE

"SALADA"

CEYLON GREEN teas are pure, delicious and wholesome, and as far ahead of Japan teas as "SALADA" Blacks are ahead of all other black teas. Sold only in sealed lead packets—25c., 30c., 40c., 50c. and 60c. per lb.

When Buying a

Wagon

Ask your dealer
for one
manufactured by

THE MILNER
PETROLEA WAGON
COMPANY,
LIMITED.



They are perfect in design.
Unequalled in quality of material
and workmanship throughout.

FACTORY AND HEAD OFFICE:

PETROLEA, ONT.

Reader, ALWAYS
INSIST

on your dealer
supplying you with

E. B. EDDY'S

Matches,
Washboards,
Woodenware,
Indurated
Ware, Etc.



WARES.

THERE ARE NONE SO RELIABLE
FOR SALE EVERYWHERE.

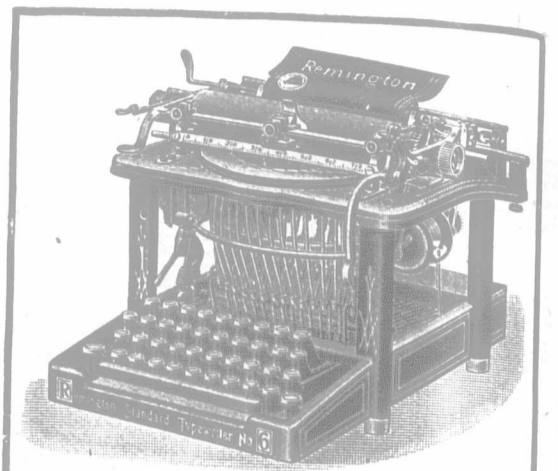
GOSSIP.

Messrs. E. & C. Parkinson, Thornbury, Ont., write: "The Beaver Valley herd of Shorthorns were never in better condition; have wintered well. The crop of young calves are an exceptionally uniform lot, full of quality, with plenty of size. This season, the demand has been good, our sales numerous, and prices very satisfactory. Still could spare some extra choice yearling and two-year-old heifers, reds and roans; also, one two-year-old bull, dark red, got by Diamond Jubilee (imp.); also, one yearling bull. Prices right. Call and see them, or write us.

Mr. Arthur Johnston, of Greenwood, Ont., writes, in changing his advertisement, to say that the Greenwood herd of Shorthorns is in excellent condition. The young things, in particular, are looking their very best. We still have six splendid young bulls, sired by imported bulls and out of imported dams of the very nicest Scotch breeding. We also have five very fine young bulls, out of first-class dams and by imported sires. We still have a very excellent lot of heifers, from imported Scotch cows and by imported sires, as well as capital heifers, bred from cows of the very nicest pedigrees, and sired by imported bulls of outstanding merit and the richest breeding. We are selling at the lowest living prices to make room. Of recent sales, five go to points in the United States and six to Canadian destinations. The demand is good and prices fair.

IMPORTANT SALE OF IMPORTED SHORTHORNS COMING.

Among stockmen throughout the Dominion great interest will center in the announcement, in our advertising columns, that on May 13th there will be sold at auction in the village of Markham, Ont., the entire herds of 45 head of imported Scotch Shorthorns, belonging to Messrs. Geo. Isaac, of Bomanston, Ont., and John Isaac, of Markham, Ont. Not for many years has such an opportunity offered for the selection of foundation stock for a herd fresh from the fountain-head, and in view of the quarantine regulations now in operation, it is certain that not for years to come will so many imported cattle again be offered in one sale. Messrs. Isaac has enjoyed special advantages in securing these cattle, having relatives in the business in Aberdeenshire who have had a lifelong training in the breeding of Shorthorns of the approved modern type, and being thoroughly acquainted with the best Scotch breeders and herds, have special facilities for securing stock that fills the bill for this country and for the times. The animals are all young and are of the blocky, thick-set, deep-fleshed type, and most of the females of breeding age have been bred to high-class bulls in Scotland or to first-class imported bulls of the same type here. The sale has been fixed at a time that should suit buyers, the spring seeding and the season for stable-feeding being practically over and the pastures nearly if not quite ready to turn into. It will be a rare opportunity for young breeders to secure a foundation for a family of up-to-date character, and there are few breeders of any standing whose herds would not be helped by the introduction of new, fresh blood of the class contained in this offering. The location chosen for this sale is convenient and is in the center of one of the best districts in the Dominion for high-class Shorthorn herds. Markham and Pickering adjoining may be said to have been the pioneer home and nursery of Scotch Shorthorns in Canada, and has proven a congenial breeding ground for them for 40 years or more. Mr. Geo. Isaac having sold his farm and Mr. John Isaac rented his, they have nowhere to keep these cattle and have resolved on a dispersal sale, which will be absolute and unreserved. Let every one who feels an interest in this sale apply in good time for the catalogue, and arrange his plans for an outing on the day of this sale. Further notes of this offering may be looked for in next issue.



Remington Typewriter

Simple? Yes
Sure? Yes
Swift? Yes
Strong? Yes

Remington Typewriter Co.
6 RICHMOND STREET EAST, TORONTO.
BRANCHES:
LONDON, HAMILTON, OTTAWA.

Churn, Churn!

Windsor salt lightens the task of churning butter. Every flake of it dissolves quickly—you'll find no gritty particles in the butter, because Windsor Salt is all Salt.

Windsor
Salt.

Best grocers sell it.

Valuable Farm and Residence for Sale

In Lambton Co., Ont., e. 4 lot 11, con. 2, Plympton Tp.; 1 1/2 miles from Wyoming, 12 from Sarnia, 6 from Petrolia; the best market in the west. One hundred acres, newly fenced with rail and woven wire; nearly all tilled. Oil well on farm, gas for heating house, power mill on barn, runs oil well, water well, etc.; five acres woods; nearly all seeded down; abundance of good spring water; church and school convenient; barn 40x76, pigpen, henhouse, corn crib, large two-storey brick veneer house, cistern; about 200 fruit trees, all kinds. Terms—\$1,000 cash, balance to suit purchaser. For further particulars address
C. H. CHAPMAN,
Box 156, Wyoming, Ont.

Seed Oats, Speltz and Seed Potatoes for Sale

OATS—Salzer's Big Four, New Century and Waverly. Also speltz POTATOES—Early varieties: Burpee's Extra Early, Steele's Earliest of All, Hammond's Early Rose, and Salzer's Early Fortune. Late varieties: Salzer's Pricetaker, Salzer's Free Silver, and Hammond's Wonderful. Also a few Shorthorn bulls, English Berkshires and Improved Chester Whites. Young stock always for sale. Write for prices to
T. E. BOWMAN, - BERLIN, ONT.

Easter Term Commences April 1st.

CENTRAL
Business College
STRATFORD, ONT.
An excellent time to enter this famous school. Mail courses given to those who cannot attend college. Write for catalogue.
W. J. ELLIOTT, Principal.

New Waverly White Oats, Yield 80 bushels white oat; thin hull and immense stooing qualities. Price, \$1.00 per bushel, f. o. b. Also Early Daubeny and New Zealand oats at 50c. per bush. Bays extra. Barred Plymouth Rock cockerels, \$2 each. Shorthorn cattle, both sexes. o R. E. WHITE, Perth P.O. and Sta., C.P.R.

Expansion in the West.

Increased trade with the Orient and wonderful commercial activity are 1903 features along the Pacific Coast.

Only \$33 Chicago to San Francisco, Los Angeles, Portland, Tacoma, Seattle, and many other Pacific Coast points, February 15 to April 30, 1903.

Via Chicago, Milwaukee & St. Paul and Union Pacific lines. Three thro' trains daily. To the Northwest via this route, or via St. Paul.

A. J. TAYLOR, Can. Freight and Pass'r Agt., 8 King Street East, Toronto, Ont.

Eggs for Hatching
From three grand pens of Felch's Barred Rocks. \$1.50 per setting of 15. A. T. GILBERT, Elmvale, Ont.

FOREST CITY POULTRY YARDS.
33 Brisbane St., London, Ont. Wm. PULVER, Prop., breeder of pure-bred Black Minorcas, Barred Rocks, S. and R. C. Brown Leghorns and S. C. White Leghorns. Orders taken for eggs, \$1.25 per 15 eggs. Stock first-class and prices reasonable.

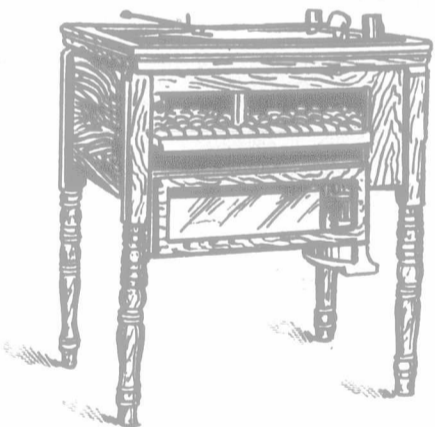
PINE HILL POULTRY YARDS
Is prepared to do a larger and better business than ever. Eggs from B. and W. Rocks, W. and S. L. Wyandottes, S. C. Dorkings, W. and B. Leghorns, \$1 per 13. Pekin duck eggs, \$1 per 11; M. B. turkey eggs, \$2 per 9; Toulouse geese eggs, 35c. each. All eggs shipped fresh, and from the best of stock. D. A. GRAHAM, Thedford, Ont.

How to make

DOLLARS

Out of Chicks.

Coarse grain and screenings will net \$1 a bush, if turned into chicken flesh. Poultry is the surest crop. The demand is unlimited.



The Chatham Incubator

will pay for itself in one hatch. It is built to last a lifetime, and will hatch a dozen broods a year. The prices are right. In the guarantee we lead where no other maker dares to follow. Write for catalogue and prices.

The M. CAMPBELL FANNING MILL CO., CHATHAM, ONT.

THE FARMER'S ADVOCATE.

Portland Cement Concrete Silo.

BUILT FOR SHERMAN HARRIS, VERSCHOYLE, ONTARIO, 14 feet in diameter and 30 feet high, WITH

"RATHBUN'S STAR" BRAND,

MANUFACTURED BY THE CANADIAN PORTLAND CEMENT COMPANY, LIMITED.

SOLE SALES AGENTS:

THE RATHBUN COMPANY,

310 AND 312 FRONT STREET WEST, TORONTO, ONTARIO

HERSEE & BICKELL Reliable Seeds

Are popular everywhere. They have made friends far and near. Every farmer, gardener and florist wants the best seeds that grow. Last year we were busy night and day filling the filling orders and receiving large numbers of inquiries for our seeds. Every reader of the "Advocate" gets Free Sample of Seeds and our Reliable Seed Annual for asking. Send at once.

NEW SCOTCH WHITE OATS.

Bush., \$1; 5 bush., \$4.50.

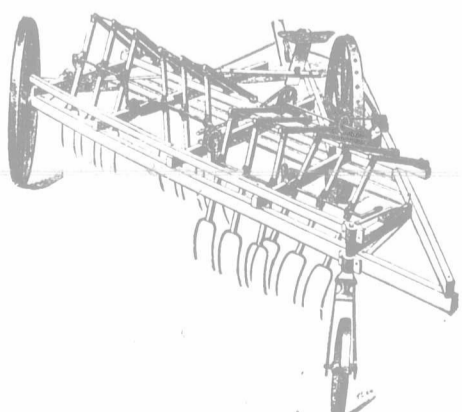
This new oat has made many friends the past two years, making the grower money. This we are glad to know, yielding 65 to 100 bushels per acre. Grain beautiful in color, thin hull, kernel long and plump, straw fine and not coarse, no sign of rust, and stands up well. We have had already many inquiries and orders for these oats, and we trust every farmer will sow an acre or two to see just what they will do.

Grass Peas (re-cleaned), bush., \$1. Wild Goose Wheat (re-cleaned), bush., \$1.20. Speltz, 50 lbs., \$1.25. Low prices in quantity.

We also give 50 pkts. of seeds for \$1, or 25 pkts. for 50c.—your selection from our Seed Annual, which is free. Address:

HERSEE & BICKELL, Seed Merchants and Growers, Woodstock, Ont.

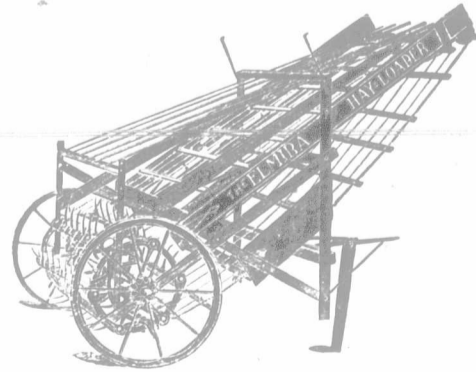
ELMIRA HAY-MAKING MACHINERY



IT PAYS WELL TO INVEST a small sum of money in buying Elmira Hay-making Machinery, as the direct returns in saving of labor and proper curing of hay more than cover the cost of the machines in a comparatively short time.

SURE TO SATISFY AND PLEASE YOU.

Circulars mailed and prices given to all enquirers.



The Elmira Agricultural Works Co., Limited, ELMIRA, ONTARIO

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

ELM PARK STOCK FARM. Pure Seed POTATOES.

"CLARK'S LEAMINGTON."—A new variety, resembling Pearl of Savoy. Price, \$2 per bag, 90 lbs.; \$1.75 in five-bag lots.
"PEARL OF SAVOY," Prof. Zavitz says, is one of the very best varieties for general use. \$1.60 per bag of 90 lbs.; \$1.50 in five-bag lots. Jute bags, 10c. each. F. o. b. Guelph, Q. T. R. or C. P. R.

BARRED ROCK EGGS—\$1 per setting, or 3 settings for \$2. We sold 20 of our cockerels to Government this season to use at Experimental Stations. Our Aberdeen-Angus, Clydesdale horses and Suffolk sheep are doing well.

JAMES BOWMAN, Guelph, Ont.

Snelgrove Poultry Yard. Barred Rocks exclusively. The decision of the judges on my birds at Guelph Ontario Show was, "Proper type for fattening." Eggs for hatching, \$1 per setting; 3 settings, \$2.

W. J. CAMPBELL, Snelgrove P. O., Ont.

EGGS! EGGS! EGGS! Buff Orpington and Buff Wyandotte settings, \$2.00; White Rocks, Brown Leghorns, \$1.25. Big, beautiful Black Cochon cockerel, \$5. A. J. GEORGE, 52 Clarence street, London, Ont.

BARRED ROCK EGGS

From a pen of 40 Barred Rock hens, selected for their good laying qualities; nice barring, and are all large, strong-boned, healthy birds having the free run of orchard, and mated with 2 choice cockerels, extra well barred, and of a fine type. \$1 per setting of 13, or \$2 for 3 settings.

W. C. SHEARER, BRIGHT, ONT.

EGGS FOR SALE: Buff Orpington and B. P. Rock and young Orpington cockerels.
THOS. JONES, Forest, Ont.

The Daniels Incubators



Are the latest and most modern invention for artificial hatching of turkeys, chickens and ducks. Do not forget, we guarantee the Daniels incubators to be satisfactory to the purchaser. Our brooders are perfect; at least our customers say so.

We carry a full line of poultry supplies. Our new catalogue is out, and is free for the asking. C. J. DANIELS, 196 to 200 TORONTO, RIVER ST., TORONTO.

Poultry and Eggs Wanted

CHICKENS } Empty crates forwarded on application.
DUCKS }
TURKEYS } Highest market prices paid.
GEESE } Correspondence solicited.

Toronto Poultry and Produce Co. OFFICE: 740 YONGE ST., TORONTO.

EGGS FOR HATCHING

Barred Rocks (exclusively). From two pens headed by two imported cockerels bred from a \$75 trio of A. C. Hawk's Royal Blue strain; \$1.00 per setting of 13. A. E. SHERRINGTON, Box 100, Walkerton, Ont.

COCKERELS

S. C. B. Leghorns, S. and R. C. B. Minorcas, B. and W. Plymouth Rocks and W. Wyandottes. Choicest "utility" and "fancy" strains. Write for circular. Eggs in season. JOHN B. PATTIT, Fruitland, Ont.

Eggs for Hatching

BARRED ROCKS a specialty. From a grand pen of 30 hens, famous for their large size, marvellous laying qualities and splendid color, mated to a large, robust, National strain cockerel. \$1 per set of 13. Order early. CLAUDE BLAKE, Poplar Vale Poultry Yards, Elgin County, ONT.

FOR SALE.

Mammoth Bronze turkey eggs; Chester White swine of good bacon type. Write for prices. W. E. WRIGHT, Sunnyside Stock Farm, Glanworth P. O., Ont.

EGGS FOR HATCHING.

S. C. Brown Leghorns exclusively. Most prolific layers. This strain wins highest honors at New York, Boston and Philadelphia shows. \$2 per 15, well packed. W. O. BURGESS, Queenston Ont.

WRITE AT ONCE.

For catalogue and testimonials. They are free. Ship your eggs in Morgan's Egg Baskets. We manufacture Incubators, Poultry Appliances and Supplies exclusively. It is not a side line with us. MORGAN'S Incubator Works, London, Ont.

EGGS FOR HATCHING

White Wyandotte, Buff Orpington, Houdan and Pekin duck, \$1.25 per setting. C. W. BEAVEN, Pinegrove, Prescott, Ont.

All Hands On Time

The second hand,
the minute hand,
the hour hand, run
in unison on an
ELGIN
Watch



Perfect in construction; positive in performance. Every genuine Elgin has the word "Elgin" engraved on the works. Illustrated art booklet free.

ELGIN NATIONAL WATCH COMPANY, Elgin, Ill.

NOTICES.

IN BINDER TWINE. the Plymouth brand stands for what is best in quality, length, evenness and strength. See the advertisement in this paper of the Plymouth Binder Twine Agency, Toronto, distributors for Eastern Canada.

SCALES.—The scales will tell whether the produce of the farm has been profitably fed or whether all efforts have been expended simply to maintain the stock over winter. For quotations on all kinds of scales, write or call on Geo. M. Fox, York St., London, Ont.

WOODSTOCK CEREAL CO.—Readers will notice, on another page, the advertisement of the Woodstock Cereal Co. Just now they are offering seed peas, and parties in need of such will receive prompt attention if they write the Woodstock Cereal Co., Woodstock, Ont.

THE ONTARIO WIND ENGINE AND PUMP CO. are favored with another order from South America for one of their Airmotors, embracing a complete outfit, including tanks, etc. This is for Guaco, Peru, and is anticipated to be the beginning of the trade in that quarter of the world. There is no better way of advertising Canada all over the earth than the export of her goods.

Finds Caustic Balsam to be Reliable.
Antigonish, N.S., April 30, 1902.
The Lawrence-Williams Co., Cleveland, O.:
I can say that I have for the past three years been a user of GOMBAULT'S CAUSTIC BALSAM, and have found it to be all that is claimed for it, and have in a great many instances recommended its use to others.—R. D. KIRK.

Expectations Realized.
Litz, Pa., March 22, 1898.
Mr. W. F. Young, Springfield, Mass.:
Dear Sir,—I am very well satisfied with your Absorbine, which did exactly what you said it would.
Yours respectfully,
JACOB BIEDINGER.

GOSSIP.

In this issue, we call attention to the advertisement of J. Crouch & Son, proprietors La Fayette Stock Farm, La Fayette, Indiana. This is one of the oldest importing firms in the country. They import all breeds of draft as well as the German Coach stallions. This firm have imported 359 head of stallions in the last 15 months and have 105 head now bought in Europe, which will be in their barns by April 1st. The German horse is a producer of high-class horses, and the horses of Crouch & Son won first prizes at all the leading fairs and horse shows in 1902. There are few farms in America that can show as many first-class stallions, both Coach and Draft, as Crouch & Son. Messrs. Crouch & Son are now offering for sale their stallions, and are anxious to buy for them. They are located 219 miles south-west of Chicago, on the main line of Wabash.


