

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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

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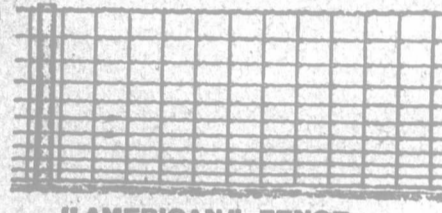
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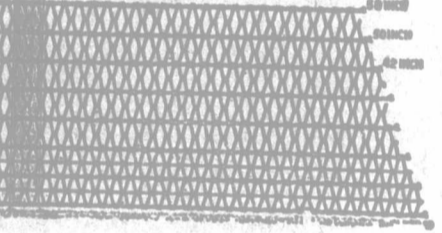
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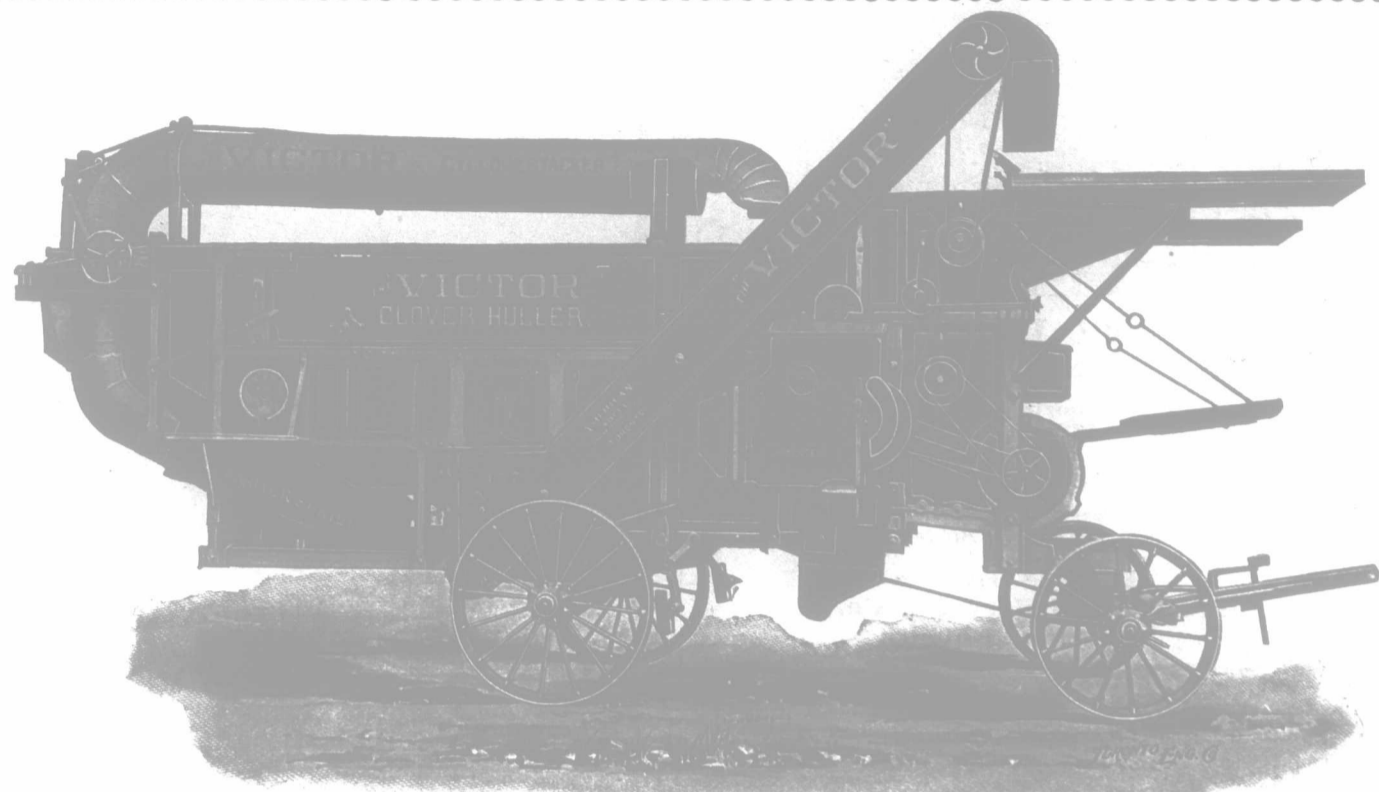
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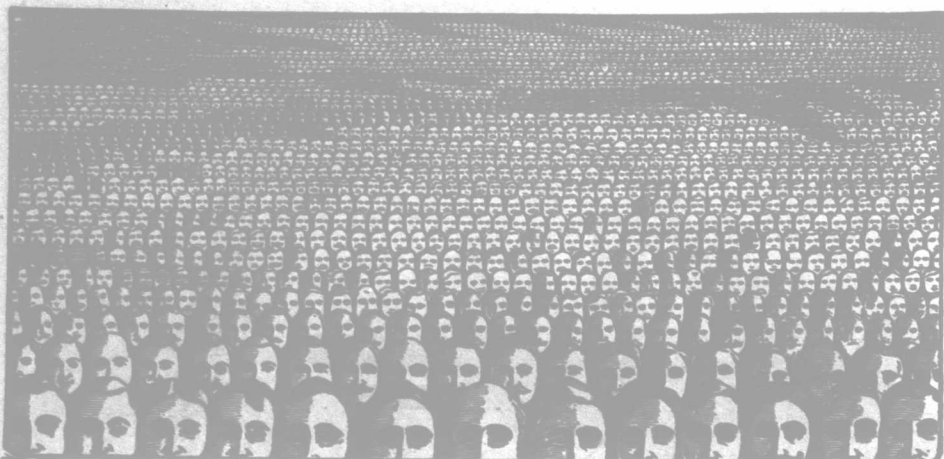


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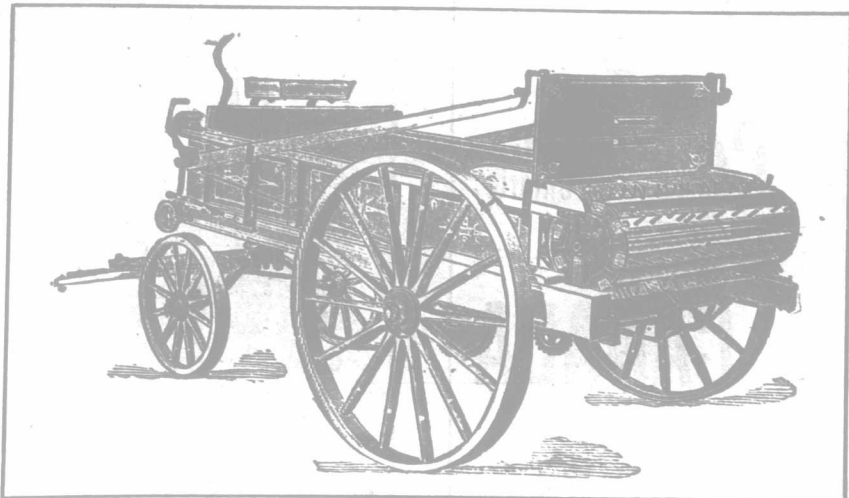
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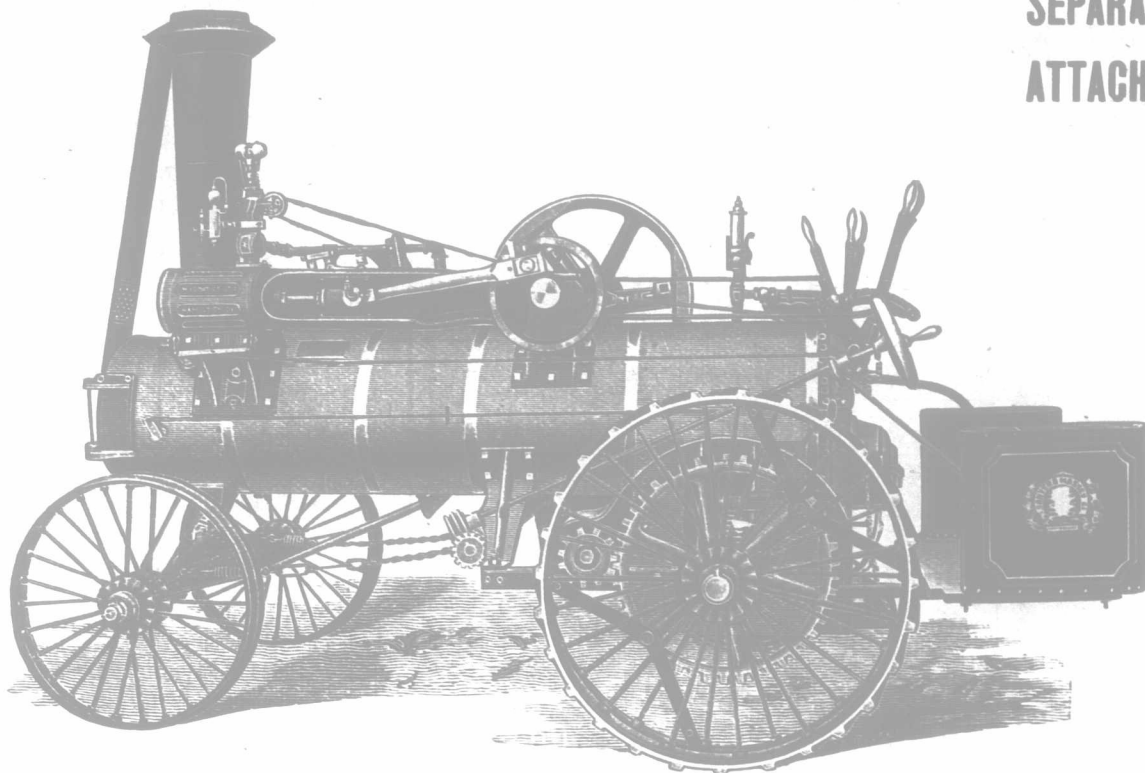
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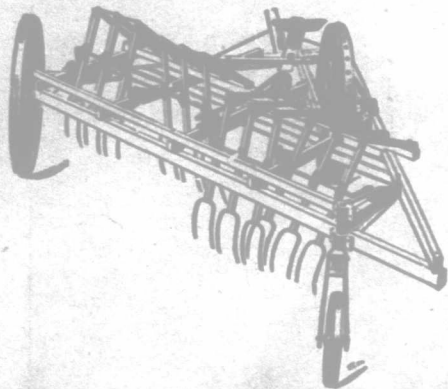
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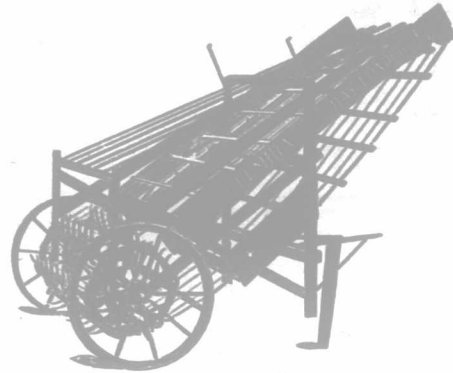
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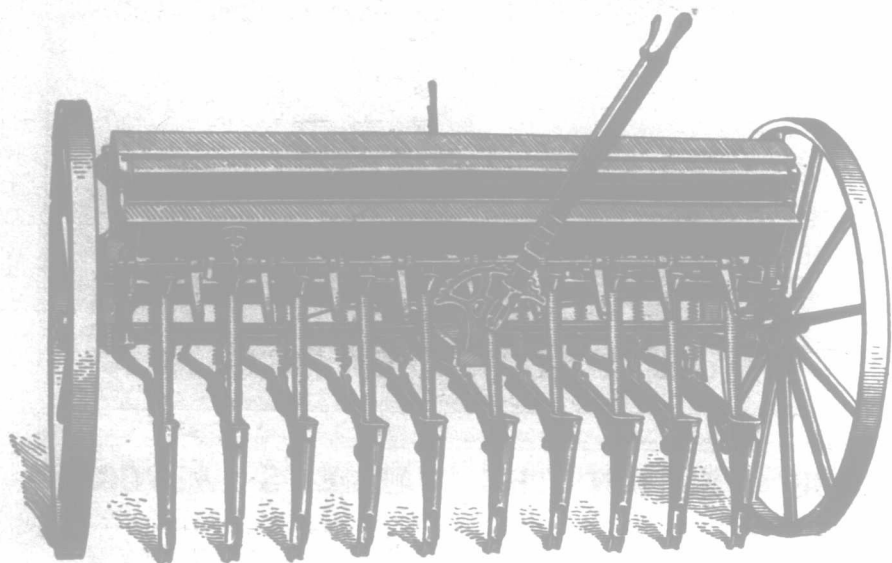
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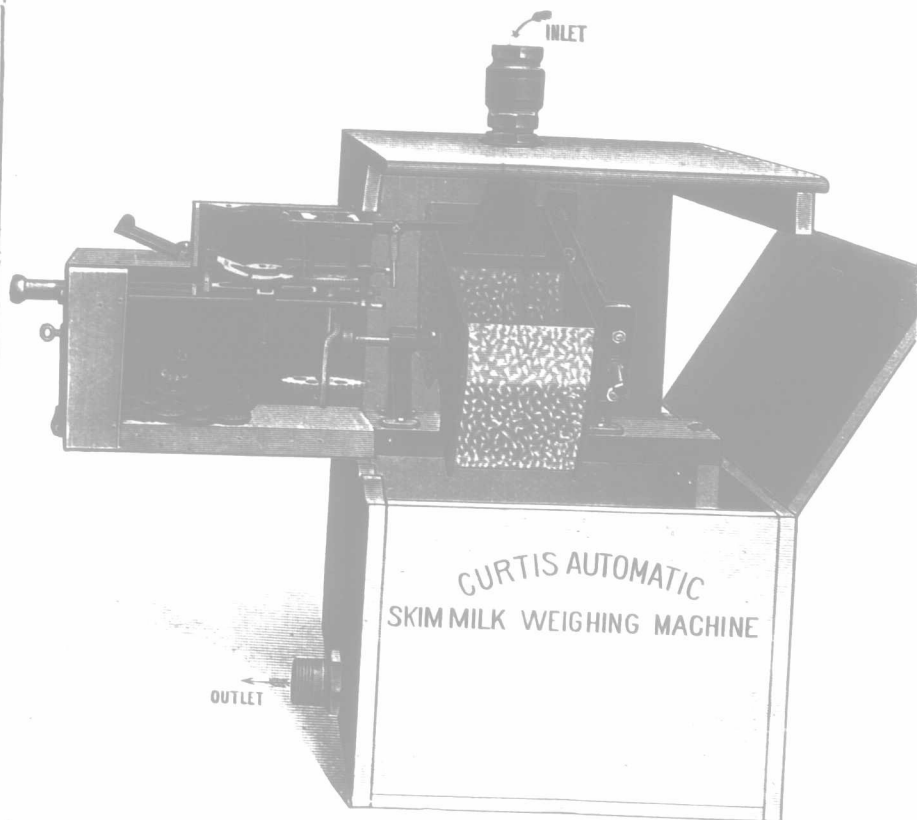
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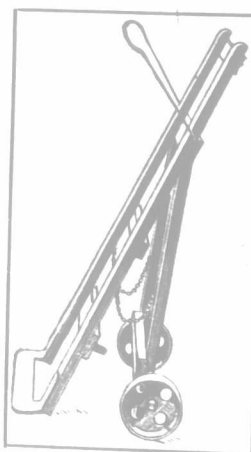