— THE —
Excelsior Life
INSURANCE CO.
Head Office: Toronto, Ont.
Absolute Protection. Profitable Investment. Agents wanted.

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

CLYDESDALES FOR SALE

New importation just arrived!

25
STALLIONS



Choice Breeding,
Excellent Quality and
Extra Large Size.

Stock has been personally selected. Inspection solicited and prices will be found right.

O. SORBY, GUELPH, ONT.
JOHN GARDHOUSE,
HIGHFIELD P. O., ONT.

Breeder of **SHIRES, SHORTHORNS** and **LEICESTERS.** Young stock for sale, both sexes. Scotch and Scotch-topped Shorthorns of such noted families as Imp. Rollas, Claret, Lovelys, Rosebuds, Blossoms, Crocos, Roses, and other noted families. The Imp. Lancaster bull, Prince Louis = 32082 = (77486), heads the herd. Farm 3 1/2 miles from Weston station, C. T. R. and C. P. R., and 14 miles north-west of Toronto.

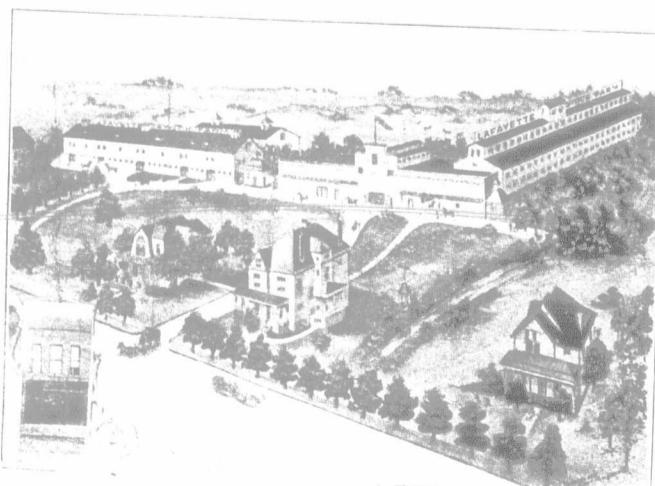
NEW IMPORTATION

Arrived January 21, 1903.
Thirty-five first-class stallions just added to our stock gives buyers an unequalled selection.

CLYDESDALES SUFFOLKS PERCHERONS
SHIRES HACKNEYS.

Call early and be convinced of the superior quality of our horses and our very reasonable prices. Over twenty years at the front.

ALEX. GALBRAITH & SON, Janesville, Wis.,
and Brandon, Manitoba.



LA FAYETTE STOCK FARM,
J. Crouch & Son, Props.
Importers of all breeds of
STALLIONS.

We are the largest Importers and Breeders of Oldenburg German Coach horses in America. We also import Draft horses of all kinds, including Belgians, Clydesdales, English Shires, and Normans. 359 head of Coach and Draft stallions imported in last 15 months.

La Fayette, Ind., U.S.A.


Terms easy. All stock guaranteed.

BOOK REVIEW.

Any book reviewed in this department may be ordered through this office, at the price stated.

BACTERIA IN MILK.—Dairymen all over the country will be pleased to learn that H. W. Conn, Ph. D., the celebrated bacteriologist, has published a book on bacteria in milk. After carefully examining a copy received from the publishers, P. Blackiston's Sons & Co., we have no hesitancy in recommending the new book to every person who is interested in handling milk in any way. One or two chapters are perhaps somewhat technical, but the greater part of the work is devoted to the practical discussion of the relation of bacteria to dairy products, and the part they play in the causation of disease. The book contains some 300 pages, is strongly bound, clearly printed and profusely illustrated. Ordering through this office, it may be secured for \$1.25.

IT SAVES TROUBLE
and annoyance many times to have
ABSORBINE



handy in case of a Bruise or Strain. This remedy is rapid to cure, pleasant to use, and Horse soon ready for work. No blister, no hair gone.

ABSORBINE removes any soft bunch from Animal or Man. \$2.00 per bottle, delivered or of regular dealers.

W. F. YOUNG, P. D. F., Springfield, Mass.
LYMAN, SONS & CO., Montreal,
Agents for Canada.

BAWDEN & McDONELL
Exeter, Ont.

IMPORTERS OF
Clydesdale, Shire and Hackney Horses

are now offering several imp. Clydesdale, Shire and two Hackney stallions, prizewinners in England, Scotland, and Canada, and representing the best blood alive; also several choice Canadian-bred ones. These animals are all true to type, and possess substance, quality, style and action.


RED RIBBON STUD

Largest Importers and Breeders of
Shire Horses

in the Dominion,
including first-prize winner at Royal Agricultural Show in England, and winning more prizes at Industrial and other large shows than all others combined.

Stallions and mares all ages, home-bred and imported, always for sale. Over 50 to choose from.

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



New Book on how to cure/prevent and cure/diseases of horses and cattle, to know sound horses, age, constitution, valuable recipes, etc., prepared especially for farmers, from facts gathered in 20 years' practice, by S. S. Dickinson. (Out shortly.) Advice by mail, \$1.

Address S. S. Dickleson, Port Hope, Ont.

ENGLISH SHIRE STALLIONS



RIGHT OUT FROM ENGLAND FOR SALE

Our stallions are sired by the leading sires of England, such as Prince Herald and others; ages from 2 to 4 years. They both include size and quality. Correspondence solicited.

H. GEORGE & SONS,
Putnam Station, C. P. R.,
7 miles from Ingersoll, Crampton, Ont.

DR. PAGE'S ENGLISH SPAVIN CURE

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

J. A. JOHNSTON & CO., DRUGGISTS,
171 KING STREET, EAST, TORONTO, ONT.

Thorncliffe Stock Farm

ROBERT DAVIES usually has on hand some fine specimens of Clydesdales, Hackneys, Jersey and Ayrshire Cattle, Yorkshire Pigs.

Correspondence solicited. Visitors always welcome at
THORNCLIFFE, TORONTO.

J. M. GARDHOUSE, WESTON P. O., ONT.
SHIRE AND CLYDE HORSES, SHORTHORN CATTLE, LEICESTER SHEEP.

One imp. 4-year-old Clyde stallion, half-brother to the champion Hiawatha, for sale. Also Clyde and Shire stud colts. Newham's Duke, the gold and silver medal Shire stallion, in service. Chief Ruler, bred by W. S. Marr, Uppermill, heads the herd. Imported and home-bred cattle for sale. Farm, 15 miles from Toronto. Weston station, G. T. R. and C. P. R., telephone and telegraph offices.

CLYDESDALE STALLIONS.
I am now offering the quality stallion, Highland Harry 2515, by MacInnis (imp.), a perfect model; and the stallion, MacInnis 2nd, by same sire. Also Ayrshire bull, Glencairn's Prince 13566. Write at once. DONALD CUMMING, Lancaster P. O. and Station

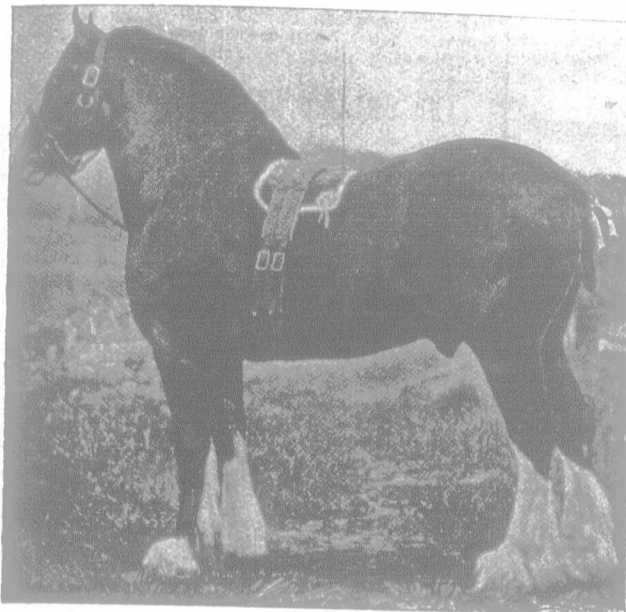
BELGIAN Stallions and Mares

IMPORTED LAST SEPTEMBER. THOROUGHLY ACCLIMATED.

The up-to-date drafter, big and medium weight, dark colors, short, straight back, no hair on legs, immense rumps, pony-built body. Not a shaggy lump of fat. A Klondyke in your stable. Honest value for honest money. Write, or better, come to



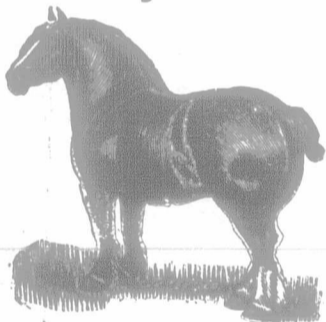
BARON DE CHAMPLOUIS, IMPORTER,
DANVILLE, QUEBEC.



ROBERT BEITH,
BOWMANVILLE, ONT.,
IMPORTER AND BREEDER OF
Clydesdale AND Hackney Horses

Is offering for sale a number of choicely-bred Clydesdales and Hackney stallions; also a number of Hackney mares. The Clydesdales are sired by the noted horses, Prince of Albion, King of the Roses, Lord Stewart and The Prior.

JOHN BRIGHT, MYRTLE, ONTARIO,
BREEDER OF
Clydesdales and Shorthorns,



Is now offering for sale 8 stallions, sired by such horses as Prince Patrick (imp.), Erskine's Pride (imp.), Sir Erskine (imp.), Royal Laurence (imp.). Also a number of mares and fillies. Shorthorns of all ages, of such families as Miss Ramsden, Clementina, Strawberry, Crimson Flower, Village Girl, Stamford, Rachel, etc.

Myrtle Station, G. T. R. and C. P. R.
Farm connected by log-distance telephone.

Hodgkinson & Tisdale
BEAVERTON, ONT.,
Breeder of
CLYDESDALE AND HACKNEY HORSES
AND SHORTHORN CATTLE.



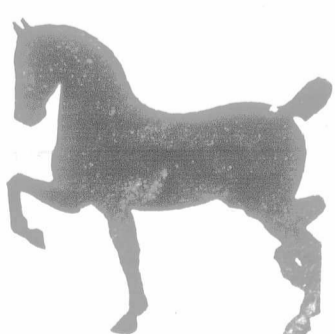
are now offering a number of choice mares and fillies, and a few young stallions, winners at Toronto; also a few nice harness horses.

Shorthorns of both sexes for sale.
BEAVERTON P. O. AND STATION.

100 PERCHERON, SHIRE AND HACKNEY STALLIONS AND MARES



All good ages, good colors, with lots of size, quality and action, at prices below competition, on easy terms. Every stallion sold on a gilt-edge and responsible guarantee. At the Indiana, Ohio, New York State Fairs, and International at Chicago, on eighteen head won 178 first prizes, grand sweepstakes and gold medals in the last three years. SPECIAL INDUCEMENTS TO CANADIAN BUYERS.



LEW. W. COCHRAN,

60 WEST MAIN ST., CRAWFORDSVILLE, IND., U.S.A.

GOSSIP.

Elmdale Stock Farm, lies about midway between the village of Grafton and the beautiful town of Cobourg, Ont., on the G. T. Railway. The herd of Holsteins now number twenty-five head, headed by Sir Hamming De Kol 2166, Vol. 5. His sire is Netherland Hamming De Kol; dam Woodbridge Belle 2363, 17,000 lbs. milk in twelve months; dam Edgley Mol, 104 lbs. milk in one day. The young stock of this herd is sired by Duke Concordia De Kol, grandson of that record-breaking cow, Sadie Vale Concordia, which made a seven-day record of 30 lbs. 10 ozs. butter in February last, also grandson of Concordia 2nd, A. R., 18 lbs. 15 4-5 ozs. butter in seven days. The names of other dams in his pedigree are Pauline Paul, record 1,153 lbs. 15 1/2 ozs. butter in one year; Sadie Vale 2nd, A. R., 9 lbs. 9 ozs. butter in seven days at twenty-two months old; Concordia, A. R., 94 lbs. 8 1/2 ozs. butter in thirty days; De Kol 2nd, A. R., 26 lbs. 9 ozs. butter in seven days; Sadie Vale (imp.), 23 lbs. 11 ozs. butter in seven days; Princess of Wayne, record of 29,008 lbs. 11 ozs. milk in one year; and Lady Netherland, A. R., 21 lbs. 3 ozs. butter in seven days. All of which shows this herd strong in all the leading families of the breed. Mr. W. J. Gerow, of Bloomfield, has just bought a fine young bull, and a few more nice ones are left. The crop of spring calves is turning out fine. Young stock of both sexes are for sale.

The Tamworths now number over 50, all told. Elmdale Ned 2503 and Newcastle Joe 3143 head the herd. The brood sows are all of the bacon type, and with all the breeding qualities combined.

SNELGROVE BARRED ROCKS.

The annual advertisement of eggs for hatching from the Snelgrove poultry yards of Mr. W. J. Campbell, Snelgrove, Ont., appears in this issue. Barred Rocks are kept exclusively, and among the males used in the flock this season are sons of a bird of Ringlet strain direct that cost \$23 a year ago. The eggs shipped from the Snelgrove yards in past years have given excellent satisfaction, both in hatching and in the quality and character of the birds, and the orders have been numerous and from a wide extent of country.

JUDGING ALIVE AND DRESSED.

Though somewhat belated, it may be of interest to feeders of bacon hogs to know that at the Ottawa Winter Fair the judging of the hogs alive and dressed compared very favorably. The first four lots alive taking the first four places dressed. One pig in the first-prize pen alive killed soft, which threw them back to third place dressed. But for this, the judges said they would have been first. The second-prize pen alive was, therefore, placed first in the dressed competition, the third second, and the first third. The judges of the live hogs were Messrs. R. H. Harding and G. B. Hood. The dressed carcasses were judged by packers.

A. CAMERON'S HOLSTEIN SALE.

The report of the auction sale of the Holstein herd of Mr. Andrew Cameron, Hastings, Ont., which, according to advertisement in the "Advocate," was held on January 28th, was late in reaching this office, but is regarded by Mr. Cameron as quite satisfactory, the attendance of farmers being large and the bidding spirited, the prices for registered animals running up to \$113, the highest price, which was paid for the cow, Myrtle May 2210, by Frank Greenbank, Norwood. The average for all, except young calves, figured at about \$75. The grade Holsteins sold high, the two-year-old heifers averaging \$15. Two two-year-old steers sold for \$101, and one yearling for \$34. A Lanester ram, two years old, sold for \$24. A ram lamb for \$18. Ewes, \$20 to \$25 a pair; a brood sow, \$27.50; and work horses from \$84 to \$131 each.

HORSEMEN! THE ONLY GENUINE IS

GOMBAULT'S CAUSTIC BALSAM.

See genuine without the signature of the Lawrence Williams Co. Sole Importers & Proprietors for the U.S. & CANADA. CLEVELAND, O.



Sore Shoulders
sore neck, sore back, etc., resulting from collar, saddle or harness galls and chafing, and all forms of canker, callous, etc., are instantly relieved and cured with Tuttle's Elixir.
Used and endorsed by Adams Express Company.
Dear Sir:—I had a horse that had two bunches on his shoulder, caused by wearing a new collar. Less than one bottle of your Elixir cured it after six months' standing.
Cures also curb, spilt, contracted cord, all forms of lameness and colic, distemper, founder, pneumonia, etc.
TUTTLE'S FAMILY ELIXIR cures rheumatism, sprains, bruises, etc. Kills pain instantly. Our 100-page book, "Veterinary Experience," FREE.
Dr. S. A. TUTTLE, 66 Beverly St., Boston, Mass.
Beware of so-called Elixirs—none genuine but Tuttle's. Avoid all imitations; they offer only temporary relief if any.
LYMAN, KNIGX & SON, Agents, Montreal and Toronto, Canada.

OAKLAWN FARM.

Greatest Importing and Breeding Establishment in the World.
Famous Prize-Winning Stud of
PERCHERONS and FRENCH COACHERS.
On hand upward of
500 HEAD.
Four Large Importations in 1902, forming, with our home-bred,

The Choicest Collection Ever Assembled, including Four of the Six First-Prize winners at the great annual French Show of the Societe Hippique Percheronne in 1902. At the recent INTERNATIONAL LIVE-STOCK EXPOSITION at Chicago, the Oaklawn Percherons achieved distinguished honors. The Champion Stallion and every First-Prize winner (except one) in the regular stallion classes were imported by Dunham, Fletcher & Coleman.
Notwithstanding the superior quality of our horses our prices are lower than can be obtained elsewhere in America.
Catalogue sent on application.

DUNHAM, FLETCHER & COLEMAN,
WAYNE, DU PAGE CO., ILLINOIS.

GEO. STEWART, Howick, Quebec,

IMPORTER OF
Clydesdale Horses

has now on hand for sale 3 two-year-olds and 1 yearling stallion, carrying the blood of Hiawatha, Darnley, Lord Erskine, Prince of Wales and Time O' Day, combining size, style, quality and action. Also 1 five-year-old mare, with filly foal. The best lot I ever imported. Write quick.
GEO. STEWART, Howick, Quebec.

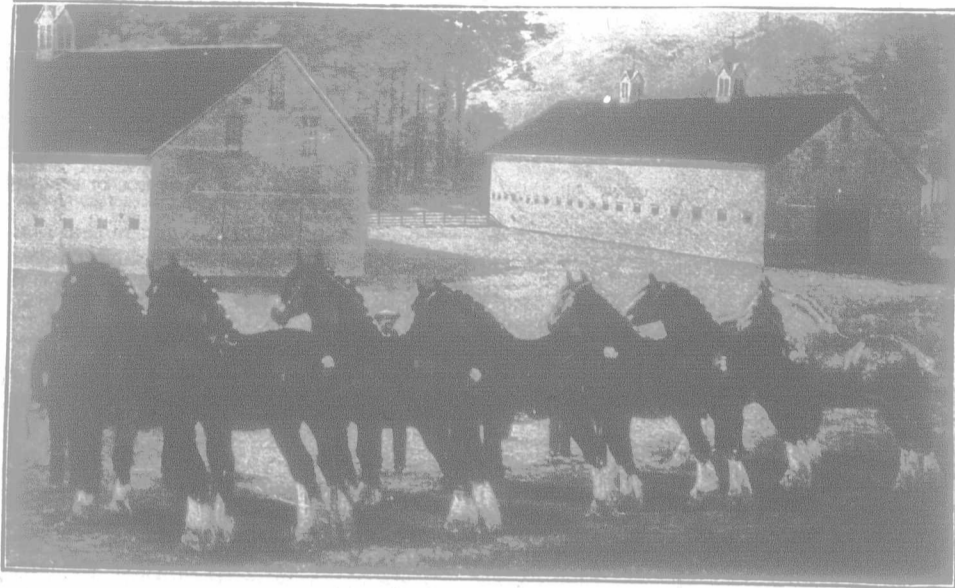
FOR SALE: 6 CLYDESDALE STALLIONS from 1 to 8 years old, good individuals, of most fashionable breeding and good breeders, and a few young mares. Come and see them and their produce. Also 2 young Shorthorn bulls. **I. DEVITT & SON,** Burlington Junction Sta., on G. T. G. 1/2 mile from farm. **Freeman P. O.**

CLYDESDALES AYRSHIRES and POULTRY.

R. Ness & Sons, Howick, Que.
importers of Clyde, Percheron and Hackney stallions, Ayrshire cattle, and poultry, have for sale 5 Clyde stallions, sired by Baron's Pride, Sir Everitt, and Royal Carrick, 1 Percheron, and 1 Hackney, winners. Ayrshires of both sexes, and poultry.