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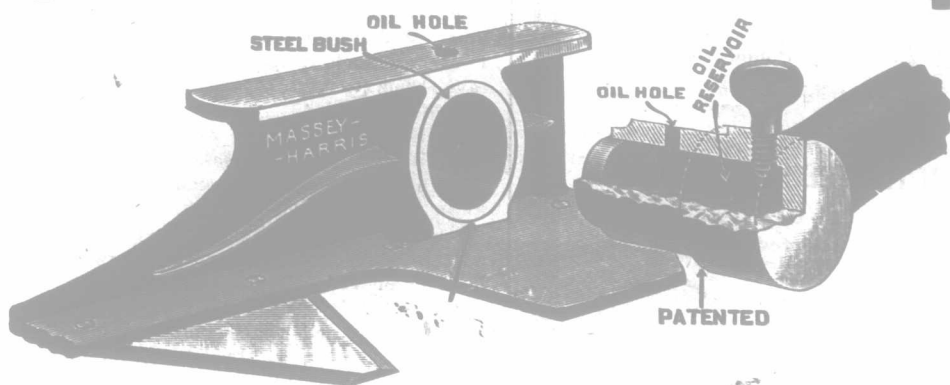
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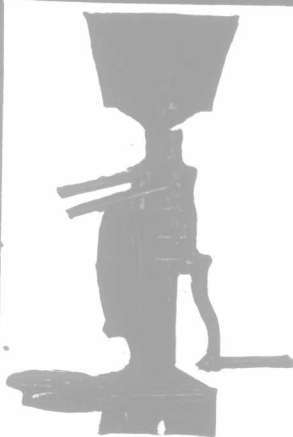
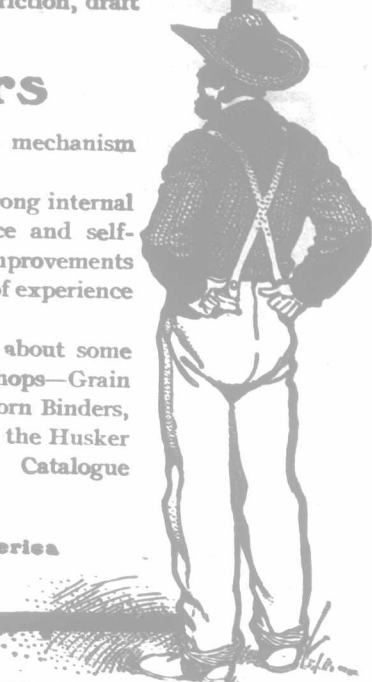
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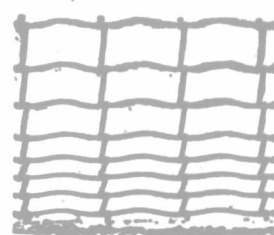
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My remedy does that, even in the most difficult, obstinate cases. No matter how impossible this seems to you, I know it and I take the risk. I have cured tens of thousands of cases in this way, and my records show that 39 out of 40 who get those six bottles pay gladly. I have learned that people in general are honest with a physician who cures them. That is all I ask. If I fail I don't expect a penny from you. Simply write me a postal card or letter. I will send you my book about Rheumatism, and an order for the medicine. Take it for a month, as it won't harm you anyway.

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A COMMON MISTAKE.

When an animal is badly out of condition, off his feed, and perhaps covered with blotches or sores, lice are very apt to appear, and it is a common mistake to attribute the condition of the animal to the presence of the parasite, whereas, in reality, it is the impurities in the blood of the out-of-condition animal that have attracted the parasite.

The mission in life of the animal parasite is the absorbing of impurities, and it is questionable if it is of advantage to the animal to have the parasite removed by other means than by depriving him of his mission. The parasite (sheep tick or louse) cannot live on an animal whose blood is pure, and if an animal's digestive organs are working properly his blood will be pure.

A pure aromatic aid to digestion, such as Herbageum is guaranteed to be, will regulate the digestive organs and thus purify the blood, and just so soon as the blood is freed from impurities the mission of the parasite is gone and he must find other fields of labor or starve.

Mr. Smith Evans, of Gourock, Ont., is one of Canada's foremost exhibitors of Oxford Downs, and his opinion on such a matter carries weight. He says: "We have used Herbageum during about six years, regularly, for our show sheep, and we have never been troubled with any disease, nor with ticks, among our flock during that time." Mr. E. M. Horseman, of Salisbury, N. B., in speaking of this matter, said: "Lice will not stay on an animal who is getting Herbageum regularly." Mr. D. Hanley, of Cainsville, Ont., a practical feeder and exporter of cattle, says: "In re-stocking my stable in January, there are always some of the animals badly troubled with lice, but one month's use of Herbageum knocks them higher than a kite. It's grand for cleaning out lice, and it keeps the skin soft, silky and pliable." em

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The
Farmer's Advocate
and Home Magazine.

"PERSEVERE AND SUCCEED."

ESTABLISHED 1866.

VOL. XXXVIII.

LONDON, ONT., AND WINNIPEG, MAN., MARCH 16, 1903.

No. 570

EDITORIAL.

Rural Electric Railways.

The widespread interest now taken in the development of rural electric railway lines has suggested to the "Farmer's Advocate" the desirability of making a special enquiry by members of our staff into this subject, the results of which are given herewith.

Before considering the question of building a rural electric road, three important conditions must first exist: First, a sufficiently large population to be served by the road; second, it must be a car-riding population; third, the mileage must not be excessive for the population served. Other conditions, such as the topography of the country, the cost of the right-of-way, special incentives for using the roads, etc., have a slight bearing on the situation, but the three enumerated factors are those which determine the success or failure of the enterprise.

The first condition, that of a large population to be served, is always of first consideration, because on the carrying of passengers, and not on the handling of freight, electric roads almost entirely depend. The primary necessity is two centers of population for terminals, and the distance of these centers apart must depend upon the density of the intervening population in villages or purely rural districts. As the intervening population decreases, so the line must shorten in mileage if the road is to pay. So far it has been impossible to say how much of a population will support a given mileage of road. It would appear, however, that the sparse rural population enjoys the advantage of electric-car service largely because the latter is so much patronized by townspeople.

The second condition, namely, the nature of the population, may so vary that the first condition would seem of lesser significance. A population that is composed largely of the middle classes is the best for electric railroad patronage. The rich drive and the poor walk, but the middle classes always have the car fare, and so are the best patrons. In this connection, a glance at statistics shows that Canadians are more liberal patrons of the car than Americans. In Harrisburg, Pa., the returns from the street railway for 1902 was four dollars per head for the whole population. In Hamilton, Ont., a city of about equal size, the returns were five dollars per head. Among the greatest special sources of income are the summer theatre and excursion trips to parks run by the companies, and to these enterprises the rural population does not very largely contribute, but they are maintained almost wholly by the middle classes of the towns.

The question of mileage is one of the most difficult considerations with which the electric road promoter has to deal. In this connection, not only must the distance between terminal points be considered carefully, but the question of competition is also involved. When considering mileage, the number of competing miles of steam road already in operation and the number of miles likely to be built in the immediate future have to be considered as so many miles of road already at the service of the public. In neither of these cases can a fixed rule be established that would determine the number of miles of railroad that a certain number of population would support, or the distance apart of terminal points based on their number of population, largely be-

cause the class of population is one of the prime factors in the operation of the road.

As a competing concern with the steam roads, the electric road holds a unique position. The past seven years have been considered good for steam roads in America, yet in that time the number of passengers carried on United States steam railways decreased by over twelve millions. This does not imply that people are travelling less frequently than formerly, but that the electric railways are securing the short-haul business, as further proved by the fact that the average passenger haul increased in those seven years from 23.59 miles to 27.9 miles. Electric-car riding is a habit that grows, and these lines create business for themselves. As a freight handler, the electric road also caters to the short-haul, small-parcel business, and also for heavier freight in districts that are not served by a steam road. Developments in this line, however, are taking place every day, and the future may be expected to reveal wonders in the freight-hauling business.

Being so largely dependent upon the population and existing conditions of railway service for their existence, it is at once seen how difficult it is to determine whether in a certain locality an electric road will or will not pay. To sum up all the conditions and make correct deductions requires a person who has given the question long study and who can carefully weigh every detail. In many cases promoters make calculations and conclude that if the municipalities through which their road would run would grant substantial bonuses the road could be made to pay. It is when such a proposition is made to the farmer that an electric road becomes an interesting study. Property would increase in value, the city stores and schools would be brought within reach of the farm, and many other conveniences would accrue, but if a large bonus has to be paid for these advantages, then they are at once discounted. Experienced rural electric-road managers find that bonuses entail exacting conditions, and subsequent friction, which interferes with retaining the good will of the people, upon which success depends.

The day of bonusing railroads is, or ought to be, past, and electric or steam roads should only be paid for the service they render the public. Municipalities should be guarded in dealing with applications for long franchise, tax exemptions, and other favors, now that these projects are being so generally exploited.