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

TRUMAN'S PIONEER STUD FARM



BUSHNELL, ILL.,
 Has for 24 YEARS been headquarters for the CHOICEST
SHIRE, PERCHERON, SUFFOLK AND HACKNEY
STALLIONS.

Last importation received February 25th, 1903.

20 to 30 Good Practical Salesmen Wanted.

Best lot of draft stallions in the United States or Canada. Notwithstanding the superior quality of our horses, it is a fact that our prices are lower than can be obtained elsewhere in America. If there is no first-class stallion in your neighborhood, please write us. For our 24th annual catalogue, etc., address—

J. G. TRUMAN, Manager,
BUSHNELL, ILL.

NEW IMPORTATION ARRIVED FEBRUARY 20, 1903

ANOTHER LOT OF

First-class Clydesdale Stallions

has just been added to our stock, giving buyers an unequalled selection. These horses are sired by such sires as Baron's Pride, Prince Romeo, Prince Thomas, and other noted sires. They have superior quality, and are for sale at very reasonable prices. Persons desiring to purchase should write or call on

WM. COLQUHOUN, Mitchell P. O. and G. T. R. Station, Ont.

Imp. Clydesdales and Shorthorns

Messrs. Smith & Richardson,
COLUMBUS, ONT.

Importers and breeders of Clydesdale horses and Shorthorn cattle, are now offering 14 stallions, 9 of them imported, including brothers of the world-renowned Baron's Pride, Hiawatha, and Royal Cairn; also 13 mares bred from imported stock. Short-horns, imported and home-bred, all ages. Stations:

Oshawa & Brooklin, G.T.R., Myrtle, C.P.R.

Long-distance Telephone, Columbus. Telegraph, Brooklin. om

International Importing Barn, Sarnia, Ontario.

J. B. HOGATE, PROPRIETOR.

IMPORTER OF

Clydesdale and Shire Stallions, and Spanish Jacks.

My third importation within the last fourteen months arrived Sept. 4th.

I select every one myself, and it is conceded both in Europe and America that I do get the best ones that cross the Atlantic to America. My stallions are sired by the leading sires of Scotland; ages from two to four years. The 4 best are direct from Spain, and registered, two to four years old, 11 1/2 to 15 1/2 hands high. I pay cash for my stock. I buy where I can get the best. Write for particulars. Will save you money. Mention this paper when you write.

J. B. CALISTER, Manager and Salesman.

GOSSIP.

The dispersion sale of the Shorthorn herd of C. C. Bigler & Sons at Des Moines, Iowa, on March 9th and 10th, though the cattle were in very thin condition—indeed, in about the worst possible condition for selling—made an average of \$211 for 320 head, a result which demonstrates strong confidence in the outlook for the breed. The imported bull, Imp. Merry Hampton, looking much better than the females, in his six-year-old form, brought \$2,500, being bought by McLaughlin & Watts, Goose Lake, Iowa, Prof. Mumford, for Illinois Agricultural College, being the runner-up.

SALE OF COL. McCALMONT'S SOUTH-DOWNS.

The announcement is made in our advertisement columns that on Wednesday, the 22nd day of July next, the world-wide noted flock of Southdown sheep, property of the late Col. McCalmont, will be dispersed by auction by Messrs. John Thornton & Co., the noted auctioneers. Our own representative, Mr. W. W. Chapman, of 4 Mowbray House, Norfolk St., Strand, will be present and will be pleased to be of service to any of our Canadian friends who may avail themselves of being present on this important occasion, which will certainly be one of the most important stud sheep sales in the coming season. To say that the character of this flock is strictly first-class and up-to-date is to state the truth mildly, for it has secured a place quite at the head of the front rank, as the prize records at the principal shows in England in the last three years clearly demonstrate. The reason is not far to seek, for those who have watched the course pursued by the management know that there has been no deviation, for one course only has been pursued in the purchase of stud animals viz., to get the best regardless of cost. One who has been an interested spectator of the whole of the show-yard career of the flock has said there was no doubt but that the improvement shown in this flock was greater than in any other he knew of. Taking the year 1900, we find, treating of the summer shows only, that its representatives were sent to eleven shows and they secured twenty-three awards, including one champion, two reserves for the same, seven firsts six seconds and seven r. n's. In 1901, the record shows a greater improvement, for though the number of shows at which entries were made remained the same, the results were surprisingly different, thirty-four awards being taken, including one champion, three reserves for the same, eleven firsts, ten seconds, one third, and eight r. n's. With one additional show in 1902, the flock went clean ahead of all its competitors, and when the show-yard career for the year was completed it had secured to its credit no less than ten champion awards, seven reserves for the same, twenty-five firsts, seven seconds, three thirds, and eight r. n's. Although, as a rule, we only refer to the breeding-stock shows for proof of the merit of any herd or flock for stud purposes, it would not be doing justice to this great flock's reputation to omit all reference to its great success in the winter shows of the year 1901, when a series of three pens of wethers sent from it took first at each of the three great English Fat Stock Shows, namely, Norwich, Birmingham and Smithfield; at the latter show the winning pen also won the breed cup and short-wool championship cup. Last year, almost equal success was secured, and it was generally considered hard luck that the noble pen of wethers which won the 1st prize and breed cup did not also win the Short-wool Challenge Cup at Smithfield. There is, however, one most important advantage that purchasers will secure by attending this sale, namely, they will be able to secure their own selection of one of the best flocks in existence, which has been bred with one sole object, namely, to become the very best one of its breed.

Lump Jaw Cure Them
Spavin
Curb
Splint
Sweeny

Lump Jaw in cattle, Fistula and Poll Evil in horses, and almost every blemish that a horse can have, even Bad Bone Spavin, Ringbone and Kneesprung, can be readily cured by anybody. We want to tell you how to do it, prove that you can do it, and guarantee you success in doing it. Two big booklets explaining everything sent free. Write now. Fleming Bros., Chemists, 45 Front St., West, Toronto, Ont.

BOYS can earn a Fountain Pen in a few hours by selling 8 packages of Blue-Ease at 10c. each. A superior blue. Every family uses it. Send to-day for Blue-Ease. O. COBER, Hespler, Ont.

THE ONTARIO VETERINARY COLLEGE
 (LIMITED),
 TEMPERANCE ST., TORONTO, CANADA.

Affiliated with the University of Toronto.
 Patrons: Governor-General of Canada, and Lieut. Governor of Ontario. Fee \$65.00 per session. Apply to **ANDREW SMITH, F.R.C.V.S.,** Principal. 18-2-y-om

FOR SALE:
 Pure-bred Rough-coated Collies, from prizewinning stock; dark and light colors; males and female. **J. D. RODDICK, Cobourg, Ont.**

HOLWELL MANOR FARM

FOR SALE:
 Two Scotch Collie bitches, one 8 mos., the other 15 mos. old.
D. G. GANTON,
 ELMVALE, ONT. om

We are offering some young Durham bulls, cows and heifers, and 20 Berkshires and 10 Yorkshires, of both sexes. Prices reasonable.
 Could supply a carload of 2-year-old stock steers. Correspondence solicited, or come and see our stock. No sale, no harm. Visitors welcome to

CAMDEN VIEW FARM,
A. J. C. SHAW & SONS, Thamesville, Ont.

J. Richards, Bideford, P. E. Island,
 Importer and breeder of Aberdeen-Angus Cattle, Clydesdale Horses, Shropshire sheep, and Shetland Ponies. Stock always for sale. om

HIGH PARK STOCK FARM
GALLOWAY CATTLE.

6 choice young bulls, from 10 months to 2 years old, for sale. Prices right. Come and see them.
Shaw & Marston, P. O. Box 294, Brantford, Ont.
 Breeders of Galloway cattle. om

"Tweedhill" Aberdeen-Angus. Individuals herd or their calves have been first at all the best shows since 1896. Females and young bulls for sale. **JAMES SHARP, ROCKSIDE, ONTARIO,** Cheltenham station, C. P. R., and G. T. R. om

ABERDEEN - ANGUS.
 For Sale: One two-year-old bull and one yearling bull, sired by Laird of Tweedhill. Will sell right.
W. HALL, Washington P. O. Drumbo Station, Ont.

SALE! INGLESIDE HEREFORDS.

Young bulls, cows and heifers of most up-to-date type and breeding. If you want good Herefords at good-value prices, send for illustrated catalogue, and state requirements. Also 2 and 3 bred Hereford cows and heifers. cm
H. D. SMITH, Compton, Que.

THE SUNNY SIDE HEREFORDS.

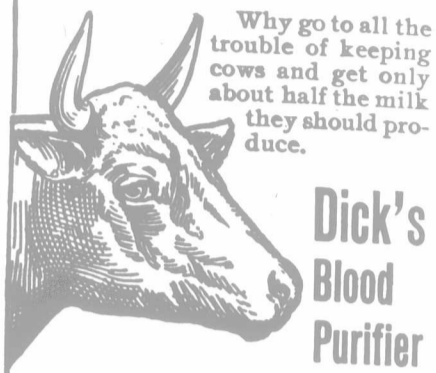
We offer for sale our great show and breeding bull Imp. Sunny Slope Tom 1st No. 1170 C. H. R., No. 86085 A. H. Records, sire Wild Tom. Also 3 bulls from 18 to 36 months; 2 bulls over 1 year old; 6 bull calves from 8 to 10 months, choice ones; 3 cows from 1 to 6 years, nearly due; 2 heifers 2 years old, and 4 heifer calves.
 Visitors welcome. **O'NEIL BROS., Southgate, Ont.** Ilderton station, L. H. & B.; Lucan station, G. T. R. om

ASHTON FRONT VIEW STOCK FARM.

Six Shorthorn Bulls for sale, from 8 to 15 months old; all of choice breeding. Also Cotswolds of all ages for sale at all times. Visitors welcome. **A. J. WATSON, Castlederg, Ont.** C. P. R. Station and Telegraph Office, Bolton; or G. T. R., Palgrave. om

For advertising and subscription in this paper, kindly mention the FARMER'S ADVOCATE.

The Flow of Milk will be increased.



Why go to all the trouble of keeping cows and get only about half the milk they should produce.

Dick's Blood Purifier

strengthens the digestion and invigorates the whole system so that the nutriment is all drawn from the food. It takes just the same trouble to care for a cow when she gives three quarts as when she gives a pail. Dick's Blood Purifier will pay back its cost with good interest in a few weeks.

50 cents a package.
Laeming, Miles & Co., Agents,
MONTREAL.

Let the Children Wash.



They can do it easily and quickly too with the New Century Ball Bearing Washing Machine.

Five minutes work will thoroughly clean a tubful of clothes—no handling of the garments or rubbing on the board necessary.

Your dealer can get it for you or we will send you a booklet fully describing it.

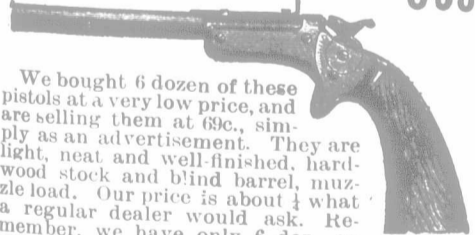
THE DOWSWELL MFG. CO., Ltd.,
HAMILTON, ONT.

80 RODS A DAY

This handy little machine will weave 60 to 80 rods of wire fence in a day. Works so easy a boy can run it. Weaves up rights on any size of smooth or barb wire. Best new fence machine made. Can make meshes any size you want to turn little fences, horse cattle, etc.

THE MCLOSKEY WIRE FENCE CO. LTD.,
BOX A WINDSOR ONT.

TARGET POCKET PISTOL 69c



We bought 6 dozen of these pistols at a very low price, and are selling them at 69c, simply as an advertisement. They are light, neat and well finished, hardwood stock and blind barrel, muzzle load. Our price is about 1/4 what a regular dealer would ask. Remember, we have only 6 doz., so please order at once. JOHNSTON & CO., Box 519, Toronto.

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

Importers and breeders of SHORTHORNS

Have for sale: 13 IMPORTED HEIFERS, 7 YEARLING BULLS, 20 HEIFERS (choice).

Home-bred herd composed of Nonpareils, Minas, Clementinas, Cruickshank Lovelys, Shethin Rosemarys, A. M. Gordon's Estelles, Miss Symes, etc.

Shorthorns and Yorkshires—Stock bull, Scottish Lad = 35908, and 1 bull, 12 months, for sale. Up-to-date Yorkshires, bred straight from imp. stock. Pigs of spring litters for sale. G. W. KEAYS, Hyde Park, Ont.

SHORTHORNS AND BERKSHIRES. Six bulls fit for service; also a few cows and heifers—best breeding and quality. A few Berkshires, 6 months old, both sexes. Prices reasonable. F. MARTINDALE & SON, Caledonia Station, York, Ont.

FOR SALE: YOUNG BULLS from the herd of the late D. Alexander, reds and roans. Good breeding. Prices reasonable. ALEXANDER BROS., Bridgen, Ont.

GOSSIP.

With this issue, D. A. Graham, of Theford, offers eggs and stock of fifteen varieties of land and water fowl. Mr. Graham's clientele extends all over Canada, and judging from his large correspondence expressing satisfaction with his stock, his business is greatly increasing.

On a recent visit to Messrs. Bawden & McDonell, Exeter, Ont., we were glad to hear that sales were very brisk, they having sold two Clydesdale stallions, Village Boss and Exeter Champion, both imported, and a Thoroughbred, Tremont, to Mr. R. Willis, Boisvevain, Man. These were two extra good Clyde horses with good quality and bone. Mr. S. P. Thompson, of Regina, also purchased from them a carload of registered mares and three Shire stallions. Their champion Hackney stallion, Connaught's Heir, has been sold to R. Alexander & Co., Forest, one of the highest-priced horses sold in Canada. To Mr. W. Raye, St. Mary's, a grand Shire of exceptional quality, good feet and size. They have for sale three Shire stallions: Cannon Gate = 10521, 17 hands, weight 2,200 lbs.; a sure sire; he stood at Paisley, Scotland, as a district horse, and was let there at £400. Holme Sexton 18098, a very likely-looking six-year-old bay; about 2,200 lbs.; a very massive and well-put-up sire, from Lincolnshire Lad, Raydon Ambassador 19047, a three-year-old, who should in a few months show in any prize-ring with credit to his owner; stands 16.3 hands, weight 1,900 lbs.; sired by Prince Harold, a great prizewinner in many prominent shows. Messrs. Bawden & McDonell may be justly proud of the success of their horses in the past, having had such noted horses as Belshazzar, who took first and sweepstakes at Toronto and London fairs on several occasions, and first premium at the Pan-American; Connaught's Heir, champion Hackney, etc. They have also for sale, Buller = 7382, a dark bay Hackney stallion, with great chest-girth, bone and quality, good knee and hock action, with plenty of snap, and withal very docile. There are besides a number of imported and Canadian mares and stallions for sale.

H. Bollert, Cassel, Ont., reports a very brisk demand for the Maple Grove Holsteins. Sales were lately made to Thos. Black, Jr., Colquhoun P. O., a very fine pair of rich breeding. The heifer—a perfect beauty—has for dam Witkop Pietertje Beauty, with a record of 75 lbs. per day. Her sire is Prince Pauline De Kol, who is beyond doubt one of the finest sires of the breed in the country. To mate her, Prince Henry Paul was selected. He is a fine individual, of the most approved breeding. With such a foundation, Mr. Black must succeed to build up a profitable herd. Mr. F. B. Wiltse, of Athens, took Mavourney Beets Pietertje, a large, fine three-year-old. Upon receiving her, he writes saying that he is delighted with her. She was just what he expected that she should be. Mr. N. Sangster, Ormstown, got a fine son of Prince Pauline De Kol to head his fine herd. Mr. W. H. Bigger, Mohawk, took another son of the Prince, and a grand good one he is. Mr. Chas. Ovans, Newry, took one of the Abbekirk strain to build up a dairy herd. I have added to the herd a beautiful heifer named Rosie's Violet. She is from a great producing family, and individually she is all that can be desired; also, a young bull from the same family, so that I can supply stock that is not akin. There are a few young things still left for sale, among them Tidy Abbekirk's calf (whose photo appeared in the "Advocate" Feb. 16th), a beautifully-marked bull, good enough to head any herd with credit to himself and the stock he sprang from. Allow me to express my appreciation of the Farmer's Advocate as an advertising medium. Letters of enquiry come in almost every day from all parts of the Dominion, and as a sound advice-giving medium, to the farmer, it certainly has no equal and is worth ten times its cost every year.

SPECIAL To Stock Raisers

500 Packages Given Free.

We will give a 35-cent package of cream for calves free to any person purchasing 30 lbs. of Day's Aromatic Stock Food; price, \$3. Send cash by P.O. note or express.

Ask your dealer, or write to THE Day's Stock Food Co., TORONTO



TROUT CREEK SHORTHORNS



JAS. SMITH, Manager, Millgrove, Ont. W. D. FLATT, 378 Hess St. South, Hamilton, Ont.

DURHAM CATTLE FOR SALE: Two young Durham bulls, 10 and 17 months old, registered in D. H. B. Apply to JOHN ELDRIDGE, Grove Farm, Amabel, Bruce Co. (Hepworth Station and P. O., G. T. R.)

W. R. Bowman, Mt. Forest, IS OFFERING YEARLING DURHAM BULL

of an excellent dairy strain (weight 1,200 lbs.) for \$75.00. Two Aberdeen-Angus bull calves 13 and 9 mos., at \$75 and \$90. Yorkshire boars and sows, Suffolk Down sheep, shearing ewes and ewes in lamb.

CHOICE SCOTCH SHORTHORNS.

FOR SALE—Four bulls, from 8 to 15 months old, by Golden Robe (got in quarantine); also a few heifers, a choice lot, and prices right. Address, W. G. HOWDEN, Columbus P. O., Myrtle, C. P. R. and G. T. R. om

Shorthorns, Clydesdales, Yorkshires

I am now offering the bull, Count Amaranth, imp. in dam, 2 years old, and young bulls 10 months old; heifers, various ages; Clydesdales, American and Canadian registered; and Yorkshires, both sexes and all ages.

A. E. HOSKIN, SPRINGVALE FARM, COBourg STA. & P. O.

Shorthorns and Yorkshires. We are offering 4 in calf: Greater Darnley, and one bull calf, 8 months old, by Imo Caesar. Yorkshires, both sexes, W. J. Walker, Eady P. O., Coldwater Sta.

Beechgrove Shorthorns. Present offering: 3 females from 1 to 4 years old, heavy milking strain; also one roan bull calf 8 months old. Prizewinners; a thick, beefy lot. C. McNULTY, Rathbura P. O. Orillia and Arthly stations.

SPRUCE HEDGE SHORTHORNS.

We are offering females of all ages. Among them are prizewinners and youngsters that are sure to win. JOHN MCKENZIE, Keward P. O. and Chatsworth Station, C. P. R.

RARE YOUNG BULLS

of serviceable age for sale; also females of all ages. Roans and reds. Prices right. E. & C. Parkinson, Thornbury P. O. & Stn., G. T. R.

QUEENSTON HEIGHTS SHORTHORNS

Derby (imp.) = 32057 = at head of herd. Bulls, good ones, 8 to 15 months, at reasonable prices. Also Large English Yorkshires.

HUDSON USHER, QUEENSTON, ONT. Farm 3 miles north of Niagara Falls.

Lakeview Shorthorns.

Herd represented by such noted families as Stamford, Minas, Marr Floras, Crimson Flowers, Village Girls, Bucan Lassies, and Lavinias. Some yearling and two-year-old heifers for sale. om James Bowes, Strathairn P. O., Meaford Sta.

SHORTHORNS, COTSWOLDS, Berkshires and Barred Rock Eggs.

Six bull calves for sale, from 2 weeks to 8 mos. old. A few young cows in calf. Choice ewe lambs. Barred Rock eggs, from Hawkin's Royal Blue strain, at 75c, for 13, \$2 for 50, \$3.50 a hundred. F. BONNYCASTLE & SON, Campbellford P. O., Ont.

HERD is now headed by Aberdeen Hero 28850 (imp.). Am offering a few choice bulls from 10 to 20 mos. old. Am getting a number of ch Ice Abbottford heifers, and have some cows yet to calve, in calf to Abbottford, J. K. HUX, Rodney, Ont.

SHORTHORNS

Now offering 5 bulls, from 4 to 17 mos. old, sired by Royal Duke, he by Royal Sailor (imp.). Also females, all ages, some in calf. Prices moderate. J. R. McCALLUM & SON, Iona Sta. & P. O., Ont.

SHORTHORNS and LEICESTERS

HERD ESTABLISHED 1855. A number of young bulls and females for sale. Also my herd bull, imp. Christopher = 28859 =. A satisfactory res-on for offering him. Also Leicester sheep of both sexes.

JAMES DOUGLAS, CALEDONIA, ONT. Shorthorns, Leicesters and Berkshires FOR SALE: 4 bulls, from 10 to 18 mos. old; 5 heifers, from 10 to 20 m's. old—rare good ones and winners. 11 ewe and 2 ram lambs. Berkshires, both sexes, all ages, not akin. E. JEFFS & SON, Bond Head P. O., Bradford Sta.

SHORTHORNS FOR SALE:

10 choice Shorthorn heifers and 10 young bulls, of choicest quality and breeding, at reasonable prices. G. A. BRODIE, Stauffville Sta., Bethesda, Ont.

Choice Shorthorns and Shropshire Sheep.

I am now offering bulls from 8 to 16 months old. Heifers of all ages, some in calf. Present stock bull, Roan McKay = 37867 =. CHAS. CALDER, Brooklin.

CHARLES RANKIN, WYEBRIDGE, ONT.

Importer and breeder of Shorthorns, Oxford Downs and Berkshire Pigs Young stock always on hand.

S. DYMENT, BARRIE, ONT.

Breeder of Scotch Shorthorns Imported Morning Star at head of herd.

Shorthorns and Shropshires.

Scotch and Scotch-topped families of Shorthorns. Young bulls and heifers for sale. Shropshires, bred direct from imported stock: Mansell and Cooper strains. BRUCE BROS., Souffville Station, G. T. R. o Gormley, Ont.

Maple Grange Shorthorns

CLARETS, LAVINIAS AND BEAUTYS. Sired by such Scotch bulls as Commodore 31025, Scottish Bard, imp. Baron's Heir. 18 heifers, 12 bulls, a number of cows (heavy milkers), to be sold well worth the money. R. J. DOYLE, Owen Sound P. O. and Station and Port.

GREEN GROVE SHORTHORNS


This herd comprises such noted families as Nonpareils, Crimson Flowers, Mysias, Langshaws, Butterflys, Jessamines, etc., and is headed by the noted Watt-bred bull, Spicy Robin = 28259 =, winner of second prize at Toronto and London, 1902. A few choice young bulls and heifers from Spicy Robin, also cows in calf to him, on offer; also prizewinning S. C. White Leghorn fowl. Eggs, \$1 per setting. GEORGE D. FLETCHER, Erin Shipping Sta., C. P. R. BIRNHAM P. O., ONT.

T. DOUGLAS & SONS, STRATHROY, ONT.

SHORTHORNS & Clydesdales

100 SHORTHORNS TO SELECT FROM. Herd bulls (imp.) Diamond Jubilee = 28861 = and Double Gold (= 37852 =). We offer for sale a choice lot of young bulls, cows and heifers of all ages. Also one 3-year-old stallion, and one 4-year-old brood mare. Farm one mile north of town.

Shorthorns and Berkshires. Shorthorns sired by Arthur Bright, Dunblane and Blue Ribbon (imp.). Berkshires of the bacon type. Visitors welcome. Correspondence solicited. MAC CAMPBELL, o Samson, Ont.



BABY'S OWN SOAP

used by particular people both young and old. Keeps the skin soft, clear and white.

No other Soap is just as Good.

ALBERT TOILET SOAP CO., Mfrs. MONTREAL.

ROYAL YEAST CAKES

MOST PERFECT MADE.

AWARDED HIGHEST HONORS
WORLD'S COLUMBIAN EXPOSITION

E. W. GILLETT COMPANY LIMITED
TORONTO, ONT.

The "STAY THERE" Aluminum Ear Markers

are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. It is any part of the ear. Nothing to catch on feed trough or other obstacle. Your name, address and any series of numbers on each tag. Sample tags, catalogue and prices mailed free. Ask for them. Address: WILCOX & HARVEY MFG. CO., 194 Lake St., Chicago, Ills.

BELLEVUE SHORTHORNS. Both sexes. Imported and home-bred. All ages. Prizewinners at home and abroad.
EDWIN BATTY, Gore Bay P. O. and Port Maitoulin Island.

CHOICE SHORTHORNS. We are now offering 12 heifers from 6 months to 2 years of age, and 7 bulls from 6 to 10 months old, some of them extra choice and prizewinners—a low down, thick lot Also, Yorkshires.
WM. McDERMOTT, Living Springs P. O., Fergus Station.

Imp. Shorthorns and Lincolns

A. D. MOGUGAN,
RODNEY, ONT., P. O. AND STA..

Imported Aberdeen Hero at the head of the herd, which is composed of the best Scotch families. Ten grand shearing and two-year old ewes for sale, in lamb to a Royal winner. Also ewe lambs from imported Dudding ewes at reasonable prices.

R. MITCHELL & SONS,
NELSON P. O., ONT.

Scotch Shorthorns. The Marr Princess Royal bull, Imp. Greengill Victor, imported heifers, and a large number of home-bred bulls, cows and heifers belonging to the most popular Aberdeenshire families.
Burlington Jct. Station and Tele. Office.

HIGH-CLASS Shorthorns

Now offering 12 bulls, reds and roans, from 6 to 12 months old. Dark skin, fleshy kind, and a few heifers, also Clydesdale horses.

JAS. McARTHUR, Cobble's, Ontario.

SHORTHORNS: FILTS and STARS: 6 bulls, some of them 3 years old; 5 with calves at foot and one in calf; 1 Imp. British Statesman. Also two of the best Lincolns.
LOUIS ELLARD, Lorette P. O., Saxon Sta.,

GOSSIP.

In another column will be found an advertisement offering for sale the Standard-bred stallion Arklan. He was sired by Guy Wilkes 2.154, and has a four-year-old record of 2.384.

Recently Mr. Walter Hall, of Washington, wrote us, saying: "My Aberdeen-Angus herd is now looking fine. The imported bull, Klondyke of the Burn, is improving every day, and is now as good a bull as I have ever seen. My imported cow and her calf, Pride of Dalmeny 8th, are doing well, and the youngster will be heard from later."

THE ATTRILL SHORTHORN SALE.

On Tuesday, April 14th, as advertised, will be sold at auction, at Ridgewood Park Farm, close to the town of Goderich, Ont., the entire Shorthorn herd of E. C. & E. C. Attrill, of that place. The herd is not large, but is select, most of the animals having been purchased from such sound standard herds as those of Robt. Miller, Stouffville; T. Douglas & Sons, Strathroy, and Jas. Douglas, Caledonia, and having the benefit of the blood of the high-class sires used in those herds. A number of first-class families are represented, and the females of breeding age are bred to or have calves at foot by Genora's Prince, a son of Valkyrie, by the champion Abbotsford, out of Vanity, a first-prize Toronto winner; or by World's Fair King, by Beau Ideal, a Toronto winner, sired by Sittyton Stamp (imp.), and out of Imp. Bessie Lass. The two stock bulls named are also in the sale, together with five other young bulls. The sale will be without reserve, and will be conducted by Messrs. Geo. Jackson, Port Perry, and Thos. Gundry, Goderich. Goderich is on the G. T. R., is 45 miles west of Stratford and 13 miles west of Clinton. Write for catalogues.

JAS. HURLEY'S THOROUGHBREDS.

With this issue, we introduce a new advertiser, Mr. Jas. Hurley, of Guelph, Ont., who from a small beginning has worked up a very creditable stud of Thoroughbreds. Standing easily first comes the Thoroughbred stallion, Central Trust 3312, a grand, large chestnut, sixteen hands, with the typical Thoroughbred outlines—clean-cut neck, with head well set on—showing the quality of his breeding, he being out of Meddler, and dam Money Box, by Rayon d'Or. Central Trust was foaled in 1895, and was very successful on the turf, winning a number of races in good company, perhaps the best being when as a four-year-old at Coney Island, in 1½ miles on turf, he won easily in 2.06 2-5. Space will not permit of a description of the thirty brood mares at the farm, but certainly Belle of Elkton and Glen Lowrie should receive mention, as they were selected by Dr. Hugo Reed as typical brood mares to lecture on to his special class on judging Thoroughbreds, held at the O. A. C. recently, both being so excellent that it tested the powers of the class to place the best. Mr. Hurley was fortunate enough to secure Jesamine Porter, who holds the 1¼ mile Canadian record—a large, rangy mare, with good quality of bone. Mr. Hurley has some fourteen nominations for the Stanley Produce Stakes from such noted sires as Morphcus, Derwentwater, Wickham, Golden Badge, Connoisseur, but mostly from his own horse, Central Trust. The most notable of the other mares are Miss Vanderbilt, by Vanderbilt, the dam of many winners; Teresena, by Imported Saxon; Mabel; Boundary Maid; Transfer, who as a two-year-old won Produce Stakes and Breeders' Stakes; Uproar, Athena III, Maggie Ward, White Clover, Spring Blossom, Rags, St. Rosanna, etc., all in foal to Central Trust, with the few exceptions before mentioned. To those interested in the breeding of Thoroughbreds, Mr. Hurley will be always pleased to show his studs at the farm, about three miles from Guelph.

SHORTHORNS. Imp. Christopher = 28859 — head of herd. A few choice young cows, heifers and bulls for sale, of milking strain.
A. M. Shaver, HAMILTON STA., Ancaster P. O., Ont.

HAWTHORN HERD
Of Deep Milking Shorthorns.
FOR SALE: Four young bulls, from 8 to 24 months old, from AI dairy cows. Good ones.
WM. GRAINGER & SON,
Londesboro, Ont.

Greengrove Shorthorns Number 35 head of choice Scotch families. For sale: Several young bulls, by Wanderer's Last, Imp. Fitz Stephen and Freebooter. Females of all ages. W. G. MILLSON, on Goring P. O., Markdale Station.

SHORTHORNS FOR SALE. Three young bulls of choicest breeding and quality; also cows and heifers.
ALEX. FLEMING, Jr., Kilsyth, P. O., Ont.

SHORTHORN CATTLE and Oxford Down sheep. Imp. Prince Homer at head of herd. Present offering: Young bulls and heifers from imported and home-bred cows; also a choice lot of young rams and ewes from imported sire. JAMES TOLTON & SON, Walkerton, Ont. Farm 3¼ miles west of Walkerton Station. om

For Sale: One registered SHORTHORN BULL 15 months old, from a good milking strain. Apply to W. B. ROBERTS, Sparta, Ont.

J. C. BRICKER, SHORTHORN CATTLE. FOR SALE: Five heifers, two calves and a number of cows. Elmira P. O. and Station, on G. T. R.

JAS. GIBB, SUNNYSIDE STOCK FARM, Brookdale, Ont. BREEDER OF SHORTHORN CATTLE, for sale.

MERCER'S SHORTHORNS Comprise Missies, Stamfords, Floras, Clarets, Princesses, Red Roses, Young Sterlings, Fashions and Matchlesses. They number 60 head for sale. There are several choice heifers, 17 heifer calves, 3 bulls fit for service and 4 bull calves. A few older females.
Thos. Mercer, Markdale P. O. and Station.

W. G. PETTIT & SONS
FREEMAN, ONT., CAN.,
Importers and breeders of

Scotch Shorthorns
and SHROPSHIRE SHEEP,
make special offering for January and February.

2 Imported bulls coming 2 years old,
4 bull calves from 8 to 12 months old,
from imported sire and dam,
6 bulls, 10 mos. to 2 yrs., by Imp. sire,
Imp. and home-bred cows and heifers of all ages.
Our entire flock of Shropshire sheep, 75 head.

FOR SALE: 27 Head of Imported SHORTHORNS

just landed from quarantine. Also one Clydesdale stallion.
JOHN ISAAC, Markham, Ont.

SCOTCH SHORTHORNS FOR SALE: 2 imported bulls; 2 from Imp. sire and dam; 2 home bred. Females of all ages, Imp. and home bred.
ALEX. BURNS, Rockwood P. O. and Sta., G. T. R.

JOHN DRYDEN & SON,
BROOKLIN, ONTARIO,
BREEDERS OF CRUICKSHANK SHORTHORNS AND CHOICE SHROPSHIRE SHEEP.

Five choice young CRUICKSHANK bulls, straight, smooth, low-down and of show-yard type. Visitors welcome.

ROSEVALE SHORTHORNS. Herd comprises Augustus, Polyanthus, Crimson Flowers, Minas, Strawberrys and Lavinias. For sale, both sexes, the get of Imp. Marengo Heydon Duke, Imp. Baron's Heir, Imp. Golden Able and Imp. Golden Conqueror.
W. J. Shean & Co., Owen Sound P. O. & Sta.

GRANDVIEW SHORTHORNS Are made up of Floras, Meadowsweets, Mary Bools and Roan Duchesses. For sale, 3 bulls, extra nice, thick animals, sired by Fergus Chief, Royal Beau and Golden Count; also a few females.
J. H. Black & Son, Allanford P. O. & Station.

H. K. FAIRBAIRN
ROSE COTTAGE,
Thedford P. O. and Station.

One bull 18 months old, 10 cows, 3 yearling heifers, 1 two-year-old in calf, 4 bull calves, 3 heifers, all the get of Royal Prince -31241-.

J. & W. B. WATT
BREEDERS AND IMPORTERS OF

Shorthorns, Clydesdales and Berkshires

We breed our show cattle and show our breeding cattle. The imported bulls, Scottish Beau, Viceroy and Scottish Peer, head the herd. Imported and home-bred cows and heifers for sale. A few choice young bulls on hand. Our herd at Toronto won three firsts, a second and third out of five herd classes.
Salem P. O. and Telegraph Office. Elora Sta., C. P. R., G. T. R.

ARTHUR JOHNSTON,
GREENWOOD, ONTARIO,

Offers for sale at times' prices, 9 young SHORTHORN BULLS, from imp. dams and by imp. sires.

9 YOUNG BULLS, of purest Scotch breeding.
13 YEARLING and 13 TWO-YEAR-OLD HEIFERS.

Pickering Station, G. T. R. Claremont Station, C. P. R. om

Spring Grove Stock Farm
Shorthorn Cattle and Lincoln Sheep.

HERD prize and sweep-stake at Toronto Industrial Exhibition, three years in succession. Herd headed by the Bruce Mayflower bull, Prince Sunbeam, Imp. Present crop of calves sired by Imp. Wanderer's Last, sold for \$2,005. High class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply om

T. E. ROBSON, ILBERTON, ONT.

SCOTCH COWS and HEIFERS

of good quality, in calf to one of the great Scotch sires of the period, and a few young bulls, for sale at prices you can stand. Shropshire rams and ewes of greatest individual merit and breeding, for sale as usual. Ask for catalogue. Representative in America of Alfred Mansell & Co., College Hill, Shrewsbury, Eng. om

ROBERT MILLER, - STOUFFVILLE, ONT.

SCOTCH SHORTHORNS AND SHROPSHIRE SHEEP.

Present offering:—Have still on hand one bull and four heifers, and a few cows. Shropshires of both sexes and all ages.
BELL BROS., Bradford P. O. and Station.

SHORTHORNS. Lady Fannys and Beautys for sale 5 bulls, from 6 to 14 months old; 7 heifers, from 1 to 3 years old, some of them in calf to Prince Eclipse 33049. om

James Caskey, Tiverton P. O., Kincardine Sta.

SHORTHORNS. Dark red bull calf, Blue Ribbon 2nd, 13 months old, sired by Blue Ribbon (imp.) 17095 (63703), dam by Royal George (imp.) (64728). Bull calf, 7 months old, dark red; also yearling and two-year-old heifers. om

SHORTHORN CATTLE, LINCOLN SHEEP

Imp. Prime Minister at head of herd. Imp. Clippers, Miss Ramsdens, and other Scotch families. Lincolns won more than half the money and first for flock at the Pan-American; International, Chicago, 1901 and 1902.

J. T. GIBSON, om DENFIELD, ONT.

SHORTHORNS: We are offering 3 extra choice yearling bulls, all from imported sires, straight Cruickshank, with Lavendar and Miss Ramsden dams. om THOS. ALLIN & BROS., Oshawa, Ont.

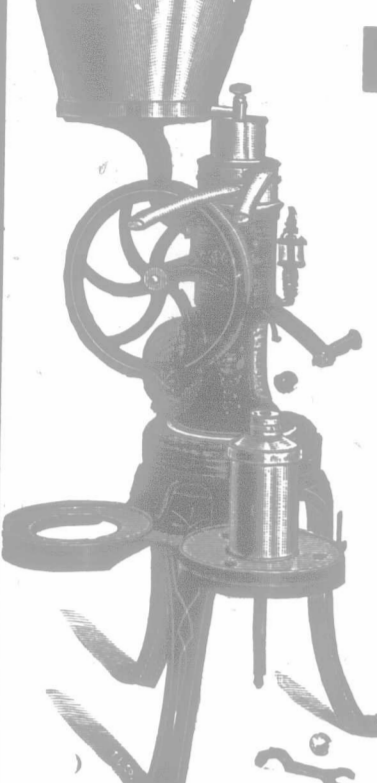
Orchard Hill Shorthorns. I am now offering 13 heifers from six months to two years, 4 bulls from 10 to 13 months old, and 7 very heavy milking cows. Here is a rare chance to get stocked with pure-bred cattle at reasonable terms. A. Johnston, Vandeleur P. O., Markdale Sta. om

RIVER FARM SHORTHORNS
I am now offering 6 choice young bulls, from 8 to 16 months old, sired by Lord Lavender 26855. They are rare good ones. Price right.
H. PARKER, DURHAM P. O. and STATION.

SHORTHORNS. Imported and Canadian-bred, from 8 to 12 months old; also a few choice heifers, all got by Captain Mayfly (imp.), first-prize aged bull at Toronto and London in 1902.
JAS. A. CRERAE, Shakespears, Ont. om

PENNABANK STOCK FARM
Three choice Shorthorn bulls from 12 to 14 months old, solid reds. Prices reasonable. Also a few Shropshires left, of choice quality and breeding.
Hugh Fugh, Whitevale, Ont.

**WHAT THE
NATIONAL
WILL DO.**



It will increase the yield of butter about 1 lb. per week, and about 30 to 60 lbs. per year, and will pay 8¢ on its cost, price annually with one cow, and pay for itself in one year with 12 to 15 cows.

It will be placed on trial beside any other Cream Separator and prove to be superior in construction for convenience, easy operating, cleaning, close skimming, quality of cream and butter, style, fine finish and lasting service.

The only Cream Separator having its bowl and all parts made and finished in one shop in Canada under the supervision of the best Cream Separator experts obtainable.

The bowl is not filled with innumerable complicated parts to adjust and wash every time it is used. It has no stable-tainted, enamelled casing into which the milk and cream is discharged, that requires hot water at the barn to wash it every time it is used.

The National is designed for convenience and to overcome every objectionable feature found in other Cream Separators. A sample machine sent for a free trial to prove all that is claimed for the National.

NATIONAL No. 1A.
Capacity, 450 to 500 lbs. per hour.
NATIONAL No. 1.
Capacity, 350 to 350 lbs. per hour.
NATIONAL B.
Capacity, 250 lbs. per hour.