In this connection a short sketch of the Woodstock, Thames Valley and Ingersoll electric road will be interesting as well as valuable to our readers. This line, about ten miles in length, was completed in July, 1901, and has been running steadily since. It connects Woodstock, a city of about ten thousand of population, with Ingersoll, having about five thousand five hundred. It passes through a very good farming country, and can be said to be a typical rural electric railroad. The little village of Beachville lies about midway between the terminals. It has also been a paying investment from the start, despite the competition of two parallel steam roads, the C.P.R. and G.T.R. The single fare is 20 cents from Ingersoll to Woodstock; return, 35 cents. Except on one day, and then only temporarily, traffic has never been interfered with by snow. In riding over the line and back, we noticed that a great many of the passengers rode through from Ingersoll to Woodstock, or vice

versa. The promoters, an American company, after carefully studying the situation, decided to build the road. They asked no bonus or highway allowance. The City of Woodstock granted them free use of the streets and exemption of taxes for ten years. Ingersoll charges an annual rental for use of the streets—\$100 for the first year, then \$200, \$300 and \$400. The outside right-of-way was purchased from the farmers, and is parallel with the highway. The site for the power-house was purchased about half a mile west of Woodstock. Cars run between the two towns hourly in winter, and quarter-hourly in summer. The road serves between sixteen and seventeen thousand of a population, who spend two dollars per head yearly upon street car fares. The company is capitalized at \$200,000 in stocks and \$120,000 in bonds. The dividends from the Woodstock and Ingersoll road have been sufficient to warrant the company in venturing further, and they have accordingly built a road from Brantford to Paris. Judging from the success of this company, it would appear that rural electric roads could be made to pay without municipal aid, provided the population were dense enough.

Roads like the Newmarket and Toronto line, or the Galt, Preston and Hespeler road, cannot be taken as typical rural lines, as they are dependent upon special conditions that do not exist in average localities. The Newmarket and Toronto line is in connection with the greatest center in Ontario, passes through a district that is not served by steam roads, and has a considerable population along its line. The Galt, Preston and Hespeler road is used as a feeder for the C. P. R. Passengers and freight are taken from the outlying towns and villages to Galt, where the C.P.R. is at their service. A line built for this purpose by a powerful company like the C. P. R. cannot well be said to be typical of a rural electric road such as the Ingersoll-Woodstock line which we have described, and which affords a fair idea of the conditions under which such roads can be successfully run.

Another condition which may soon vitally cheapen the running of rural electric roads is the accessibility of power, if properly conserved for the use of the people, from such sources as the Niagara River.

Siftings.

In the five years preceding the closing of British ports against Canadian store cattle, about 88,000 head, both fat and "store," went from Canada to Great Britain per annum; but during the ten years since 1892, 98,000 head, all fattened in Canada, were received there. There was also an increase in the dressed meat shipments from Canada from 370,000 cwts. in 1891 to 722,000 cwt. in 1901.

The C. P. R. have purchased a large fleet of steamers to ply between Great Britain and Canada.

How very simple and easy it is to be pleasant under shining skies. Anyone can do that, but few there are who practice calmness under adverse conditions.

To see faults in your associates or members of your family—that's easy; in so doing no brains are required. It is a noble virtue, however, to be able to emphasize their good qualities.

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In the interest of the Imperial relations of Canada, and the mutual interchange of knowledge between the Dominion and Great Britain, the "Farmer's Advocate" has repeatedly urged the reduction of postage on periodicals going from one to the other. It has been practically prohibitory, or about eight cents per pound, while the U. S. Postal Department rate is about the mere cost of service, or one cent per pound. The natural effect of this has been to stimulate the circulation of United States periodical literature. To Sir Wm. Mulock, Canadian Postmaster-General, belongs the credit of bringing about the desired reform, so far as Canada is concerned. Under the terms of the universal postal convention, the consent of both countries is necessary before any reduction of postage between them can be made. Sir William has secured this from Hon. Austen Chamberlain, the British Postmaster-General, and on Saturday, March 7th, an official order from Ottawa took effect, providing that periodicals posted in any post office in Canada for the United Kingdom of Great Britain and Ireland may pass at the same rates of postage, and under the same regulations, as if such matter were addressed to any post office in Canada. This will, undoubtedly, stimulate the circulation of Canadian papers in Great Britain, tend to promote immigration to Canada, and increase the volume of British business here.

Subscriber for Years.

I have been a subscriber to the "Farmer's Advocate" for ten years, and would not do without it on any account. J. N. KENNEY.
Olds, Alta.

When called upon to give your opinion in public on any question which may be before a meeting, hesitate not. If you have never done so before, remember that birds learn to fly by flying, and people learn to speak by speaking.

The St. Louis Fair.

Canada's live-stock exhibit at the Columbian Exhibition in 1893 was a splendid display and a profitable advertisement of the capabilities of the country, but the breeders of pure-bred stock, owing to the deep depression in nearly every line of business prevailing at that time, failed to reap as rich immediate returns from it as might otherwise have been obtained. Nevertheless, Canada's exhibit at Chicago in this and many other lines made a lasting favorable impression on many minds, and raised the country immensely in the estimation of all who were privileged to witness it. The seed sown then doubtless had much to do with the bountiful harvest of good prices obtained from American buyers of pure-bred stock in the last few years, and also with directing Dominionward the stream of emigration from the United States now coming in. But the circumstances have vastly changed since the Chicago show. The cloud of business depression has rolled away, and a bright time of prosperity is prevailing, with every prospect of continuing for many years. Canada to-day looms large in the minds of the people of many lands, a stream of emigration unprecedented in extent is coming our way, and from no source more numerous nor more gladly received than from the neighboring Republic, where many thousands are looking this way for homes where they know they will be welcomed and where we are confident they will succeed and will be satisfied with our laws, customs and institutions. It is from the Western and Southwestern States that the bulk of emigration from that country is coming and will continue to come, hence the vital importance of a strong representation at the Louisiana Purchase Exposition at St. Louis in 1904 of Canadian products in many lines, and especially of the farm. Of all the products of the farm, live stock represents the greatest value, and is the surest guarantee of solid success and security. It is, therefore, of the greatest importance that our horses, cattle, sheep, swine and poultry shall be represented to the best possible advantage at the St. Louis Fair. In consideration of the paramount value and importance of the farm lands and farm products of the country, there should be no hesitation on the part of the Legislatures of the Dominion, and of the Provinces, in making liberal appropriations for the purpose of encouraging a very strong showing in all departments of agriculture, and especially of live stock. Mexico, Texas, and the Southern and Western States, are bound to be our best outside customers for pure-bred stock. They find our stock easily acclimated, vigorous and well-fitted for the resistance of disease, and the people of the South are favorably disposed towards Canadians, preferring to deal with us. No better opportunity could offer than the St. Louis Fair presents for introducing our stock to the favorable consideration of the great Southwest. And the provision for this exhibit, in order to be most effective, must be made at the earliest possible moment. A year is none too long to prepare for such an undertaking, and it should be known before the close of the present winter's sessions of the various Legislatures just what amount of money is to be placed at the disposal of the departments of agriculture for the promotion of this object. Farmers', breeders' and dairymen's organizations should ask persistently for liberal grants, and legislators need have no fears that these demands will not be approved and supported by public opinion, which only needs to be directed to the importance of the subject in order to acquiesce. No time should be lost, but immediate steps taken by every organization interested, to arrange for large and influential deputations to wait upon the Dominion and Provincial Governments, urging an early consideration and disposition of this matter.

And a year is none too long for stockmen to prepare for such a show. Breeders should have sufficient public spirit to make some sacrifices, if need be, in order that the best of their stock shall be reserved from sale and fully fitted for the best possible display. Canadian breeders have the material, the means and the men to put up a

great show if they but set themselves resolutely to the task, and we have every confidence that if the Governments provide for the expense, and for a special or supplementary prize list, if deemed necessary, the result will be in every way creditable, and the time and money involved well spent.

Signs of the Times.

Upon the agricultural horizon of Western Canada, it is evident that a brighter era is dawning for the live-stock industry, and to those who can realize the important part that stock-raising must play in the future progress of this young country, the signs of the times are encouraging. In past years the wonderful ease with which money has been made from wheat-growing, when favorable summer weather blessed the plains, has no doubt hindered many from embarking in an industry which they believed would not bring the most desirable returns. Others have believed that expensive buildings or considerable capital were necessary essentials to success in breeding pure-bred stock.

It is fortunate that these fallacies are daily being exploded, and the opinion becoming more universal that intelligence and skill in breeding and management can produce in Manitoba and the West animals of pure blood having merit quite equal to those in other countries, and at no greater expense than is necessary in milder winter climates. The interest which characterized the meetings which were held by the associations during convention week, and the thirst for knowledge in animal form and conformation manifested by men of all ages who attended the stock-judging school that followed, is sufficient guarantee that the farmers of this country are as ready to appreciate opportunities for educational improvement as our Republican neighbor to the south, of whose attendance at the Iowa, Wisconsin and other winter judging schools so much has been written. When the young men, particularly, can be induced to come forward and take an active interest in stock-judging, such as they did at the school of instruction which has just closed in Winnipeg, it is indeed a hopeful sign for the years that are to follow.

To the Horse, Cattle, and Sheep and Swine Breeders' Associations, many new names have lately been added, and with a permanent secretary, whose time will be entirely given up to their interests, it is certain that work of considerable value to live stock in general will be carried into effect. A movement is at present on foot to establish a Winter Fair somewhere in the Province, at which cattle, sheep and swine in condition for the block, and stallions best calculated to produce good stock, may be shown. There is no doubt but this is a move in the right direction, and when the different associations placed themselves on record as being unanimously in favor of the establishment of such an institution, they were supporting a measure calculated to not only stimulate the live-stock industry, but one which will place the practice of agriculture in this Province on a higher and firmer basis. The benefits to be derived from a Winter Stallion Show can be no less in Manitoba than in Ontario, where it has met with such universal success, and the advantages which the old sister Province has gained from the Guelph Fat Stock Show have been marvellous in all the phases of meat production in which it aims to figure. It is quite probable that suitable arrangements will be made for a show of this kind during next winter, and the sum of the prospects for the live-stock industry makes it safe to say that better days are close at hand.

I believe that outside of the learned professions, there is nothing that requires the same trained mind as agriculture. A successful farmer must be a man of quick observation and rapid perception, and be able to distinguish between that which is great and that which is trivial.—J. A. M. ATKINS, K.C., Winnipeg.

HORSES.

Bone Diseases of Horses' Legs
(Continued).

SPLINTS.—The cannon bones are three—one large and two small. The large bone extends from the knee to the fetlock. Its anterior surface is somewhat round, and its posterior surface flat. On each edge of the posterior surface is a slightly roughened portion, extending rather more than two-thirds the length of the bone from the knee downwards. The splint bones, somewhat tuberos above, gradually taper towards their inferior extremity, and terminate in a small tubercle or bulb. These bones are attached by ligaments to the roughened surfaces on the posterior surface of the large bone. They articulate with the bones of the knee above, but have no articulation at their inferior extremity. The disease known as splints is caused by inflammation being set up by concussion or direct injury (usually the former) between the large and small bones, the periosteum and the ligamentous attachment between the bones become involved and destroyed; an exudate, the result of inflammatory action, is thrown out; this becomes converted into bone, uniting the large and small bones, and usually leaving a larger or smaller protuberance of hard, bony material, visible to the eye and easily felt. In the fore limbs splints are usually seen on the inside, and more frequently on the outside when the hind limbs are affected, but are occasionally seen on either or both sides of either limbs. In some cases we see what is called a double splint, showing on both sides of the limb, and in such cases there is usually a connection of ossified material extending from one side to the other; this interferes with the action of a ligament, called the suspensory ligament, and in some cases causes permanent lameness. Unless a splint is double, very close to the articulation, or very large, it is not usually considered an unsoundness. In many cases splints do not cause even temporary lameness, while in others lameness is quite severe during the inflammatory stage, but disappears on the subsidence of the inflammation. Young horses are usually affected. It is seldom we see a case of splint lameness in a horse over five years old, but we occasionally see even old horses affected. I may say that few horses (especially those that have been driven or worked before arriving at maturity) reach adulthood without having splints, and they sometimes appear while the colt is quite young, even in its first year; but in the majority of cases they have become absorbed to such an extent as to be invisible, and in many cases not detectable by manipulation, but the ossific union between the large and small bones remains for life. In other words, a horse that once has a splint will always have it, although it may not be detectable either by the eye or with the fingers. The lameness of splint is usually characteristic. In most cases the horse will stand and walk sound, or nearly so, but when jogged will show well-marked lameness. This is usually noticed in the early stages, before any enlargement can be detected, but manipulation and pressure over the seat of splint on the affected limb will cause pain; after a time an enlargement can be noticed. In other cases the enlargement is noticed without having been preceded by lameness. Where no lameness is noticed, it is doubtful whether treatment should be given. Friction with the hand or blistering may hasten absorption, but as a rule natural absorption will result until the visible enlargement disappears. When lameness is present, treatment should be given. This consists in locating the seat of the trouble, then applying either hot or cold water to the part for a few days to allay the inflammation, then, if lameness has not disappeared, a blister should be applied. In some cases it is necessary to fire and blister, but this should be done only by a veterinarian.

RINGBONES.—Ringbones appear in either fore or hind limbs, and are caused by inflammation being set up (usually by concussion, possibly by direct injury) in the cancellated tissue of the bone; this extends and involves the compact tissue; as a result an exudate is thrown out; this becomes ossified, forming what is called an exostosis (a bony enlargement). Ringbones appear between the fetlock joint and the hoof. If affecting the shaft of a bone only, not involving either the pastern or the coffin joint, they are called "false ringbone," and do not cause lameness. If involving the pastern joint, it is called "high ringbone," and if the coffin joint be affected, it is known as "low ringbone." In either case lameness will be more or less severe. In many cases the exostosis (enlargement) is noticed only on one or both sides of the limb; this is sometimes spoken of as "sidebone," but it is a misnomer, as sidebone is a disease of another character and involving different structures. Whether the disease under discussion appears as a prominence involving the whole or part of the circumference of the limb, it is properly known as ringbone. The lameness caused by ringbone is often noticed before any enlargement is apparent, and this is especially the case in low ringbone. The lame-

ness is often irregular and hard to locate; the horse will go quite lame occasionally, then go sound for a variable distance, then lame again, and so on. An examination of the limb and foot may fail to detect tenderness or heat; after a time the lameness becomes constant, and an enlargement can be noticed.

TREATMENT.—From the nature of the disease it can readily be seen that it is impossible to

is necessary to fire and blister. In many cases, lameness will be present for several months after the operation and then disappear as its result. In some cases a second firing is necessary, but this should not be done for eight to ten months after the first. In rare cases this treatment fails, and the only way of curing the lameness is to sever the nerves which supply the parts; this operation is called neurotomy. It removes sensation, and consequently the lameness, but does not arrest the disease. A horse will sometimes last for years after this operation, and will sometimes fail from different causes in a few months; hence, it is not wise to operate unless he be almost useless. Neither firing or neurotomy should be performed by any person but an expert.

"WHIP."

Saddle Horses at the Fairs.

To the Editor "Farmer's Advocate":

Sir,—An attraction with the merit of being profitable from the educational and financial standpoint is one that our fair associations can well afford to foster and develop. Such an attraction is to be found in the class for saddle horses, providing the judging is done by a competent man. The Horse Show at Dublin, Ireland, is almost exclusively a saddle horse show, and nowhere is the patronage better, the interest keener or the sport more enjoyed. At it many a foreigner parts with his gold for an equine beauty.

Buyers of saddle horses tell us there is a great dearth of the right article, and that the few horses of the saddle type obtainable are too often spoiled in the breaking. The horsemanship called for to so break or train a horse that he will possess a good mouth and manners is of no mean order, and if any encouragement to the young men can be given by fair associations to acquire such knowledge, it should be done.

The man who drives is never the horseman nor as enthusiastic over his charge as he who rides, and from the esthetic point of view, the rider is superior to the driver. There is no reason why the farm boy should not be a good horseman and able to make a presentable appearance when put astride a horse, and yet such accomplished young people are scarce; the incentive to excel is lacking. The ability to handle a horse at the different gaits is worth possessing, and the fair is a good place to demonstrate the superiority of one contestant over another. If desired the contests in the saddle could be broadened out to include jumping, although the bulk of the money used in this class should be used to encourage the breeding and training of the right type of saddle horse, to the acquisition by both boy and man of a good seat, and to the proper biting and manning of the animal shown. Under the present system, horsemanship bids fair to become a lost art, and along these lines there is considerable scope for an association to do work that will bring results, and the fair board that cannot produce such has no reason for its further existence.

The adoption of the gymkhana will be possible if encouragement be given the boys to become expert riders. Boys are wanted nowadays, and must be secured to ensure the successful continuance of agricultural enterprises, and we cannot afford to disregard the opportunity afforded us by the saddle horse class. No success need be expected unless a judge thoroughly competent in his line is engaged and given a free hand. Fair associations might well afford to consult the experts in this line as to the arrangement of their prize lists to carry out the ideas advanced.

We are continually told not to attempt to breed army horses, that the misfits of other breed-

ings will do. Why not accustom the misfit so-called, if we have nothing better, to work that he may be called upon to do? The boy or man who can successfully bit and mouth a horse for saddle purposes has learned the fundamentals of horse education, and is far in advance of the ordinary everyday user of horses. With the development of the saddle horse class, prizes should be offered for lady riders, the cross seat, as the



J. A. S. MACMILLAN, BRANDON.
President Manitoba Horse Breeders' Association.

restore the parts to their normal condition, and we treat with the idea of hastening the process of ankylosis; when this is completed inflammation ceases, and the horse will not suffer any more, lameness disappears, and in many cases even a stiffness will not be noticed. The somewhat popular opinion (encouraged by unscrupulous or ignorant quacks), that the disease is due to what they call a feeder, situated in the fetlock pad, and that the removal of this feeder will cure the disease, is altogether erroneous and irrational. Operations, consisting in cutting through the skin at this point, and removing a small quantity of fat or other substance, are performed by the advocates of this theory, and as a proof of the correctness of their theory, they will point out horses that they claim were developing ringbone when colts, but the operation arrested the disease and the animals are now sound. As a matter of fact, in these cases there never was disease of this nature. The fetlock bone terminates inferiorly with a protuberance, especially noticeable at the sides; this is especially noticeable in colts of the lighter breeds, and is occasionally



CHRISTIAN DE WET.
Thoroughbred yearling stallion. Winner at Dublin (Ireland) Horse Show, 1902

safest and sanest, being preferred. Too many of the directors of fairs are starving for ideas as to how to make their shows attractive, and while in this and perhaps a humble mood, entrust the amusement end of their shows to leech-like organizations, who supply nothing for something, unless it is a bad impression on the minds of the youthful attendants at the fair. The success of any show depends on the ability of its managers to change onlookers into strivers for honors, and the board that can keep the greatest proportion of its members and attendants as interested contestants in place of mere spectators has attained the larger measure of success.

HORSEMAN.

Horse Raising.

BY W. F. KYDD, NORFOLK CO., ONT.

The market to-day requires four distinct kinds of horses—heavy draft, carriage, road, saddle horses and hunters. The heavy draft heads the category, because he is almost certain to be profitable. He will earn his food from the time he is three years old, is less liable to get blemished, is easily broken and fitted for market. The heavy horse is a standard article on the horse market. This class of horse can be raised for less than \$100, and is worth from \$175 and upward, according to weight and quality. He shouldn't weigh less than 1,600 pounds, and to bring this price must have good feet, sloping pasterns, clean, flat bones, with no beefy appearance about the legs. He should have a good strong back, with well sprung ribs. The more action this horse has the more valuable he is. It is well known that like begets like, in horseflesh as in everything else; therefore, unsound mares or sires should on no account be used. Many sires are being used by the farmers that are not fit for sires, and would not make good geldings. Farmers ought to beware of the word "imported." There is an idea that if a horse is imported he is A No. 1, but there are imported horses traveling in Canada that in many parts of Scotland would be considered very poor geldings. The next most important horse is the carriage horse, and particular notice should be taken as to the feet of sires and dams. If they do not stand straight on their feet they cannot be expected to go straight. Action is the valuable qualification in a carriage horse. They must go straight. A horse that will go straight is worth \$300; if he either paddles or rolls, the same animal would be worth only \$125. Sires to get this class of horse may be either Standard-bred, Thoroughbred, Hackney or Coach, if of the proper type. A hot, fiery-tempered dam should not be mated with a horse of like temperament.

STOCK.

Veterinary Progress in Canada.

Happily for Canadian live-stock interests, both at home and abroad, the lethargy which seemed to beset the profession, and its particular branch in the department of agriculture, bids fair soon to be entirely dissipated. The new incumbent of the Chief Veterinary Inspectorship for Canada has, in the short period of his office-holding, been instrumental in helping the live-stock interests very materially. Two illustrations of such progress are afforded by the constructing and equipping of a pathological laboratory at the Central Experimental Farm, for the purpose of investigating animal diseases and the formulating of methods for their suppression, and for the making of the various serums and vaccines for blackleg, glanders and tuberculosis. The direction of an investigation into the cause of swamp-fever, a disease more costly to Canadian horse owners than any other, is another proof of the indefatigability of the present chief of the veterinary branch of the Department of Agriculture.

Through Dr. Rutherford's efforts that great international professional body, the American Veterinary Medical Association, made up of the brightest minds and most expert surgeons in the animal world on this continent, will convene this year of 1903 at Ottawa, September 1st to 4th. The advertising benefits to Canada of such a visitation from so many veterinarians from south of the boundary cannot be estimated, neither can the resultant benefit to the profession north of the boundary. In the past, the veterinary profession in Canada, although possessing some men of undoubted ability and education, has been pointed at with semi-derision, for which many reasons have been ascribed. The lack of primary education of many veterinarians, the non-demand of an adequate general education before proceeding to professional studies; the short time in which a man might become possessed of a diploma, and the little scientific knowledge necessary to get such, all tended to lower the profession in the eyes of a non-discriminating public, who today too often place the holder of a parchment to practice the art and science of veterinary medicine and surgery on a plane with the farrier and cow-leech of a quarter century ago. The low standards permitted in Canada undoubtedly weakened our case when Canadian cattle were scheduled in

Great Britain. The up-to-date agriculturist is vitally concerned in the progress of the veterinary profession, and has much to gain from the results of painstaking scientific investigation. The great increase in the money value of live stock necessitates the protection of that stock from the various and numerous contagious diseases with which it may be afflicted. Such being the case, all far-seeing men will rejoice to see that Canadian live-stock interests are being well safeguarded and remunerative trade preserved. Every encouragement, therefore, should be given to the chief officer of the veterinary branch in his efforts to protect Canadian flocks and herds and to raise the standard of the profession.

NOMAD.

Early Shearing of Short-wooled Sheep.

When we first started to breed Shropshires, it was our custom to leave the breeding ewes carrying their fleeces until early summer, after they had gone to the fields. When we began showing, a couple of years later, stubble shearing was the rule; that is to say, in taking off the fleece an inch or so of the fleece was left on to protect the sheep, as the practice was, and still is, to shear show sheep earlier, when the weather was cold. Neither the late shearing nor the stubble cutting proved satisfactory. In the first case, the sheep often suffered from heat, frequently portions of the coat would be lost, as bits of straw, chaff and dirt which worked into the fleece during winter would so irritate the skin as to cause a loosening of the wool, and lead the suffering animals to rub and bite, thereby scattering parts of their fleeces here and there and everywhere but where it should be. Besides, neither ewes or lambs appeared to thrive as they should.

In the case of stubble shearing, we found it utterly impossible to get the coats of sheep shorn in that way to look or handle well in the showing. They would have, do what we could, a cotted, dull or felted-like appearance. When handled, it failed to have that soft, springy touch which all admire. Want of proper accommodation is part of the explanation why we did as stated; want of knowledge was the other part, but experience at home and abroad taught us better ways as the years rolled by.