Give the National a trial. Send for particulars to any of the following general agencies:

The CREAMERY SUPPLY CO., Guelph, for South-western Ontario.
The T. C. ROGERS CO., Guelph, for Ontario North and East.
JOS. A. MERRICK, Winnipeg, Man., for Manitoba and N.-W. T.
JOHN A. ROBERTSON, 108 Union Avenue, Montreal, Quebec.

**The Raymond Mfg. Co. of Guelph,
GUELPH, ONT. LIMITED.**

IMPORTING CATTLE.

Parties wanting pure-bred cattle should correspond with me. Will attend to shipping first boat for St. Lawrence River, care on board and in quarantine. Address at once, care Donaldson Bros., 53 Bothwell St., Glasgow, Scotland. om JAS. BODEN, Mgr. R. Reford's "Tredinnock Stock Farm."

PINE GROVE SHORTHORNS AND SHROPSHIRE.

Our herd comprises over 150 females, including our last importation of 30 head, all of the most esteemed strains. Of Shropshires, we offer a few choice rams, also high-class ewes bred to first-class rams. Address -om

**W. C. EDWARDS & CO.,
Rockland, - - - - - Ontario.**

VALLEY HOME STOCK FARM

SCOTCH SHORTHORNS Choice young bulls and heifers for sale from imported and home-bred cows.
AND BERKSHIRE SWINE. Also some young Berkshires. om

**S. J. PARSON & SON,
C. P. R. Station and Telegraph Office. MEADOWVALE P. O.**

SHORTHORNS

WE ARE OFFERING FOR SALE a grand lot of young imported Scotch cows and heifers with calves at foot or safely in calf to the best imported bull obtainable.

Herd Numbers 150 Head.

Send for New Catalogue.

VISITORS WELCOME, AND CORRESPONDENCE PROMPTLY ATTENDED TO.
TELEGRAPH OR TELEPHONE.

**H. CARGILL & SON,
Also have a choice lot of Oxford Down Sheep, either sex, at reasonable prices. om Cargill, Ontario, Canada.**

12 SHORTHORN BULLS 12

First-class Scotch Breeding.
CHOICE QUALITY. LOW PRICES.

WRITE FOR CATALOGUE. H. SMITH, EXETER, ONTARIO. Farm adjoins Exeter, on the G. T. R., 30 miles north London.

MAITLAND BANK STOCK FARM

Seven excellent young bulls, straight Scotch breeding, also young cows and heifers, imported and home-bred, for sale. Prices moderate. Station, Telegraph and Telephone office adjoin the farm. om David Milne & Son, Ethel, Ont.

GOSSIP.

SALE OF SHORTHORNS AT OTTAWA, MARCH 11TH.


- | | |
|--|----------|
| College Matchless 2nd, May, 1901; sire Cedric 25128; Alex. Stewart, Stewardtsville | \$150.00 |
| College Queen 2nd, January, 1901; sire Cedric; B. Muirhead, Renfrew | 175.00 |
| Cannington Rosalind, May, 1902; sire Premier Earl 4th; John McDiarmid, Carleton | 100.00 |
| Cherry Hill Maid 10th, April, 1902; sire White Star; John Graham, Bell's Corners | 75.00 |
| Florence 11th, October, 1901; sire Bonnie Lad 25727; Sills Shaver, Ottawa | 90.00 |
| Idonia Queen, February, 1899; sire Indian Agent 16999; and C. C.; Peter Cochrane, Almonte | 220.00 |
| Lily's Choice, March, 1901; sire Bonnie Lad; Joseph Kidd, Prospect | 95.00 |
| Lily's Choice 2nd, January, 1902; sire Bonnie Lad; J. J. Hodgins, Hazeldean | 70.00 |
| Mayflower Maid 2nd, December, 1901; sire Bonnie Lad; John Graham, Bell's Corners | 85.00 |
| Myrtle Maid, October, 1900; sire Indian Agent; and B. C.; W. R. McLatchie, Pt. Gattineau, Que. | 170.00 |
| Nellie Merilla 2nd, December, 1901; sire Bonnie Lad; Henry Barr, Douglas, Ont. | 90.00 |
| Princess 4th, February, 1899; sire Oxford (imp.) (53357); and C. C.; D. Blair, Rideauview, Ont. | 150.00 |
| Princess 5th, December, 1901; sire Bonnie Lad; Joseph Kidd, Prospect | 85.00 |
| Princess Olga 2nd, May, 1902; sire Caesar (imp.); W. R. McLatchie | 70.00 |
| Roan Lizzie 2nd, November, 1901; sire Caesar (imp.); John A. Graham, Mossgrove | 105.00 |
| Rosalind 2nd, December, 1901; sire Caesar (imp.); D. C. Stark, Pitt's Ferry | 80.00 |
| Bonnie Flower, October, 1901; sire Bonnie Lad; Dan. Moir, Merrickville | 85.00 |
| Indian Lass 3rd, November, 1901; sire Bonnie Lad; C. E. Craig, North Gore | 100.00 |
| Bonnie Victor, May, 1902; sire Bonnie Lad; G. K. Robinson, Mascouche Rapids, Que. | 65.00 |
| Lorne Duke, May, 1902; sire Bonnie Lad; Jeffry McBride, Kinburn | 90.00 |
| Lorne Lad, May, 1902; sire Bonnie Lad; W. J. Simpson, Ashton, Ont. | 75.00 |
| Victor Lad, May, 1902; sire Bonnie Lad; Albert Blair, Metcalfe, Ont. | 90.00 |
| Esther, April, 1901; sire Duke Lad; J. J. Hodgins | 90.00 |
| Julia, April, 1899; sire Royal Bruce; C. C. Blair, Rideauview, Ont. | 100.00 |
| Baron's Pride, March, 1902; sire Royal Bruce; P. Madden, Jockvale, Ont. | 95.00 |
| Morning Glory 4th, April, 1897; sire Prince Leopold 19290; A. H. Foster, Twin Elms, Ont. ... | 160.00 |
| Morning Glory 7th, April, 1902; sire Mina's Northern Light; Jos. Carr, Trout River, Ont. ... | 70.00 |
| Roan Joe, January, 1902; sire Reveler; Sills Shaver, Ottawa Moneyfuffel Lady, December, 1901; sire Knight Errant; Jas. Proudfoot, Fenaghvale, Ont. ... | 100.00 |
| Royal Eva, December, 1899; sire Royal Banner; G. F. Johnston, Cahore, Ont. | 150.00 |
| Moneyfuffel Billy, April, 1902; sire Knight Errant 34309; W. W. Hubbard, St. John, N. B. ... | 65.00 |
| Jessie Rufus 5th, October, 1901; sire Count Sarcasm (imp.) (74301); Robt. Barker, Blakeley, Ont. | 125.00 |
| Green Bank King, January, 1902; sire Count Sarcasm (imp.); Joshua Bradley, Hazeldean, Ont. | 100.00 |
| Prince of Greenbank, May, 1902; sire Count Sarcasm (imp.); Ed. Lowry, Bell's Corners, Queen of Scots, April, 1901; sire Scottish Archer; C. W. Barker, Gattineau Point, Que. ... | 155.00 |
| Sunshine Park, September, 1902; sire Rugby; C. W. Barker ... | 95.00 |
| Major Cullen, April, 1902; sire Knuckle Duster (imp.); R. F. Halpenny, Bell's Corners, Jack Languish, November, 1901; sire Butterfly Hero 34623; W. M. Newcomb, Farelton, Ont. ... | 80.00 |
| 11 bulls, \$955.00; average about \$87.00.
27 females, \$3,040.00; average about \$112.00.
28 head, \$3,995.00; average about \$142.00. | |

SHORTHORNS and CLYDESDALES.

We have for sale five bull calves, from 8 to 21 months, from imp. sire and dams; also six extra good stallions, from two to six years old.

**JOHN MILLER & SONS,
BROUGHAM, ONT.
CLAREMONT STATION, C. P. R.** om

SHORTHORNS (IMP.)



Cows and heifers, imp. and home-bred. Bulls, imp. and home-bred—all ages. Representing the fashionable blood of Scotland. om

**EDWARD ROBINSON,
MARKHAM P. O. & STN**

Scotch Shorthorns

Duchess of Gloster and Mina strains. Three bulls, ready for service. Also a few choice heifers. -om

**HARRY SHORE,
"The Firs." White Oak, Ont.**

MAPLE LODGE STOCK FARM

ESTABLISHED 1851.

SHORTHORNS.—First-prize milking strains, best Scotch breeding. Young bulls and heifers for sale.

LEICESTERS.—A grand lot of ewes, bred to our imported rams, and a few choice rams now for sale. om

**A. W. SMITH,
AILSA CRAIG STA., G.T.R., MAPLE LODGE P.O., ONT.
3 1/2 miles.**

Shorthorns, Berkshires and Leicesters.

FOR SALE: Choice two-year-old heifers, well gone in calf; also yearling heifers, bull calves. Boars and sows fit for breeding, and young pigs. om

ISRAEL GROFF, ALMA, ONTARIO.

SHORTHORNS.

THORNHILL HERD, ESTABLISHED 27 YEARS.

Imp. Royal Member and Sailor Champion now at head of herd, which are all bred on straight Scotch lines, and are of the up-to-date kind. Present offering: some choice young bulls. om

REDMOND BROS., Millbrook Sta. and P. O.

BONNIE BURN STOCK FARM, 40 rods north of Stouffville station, offers Scotch Shorthorns; choice Shropshires and Berkshires from imported and Canadian-bred cows. All at farmers' prices. Inspection invited. -om

D. H. RUSNELL, STOUFFVILLE, ONT.

SCOTCH SHORTHORNS. Urye, Stamfords and Matchless. Young, vigorous females, all ages, for sale. Shropshire sheep and Yorkshire pigs. om

**ROBT. BATTY,
Glenbourne Farm. Meaford P. O. & Sta.**

SHORTHORNS (imported)

One imported and one Canadian-bred bull. A few cows and heifers. om

THOS. RUSSELL, EXETER, ONT.

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

L. F. SELLECK, DRUGGIST, MORRISBURG, ONT.

Jersey Bulls

Out of tested show cows and sired by Brampton's Monarch (imp.). As we have the largest herd of pure-bred Jerseys in Canada, we are able to offer great choice. Come and see or write for what you want. om

**B. H. BULL & SON,
C.P.R. and G.T.R. stations. Brampton, Ont.**

JERSEYS: Present offering: Two bulls, 8 months old; solid color; choice animals; sired by Nero of Glen Rouge, and out of deep-milking dams. om

E. B. HINMAN & SONS, GRAFTON, ONT.

Best Jersey Bulls
AT LOWEST PRICES.

Owing to the large sale of registered Jersey cows, all in milk (18 head), that I have just made, I offer several bull calves, of unsurpassed breeding and from tested dams, at prices that will surprise purchasers. This, because the sale of so many cows in profit leaves me short of milk for the present. Also some choice heifers in calf.

**Mrs. E. M. Jones, Brockville, Ont.
Box 324. -om**

DO YOU WANT A SNAP? Jersey cows and heifers, also two young bulls, at low prices, from prize-winning stock. Write for prices. om

W. W. EVERITT, Dun-edin Park Farm, CHEATHAM, ONT.

JERSEYS, COTSWOLDS, YORKSHIRES. Registered Jersey cattle, Cotswold sheep and Yorkshire pigs for sale. A few nice heifers, 6 mo. to 2 years, and 1 yearling bull, by Count of Pine Ridge, grandson of Adelaide of St. Lambert, record 84 lbs. milk daily. om WM. WILLIS, NEWMARKET, ONT.

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

IF YOU'RE NOT GETTING YOUR SHARE



of the profits in the dairy business it is because you are not using a

De Laval Cream Separator

For, no matter what the other fellows may tell you, our machines will save their cost each year over and above what is possible with any other separator or system.

Send for a catalogue.


THE DE LAVAL SEPARATOR CO.
77 YORK STREET, TORONTO.

MONTREAL, WINNIPEG, NEW YORK, CHICAGO, SAN FRANCISCO, PHILADELPHIA, ROUGHKEEPSIE.

Going to Build?

A new house, barn, silo, concrete floor, or any other such work? If so, use

Queenston Cement



THE old brand made by a new process. No better cement made. All who contemplate using cement should first inspect the different structures built of the different kinds of cement, and then they would know which is best and cheapest. We especially request those interested to ask our many patrons about the new-process Queenston Cement used during the latter part of last season. Do not be misled by statements from those who sell the goods most profitable to themselves. Write for prices, estimates and full particulars. We can save money for you when building.

ISAAC USHER,
QUEENSTON, ONTARIO.

Joseph Rodgers & Sons
Limited,
SHEFFIELD, ENGLAND.

Please see that this EXACT MARK is on each blade.

JAMES HUTTON & CO., MONTREAL, SOLE AGENTS IN CANADA.



REGISTERED TRADE MARK
GRANTED 1882

\$2.97 FOR THIS OUTFIT, WORTH \$9.00



Smokers! We are introducing a new brand of cigars and to get you acquainted with them we will send you with cigars \$2.50, 14k. Gold finished pocket watch, 100% guaranteed. Looks and keeps time equal to any \$50.00 Solid Gold Watch. This watch is finished with the finest materials and is guaranteed for life. It is a masterpiece of watchmaking and is a real treasure. It is a watch that you will want to show to your friends. It is a watch that you will want to keep for yourself. It is a watch that you will want to give to your children. It is a watch that you will want to give to your friends. It is a watch that you will want to give to your family. It is a watch that you will want to give to your neighbors. It is a watch that you will want to give to your community. It is a watch that you will want to give to your country. It is a watch that you will want to give to your world. It is a watch that you will want to give to your future. It is a watch that you will want to give to your legacy. It is a watch that you will want to give to your name. It is a watch that you will want to give to your honor. It is a watch that you will want to give to your pride. It is a watch that you will want to give to your glory. It is a watch that you will want to give to your fame. It is a watch that you will want to give to your power. It is a watch that you will want to give to your influence. It is a watch that you will want to give to your respect. It is a watch that you will want to give to your admiration. It is a watch that you will want to give to your esteem. It is a watch that you will want to give to your honor. It is a watch that you will want to give to your glory. It is a watch that you will want to give to your fame. It is a watch that you will want to give to your power. It is a watch that you will want to give to your influence. It is a watch that you will want to give to your respect. It is a watch that you will want to give to your admiration. It is a watch that you will want to give to your esteem. It is a watch that you will want to give to your honor. It is a watch that you will want to give to your glory. It is a watch that you will want to give to your fame. It is a watch that you will want to give to your power. It is a watch that you will want to give to your influence. It is a watch that you will want to give to your respect. It is a watch that you will want to give to your admiration. It is a watch that you will want to give to your esteem.

GOSSIP.

In placing an advertisement of purebred Ayrshires with us, Mr. D. Leitch, of Cornwall, writes: "The young bulls I am offering are an extra choice lot of good dairy form. The stock bull has proven himself a very impressive sire, his calves sweeping everything at the local shows for three years in succession, besides I have sold in the last year no less than three young bulls to local breeders of pure-bred Ayrshires to head their herds. Not one of the dams of these young bulls has a record of less than 50 lbs. of milk per day, and my cows are all of large size, carrying well-balanced udders and large, well-placed teats.

Mr. Jas. Gibb, of Brookdale, reports the following sales: To Dougal McCole, Alsia Craig, one bull; to Geo. W. Uren, Medina, Ont., one bull; to Neil McKay, Maplewood, Ont., one bull; to Murray Bros., Hickson, Ont., one bull; to Samuel Lyons, Byng, Ont., one yearling bull and one grand two-months-old bull calf by Spicy Marquis (imp.); to William Taylor, Conroy, Ont., one yearling bull; to Wm. Hogg & Son, Thamesford, Ont., one yearling bull, also one five-months-old roan bull calf, got by Speculator (imp.), dam Village Maid 29th (imp.); to Conrad Wagner, Elmira, Ont., one cow and a red bull calf by Spicy Marquis (imp.); to W. D. Flatt, Hamilton, Ont., four heifer calves by Spicy Marquis (imp.), and to Jas. Hyslop, Stratford, Ont., the stock bull, Imp. Prince William. All the bulls he had advertised in "Advocate" are sold. He has a number of grand young bull calves by Spicy Marquis (imp.).

THE TYRWITT SHORTHORN SALE.

The dispersion by auction of the entire Shorthorn herd of the late Lieut.-Col. Tyrwhitt, of Bradford, Ont., advertised to take place on Wednesday, April 8th, is an event that will interest breeders and farmers seeking good seed stock for the improvement of their cattle. It is well known that Col. Tyrwhitt was a liberal buyer of the best foundation stock available, and that only first-class sires of the best breeding were selected by him for keeping up the character of his herd. While a number of soundly-bred standard families are represented, a large proportion are of the good Scotch Syme sort, which has probably produced more prizewinners at leading Canadian shows than any other, and in the hands of Col. Tyrwhitt were kept up to a high standard of excellence by a judicious selection of superior sires, carrying the best quality of flesh and bred on lines that ensured their reproducing stock of the same type.

The present stock bull, Royal Standard =27134=, bred by the Russells, of Richmond Hill, a massive red bull of grand character and quality of the favorite Kinellar Mina family, is included in the sale, and a strong feature in the offering is the half a score of his sons, yearlings and two-year-olds, nearly all reds, big, lusty, thick-fleshed fellows, just in the best possible form for useful service and as uniform in type and form as peas in a pod. The young females are of the same general character, and all of breeding age have been bred to the lieutenant in service of Royal Standard, Heir-at-Law, while the matrons of the herd are in calf to or have calves at foot sired by the old stock bull himself. The cattle are in excellent condition. There will also be sold two excellent Clydesdale teams, two choice drivers used to being driven by ladies, a flock of 24 Cotswold sheep, four Yorkshire brood sows and boar. The sale will be conducted by Capt. T. E. Robson, and the location, only 40 miles north of Toronto, is convenient. The catalogue may be had by applying to Mrs. Tyrwhitt, Bradford, Ont.

Lyndale Holsteins

We are now offering a number of young bulls, fit for service, sired by Lady Waldorf's De Kol. Spring calves of both sexes.

BROWN BROS.,
Lyn P.O. and Station.

BEST and CHEAPEST IN THE MARKET.

Kemp's Instantaneous Sheep-Dipping Fluid.

1-gal. Imperial tin for
75c.
STRENGTH EQUAL TO ANY.

Instantly kills ticks and parasites on sheep and lambs. Improves and waterproofs the wool. A sure remedy for vermin, mange, etc., on horses, cattle, sheep, and dogs. Ask your druggist for Kemp's Dip. I will express it, prepaid to any part of the Dominion, for \$2.

W. W. STEPHEN, Agent,
MEAFORD, ONT.

30 HOLSTEIN CALVES

For March, April and May delivery. Also cows and heifers, sired by such noted stock bulls as Pietze De Kol 2212, and Maud's Prince of Elgin 287, and from imported and home-bred cows with great butter and milk records. Pedigrees furnished. All express charges paid, and safe arrival guaranteed. Write for prices.

H. George & Sons, o Crampton, Ont.

Spring Brook Holsteins.

One cow 4 years old, three 3-year-olds, two 2-year-olds, one yearling heifer, 4 heifer calves, one bull calf; all De Kols. Quality unsurpassed. Tam worths of all ages for sale. Write at once for bargains.

A. C. HALLMAN, - - Breslau, Ont.

HOLSTEIN-FRIESIANS Three Holstein yearling bulls and one heifer (in calf) for sale. Apply to **W.M. SUHRING,** Sebringville, Ont.

Brookbank Holsteins

16 to 25 lbs. of butter in 7 days' official test are the records of this herd of Holstein cows. Heifers of equivalent records. Bulls for sale whose sires and dams are in the Advanced Registry, with large official butter records.