Now we shear our show sheep as close to the skin as possible, choosing a day when the weather is mild and promises to continue so for a time. Occasionally, but rarely, we blanket them, should an unexpected cold snap set in. If sheep in good condition are well housed, where they are dry and free from drafts, the loss of fleece is not much felt, unless the weather is severely cold. A completely new growth of fleece furnishes the proper foundation for the shepherd to use his best skill on in securing a coat pleasing to eye and touch. In early shearing of ewes after lambing, there is some danger in doing it too soon after lambing, or too early, if at all exposed to cold winds or drafts. Exposing them to cold then tends to danger of garget and a shrinkage of milk, which is apt to prove hurtful to the young sucklings. Usually, in early April, we get a succession of bright, balmy days, with little or no frost at nights; then is the time to strip them of their coats. When kept after in warm quarters, and gradually exposed to the outside air, there is very little danger. Both ewes and lambs seem to do so much better, and if ticks are found on the ewes it is an easy task to have a supply of strong dip solution at hand to brush over the skin, thereby readily destroying the hurtful insects and so prevent their infesting the lambs.

We do not care to shear in-lamb ewes, if it can be readily avoided, but rather than have them go to grass with their coats on, we lay them gently and carefully on the side, and while one person holds them down, another removes the fleece as rapidly as possible. Another benefit resulting from early shearing of flock before going to grass is the prevention of any accumulation of their droppings behind, which, with change of feed, becomes so adhesive as to become a nuisance at the later shearing time.

In May we dip all the flock—lambs and all—thoroughly. That cleanses the skin and kills off any ticks on ewes which may have escaped the brush at shearing time. Having practiced early shearing of all the flock for ten years, we would not think of returning to the old way, as the present practice gives more comfort to the animals, and comfort to them means dollars to the owner every day of the week. But what of washing the wool on the sheep's backs, may be the thought of some? I, without any hesitation, state that were the offer of free washing and late shearing made us, we would not dream of accepting, as without doubt it would be a "penny wise, pound foolish" policy. Any possible gain in value of clip would be outweighed over and over again by the better condition of the early shorn flock.

JOHN CAMPBELL.

Fairview Farm, Victoria Co., Ont.

Profitable Bacon Production.

To the Editor "Farmer's Advocate":

I enclose you photo of my herd of Chester White hogs, showing them just as I fed them on clover and grain. The grain is fed on the ground just as in the picture you see them feeding, and they drink out of the Rideau River as much water as they require.

I have now been in the hog business seven years, and after seven years' experience, I have come to the conclusion that in order to make money out of the hog business it all depends on five points, viz.:

1st.—The kind of hog you select for a grass hog.

2nd.—The time you start the hog.

3rd.—The time you sell the hog.

4th.—The weight you make the hog.

5th.—How you produce it.

SELECTION OF THE HOG.—After trying all kinds of hogs on clover and grass, I found in my experience there was none so good for that purpose as the Chester White, and you can feed and grow him to be a select bacon hog, if you sell when he is right. My experience is: There is more in feeding for a good bacon hog than there is in breeding, because you can spoil the best bacon hog on earth by feeding.

I sold to George Matthews Co., of Hull, one hundred hogs out of the field, shown in the photograph, in one car. There were one hundred select hogs in the car, and I received \$7.25 per cwt. live weight. This was the first car of select hogs that ever went into their yard from one man. Four weeks later, out of the same herd, there were 25 more selects and 25 light, making 150 hogs in the one field, all bred by myself and started inside of five days.

THE TIME TO START FOR BACON.—I breed my sows twice a year; first litter comes in March. As they are all registered hogs I sell them for breeding purposes. I select from one sow to another, so as to ship not akin to each other for breeding, until I make my final sweep. Three days afterwards my sows are all mated again for my own field hogs; they come in August or first of September.

This starts the hog for the highest pork days in the year. Having no use for the sows at this season of the year, I leave the young pigs on the sows for eight weeks, leaving me nine or ten months to grow my bacon hog. It is an easy matter to grow a Chester White hog in good order from 180 to 190 pounds in nine months. I commence to feed roots as soon as I take the pigs off the sow, and all winter, and as soon as the clover is about three inches high, I ring them and put them out in the field, where they get one feed a day of dry grain, barley or mixed corn and barley fed on the ground. Barley and good sweet clover will make bacon as sweet as a chicken, and if you think you require a little more fat after feeding one feed a day up to July, just give the Chester White the second feed a day, and in two weeks you have a select hog which commands the highest price in the market.

Ottawa Co., Ont.

ROBERT CLARKE.

Shearing Long-wool Sheep Early.

Many years' experience in breeding and caring for Cotswolds has fully convinced me that shearing all the rams and all the ewe lambs of the previous year in March or April is a profitable plan, both in respect to the health and thrift of the sheep and the increased growth and weight of wool obtained from the flock. If the sheep are in good condition, and the shearing done on fairly mild days, they take no harm, even if a cold wave comes soon after, provided they have a moderately comfortable house, with the doors closed for a few days. I do not advise this early shearing of ewes due to produce lambs in those months, but such as are not due to lamb till May may safely be shorn in March or April, and it has been our rule for many years to have all the flock sheared and the lambs and ewes dipped in a solution of one of the advertised dips for the destruction of ticks before the flock goes out to pasture in the spring. The advantages of early shearing are that the sheep thrive better and grow wool faster when relieved of the heating coat from which they would otherwise suffer in warm spring days; the work is finished before the busy time of spring seeding commences; the sheep require less watching, as in their fleeces they are liable to get cast upon their back and to perish. The difference in the market price of washed and unwashed wool is nearly, if not quite, made up in the weight of the latter, while there is always some risk to the health of men and sheep in washing the wool on the sheep's backs. Another great advantage is that sheep shorn early will have longer fleeces and will look larger in the fall, the season when they are shown at the fairs, and most generally sold.

Peel Co., Ont.

R. P. SNELL.

Our Scottish Letter.

Stock-raising is the sheet-anchor of the British farmer. This fact has been forcibly brought home to him during the past fortnight. The great spring bull sales are nearly over, and on all hands there has been seen a distinct revival in the demand for high-class breeding stock. Along with the sales for stock from different herds, a splendid sale of Shorthorns from the Royal herds has been held at Windsor. High averages have been the rule all round. This has been brought about by various causes. The opening of the Argentine ports has quickened the demand for Shorthorns, and some of the highest-priced animals have been bought for Buenos Ayres. The development of Irish agriculture has also contributed to the result. Of 270 Shorthorn bulls sold at the Perth sale, no fewer than 80 were secured by buyers acting under the supervision and receiving the grants of the Irish Board of Agriculture. It is more difficult to account for the phenomenal advance in Aberdeen-Angus values. It was the supreme demand for Trojan-Ericas which sent up the value of the blackskins at Perth until the unprecedented figure of 480 gs., or £520, was realized for a yearling bull. There is more of a pedigree craze about the A.-A. boom than about the Shorthorn advance. Men are keen on the Ericas, but curiously enough, it is only one line of Ericas that makes fancy or phenomenal figures. There is a big drop from the high-water mark reached by Trojan-Ericas to the best position filled even by the Kildonan-Ericas. We believe both bulls were in use at Ballindalloch, and if anything that Kildonan was to appearance the better animal. However, blood tells. The same feature was seen in the Highland cattle sale at Oban. The picturesque mountaineers are a year later in being finished than the Shorthorns or Angus, but they can live where the thinner-skinned breeds would find it hard to pick up a living. Galloways were sold in large numbers at Carlisle and Castle Douglas, but there were rather many inferior bulls shown amongst them. This reduced the averages, although for good fleshy bulls prices were all that need be desired.

Looking at matters a little more in detail, we find the average for 284 A.-A. bulls at Perth was £32 15s. 7d. By far the best return was made by the celebrated Ballindalloch herd, the home of the Ericas. Seven bulls from this renowned center made the astonishing figure of £229 1s. 0d. each, the highest, as we have said, being 480 gs., at which figure the manager for the Earl of Rosebery, K.G., secured the first-prize yearling in the older section. The entries are so numerous at Perth that the yearling bulls are divided into two classes. The sire of this great youngster was the fine bull Delamere, bred by Mr. Patrick Chalmers, of Aldbar, Brechin, who owns one of the oldest herds in the world. After a distinguished career in the hands of Mr. Alex. McLaren, Auchnaguie, Kingussie. This fine bull was purchased by Sir George Macpherson, Bart., and for two seasons he has headed his famous herd. The Perth Shorthorn sale took place this week, when 272 young bulls made the fine average of £35 1s. 9d., an advance of £4 17s. 5d. on last year's average. The highest price was 260 gs., or £273, paid by Mr. Dan. MacLennan, the well-known South American exporter, for the first in the older class of yearlings. This youngster was bred by Mr. W. A. Dron, Crieffvechter, Crieff. The Shorthorns, it will thus be seen, made a higher average than the Polled Angus, although the latter had the best price for one. The Shorthorn sale was the leveller of the two. The Inverness sale was held between the two Perth events, and resulted in 64 Shorthorn young bulls

making an average of £32 8s. 4d. His Majesty's sale at Windsor was held on the day following the Perth Shorthorn sale. It drew an immense concourse of visitors from, it might almost be said, all parts of the Empire. Sixty-eight animals of all ages and both sexes made an average of £82 2s. 5d. apiece. The highest individual price was 800 gs., or £840, paid by Mr. Miller, from Buenos Ayres, for the celebrated champion bull, Royal Duke. This great specimen was bred

holds on its way, and nothing better can be desired in the way of beef than a piece of a prime Galloway. In the N.-W.T. the Galloway and the Highlander should have a look-in. Why do not good men take up these ideal breeds for a hard climate, and push them for all they are worth. The Galloway has many good friends like Mr. David McCrea, at Guelph, and Mr. Martin, at Winnipeg, but there's room for many more, and the Highlander deserves the care and attention of the mammoth millionaires who have coined money out of the C. P. R.



CHESTER WHITE HOGS.
Bred and fed by Robert Clarke, Ottawa Co., Ont.

by Her late Majesty at Windsor, where he was sold. He is a marvellously fleshed animal, with a beautiful mossy coat, and having a record which includes the championships of the national shows of England, Scotland, and Ireland, he crosses the South Atlantic with a great reputation. The next highest price was £315 (300 gs.), paid by Mr. J. Douglas Fletcher, of Rosehaugh, Ross-shire, for the two-year-old, Body Guard 78423, a splendidly-covered young bull, although a little light in color. He was bred at Sandringham. The highest price for a female was 210 gs., or £220 10s., at which figure Lord Calthorpe secured the roan two-year-old heifer, Sweetheart, a daughter of Royal Duke. A red-roan three-year-old, named Circe, got by the Scots bull, Pride of Fame 73233, went to Sir Alex. Henderson, Bart., Buscot, at 200 gs., or £210. This is a very fine specimen of the wide, deeply-fleshed Scots Shorthorn. Twenty-one yearling bulls made an average of £53 1s. 0d., which is surely good enough even for a Royal sale.

Breeders of Highland and Galloway cattle have to rest content with lower averages than the owners of the "crack" beef breeds. Fifty-seven bulls were sold at Oban, and made an average of £28 7s. 10d., which was thought quite good. The highest figure was £121, paid by Mr. J. Douglas Fletcher, of Rosehaugh, for the first-prize two-year-old. Other two bulls made £110 each, and several made useful prices, but no others crossed the three figures. The Galloways move on a steadier level, without going so very high, nor yet dipping very low. More than is the case with the more favored breeds, Galloway bull fanciers have not yet learned to select close enough and to use the knife freely. Still, the breed

these Northwestern parts, but it will not be the place for the rough-legged horses. The Shire show this week was held in London, and was quite a success. The breed at present is enjoying a flood-tide of prosperity. It has been taken up, as were Bates cattle in days past, by leaders of fashion and men of wealth. The King is an enthusiastic breeder, and won the gold medal this week as breeder of the champion mare at the London show. With Lord Rothschild working at the game, and many others of great wealth, prices go high, and the tenant-farmer occasionally gets a look-in. This year the stallion championship went to last year's winner, Messrs. Forshaw & Sons' Stroxtan Tom. This firm's place is at Carlton-on-Trent, in Notts, and they scored well, taking four first prizes for horses four years old and up to eleven. Mr. Forshaw had four sons in the ring, leading as many first prize horses for the final. Lord Rothschild had not only the champion and reserve champion female, but he had also the junior champion stallion in Birdsall Menestrel, which came very near beating Stroxtan Tom for the final. The noticeable feature of the show this year was the comparatively small number of stallions four years old and upwards, which survived the "vetting test." It is obvious that the Shire has still a deal of leeway to make up in this particular.