GEO. RICE, Carrie's Crossing, Ontario,
OXFORD COUNTY.

7 HOLSTEIN BULLS FOR SALE.

Five yearling bulls, sired by a grandson of De Kol 2nd; 1 bull, rising 2 years old, and 1 aged bull, Korndyke Queen De Kol's Butter Boy, of Korndyke and De Kol breeding.

JAS. A. CASKEY, Madoc, Ont.

Riverside Holsteins

8-BULLS FOR SALE-8
From 3 to 10 months old, sired by Victor De Kol Pietertje and Johanna Rue 4th Lad. These young bulls are from Advanced Record of Merit stock.

MATT. RICHARDSON & SON,
Haldimand Co. o Caledonia, Ont.

IF YOU WANT A HOLSTEIN BULL, bred from producers, and that is again capable of siring producers, at a living price, write

H. BOLLERT,
Cassel, Ont.

HOLSTEINS, TAMWORTHS, COTSWOLDS.

Present offering: Young boars and sows fit to breed, and younger ones. Choice animals. Ram and ewe lambs and two 2-shear rams. Perfect covering. o **E. O. MORROW,** Hilton Ont., Brighton Sta.

Maple Park Farm Holsteins.

Netherland De Kol (Imp), stock bull. Stock of all ages for sale from the great De Kol Pietertje Clothilde and Barrington strains. Home of the great cows, Edgeley Mol, milk record 104 lbs. in 24 hours; Emery Beauty, the great public test winner, and many others with heavy records. **SIDNEY MACKLIN,** om Streetsville P. O. and station, C. P. R.

4 HOLSTEIN BULLS 4

FOR SALE: From 4 to 7 months old, having sires in their pedigrees from such strains as Inka, Netherland, Royal Aggie, and Tritonia Prince, and out of imported females that have proven their worth at the fair. **THOS. B. CARLAW & SON,** om Warkworth.

Ridgedale Farm Holstein-Friesians for Sale.

2 yearling bulls; also bull and heifer calves; all of choice breeding. Prices always reasonable. Write, or come and see them. **E. W. WALKER,** Utica P. O. Shipping stations: Port Perry, G. T. R.; Murtle, C.P.R. om

HOLSTEINS & TAMWORTHS.

Two bull calves, 8 and 9 months; 3 yearling heifers, bulls and heifer calves, all double De Kols. In Tamworths we have 3 sows, 5 months old; 25 March boars and sows. Bargains if taken at once. Enquiries promptly answered. Write or call.

BERTRAM HOSKIN, THE GULLY P. O.,
Grafton Station, G. T. R.

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

NOTICES.

THE MAGNET.—In another column will be found the first of an effective series of advertisements emphasizing the many advantages of the Magnet Cream Separator, manufactured by the Petrie-Taylor Mfg. Co., Ltd., of Guelph, Ont.

THE SPRAMOTOR CO., London, Canada, write us: "There seems to be an impression in Canada that all sprayers or spray pumps are SPRAMOTORS, which impression is fostered by some vendors of cheap and inferior apparatus, thereby rendering themselves liable for infringement of trade-mark.

QUEENSTON CEMENT.—During the past week, a "Farmer's Advocate" representative had the pleasure of calling on Mr. Isaac Usher, of Queenston, Ontario. He found the kilns, furnaces, and, in fact, the entire plant of the veteran cement manufacturer running full blast in an attempt to keep pace with the orders that of late have been received in greater numbers than ever before.

GOSSIP.

When ordering a continuance of their advertisement, Bell Bros., of Bradford, write: "We might just say that we think our advertisement is a profitable investment, as we get correspondence from prospective buyers of Shorthorn cattle in every part of the continent.

W. F. STEPHEN, Trout River, Que., breeder of choice bulls fit for service, and several bull calves, sired by Klondike of St. Annes 8897, and from deep milkers, with good udder and teats.



3 FEEDS FOR ONE CENT

International Stock Food Co. WALTON, KANSAS. Gentlemen:—I would like some more "International Stock Food." Have been feeding and selling your goods for more than two years.

"We will pay you \$1000 cash to prove that our testimonials are not genuine."

"INTERNATIONAL STOCK FOOD" is prepared from Roots, Herbs, Seeds and Barks and won the Highest Medal at Paris Exposition in 1900 as a high-class vegetable, medicinal preparation to be fed to stock in small amounts as an addition to the regular feed.

A \$3000.00 STOCK BOOK FREE

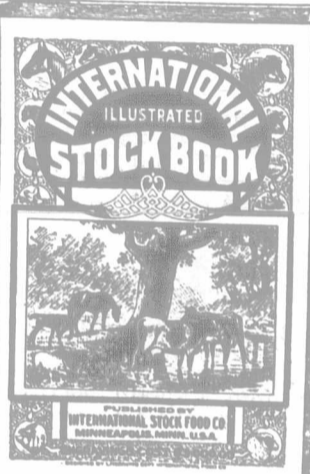
IT CONTAINS 183 LARGE ENGRAVINGS OF HORSES, CATTLE, SHEEP, POULTRY, ETC.

The cover of this book is a beautiful live stock picture printed in six brilliant colors. Book is 6 1/2 by 9 1/2. See engraving for greatly reduced design of cover.

\$10.00 CASH, we will send you, IF BOOK IS NOT AS STATED. This Book Mailed Free, Postage Prepaid, if you write us (letter or postal) and answer these 2 questions:

1st.—Name This Paper. 2d.—How Much Stock Have You?

TEST 3 FEEDS FOR ONE CENT ENTIRELY AT OUR RISK.



Maple Cliff Dairy and Stock Farm

AYRSHIRE CATTLE, BERKSHIRE and TAMWORTH PIGS. Special offer this month in young brars of both breeds, fit for service.

High-class IMPORTED AND HOME-BRED AYRSHIRES, including cows, heifers and young bulls out of our prize and sweepstakes cows.

Homecroft Stock and Dairy. Ayrshires, Chester Whites, B. P. Rooks. Write us for best young bull in Canada.

Springhill Farm Ayrshires. FOR SALE. One bull 16 months old, three bulls 7 months old, all from imported sire and deep-milking dams.

Robt. Hunter & Sons, Maxville, Ont. DAVID A. McFARLANE, Breeder of high-class AYRSHIRES.

Springburn Ayrshires. We are making a special offering of five bulls, from 9 to 12 mos. old, bred by Lord Minto 10133, and out of producing dams.

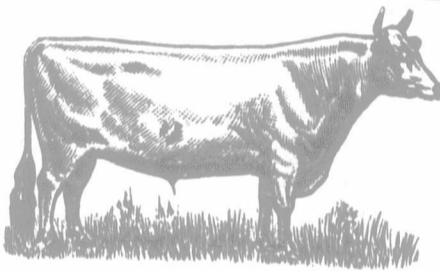
SUNNYSIDE AYRSHIRES. Our present offering is 10 heifers, from 10 mos. to 2 years of age; 1 bull, 6 mos. old, and 8 young cows—a rare good, straight-lined lot, and will be sold right.

STOCKWOOD AYRSHIRES. Our herd now numbers 40 head of all ages, with milk records from 40 lbs. a day up. Stock of both sexes for sale.

AYRSHIRE BULLS. If you want a snap in AYRSHIRE BULLS, from 10 to 16 months old, sired by one of the best stock bulls in Canada.

AYRSHIRES

WATSON OGILVIE, PROPRIETOR.



Ogilvie's Ayrshires won the herd and young herd prizes at Toronto, London and Ottawa in 1900; also at the Pan-American, in 1901, and in 1902 they won all the herd prizes and medals.

ROBERT HUNTER, Manager.

Near Montreal. One mile from electric cars. Lachine Rapids, P. Q.

DEEP-MILKING STRAIN AYRSHIRES AND GUERNSEYS

Young stock of all ages for sale, of superior breeding. 3 excellent Guernsey bulls, 6, 12 and 18 months; 2 Ayrshire-bulls, 18 months; 1 fine young bull, white, with few brown spots, age 6 months.

High-Class Ayrshire Cattle. FOR SALE: Both sexes; bulls and heifer calves from 2 to 9 months old; cows and heifers all ages.

Menie Stock Farm AYRSHIRE bulls and heifer calves, from 2 to 9 months old. Also cows and heifers all ages. Write WM. STEWART & SON, Menie, Ont.

Tredinnock Ayrshires. Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchinbrain, and Lord Dudley.

AYRSHIRE CATTLE SHROPSHIRE SHEEP. B. P. ROCK FOWL and 20 YOUNG LARGE ENGLISH BERKSHIRES FOR SALE.

W. W. BALLANTYNE, Stratford, Ontario, offers three

YEARLING AYRSHIRE BULLS

of choice breeding, and right good individuals, at reduced prices, to make a clearance this month. Also bull calves, all ages, and heifer calves, yearlings and two-year-olds.

HIGH-CLASS AYRSHIRES. M. present offering is one yearling bull, one 4 years old, and also cows and a choice lot of spring calves, of both sexes.

GOSSIP.

Writing us under recent date, Mr. Jas. Bowes, Stratford, says:—"I am much pleased with the Farmer's Advocate as an advertising medium. I have now some yearlings and two-year-old heifers for sale, some of them served by my stock bull. In this year's crop of calves I have some beautiful heifers of the various families named in my advertisement." Shipping station, Meaford, Ont.

Mr. W. W. Ballantyne, of Stratford, writes us, sending change of ad., and says:—"The young Ayrshire bulls I am now offering are a capital, good lot of the best dairy type and Ayrshire character. I have also on hand, and for sale, several young females, some bred and some younger." Parties desiring to secure good dairy blood will be given a good assortment of stock from which to select. Write or visit W. W. Ballantyne, Stratford, Ont.

Our readers will notice the change in Mr. W. C. Shearer's ad. In writing us Mr. Shearer says:—"Owing to the scarcity of competent farm help, we have sold off most of our Jerseys. We find it impossible to continue our private creamery, and almost ruinous to sell our Jersey milk to the cheese factory, where it is paid for by weight, without regard to quality. These conditions have also forced me to reduce my stock of hogs during summer months. We still have a select flock of Barred Rocks, and will be prepared to furnish eggs for the spring trade."

Two miles west of Elmira, Ont., is the farm and residence of Mr. J. Bricker, breeder of Shorthorn cattle, well known to many of our readers on account of the success of his massive bull imp. Captain Mayfly 28858, who, as a two-year-old, won first prize at Toronto Fair, and as a four-year-old last year first prize in both Toronto and London Fairs. A cut of him appeared in Nov. 5 (1902) number of the Advocate. He is a bull of great scale and substance, true lines, and the most approved breeding, and his services are in great demand from all parts of the country. Imported by Jas. Crearer, of Shakespeare, sire Capt. of the Guard, dam Mayfly, by King George 55958, and weighing 2,870 lbs., he fills the bill for a herd header. Red Rose 27929, the dam of most of this herd, a large red cow, has never been beaten in Elmira show in a number of years. Other excellently well bred cows are Red Bess, by Captain Mayfly; Maiden's Blush 28185, a roan, an exceptionally good milker; Queen Victoria, out of Matchless, by imp. Royal Sailor; Red Rose II. 27930, whose last calf at three months and three days weighed 515 lbs. Mr. Bricker is sending to his brother in the West several cows and a bull calf to improve his herd. There are in the herd 5 heifers, roans and reds, ranging from six months upwards, from such noted sires as the Missie bull, Heir of Neidpath 20692, Scottish Peer, etc. Two of them, two-year-olds, Missie of Elmira and Beauty of Missie, are in calf to imp. Captain Mayfly. All these animals are in the very best condition, and to be had at prices consistent with their breeding and quality. For further particulars see advertisement.

NOTICE.

STUMP PULLER.—The Hawkeye Grub and Stump Machine is manufactured by our advertising patrons, the Milne Manufacturing Co., Monmouth, Ill. In addition to other points of superiority, the Milne Patent Wire Rope coupler makes it stand out with special prominence. By its aid the operator is enabled to adjust the wire rope to any length, and it makes it possible for the Hawkeye to clear a space of two acres in a circle around the machine at one setting. It is claimed that there is nothing in the form of a green or old stump, grub or tree of ordinary size that the Hawkeye will not pull with ease, by the aid of one horse, without injury to the machine. No man who has new land to clear, or who wishes to clear his "hog-pens" or relieve his land of its old stumps, or who desires to subdivide his property, should ever be without the Hawkeye. It is the best machine ever made for clearing a machine. Write for particulars to-day. This is a new machine. You mention the name of the

The Willing Horse

Dr. Hess' Stock Food given twice a day, in tablespoon doses, makes a horse fit for any task, and willing at any work. It improves the coat, purifies the blood, removes dropsical swellings and stocking of the legs, prevents cracked or greased heel, cures distemper, indigestion, constipation, worms and scratches, and is a tonic to the organs of reproduction. Dr. Hess' Stock Food is especially valuable for mares in foal and for growing colts—as well as for fattening horses for market. It is easy to grow a handsome animal from a very unpromising colt, if Dr. Hess' Stock Food is given regularly, from the first year on. Dr. Hess' Healing Powder cures galls, cuts, burns, and open wounds of every description. Four ounce package by mail 25c.

Dr. Hess' Stock Food

In every package of Dr. Hess' Stock Food is a little yellow card entitling the purchaser to free prescription for his stock by Dr. Hess.

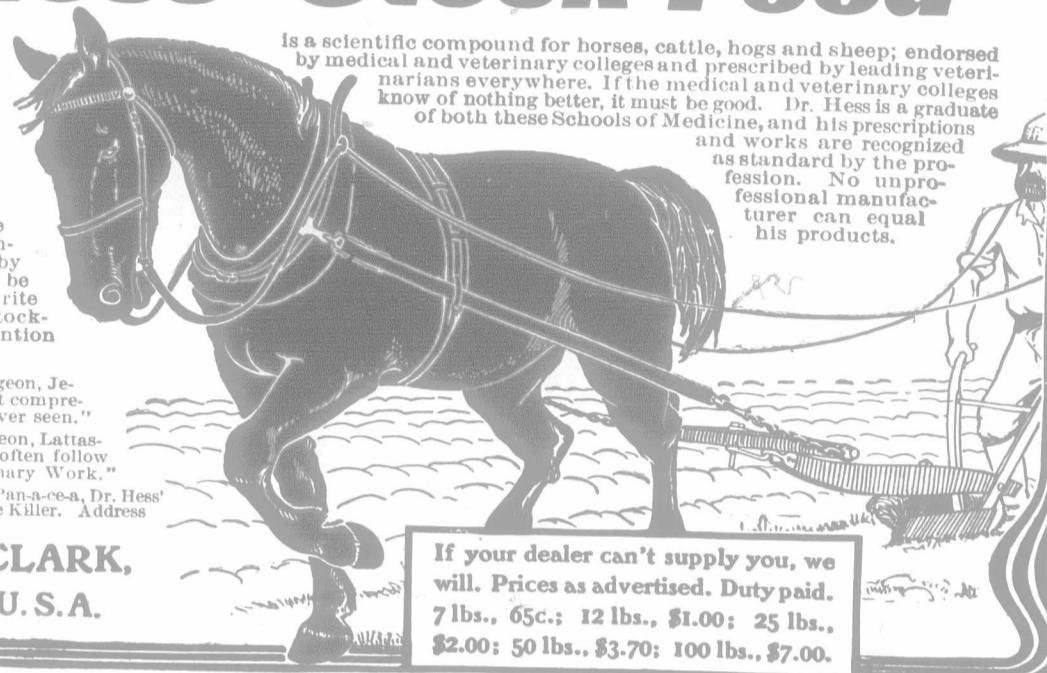
DR. HESS' Great Stock Book on diseases of animals and poultry, the only complete treatise for popular use, consulted and recommended by prominent veterinarians, will be sent free, postpaid, if you write what stock you have; what stock-food, you have used; and mention this paper.

C. M. McCLELLAN, Veterinary Surgeon, Jeromenville, O., says:—"It is the most comprehensive work for farmers I have ever seen."

H. H. LAYMAN, Veterinary Surgeon, Lattasburg, O., says:—"In my practice I often follow suggestions given in your Veterinary Work."

We also make Dr. Hess' Poultry Pan-a-clea, Dr. Hess' Healing Powder and Instant Louse Killer. Address

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



is a scientific compound for horses, cattle, hogs and sheep; endorsed by medical and veterinary colleges and prescribed by leading veterinarians everywhere. If the medical and veterinary colleges know of nothing better, it must be good. Dr. Hess is a graduate of both these Schools of Medicine, and his prescriptions and works are recognized as standard by the profession. No unprofessional manufacturer can equal his products.

If your dealer can't supply you, we will. Prices as advertised. Duty paid.
7 lbs., 65c.; 12 lbs., \$1.00; 25 lbs., \$2.00; 50 lbs., \$3.70; 100 lbs., \$7.00.

NO HUMBBUG. Three in One. Swine V. Stock Marker and Calf Debarker. Stops swine from rooting. Makes different ear marks. Extracts Horns. Price \$1.50. Send \$1 for trial. If satisfied, send balance. Pat'd May 6, 1902. Hog and Calf Holder only 75c. FARMER BRIGHTON, FAIRFIELD, IOWA.

EUROPEAN ADVERTISEMENTS.

English Shorthorns.

Booth and Bates Shorthorns, topped with Crulck-shank bulls. Young cows, bulls and heifers always on hand for sale. Eligible for the American Herd-book. Royal and Highland prizewinners included for the last two years. Close on \$400 won in prizes last year and this.

WM. BELL, Ratcheugh Farm, Alnwick, Northumberland, Eng.

FAMOUS ALL OVER THE WORLD ALFRED MANSELL & CO., LIVESTOCK AGENTS AND EXPORTERS, SHEWESBURY.

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Shrewsbury, England, or to our American representative, Robert Miller, Stouffville, Ont., Canada.

LINCOLN LONG-WOOL SHEEP BREEDERS' ASSOCIATION

LINCOLN RAM SALES, 1903

The 16th and 17th sales of Lincoln Long-wool rams, by members, will be held in Lincoln, as follows:

14th AUGUST, 400 RAMS
11th SEPTEMBER, 500 RAMS

The sheep will be penned, on view, in the afternoon, before each day of sale.
STEPHEN UPTON, Secretary, St. Benedict's Square, Lincoln, 9th January, 1903.

HAMPSHIRE DOWN SHEEP GREAT ENGLISH PEDIGREE SALES,

July, August & Sept., 1903

Waters & Rawlence, Salisbury, Eng.

50,000 PURE-BRED EWES, LAMBS, RAMS.

Including both rams and ewes from the best registered prize-winning flocks in the country. Commissions carefully accounted. Address

Waters & Rawlence, Salisbury, England.

NEWMARKET, ENGLAND IMPORTANT SALE OF THE

Late Colonel McCalmont's PURE-BRED SOUTHDOWN SHEEP.

JOHN THORNTON & CO. will sell by auction, on WEDNESDAY, JULY 22nd, at CROCKFORD'S, NEWMARKET, the flock of

SOUTHDOWN SHEEP,

The property of the late Colonel McCalmont, which now holds the premier position among English winning flocks, and consists of about 700 head, and includes all the noted prizewinners. Last year 2 special champion prizes, 8 medals and reserves for champions, 25 first prizes, 7 seconds and 3 third prizes were won by this flock, including the championship at the Royal Agricultural Society's meeting at Carlisle, and the Breed Cup at the Smithfield Show. Catalogues may be had of HERBERT J. GURROD, Cheveley, Newmarket, England, or of JOHN THORNTON & CO., 7 Princess street, Hanover Square, London, England, who will undertake commissions and attend to insurance and shipment.

W. W. CHAPMAN, Secretary of the National Sheep Breeders' Association,

Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

Address: MOWBRAY HOUSE, NORFOLK ST., LONDON, W. C., ENGLAND.

Cables—Sheepcote, London.

THE RIBY HERD and FLOCK

OF SHORTHORN CATTLE AND LINCOLN LONG WOL SHEEP HENRY DUDDING,

Riby Grove, Great Grimsby, Lincolnshire.

To get Champions by the produce of Champions.—These can always be secured from the Riby Grove Herd and Flock, the largest in England, comprising the choicest lines of blood extant. Theirs is a world-wide reputation, and suffice to say that at no period of its history, dating back 150 years, were they stronger in merit or quality. 86 awards were won in 1901, and equally good results secured in 1902, culminating in those great victories of Smithfield Show, where its pen of wethers won the 100-guineas Challenge Cup for the best pen of sheep of any age or breed; and at Chicago Live Stock Show, in December last, where a ram from this flock won the \$400 prize offered for the heaviest sheep in the world.

CABLE Dudding, Keelby, England.

HAMPSHIRE DOWN

SHEEP.

"RESERVE" FOR CHAMPION IN THE SHORT-WOOL CLASSES, SMITHFIELD, LONDON, 1901.

Splendid Mutton, Good Wool, Great Weight.

This highly valuable ENGLISH BREED OF SHEEP is unrivalled in its wonderfully early maturity and hardness of constitution, adapted to all climates, whilst in the quality of mutton and large proportion of lean meat it is unsurpassed; and for crossing purposes with any other breed, unequalled. Full information of

JAMES E. RAWLENCE,

SECRETARY HAMPSHIRE DOWN SHEEP BREEDERS' ASSOCIATION, SALISBURY, ENGLAND.

SHEEP BREEDERS' ASSOCIATIONS

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana.

Dorsets & Chesters

Young stock in Dorset Sheep and Chester White Hogs of good quality for sale, reasonable. R. H. HARDING, THORNDALE, ONT. "MAPLEVIEW FARM."

Advertisement by FARMER'S ADVOCATE.

A Golden Rule of Agriculture:

Be good to your land and your crop will be good. Plenty of

Potash

in the fertilizer spells quality and quantity in the harvest. Write us and we will send you, free, by next mail, our money winning books.

GERMAN KALI WORKS, 93 Nassau Street, New York.



LITTLE'S PATENT FLUID SHEEP DIP AND CATTLE WASH

THE ORIGINAL

Non-Poisonous Fluid Dip

Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.

For sheep.

Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.

Cattle, horses, pigs, etc.

Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

Prevents the attack of Warble Fly.

Heals saddle galls, sore shoulders, ulcers, etc. Keeps animals free from infection.

No danger, safe, cheap, and effective

Beware of imitations.

Sold in large tins at 75 cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranchmen, and others requiring large quantities.

SENT FOR PAMPHLET.

Robert Wightman, Druggist, Owen Sound Sole agent for the Dominion.

Dorset Horn Sheep

THE largest flock in America. The most celebrated prizewinners at the Columbian Exhibition and Canadian exhibitions. Contains more Royal winners than any other. Awarded 5 out of 8 first prizes at Toronto, London and Ottawa in 1900. Flock of 300. Stock for sale always on hand.

John A. McGillivray, Uxbridge, Ontario.

FOR SALE, AT MAPLE AVENUE STOCK FARM, CHOICE

Lincoln Sheep and Shorthorn Cattle

Bred from best English stock. Bred from Scotch bulls of fashionable families. CAN SUPPLY EITHER IN CARLOAD LOTS.

Write us before buying elsewhere. Address: F. H. NEIL, Proprietor, LUCAN, ONT. Box 35. Telegraph and Railway Station.

PRIZEWINNING COTSWOLDS.

Imported and home-bred stock, prizewinners at all the leading fairs. ELGIN F. PARK, om Box 21, Burgessville, Ontario, Canada.

American Leicester Breeders' ASSOCIATION.

A. W. Smith, Pres., Maple Lodge, Ont.

Pedigrees now being received for Vol. 4. For information, blanks, etc., address:

A. J. TEMPLE, Sec., CAMERON, ILL. U. S. A.

IMP. COTSWOLD SHEEP

Five rams (year-olds), both sires and dams imp.; 10 ewes (year-olds), sire imp. Also this year's lambs, both sexes. Yorkshire and Tamworth hogs. om

BROOKS & LANGMAID, COURTICE, ONT.

GOSSIP.

We are informed by Mr. J. M. Gardhouse, Weston, Ont., that sales have been very brisk lately, he having sold and shipped to Mr. W. B. Warren, of Napiuka, Man., the Imp. Clydesdale stallion Gay Gordon and two Clydesdale mares; also 7 head of Shorthorn cattle, 10 Leicester ewes and a ram, 2 Yorkshire and 2 Berkshire hogs. He also purchased from Mr. John Bright, of Myrtle, six mares for the same party. Mr. Gardhouse attributes much of his success in business to advertising in the Farmer's Advocate.

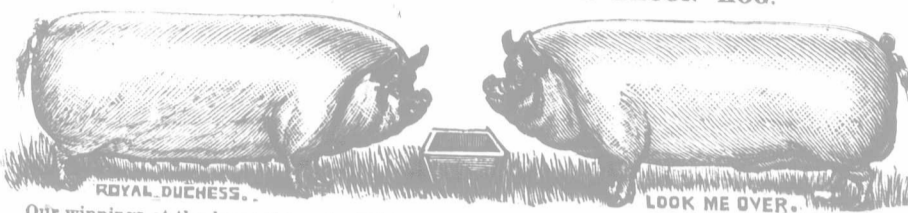
SORBY'S IMPORTED HORSES.

After a long and trying voyage, Mr. O. Sorby, Guelph, has safely landed his very large importation of Clydesdale and Hackney horses at his beautiful home near Guelph. The importation comprises 29 stallions and 9 mares and fillies. Although many years in the business, Mr. Sorby has probably never landed a better or more noted lot of horses, not a light-hearted horse in the crowd. Where there is so much excellence it is difficult to discriminate. However, Mr. J. Henderson, Belton, Ont., was not slow when he purchased Prince Romeo 8144, lately owned by the Duke of Portland, winner of prizes too numerous to mention. He has proved himself one of the best stud horses in Scotland, being the sire of Stately City, who was the champion horse at the Toronto Spring Show this year, from which we can judge as to his merits as a sire. Prince Romeo is a son of Prince of Wales 673, dam Best o'Times 5582. That Mr. Sorby's horses are in great demand may be judged from the fact that besides two sold to Mr. Henderson, two more stallions have been sold to Mr. E. Rusnell, Mt. Forest, Golden Stick and Golden Victor 11056, a grand brown, with extra good feet and limbs. In looking through the animals we find that there are ten Baron's Prides—sons and daughters and thirteen grandsons and granddaughters in the present shipment—also three McGregor colts. Among others we may mention Black Baron, full brother to Baron's Crown, a great prizewinner in many prominent shows; Vanora's Pride by Baron's Pride, undoubtedly one of the choicest in the lot; Montrave Guardsman, Gretna Crown, Brown William, Tow Sirdar, McGregor's Last, Royal McGregor, Cherub, Duddington Duke, Black Grace, Torchlight, etc.

Among the mares may be mentioned Montrave Geisha, a brown mare of excellent quality, with filly foal, by Baron's Pride, at foot. Had the foal been a male, Mr. Sorby had been offered \$1,000 for it by Mr. Montgomery. This mare is being taken West by Mr. A. G. Mutch, Lumsden, Assa. Baroness Montague, sold at Lord Cecil's sale to Mr. Sorby, a handsome, large, brown mare, sired by Baron's Pride, her dam by Prince Romeo and Lady Callister, winner at R. A. S., a beautiful bay, splendid quality, in foal to Prince Romeo, are also in the importation. Out of several fillies we will mention Proud Beauty, by Baron's Pride, out of the famous prize mare Crown Imperial, who was sold for 300 guineas and stood second to Queen of the Rose at the H. A. S., who was sold for 1,000 guineas. She is a sweet, dark brown, winner of many prizes, bred to Montcrief Marquis, winner at H. A. S. This mare, with the beautiful black yearling Miss Wallace, will make a valuable addition to the stud of Mr. J. A. Turner, Balgreggan, near Calgary, who is at present resting them before proceeding on his way. Miss Gilmore, full sister to Pomona, owned by Lord Rosebery, that won so many prizes at the principal shows in Scotland, is another charming number. Mr. Sorby also has a few Hackneys, chief of which is Cliff Roberts, a handsome, dark chestnut, nearly 16 hands, white stockings, plenty of quality and substance, knee and hock action enough to please anyone; highly commended at Islington in a class of 42, sired by King of Forest, who is held out as an example for style and action in England to-day. This horse is to take the place of Square Shot, who has been sold. Among the fillies going out with Mr. Turner is a full sister to Pandago, and another a full sister to the champion Rufus. Mr. Turner, who is resting his horses at Mr. Sorby's, would dispose of any of the breeding purchasers, who, between the two shipments, should be able to get whatever they want at a price. The animals have stood these long months, and when tested will be found far beyond the short time.

SUMMERHILL HERD OF Large English Yorkshires.

HEADQUARTERS FOR THE IDEAL BACON HOG.



ROYAL DUCHESS. LOOK ME OVER.

Our winnings at the large shows, for 1901, are as follows: At Toronto every possible first prize and five seconds, two silver medals, and first for pen of pure-bred bacon hogs, also sweepstakes on bacon hogs divided, half going to Toronto, and won six out of ten possible firsts, and a few medals given: at the American (Buffalo), Toronto and London there were thirty-six first premiums and medals given: all the medals and every first prize but six won by the Summer Hill Yorkshires. When in need of the best write D. C. FLATT & SON, MILLGROVE, ONT. om Telephone: Millgrove, Ont.

HILLCREST HERD OF Large English Berkshires

My brood sows are imported or show animals, and the sires are big, long fellows of the bacon type. For sale: An excellent lot of young pigs, and a few young sows recently bred. Can supply pairs not akin. Enquiries promptly answered. Vine station, G.T.R.—near Barrie. Jno. Lahmer, Vine, Ont.

W. S. CARPENTER, "MODEL FARM," SIMCOE, ONT.

Importer and breeder of Shropshire sheep. My flock was represented at Toronto, and won first on shearing ram, first and second on aged ewes, and second on the pen. First time exhibiting, it in need of a first-class yearling ram, imported or home-bred, write! Your wants can be supplied, and at prices consistent with quality. Have a choice lot to choose from, and can guarantee satisfaction. Come and see them, or a card will bring them.

Station One-half Mile from Farm, Wabash and G. T. R.

SHROPSHIRE FOR SALE.—Shearing rams, ram lambs, ewe lambs, also shearing and older ewes, about 50 head all told. All registered or eligible. Low-set, well covered, in fine condition and form. Sires from Campbell and Dryden flocks. MALCOLM McDUGALL, om Tiverton, Ont.

SHROPSHIRE.

One well-covered yearling ram, with good bone, from imported Mansell ram, and four home-bred ram lambs. Write for prices

ROWAT BROS., HILLSDALE, ONT.

This season I am offering for sale

SHROPSHIRE

lamb of both sexes. Also shearing ewes and 2 shearing rams. Prices right and quality guaranteed. GEO. HINDMARSH, Ailsa Craig, Ont.

LINDEN OXFORDS

at Toronto, 1902, won 1st open pen; 1st and 2nd Canadian pen; 1st and 2nd aged, yearling and ram lambs; 1st, 2nd and 3rd yearling ewes and ewe lambs. All these ewes retained in flock and the best rams.

R. J. HINE, Dutton, Ont.

Newcastle Herd of Tamworth Swine

Have for a number of years taken a share of the best prizes offered at Toronto Exhibition, but this year has excelled all past records, having taken the sweepstakes for the best herd; also both silver medals for best Tamworth boar and best Tamworth sow, besides many other prizes in the various classes. Our present offerings are: A few choice young sows, 4 to 5 months old; 2 yearling sows, in pig; and we are now booking orders for spring pigs, both sexes. Enquiries promptly answered.

COLWILL BROS., NEWCASTLE, ONT.

TAM WORTHS.

Young pigs for sale, from medal-winning sow, O. A. G. 110, and other good ones, sired by Imp. Starlight, Pan-American First, and Bold Boy, Toronto winner. JOHN HORB & SN, om Parkhill P. and Station.



One hundred Tamworth and Improved Chester White Spring Pigs of a true bacon type, our herd having won the best prizes offered at the leading exhibitions throughout Ontario and Quebec for the past ten years. Stock for exhibition purposes a specialty. We pay express charges between stations, and guarantee safe arrival of all stock shipped. Pairs furnished not akin. Write for prices.

H. GEORGE & SONS, Crampton P. O., Ont.

WILLOW LODGE BERKSHIRES

Herd headed by Longfellow 10th of H. F., assisted by the noted prizewinner, Highclere Crown 3rd. Sows, the best money will buy, and are winners. Young stock of both sexes and all ages for sale, not akin.

W. WILSON, Snelgrove, Ont.

GLENBURN STOCK FARM.

Choice young Berkshire pigs, from Mary 1st, several 11 months' old boars and one two-year-old boar, at special prices; also Short horn calves, Shropshires, and Barred Rocks.

JOHN RACEY, JR., LENNOXVILLE, QUE.

YORKSHIRES AND BERKSHIRES.

FOR SALE: Some choice young sows and boars, ready to breed; also Barred Rock eggs, \$1 per setting. C. & J. CARRUTHERS, om Cobourg, Ont.

WESTON HERD Improved Large Yorkshires.

Every breeding animal has proved a winner, is by a winner and out of a winner, and producing winners. Young stock for sale at moderate prices.

L. ROGERS, om EMERY P. O.

Yorkshires, Poultry and Collies

Pigs of all ages, both sexes, pairs not akin. Quality strictly first-class. Eggs from W. Wyandottes and B. P. Rocks; imported stock, Choice pedigreed collies. Satisfaction guaranteed. Address: om A. & A. B. Armstrong, Warkworth, Ont.

FOR SALE: Yorkshires and Holsteins

Best type and quality. Young stock constantly on hand. Prices right. R. HONEY, om Brickley P. O., instead of Warkworth.

Yorkshires—For the next 3 months I can supply either sex, that for ideal bacon type, smooth, even finish, are unsurpassed. Prices reasonable. WM. TEASDALE, om Thornhill Sta. and electric cars. Dollar P. O.

Large English Yorkshires

Imported and Canadian-bred Yorkshires, from stock of the best British herds. A choice lot of boars, ready for service, and a number of sows being bred to Imported Dalmeny Long Sam, for sale. Also young pigs, all ages.

Langelier's Yorkshires

I am expecting, by the first steamer next spring, a few choice sows with litters. Will book orders now for young stock, 8 to 10 weeks old, to be delivered at beginning of May. This is a rare chance to buy imported stock at reasonable prices. Write me now, and ask also for the finest poultry circular published in Canada.

GUS. LANGELIER, Quebec City.

Spruce Grove Herd Yorkshires—A few choice boars fit for service; also choice pairs, not akin, from 7 weeks old to 3 months, for sale. Prices right.

FRED. C. SMITH, New Hamburg, Ont.

Yorkshires for Sale—Some choice young sows of different ages; also one Shorthorn bull, Royal Charlie 2nd = 38762. Write om C. & J. CARRUTHERS, Cobourg, Ont.

PINE GROVE FARM HERD of LARGE ENGLISH YORKSHIRES.

The oldest-established registered herd in America. We have 12 imported boars and sows and 20 home-bred animals breeding, and have a limited number of young boars and sows for sale, suitable for this fall's breeding. Satisfaction guaranteed in all mail orders.

Joseph Featherston & Son, om Streetsville Station, C. P. R., and P. O. and Telegraph. Clarkson Station, G. T. R.

GLENBURN YORKSHIRES won Gold Medal at Ottawa, 1902.

Herd averages 100, headed by the choice boar, Oak Lodge Prior and Pine Grove Squire. Twenty brood sows, 12 six-months sows, due to farrow March and April; 40 sows and boars, four weeks to three months old; pairs not akin.

DAVID BARR, JR., Renfrew, Ont.

Large English Yorkshires

Sows safe in pig, boars fit for service, sows ready to breed, boars and sows 2 and 4 months old. Satisfaction guaranteed in orders received by mail.

JAS. A. RUSSELL, Precious Corners, Ont.

YORKSHIRES FOR SALE

Boars fit for service, sows in farrow, ready to breed, and young stock on hand. Can supply pairs, not akin, of spring farrow; also a Shorthorn bull 21 months old.

WILLIAM HOWE, Bruce Co. North Bruce, Ont.

WESTON HERD Improved Large Yorkshires.

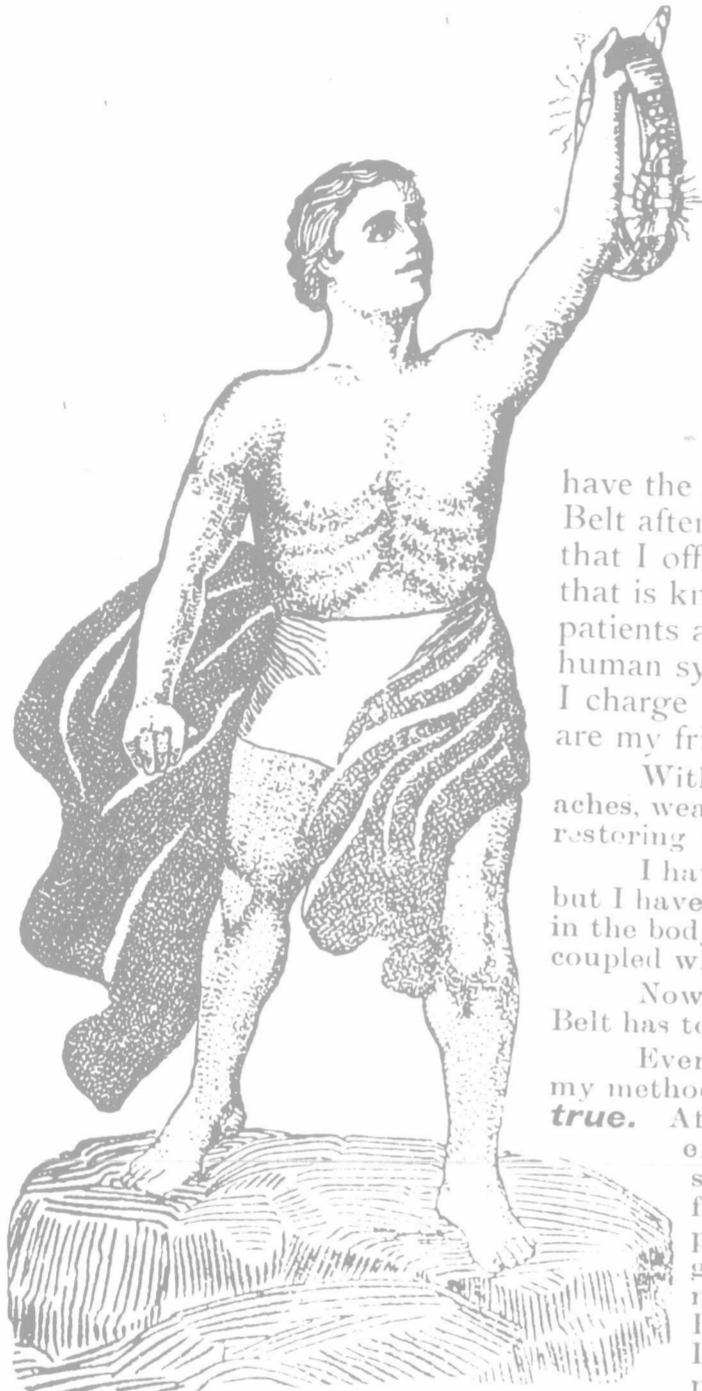
Every breeding animal has proved a winner, is by a winner and out of a winner, and producing winners. Young stock for sale at moderate prices.