In the numerous field trials, to test varieties of oats, splendid results have been got with a Canadian oat called the Banner. Principal Wright is conducting elaborate experiments in the West of Scotland, and the best results in grain have been got with the Banner. Curiously enough, the favorite Scots varieties, known as Sandy and Potato oats, have secured a medium



LAIRD OF CRAIGIE [3378] (11084).

PIONEER [3374] (11131).

LAVENDER [3375] (11394).

Imported Clydesdale stallions. Property of Messrs. Smith & Richardson, Columbus, Ont.

position alike for grain and straw. They are better than these below the average, and worse than those above the average, alike in respect of grain and straw. They are, in fact, good average oats, and as straw is a big element in the foddering of young cattle, a sort called "Tam Finlay" is in great favor in high-lying districts. Garton Bros., Warrington, have brought out a new wheat called Rivetts, which has turned out very well in trials of wheat varieties conducted at the Bangor College, in North Wales.
28th Feb., 1903. "SCOTLAND YET."

Percheron Registry.

To the Editor "Farmer's Advocate":

Sir,—I have noticed in your issue of March 2nd that you give some very erroneous information to an enquirer. I presume that this was done under misrepresentation of the facts, and that you would gladly make right any unintentional wrong you have done the American Percheron Horse Breeders' Association. I send you under separate cover the report of the meeting of our association held in this city on February 5th, by which you will see that the old original American Percheron Horse Breeders' Association (established 1876) was in public meeting supported by ninety-five per cent. of those engaged in the breeding and importing of Percheron horses in this country. Because a few malcontents could not exercise their desired control over this association, they seceded and took out a charter for another association, with a name similar to ours. That this attempt to steal on the part of this new association has proved abortive, I call your attention to the fact that this bastard association has been enjoined and restrained by the courts here from future operation, a copy of which injunction I send you by current mail. The American Percheron Horse Breeders' Association is too large an institution to be controlled by any one man, or any little coterie of men, and we call your attention to the officers and directors elected at our last meeting; they all are men of prominence and probity, which guarantees that the association will be conducted in the interests of all concerned in the importation and breeding of Percheron horses. We also call your attention to the enclosed warning notice to purchasers of Percheron horses, which notice is running in all the prominent stock papers of the United States to-day, with the exception of one, and this exception is an organ that was started by Dunham money and is still under the domination of the Dunham interest. We do not desire to draw you into a controversy among warring horse breeders; you are a public journal supported by the public, and should render fair play to all concerned, and that is why I call your attention to the mistake you have made. Yours truly,
S. D. THOMPSON,
Secretary.

[Note.—Whatever may be the issue of the contention in the Percheron camp, Canadian horsemen will in the meantime be governed by the stubborn fact that the only Percheron breed association and register at present recognized by the U. S. Department of Agriculture is the newly organized one, and that horses for breeding purposes going from Canada to the United States can only pass the customs free of duty on certificates of registry in the new record.—Ed. F. A.]

Cheap Pork.

Hogs are now realizing good prices, and it is probable that for some time they will be profitable stock to raise. It is when hogs or any other farm animal is enjoying this distinction of being profitable that the greatest leaks in the feeding operations are likely to occur. When live hogs were selling for four cents per pound at the car, farmers were careful that every pound of gain should be made in a short time and at the least outlay of food, and by so doing were able to realize a profit on feeding. Since hogs have gone up, however, we have become more liberal, and have often fed longer and heavier than we could have afforded had the price of pork been lower. It was when the price of the finished hog was away down that we learned our most valuable lessons in feeding. Necessity compelled us to feed economically, and we learned how to do it. We learned how, by feeding clover, roots and other green foods, to make a profit on four-cent pork, and the proper way to take the fullest advantage of the improved times is to feed our six-cent hogs just as economically as we did when pork was much lower. By so doing, an increase in selling price means an increase in profit, and not simply an increase in amount received. In this connection clover, rape and roots play an important part. In laying out the plans for the season's crops, we cannot urge too strongly the importance of setting apart good-sized plots for these crops, and also a plot for alfalfa. The time for feeding hogs exclusively on grain is past; intensive farming, which means the maximum of production at the minimum of cost, is now the order of the day, and there is plenty of room for its development in the hog-raising industry.

Veterinary Education.

To the Editor "Farmer's Advocate":

Sir,—As a graduate of the Ontario Veterinary College, engaged in the profession, I feel, perhaps, more interested in the editorials and letters re Veterinary Education than some other readers of your valuable paper, and desire in my humble way to commend the movement to raise the standard. The air is full of talk on education. On all sides we hear criticisms of our present system, and we must admit that a good deal of unpleasant truth has been told.

When we consider the intimate relation between veterinary science and agriculture, and on the other hand between agriculture and the wealth of the country, it seems strange that the Government of Ontario (or I may say Dominion) takes no practical interest in the training of such an important body of men as her veterinary practitioners should be. I do not wish to detract any credit that is due the O.V.C. It has done a good work in days gone by, and in some ways is still doing so. In fact, for a long time its head has done about all that has been accomplished for veterinary science in this country. We must admit that numbers of good men claim the O.V.C. as their alma mater, but the teaching of twenty years ago—yea, ten years ago—will not do for to-day. The sciences are making rapid strides, and the graduates of the last ten years, and even those who graduate to-day, can not claim the teaching of their alma mater to be what it should. It is run as a private institution, just as an individual runs his business, solely for the dollars that are in it, and what are the results? Students of all kinds, some with fair education and some with very little, go through the examination machine, good, bad, or indifferent, labeled with a diploma to kill or cure, and are known usually as "Doc."

There is a remedy for this state of affairs. Almost as important as the length of study, is, first of all, a standard of education upon entering which should be nothing less than a matriculation. A student entering college with such an education is prepared to go on and understand his work, and can grasp and retain a great deal more than one with barely sufficient education to read and write. It is a shame to confess that students have gone through without sufficient education to do credit to a fourth book form in an ordinary public school. Second, there is necessity for a longer period of study and more practical work. The idea is absurd of expecting a student to attend college for two sessions of about six months each, and to take up materia medica, anatomy, physiology, surgery, disease and treatment, bacteriology, chemistry, histology, biology of horse, cow, sheep, pig, dog, and to pass a thorough examination and obtain a diploma which qualifies him as competent to practice as a veterinary surgeon, especially if his preliminary education is as limited as it is in the majority of cases. Often the veterinary profession is not one of choice; it is the only one that would accept him, and how can such a profession ever attain the standing it should as long as the present conditions exist? (Never.) To remedy this some sweeping changes are essential, and first of all the matriculation entrance. This might mean a temporary loss in revenue to the college (but who can tell how much in the pockets of the stock breeder), and the profession would be rid of the constant stream of uneducated professionals. I do not wish to infer that all those shut out would be drawbacks to the profession, but it would contain so many of that sort that they would outweigh the good qualities of the others. Contemplating these changes, the question of finances will loom up before the college officials. I have no doubt it would for a short time affect the revenue, but surely in thirty years of financial success if a period of quiet came upon them they would be able to meet all obligations, and I am sure there are enough graduates in Ontario itself who would willingly assist to shoulder the deficit, if there should be any, caused by an endeavor to uplift the profession. Has the Provincial Government no concern for veterinary education? I think it has a serious responsibility. The O.V.C. is one of the oldest educational institutions on the continent, and the foremost in its day, and can yet be made the first college, but it must bestir itself. Let it but give the highest standard of education and it will be as the Royal College of London, England, its doors sought by the foremost men on the continent. Raise the standard and you raise the class of students—your graduates will be the best. The teaching of an educational institution is judged by the character and quality of the graduates. If her graduates are men thoroughly competent, it will be but a short time until the O.V.C. once more leads the van. Take the requirements of pharmacy, of our dental colleges, medical colleges, Normal schools—in fact, all the educational institutions—look at their rising standards. Has it closed their doors? No, they are crowded with the very best students of our country, and why should this, one of the most important educational institutions, be neglected in the march of advancement?

In the interests of the stockmen of the country, of our future veterinarians, and of those at present engaged in the profession, the movement for veterinary educational reform has been too long delayed, and it is one that should commend itself to the cordial and united support of all these classes.
ROBERT BARNES, V.S.
Middlesex Co., Ont.

Thoughts on the Past and Present.

To the Editor "Farmer's Advocate":

On looking over the last Christmas number of the "Advocate," which is very fine indeed, I read with great interest Mr. Snell's letter headed, Fifty Years of Fair Going. Not because it was all new to me, for I, like Mr. Snell, had been attending the old Ontario Provincial Exhibition from the time it started, having frequently acted as a judge at Toronto, Hamilton and London, and other places, so that I became fairly well acquainted with the exhibitors from all parts of the Province. Mr. Snell's letter recalls to my mind many pleasant and profitable hours spent with some of the old exhibitors and breeders in the days long gone by, but it likewise brings to mind the fact that nearly all the exhibitors and breeders of those days have past that bourne from whence no traveller ere returns. Mr. Snell has seen many changes. Not only have the old exhibitors passed away, but those fine large cattle that they used to exhibit have likewise passed away, and instead we have a smaller race of cattle, with finer bone, etc., and I always have doubts whether we are making improvement or not. These small-boned cattle may make baby-beef, but I would not consider them the cattle for the range, and to me they always look as if they had not legs fit to carry them. This is a point worthy of consideration. We often see men with large frames and lots of muscle, weighing 220 to 225 pounds, yet active, but a man with a small frame, should he become 220 pounds, cannot walk, he can only waddle, and this is just the result with many present-day cattle. Mr. Snell must, likewise, have observed great changes in the lines on which our large exhibitions are conducted. When agricultural exhibitions were first organized in Canada, they were established on the same lines as those in the motherland, where they have always proved a great success. But a faster class of men has got hold of the management here, and have borrowed some of the so-called attractions from our American cousins, and this, like some other things we have borrowed from them, had better, in my opinion, have been left south of the International boundary line. Having had occasion to be in Winnipeg during the exhibition, I took a day at the show, to see if there were anything new. I went early through the main building, then through the other buildings, and lastly through the one where the grain was exhibited, and was reminded of the following incident: Some years ago a municipality in the County of Waterloo concluded to purchase a Shorthorn bull; they appointed a Scotchman and a German to select and purchase the animal. Amongst other herds visited was that of the late Hon. David Christie, who had a number of bulls that were in bad condition from want of care, being left in the hands of hired men. When one of the bulls was led out, Mr. Christie read over a very good, long pedigree. My friend the Scotchman asked the German what he thought of the bull? The German replied, "I tink lots pedigree but not much pull." In going through the exhibition buildings, I concluded that there were lots buildings but not much exhibit. I went from seeing the grain to the cattle stables, and among the beef breeds found some whose legs did not seem strong enough to carry their bodies. From the cattle I went to the sheep pens; good pens, lots of them, but I have seen a better exhibit of sheep at a township show in Ontario. From the sheep I went to the pigs; here I found a good exhibit—some very good animals. From the pigs I went to the horses; there were very few out of the stables. To see a horse you have to see him out, so I did not remain long, but crossed the grounds to the implements. There is always something here to interest a farmer. I am sure Mr. Snell must see a wonderful improvement in implements since he began to go to exhibitions. In his young days we were cutting the grass with the scythe, and the grain with the cradle, and threshed it with the flail, or in some cases with an open cylinder run by a horse-power. Now we have the mowing machine to cut the grass, and the reaping machine to cut and tie the grain, and a

separator with all the latest improvements, self-feeder and stacker, all run with a 20 or 30 h.-p. steam engine; but all the other implements are just as much improved.

After noon a large number of people were seen coming in at the gate of the exhibition grounds, but what was very strange to me was they were nearly all heading for the grand stand. The question came to my mind, "What came those people out for to see?" Some circus and platform performance; some horse-racing and some Punch and Judy show. Is it possible that this is what our great agricultural exhibitions have turned to? When our agricultural exhibitions cease to be educational their usefulness is gone. The grand object of these exhibitions was to bring the people together so as to compare notes, and thereby stir up a healthy spirit of emulation to excel in all the products of the farm, the workshop and the factory. Will the education taught before the grand-stand cause our sons to become better farmers; will it make them better citizens; will it cause them to form a higher conception of the noble calling of the farmer? Will it make our daughters better housekeepers; will it cause them to look upon life and its great realities as something worthy of their highest consideration; will it fit them better to become the intelligent mothers of a coming generation? If not, are we not paying too dear for what we are receiving for the money spent upon it? But perhaps some one will say there are other parts of the exhibition for those that do not care for the so-called attractions. This may be so, but if three-fourths of the people or more that enter the gate never get farther than the neighborhood of the grand-stand, it must be evident to every thinking mind that we had better call it by another name. Others may differ with me on some of the points that I have raised, but that will not make any difference to me, as I do not pin my faith to anyone's opinion. I have always done a little thinking on my own account, and it is likely that I shall continue to do so as long as I can. Mr. Snell's letter caused me to do a little thinking upon this subject. JOHN RENTON.
Brandon Municipality.