L. ROGERS, om EMERY P. O.

Yorkshires, Poultry and Collies

Pigs of all ages, both sexes, pairs not akin. Quality strictly first-class. Eggs from W. Wyandottes and B. P. Rocks; imported stock, Choice pedigreed collies. Satisfaction guaranteed. Address: om A. & A. B. Armstrong, Warkworth, Ont.

"I'M STRONG ONCE MORE."



This is the way they feel, the men who had given up hope, who thought there was no cure for them, until they came upon Dr. McLaughlin's Electric Belt. Now they are full of life, overflowing with joyous spirits, and "Care to the winds." Pains are gone, weakness is gone, and full of vigor is in every action.

Do you want to feel like that? Then wear this grand life-giving appliance for two months at night. It will charge every nerve with electric life, and you will feel like a two-year-old. It puts steam in your run-down body, drives away pain and renews youth.

"I am an enthusiast," you say. "Why should I not be? I have the gratitude of thousands of people who have been cured by my Electric Belt after the failure of the best physicians." I am enthusiastic because I know that I offer suffering humanity the surest cure for the least expenditure of money that is known to-day. I have gained my success by learning how to treat my patients and then curing them. I understand the action of the current on the human system. My years of experience have taught me how to apply electricity. I charge nothing for my knowledge, knowing that it helps me. My patients are my friends. They are advertising my business.

With my Electric Belt I cure Rheumatism in its worst forms; I cure pains and aches, weak nerves, general debility and any other trouble which can be cured by restoring strength.

I have not only proven that electricity is the substance of life and organic vitality, but I have perfected the best known appliance in the world for replenishing that force in the body when it is lost. My Electric Belt is the result of years of scientific study, coupled with experience and mechanical skill.

Now, dear reader, my strongest arguments, are the large number of cures my Belt has to its credit.

Every man and woman who comes into my office gets a practical illustration of my method of cure and goes away convinced that the claims I have made for it are true. After seeing original letters from the cured (letters which I am permitted to exhibit) their doubts are expelled, and they know that my Electric Belt makes strong men out of weak men, gives buoyancy and ambition to the man who formerly got up tired every morning. They find that weak organs and atrophied parts are made as sound and strong as Nature intended. They read grateful letters from men and women who were cured by my Belt of Rheumatism, Backache, Lumbago, Sciatica, Stomach, Liver, Bowel, Kidney and Bladder troubles. They also see the evidence of wonderful cures of Locomotor Ataxia and some forms of paralysis. The following cures were made by

DR. McLAUGHLIN'S ELECTRIC BELT.

Your Belt is all that you claim it to be. It has cured me of indigestion, also my kidneys. **GEO. S. BROOKS, Shanty Bay, Ont.**

My stomach is as good as it ever was and I can eat anything. My bowels are regular, in fact I feel like a new man. **A. MCKENZIE, Corliss, Que.**

I have never tried anything as good as your Belt for weakness. It has done its work well. **STEPHEN MANTLE, Hcadford, Ont.**

Some months ago I got one of your Belts, and to-day I would not take \$100 for it if I could not get another. **JAMES GREGG, Bridgtonorth, Ont.**

I have thousands of just such letters. If you will tell me where you live I will send you a name of a man in your town I have cured.

For the benefit of those who are skeptical regarding the merits of my method, I know there is no better way to prove my confidence in the wonderful curative power of my Belt than to cure you before I ask you to pay for it, and as I DO KNOW that it will restore strength in every instance I am willing to cure first and ask my pay afterward. So if you are weak, breaking down, or sick in any manner come to me, tell me your trouble, and let me cure you. When you are cured you can pay me. This offer is open to any man who will secure me. All I ask is that the man or woman asking me to take their case under these terms give me evidence of their honesty and good faith. They may use the Belt at my risk and

Your Belt has given entire satisfaction. I feel a new man. I would advise all young men who suffer from weakness to try your Belt. **PATRICK EDWARDS, Pleasant Villa, N.S.**

I am almost 70 years of age. Your Belt has completely restored my health. It has also cured me of rheumatism. **JOSEPH WIGGINS, 107 Quebec avenue, Toronto Junction.**

I can honestly recommend the Belt to anyone, also your method of doing business; the manner in which you treat your patients, and the attention you give them. Your business should certainly prosper. **H. E. MITCHELL, Forrest, Man.**

PAY WHEN CURED.

READ WITH CARE

Every patient wearing Dr. McLaughlin's Electric Belt receives free, until cured, the advice of a physician who understands his case. Agents or drug stores are not allowed to sell these goods.

FREE BOOK

If you cannot call, write for my beautiful illustrated book, giving you cuts of my Belts and prices. This little book is of great value to any one. It contains a lot of useful information to men who are not what they should be; tells how strength is lost and won. I send the book absolutely sealed free to anyone. I have a book for women as well as men.

DR. M. S. McLAUGHLIN, 130 Yonge Street, TORONTO, ONT.

OFFICE HOURS—9 A.M. TO 8.30 P.M.



THE LOVELIEST SILK REMNANTS YOU EVER SAW. ALMOST GIVEN AWAY.

Enough heavy, rich, elegant Silk Squares to make 2 large sofa cushions for only 15c. All good big pieces, some as large as a European Silk Mill. How can we do it? Why, because we picked up a great lot of extra fine samples of their very best silks...

CAN YOU SOLVE THIS PUZZLE?



\$200.00 IN CASH FREE For Clever People with Brains

We will give \$200.00 in Spot Cash to the persons who send a correct answer to this puzzle. We do not want you to send us a single cent of your money. Just study the picture carefully...

A GOLD WATCH FOR THE CORRECT ANSWER



A beautiful Gold-finished Watch, handsomely engraved (Ladies' or Gentlemen's size), will be given to everyone who correctly answers the following puzzle:

V - - - T - - - R - - - A

There are four letters, represented by four dashes, omitted from the above word, and when the proper letters are supplied the complete word will be the name of a very noted Queen. To everyone who sends us the correct answer we will present, absolutely free, a beautiful Gold-finished Watch...

\$200.00 IN CASH FREE For Clever People with Brains

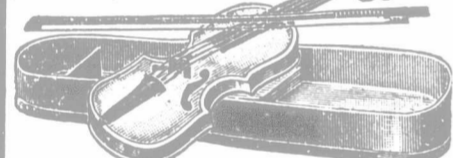
Can you tell us what prominent French-Canadian Statesman of the present day is represented by this picture? If so, you may win \$200.00 in cash. To help you a little we will tell you that there are seven letters in the name and that the first is L. Now set to work and study the head at once...

FACE TO FACE WITH THE MAN IN THE MOON. LARGE POWERFUL TELESCOPE ALMOST GIVEN AWAY



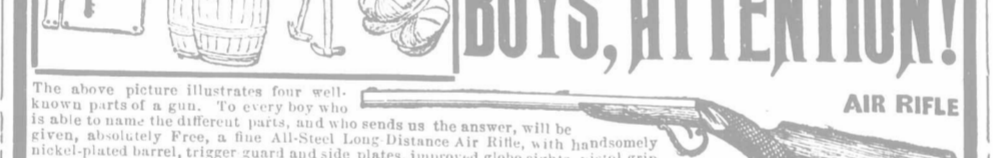
Needed by Farmers, Ranchmen, Sailors, Hunters, Tourists, etc. Of use to everybody. A great source of Amusement and Instruction. Made by the largest Telescope Manufacturer in the World. Measures nearly 3 ft. when open. Fitted with powerful lenses, carefully ground and adjusted with scientific exactness...

FREE VIOLIN



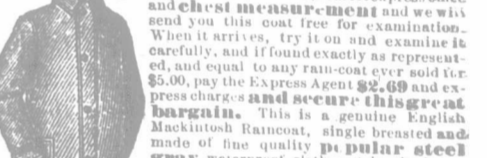
Powerful, Sweet-toned Violin, full size. Stradivarius model, made of selected wood, with highly polished top, inlaid edges and ebony finished trimmings...

BOYS, ATTENTION!



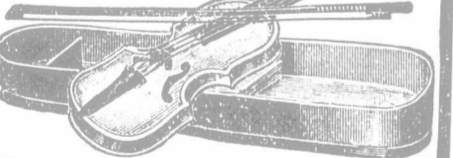
The above picture illustrates four well-known parts of a gun. To every boy who is able to name the different parts, and who sends us the answer, will be given, absolutely free, a fine All-Steel Long Distance Air Rifle...

\$2.69 Rain Coat WORTH \$5.00



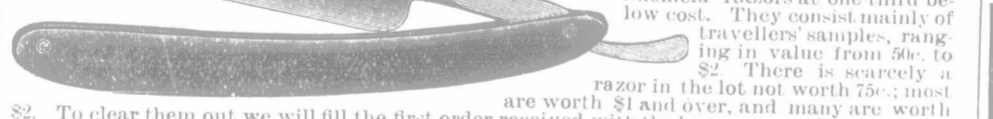
SEND NO MONEY. Simply write us, giving your name, address, nearest express office and chest measurements and we will send you this coat free for examination. When it arrives, try it on and examine it carefully...

FREE VIOLIN



Powerful, Sweet-toned Violin, full size. Stradivarius model, made of selected wood, with highly polished top, inlaid edges and ebony finished trimmings...

\$2.00 RAZOR 35c.



We recently bought a small stock of Sheffield Razors at one-third below cost. They consist mainly of "Traveler's" samples, ranging in value from 50c. to \$2. There is scarcely a razor in the lot not worth 75c. most are worth \$1 and over, and many are worth \$2. To clear them out we will fill the first order received with the best razor we have...

RIBBON BARGAINS



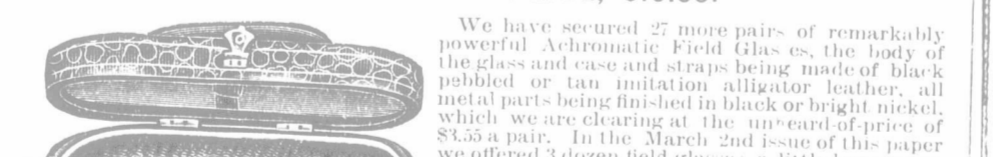
Lovely Silk, Satin and Velvet Ribbons almost given away. We have secured a very large stock of fine ribbons at a mere fraction of their regular selling price, and we are going to give the ladies of this country a bargain that will astonish and delight them...

14K. GOLD WATCH FREE



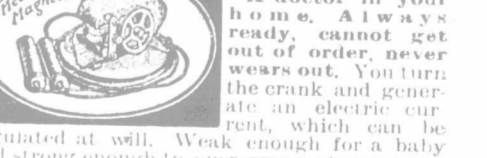
What is the use of spending \$25.00 or \$50.00 for a Watch when you can get one for nothing that looks like a Solid Gold Watch and keeps time equal to any \$50.00 Watch. Here is your chance. We will let a this handsome reliable Watch to any person who will sell for us only 16 Canadian Home Cook Books at 10c each...

FIELD GLASSES-50-Mile range-\$3.55



We have secured 27 more pairs of remarkably powerful Achromatic Field Glasses, the body of the glass and case and straps being made of black pebbled or tan imitation alligator leather, all metal parts being finished in black or bright nickel...

ELECTRIC BATTERY, 99c. WORTH \$5.00.



A doctor in your home. Always ready cannot get out of order, never wears out. You turn the crank and generate an electric current, which can be regulated at will. Weak enough for a baby and strong enough to overcome a strong man. Nothing like it for apoplexy, meningitis, paralysis, neuralgia and all other nervous affections, dyspepsia, rheumatism, etc. Last fall we bought a large number of these batteries, and now have only a few dozen left...

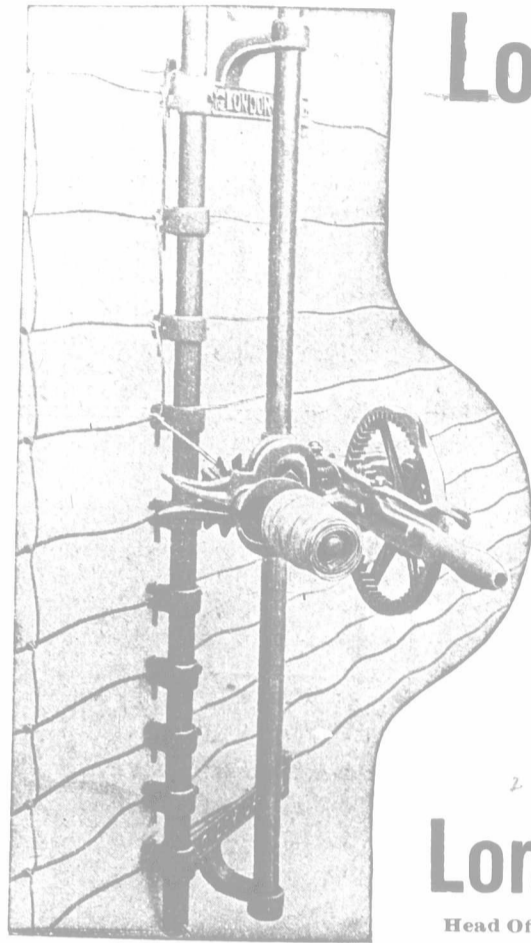
In answering any advertisement in this paper, kindly mention the FARMER'S ADVOCATE.

MELOTTE ...CREAM SEPARATORS

Are the popular farm cream separators for several reasons. One of them is illustrated here. The Bowl hangs on a hardened steel spindle which revolves in a socket fitted with ball bearings. Friction is thus reduced to a minimum, and the machine runs so smoothly as to necessitate the use of a brake, which is a feature of all the "1903" Melottes. An equally important feature of this beautiful arrangement is that the bowl is self-balancing, and thus all the annoyance and expense involved in a bowl getting out of balance is avoided. These invaluable features are possessed by no other Cream Separator. Ask our agents to let you have a machine for eight days' free trial, or write us.



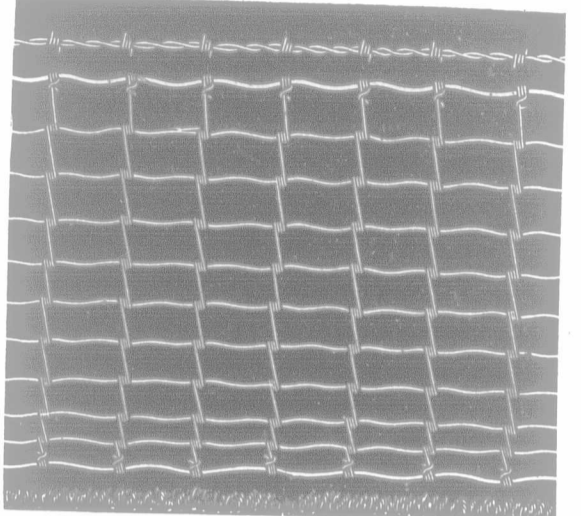
R.A. LISTER & CO. LTD.
579 & 581 ST. PAUL STREET.
MONTREAL.



London Fence Machines

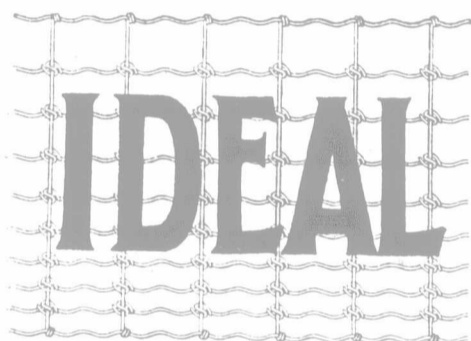
BUILD THE FENCE ON THE GROUND,
SAVE HALF THE COST, BUILD BETTER FENCES.

Price averages only 1 cent per rod of fence on 100-acre farm.
Run easily.
Work rapidly.
Work perfectly.
Have all possible improvements.
Build two rods for one.
Built to suit your purpose.
Operated by anyone.
Expense for labor, 3 to 5c. per rod.
Build portable fence.
Build heavy permanent fence.
May be used even in winter or any slack time.
Pay to own and hire a man to run if necessary.
And London Coiled Spring Wire (with tin tags) gives unbounded satisfaction.
Ask your Dealer or Implement Agent for it, or write us for it.



London Fence Machine Co. Ltd.

Head Office and Works, LONDON, Ont. American Office and Works, CLEVELAND, Ohio.



IDEAL

WOVEN WIRE FENCING.

Heavy uprights and bars of No. 9 hard spring wire, united by a perfect galvanized lock, make the IDEAL FENCE

**Strong,
Serviceable,
Durable.**

Contraction and expansion amply provided for. Write to-day for catalogue.

THE
McGregor, Banwell Fence Co.,
LIMITED.
WINDSOR, - - ONT.

**TORONTO
ENGRAVING CO.**
92 BAY ST
CUTS BY ALL PROCESSES
LIVE STOCK A SPECIALTY.

TREES

FRUIT.
ORNAMENTAL.

Actually first hand. Why pay intermediate profits when you can buy direct from the growers?

Send at once for Catalogue and Price List to
WINONA NURSERY CO.,
WINONA, ONT.

THE MILNER WAGON, ALL IN ALL,
OR PART FOR PART, IS BEST
BEYOND THE SHADOW OF A DOUBT.
HERE'S HOW WE MAKE IT SO:

MILNER MEANS MERIT.

THE MILNER MACHINERY.

IT'S the latest and most approved known to the mechanical science of wagon construction, housed in a manufacturing plant built along twentieth century lines, and operated by men of wide experience and valuable originality. So far, so good. But read on.

MILNER MEANS MERIT.

THE MILNER MATERIAL.

EACH stock of wood is subjected to a searching examination, and thoroughly seasoned; every class of metal proved staunch and true or not used; and all finishing materials chosen because of their guaranteed goodness. What more could we do?

MILNER MEANS MERIT.

THE MILNER MERITS.

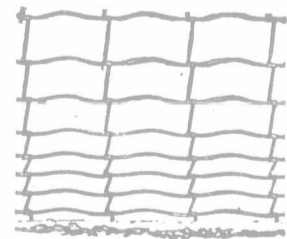
IN a word, they're the ones we've striven for and the ones you want—beauty, strength, easy running, and durability.

The Milner Petrolia Wagon Co.,
Petrolia, Ontario. LIMITED.

WANTED.

Names of 5,000 or more Farmers who will write a post card asking for information how to save money in building a good FENCE. Address

SELKIRK FENCE CO., Welland, Ont.



McLachlan Gasoline Engine

IS MOUNTED IN 5, 10, 15,
20 OR 25 HORSE POWER.

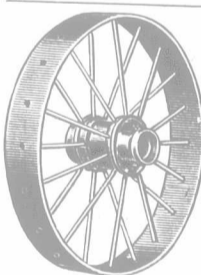
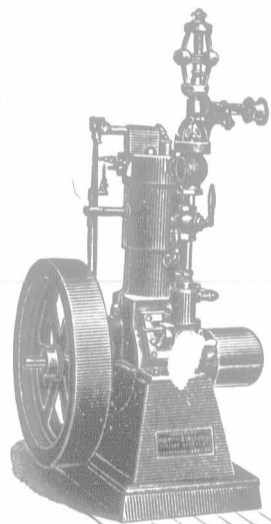
WRITE

THE
**McLACHLAN
GASOLINE
ENGINE CO.,**

LIMITED,

201 Queen St. E.,
TORONTO,

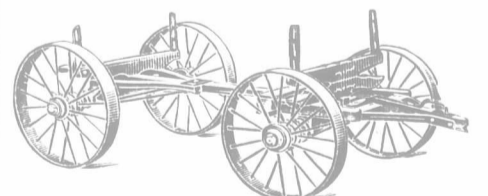
for catalogue and prices. om



Wide-Tire Metal Wheels FOR WAGONS

Made to fit any axle, of any desired height or width of tire. Are stronger, lighter and cheaper than wooden wheels. Just the thing for the farm. Our

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