In 1902 there were 5,200 steers shipped from the Territories to the British market. There is no reason whatever why the unfinished cattle of the West should not be finally prepared for the block by Manitoba farmers.—CHAS. W. PETERSON, Regina.

Mulock's Farm.

Among the men of independent means in Canada who have practically manifested their love for and interest in agriculture and its allied industry, live-stock raising, is Sir William Mulock, the Dominion Postmaster-General. A native Canadian, long before he was known as prominent in public life, he had acquired the beautiful



A DOMESTIC PET.

212-acre farm near the town of Newmarket, in York County, Ontario, on which formerly stood the primitive country schoolhouse in which, in his case, was laid the foundation of the education which, in so far as the schools are concerned, was finished by his graduation from the Provincial University, of which he had subsequently the honor to be elected to the important position of its Vice Chancellor. But, as with most successful men, his education was not ended with graduation from the schools, but he has continued to be a student not only in his chosen profession of the law, but also in the broader field of statesmanship to which he has been called by his countrymen, and in the administration of the important department of government with which he has been entrusted, and in which he has by indomitable industry proved so signally successful. And there is, perhaps, no man in public life

in the Dominion to-day to whom the great farming community is looking with greater interest and expectancy for relief from a serious disability, in comparison with the urban population, as indicated by the urgent agitation and demand now being made for free rural mail delivery.

But it is with the farmer more than with the statesman, as the subject of this article, that we are concerned, and as evidence of the interest he has evinced in farming, the writer recalls an address delivered by Mr. Mulock in a farmers' club meeting many years ago, in which, as the result of experience on his own farm, he graphically and instructively described the operation and advantages of underdraining, illustrating its benefits by the largely increased yield of crops on his own farm, sufficient in a comparatively short time to repay the outlay, while the benefit is lasting. Later the feeding of steers for the export trade was successfully carried on at the farm, and some three years ago the nucleus of a herd of pure-bred Shorthorn cattle was secured in an importation selected by his neighbor and friend, Mr. William Linton, President of the Dominion Shorthorn Breeders' Association, whose extended experience and ripe judgment well fits him for the position, and last year a second importation was made for Mulock's farm, also selected by Mr. Linton, of a number of high-class individuals of excellent breeding and conformation, some of which are portrayed in the accompanying illustration.

The young roan bull, Patriot (81829) =45206=, seen in the foreground, now at the head of the herd, was born December 28th, 1901, and was bred by His Majesty the King, at the Royal Farms at Windsor. He was sired by Prince Victor (73320), who was also sire of the champion cow Cicely, imported by Mr. Flatt, and his dam Prima Donna, by Christmas Gift, a Royal champion, is of the favorite Cruickshank Broadhooks family, being a direct descendant of Broadhooks 10th, by the great bull, Champion of England, so that he is Scotch bred on both sides of his parentage, and in conformation and character he is typical of the class of cattle called for by present-day markets and trade.

Rosanna, the red yearling heifer on the right, was also bred at the Royal Farms, was sired by Prince Victor, and is of the Ruth family, from which came Royal Duke, the championship winner at the Royal Agricultural Society's Show in 1901 and 1902. Her dam, Rosemead, was by Nobleman, and her grandam by the Royal cham-



SOME OF THE IMPORTED SHORTHORN CATTLE IN THE HERD OF SIR WILLIAM MULOCK, ON HIS FARM IN YORK COUNTY, ONTARIO.

pion, New Year's Gift. Rosanna is of the blocky, low-set, thick-fleshed type, and is a charming heifer.

The red heifer, Freda Gwinne, coming two years old in May, was bred by Mr. D. Abbott Green, Colchester, Essex, and sired by Lavender Yet (74830), a son of Count Lavender, bred by Mr. J. Deane Willis. Freda is a show heifer in her make-up, having a strong, thickly-fleshed back, deep and well-sprung ribs, smooth, sloping shoulders, full heart girth, and a sweet head, full of feminine character.

The rich roan yearling heifer, Carol, was bred by Mr. Robert Hornsby, Hovingham, Yorkshire, sired by Jewel Star (76919), a son of the noted Star of Morning, bred by Mr. A. M. Gordon, of Newton, and her dam, Familiar Caroline, was by Fitz Windsor (68648). The charming red and white heifer calf, imported Marina, in the background, who enjoys the first anniversary of her birth to-day (March 15th), is a daughter of Hovingham Marmion (81300), her dam being Imp. Mariet (Vol. 19), by Royal Verger (71517). She is a model of the best of the breed, and could hardly be improved upon in her conformation and quality.

The favorite Warlably Bliss, Flower, Isabella and Medora families, and the Riby Annas, as well as the April Daisies, an old and highly esteemed Yorkshire family, are also represented in the herd, now numbering some thirty-five head, which, under the intelligent care of that capable cattleman, Mr. J. G. Davidson, recently installed as farm manager, justifies the prediction that the Mulock Farm herd will take a prominent place among the strong Shorthorn herds of Canada.

To appreciate the beauty of Sir Wm. Mulock's farm, it must be seen in summer, when the spacious lawns and park, comprising some twenty acres, well planted with English walnut and the principal varieties of our native trees, are seen at their best, and where, as the summer residence of Sir William's family, the conditions for a healthy and wholesome country home are ideal. That the influence of the example of a well-managed and well-kept farm is beneficial far beyond its own bounds, is evidenced by the many tasteful farm homesteads in the surrounding districts, while the enterprising and public-spirited proprietor has evinced his interest in the welfare of the county in numerous ways, such as the offer of generous prizes annually to the farmers in the riding planting young orchards of choice varieties of apples and other fruits suitable for the export trade, and in other ways encouraging the improvement of the conditions of life on the farm.

FARM.

Spring Seeding.

The fact of the difficulty of securing sufficient help on the farm will remind the prudent farmer of the wisdom of improving every hour of the time during the present month in making necessary preparation for the spring seeding, so that no time need be lost when the condition of the land becomes suitable, but that the work may be pushed through with the utmost possible despatch.

To this end, the seed should be all prepared, thoroughly cleaned and measured, to ensure that sufficient is on hand for the land to be sown. The tools and implements should be repaired and sharpened, so as to do the best possible work; the horses put in the best condition by generous feeding and ample exercise; the collars and harness repaired, and fitted to the horses that are to wear them, and every precaution taken to avoid loss of time from the seeding operations. Experience has so plainly taught that, as a rule, the earliest seeding, when the land is fit, brings by far the largest yield and the best quality of grain, it should be the aim of all to rush the work from the start, always remembering "that what is worth doing, is worth doing well," and that to skimp or slight the work of preparation of the seed-bed is a mistake which will tell against the crop throughout its season of growth and in the harvest yield.

Not only is early seeding advantageous in regard to the grain crop, but wherever clover is grown, the seeding, in order to its best results, should be early, and the importance of care in the purchase of clover seed cannot be too strongly emphasized, as it is certain that noxious weed seeds are more likely to be disseminated in this way than by any other. For this reason, be careful to learn from whence the seed has come, deal only with reliable firms, and inspect the seed by means of a magnifying glass, to be sure that it is reasonably free from weed seeds. The importance of clover in fertilizing the soil and improving its condition is so great that it should be liberally sown, as it will pay for its cost many times over, even if plowed down the first year, while its value as food for stock can hardly be overestimated. Being one of the most complete foods for all farm animals that can be grown

Alfalfa.

BY PROF. R. HARCOURT, O. A. C., GUELPH.

In a recent issue of the "Farmer's Advocate," Prof. Shutt gave some of the results of his investigations with alfalfa, or lucerne. As this is one of the most useful plants that may be grown on the farm, especially where dairying is an important branch, I would like to add a little to what has been already given.

Alfalfa is pre-eminently a soiling crop; and as such it possibly has no equal among crops that may be grown in Ontario. It is ready to cut early in the season, and as it grows up again quickly and continues to grow throughout the whole season, it may be made to supply a continuous cutting of rich, succulent food for supplemental feeding. For this purpose, it should be grown near the barn, where it can be got at readily. It will grow on almost any soil, provided that the subsoil is fairly open and that the water table does not at any period of the year remain near the surface of the ground. It is naturally a very deep-rooted plant, and is thus able to make use of food constituents and moisture that are beyond the reach of other plants. Because it is so deep-rooted, it is not easily affected by droughts; and, consequently, can be made to furnish a nutritious supplemental food when the pastures are dried up.

As a soiling crop, it may be pastured with excellent results, provided it is never eaten off too closely, and that once eaten off, it is allowed a couple of weeks to grow before turning the stock on again. It makes a very nutritious pasture for hogs. The following figures show how rich the young plants are in protein, and how, as the plants mature and the amount of fibre increases, the amount of protein decreases:

PROTEIN OF LUCERNE.		Per cent. of
Time of Cutting.		Crude Protein.
1st Cutting; 6 inches high	.....	25.33
2nd " buds forming	.....	23.24
3rd " first flowers	.....	18.80
4th " full bloom	.....	15.65
5th " blossom falling	.....	14.23

The above shows clearly that as the plant matures the amount of crude protein decreases, and, therefore, the nutritive value of the plant decreases. The earlier the plant is cut, the richer the food it makes. When we want the maximum amount of digestible matter per acre, other points have to be considered in determining at what stage of maturity the plant should be cut. This point will be discussed later.—[Bull. No. 111, O. A. C.]

Because lucerne has such a thick, juicy stem, it is a little hard to cure as hay. To get the best results from lucerne, it must be cut earlier than clovers. The determinations which the writer made in 1897-8 (Bull. 111, O. A. C.), on the composition and digestibility of lucerne, showed clearly that the most nutriment was obtained when the blossom was just beginning to open. This is shown in the accompanying table:

	Dry matter, Lbs.	Digestion coefficient.	Digestible matter, Lbs.
Second crop, 1897:			
First cutting, buds formed	3,197	58.6	1,873
Second cutting, blossom one-third out.	3,819	56.2	2,146
Third cutting, a little past full bloom.	3,317	51.3	1,701
First crop, 1898:			
First cutting, buds formed	3,045	58.6	1,784
Second cutting, blossom one-third out.	4,201	56.2	2,389
Third cutting, a little past full bloom.	3,894	51.3	1,997
Second crop, 1898:			
First cutting, buds formed	1,899	58.6	1,112
Second cutting, blossom one-third out.	2,565	56.2	1,407
Third cutting, a little past full bloom.	3,214	51.3	1,135

I was told by an officer who went through the whole of the late war in South Africa, that the best hay they got there was made in the Argentine from lucerne.

COMPARISON OF THE FEEDING VALUE OF LUCERNE, RED CLOVER, AND TIMOTHY.

It is, therefore, interesting to compare the composition of lucerne hay with that of red clover and timothy, each crop being cut at the time when it apparently yields the maximum amount of digestible matter. The following table gives the percentage composition of the hays all figured to the same per cent. of water, and the calculated amounts of the several constituents digested per ton of the hay fed.

Percentage Composition of Lucerne, Red Clover and Timothy Hay:

	Water.	Dry matter.	Protein.	Fat.	Nitrogen free extract.	Fibre.	Ash.
Lucerne	15.00	85.00	13.20	2.98	35.42	27.25	6.15
Red clover	15.00	85.00	11.47	2.01	41.31	28.63	6.55
Timothy	15.00	85.00	6.03	1.70	45.22	28.31	3.72
Amounts digested per ton of hay fed.							
Lucerne	953.40	192.19	30.01	196.58	205.16		
Red clover	974.95	141.03	29.38	58.72	209.36		
Timothy	929.21	48.67	16.15	32.41	306.88		

According to the above figures, the clover hay

contains the most digestible matter; but one ton of lucerne hay will contain about one-third more digestible protein than the same weight of clover hay, and nearly four times as much as a ton of timothy hay. In digestible nitrogen-free-extract and crude fibre it is lower than either of the other two.

When we take into consideration the facts that lucerne once established will remain in the soil longer than clovers; that it will produce more food per acre than clovers; that it is fully as nutritious and digestible as clovers; and that it is relished by stock as much as clovers, we must conclude that this is a valuable fodder crop.

Tree Planting for Fuel.

[Paper prepared by Rev. J. Fotheringham, Grenfell Assn., for the annual meeting of the Western Horticultural Society, Winnipeg.]

Tree-planting for other purposes is highly, and not too highly, recommended. Around our own farmstead it has proved valuable. Many of our first chickens on the open prairie became blind from exposure to the sun. When the trees and shrubs came, they proved a sure remedy. The hawk lost his chance of getting a hen for his dinner when she had trees and shrubs to fly under. There she had shade and shelter and good scratching ground. Robins and other birds came to sing among the branches, and prairie chickens came to supply the pot. Even the Baltimore oriole paid us a visit, and flashed from branch to branch around the house in the early morning, with its animating cry—wake up, wake up, wake up, sirrr. The wind-swept snow was arrested and the buildings were saved from drifts. Storms came and unroofed buildings elsewhere, but ours were safe, while the trees threw the wind upward and over them. The trees, being planted closely and growing without pruning, soon furnished branches and shoots that became dead, and were cut and gathered for summer fuel, and higher branches were taken for the same purpose. The larger trees became capable of supplying sap for syrup and sugar. For beauty, shelter and utility in many ways, the surrounding trees added hundreds of dollars to the value of the farm.

As to planting for fuel, I do not undertake to speak as an expert, but I venture some suggestions which may be utilized and improved upon. The fuel question has become important, not alone from the coal strike. In almost all the older parts of Ontario, the land of splendid forests has become so denuded that not only has agriculture been interfered with by alternate droughts and sudden downpours and floods, but the farmer has to depend mainly upon coal for fuel. In a large part of our Western country our bluffs have been destroyed, or so nearly so that coal is rapidly coming into use. Our soft coal is quickly consumed, and the expense—\$7.00 a ton—is a serious item, especially to the new settler who comes in with little else but the spirit of work and enterprise.

The evil can be mitigated by raising wood. The easiest way is by sowing the seed, and the seed I would principally recommend is the native maple. For speedy results young trees may be planted, and, planted as hedge rows, they would help to arrest snow and shelter the small seedlings the first year or two. I think it very advisable, when sowing maple seeds, to plant rows of corn or something else, to be left to gather snow about the maple plants. The plants quite exposed, say on rising ground, are very apt to be killed the first winter, and if transplanted at a year old, they are not so hardy as when larger.

The first step is to select the land for planting. Of course, there should be a good shelter around the buildings. Elsewhere on the farm may be selected more, in blocks or strips, according to the kinds of land and trees to be utilized and the various ends to be gained. The land should be cultivated from grass and weeds, and well pulverized. The rows may be four feet apart, allowing cultivation by horse. Little furrows may be opened by hand garden plow, and the seed sown at once while the earth is wet. I have taken a tin fruit-can, without top and bottom, fastened thereto a handle some three feet long, and made for it a bottom of pasteboard, with one or two holes of proper size to let out the seed. Filling this seeder, you can walk along the furrow and shake in the seed in any desired quantity. After the sewer comes the coverer, with a wooden hand rake, back down, and draws the yet damp earth over the seed, gives it a pack, and so walks on at a good rate, making a good job. The earlier the seed is sown, the better, if you only escape the late frosts, which would kill the little plants. Cultivation should be kept up till the trees can take care of themselves, to keep down weeds and keep the land mellow, so preventing the escape of moisture. If the plants come up too thick, thin out while small, but keep them pretty close, for transplanting and thinning for fuel later on. I have had them grow four or five feet in the third year. The fourth year you can begin to have summer fuel by thinning out. Take a block and use a hatchet, and cut them into short bits. They

will do for all the lighter cooking, and, in winter, for kindling coal fires. As time goes on you will have them larger till you leave them four feet apart in the row. By and by you may cut out alternate rows and have good-sized firewood. You can cultivate these vacant rows and replant, and the young trees will stretch up all the more for having large trees near them.

Thus, ten acres may keep you going, and perhaps your children after you. This is not all conjecture, for I have seen something of what I say. Along with maple you may raise native ash, and provide excellent timber for handles and other uses. You may get cottonwood and Russian poplar to grow faster than maple, but let some one more experienced advise you as to their utility.

History Repeats Itself.

To the Editor "Farmer's Advocate":

Sir,—You will have heard that history repeats itself. Away back in 1898, newspaper files record the visit of delegations to Ottawa to insist on the restoration of the duties on binder twine, otherwise liquidation awaited the manufacturer. Another view prevailed, and the duty was not restored, but the manufacture of twine has gone on, and since that time I believe that six new factories have gone into operation, viz., those at Walkerton, Brantford, Brandon, Peterboro, Chatham, and the Richelieu Co., while those previously engaged in the enterprise continue doing business at the old stand. It is no secret that very handsome dividends have been declared by these companies. But what do we find? The same influences that waxed eloquent in the past for a re-imposition of duty are again abroad in the land. Statements are being scattered broadcast, such as this, that binder twine is manufactured chiefly from Manila fibre, on which there is an export duty of three-eighths of a cent coming to Canada, while it goes free for the U. S. manufacturer. But what is the fact? Why, that from 85 to 90 per cent. of the binder twine made and sold in Canada and the United States is made from Sisal fibre, on which there is no duty. It is also declared that over ninety per cent. of the twine made in the U. S. is manufactured by the large implement manufacturers. Now, outside of two concerns of that class, there are some ten or twelve makers of twine in the States, and it is estimated that they make from forty to fifty per cent. of the twine used in the States. They assert that while there is no duty on twine coming into Canada, there is a duty of forty-five per cent. on twine entering the Republic. What is the truth? There is no duty on Sisal or twine running 600 feet to the pound going into the States from Canada; there is a duty of forty-five per cent. on twine running 650 feet to the pound, but there is very little of this length of twine made and the Canadian 650-ft. twine is of a grade that would not be sold in the States, even if there were no duty upon it. Sisal fibre is grown in Mexico, and is free of duty. The Canadian maker can buy it as cheaply as the American, and as fully eighty-five to ninety per cent. of all binder twine is made from Sisal fibre, and as Sisal twines are admitted to the States duty free, what advantage has the American manufacturer over the Canadian? Then the American harvest is alleged to be earlier than the Canadian, and the American makers will slaughter their surplus twine in Canada. The Ontario and Quebec harvest is at the same time as the Central West, and Manitoba only a little later than in Minnesota and North Dakota. The contention that hemp for twine-making has to be bought in August and September for the following season's harvest is also wide of the mark. Sisal being raised in Mexico, a vessel will make the trip in about eight days. It is cheering to the farmer to be assured by those who are urging the duty that there is no chance of a combine, but if I am not mistaken, the moving spirits in this agitation are those who formed a combination in the old days, buying up several factories and securing a monopoly of the twine business in Canada. Were the Government to give way on this point how soon would it be till the fence-wire makers would have to be met in the same way? Everybody who understands the Canadian situation knows that the West would not stand it. Our manufacturers are flourishing, the country is going ahead; better let well enough alone, gentlemen, and continue to give the farmer a chance. AGRI.

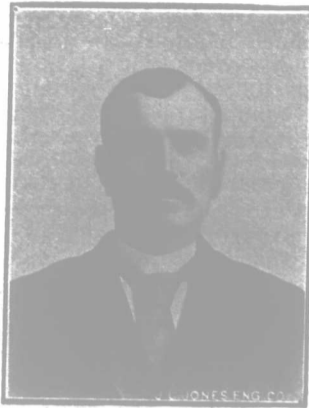
We Canadians should feel proud that we have published within our borders such a strictly first-class, up-to-date paper as the "Farmer's Advocate." It is certainly a "top notcher."

W. KITCHEN.
Norfolk Co., Ont., Feb. 28th, 1903.

Tillage and Seeding.

The bluebirds, robins and graybirds have come, and the weather at this writing is so mild that it makes us think of seeding again. Of course it is likely that March, which has so far shown only the lamb-like character, may before long show us that of the lion, but after last year, when the whole month was so exceedingly fine, we should not be surprised if spring should come

hard to work well, meantime, if he has any ambition at all in him, chafing at the delay and wishing he had been wise enough to have had some draining done. More than time is lost. Repeated experiments have demonstrated the fact that, with the exception of peas, spring grains sown early yield best, the yield lessening in proportion to the lateness of sowing. Our own observation and experience confirms this. We remember once sowing a field of peas about the 20th of May, and because the seed ran out one headland was sown with oats. They grew and looked like other oats, but when cut it was found that there was literally no grain there—shells only. Last year a good deal of grain was sown in March, in spite of the talk, more rife than usual, about the seed being better in the granary. Certainly some of the seed, in the wetter places especially, did perish during the cold weather which followed, but the crop yielded all right, as well or better than what was sown about the usual time. We say then, most emphatically, sow as early as the ground is fit to be worked. Indeed, we are tempted to say that if only a little spot or two hinders getting on to the field, better sow before these are quite ready, for the sake of earliness.



F. W. BROWN, PORTAGE LA PRAIRIE.
President of Sheep and Swine Breeders' Association.

very soon. Are we ready for it? Are the harrows sharp, the cultivator in good shape, the working harness sound? Do we know just what crops we are going to sow in the different fields? How about seed grain? If we sow our own it should be cleaned up; if we are going to buy, we should by this time have it contracted for, as it is sometimes very hard to get at the last minute. It is a great comfort and saves time and money to have all preparations made in good season.

In our climate there are seasons when anybody can work up the land and get the grain sown in good order; when, for instance, the weather before seeding has been dry, with frosty nights. The land then is in better condition than we could bring it to by any manipulation of ours. Frequently, however, after the frost is out of the ground, rains keep coming on so that operations are seriously delayed, and the land gets so compacted that it is hard to work when it does dry. It is in such seasons that the farmer whose fields are drained gets the start of the other fellow. What are naturally the wettest parts of the field get dry the soonest, and at the first opportunity he gets to work, while the other man has to wait until not only the low lying land gets fairly dry, but the higher ground is too

In preparing the ground for seed, let the work be done thoroughly. With the many improved implements of the present day, this is more easily accomplished than formerly, but it is as true now as ever that the man is more than the machine. In some seasons, cultivating once, with ordinary harrowing and once rolling, is sufficient working. At other times it is well to cultivate twice, the second time across, which makes a good job, and occasionally an extra turn of the roller during the preparation process, with repeated harrowings, is wise. However it is done, the ground should be loosened and made fine to a depth of two and a half to three inches. In what has just been said, we have assumed that the seed has been sown during the process of working, and that the ground which had to be plowed was plowed in the fall. When peas are grown on sod, however, it is better usually to plow in spring. The after-working then will be merely harrowing or disking the surface fine, and drilling the seed in, rolling to finish. Boys and careless men will often, if not looked after, let the cultivator skip over hard spots, or by crooked driving miss little widths, to the certain and serious detriment of the crop. Careless or insufficient harrowing is also a common cause of loss.

It is prudent, sometimes, to let the newly-cultivated land lie a few hours to dry before further working, but if it is dry enough it is better to have the different processes of preparation follow each other as closely as possible, as less work is then required to bring the land into proper condition. A good farmer of our acquaintance, who has been very successful in getting grass



DIVIDEND (10789).
Clydesdale stallion. Foaled April, 1898; sire Pandora's Prince (10391); dam Darling VIII., by Cairnbrogie Stamp.
IMPORTED AND OWNED BY DALGETY BROS., LONDON, CANADA.



RESIDENCE OF J. W. SUDDARD, FRONTENAC CO., ONT.

seed sown with spring grain to catch, attributes his success to sowing early, and to having, if possible, all the work, including rolling, done in one day. He claims that thus land is made finest with a given amount of work, and that grass seeds are at once brought into contact with moist earth and get, what is so important, an early start.

This season to a farmer is really the opening of the year, and we take pleasure in wishing our readers a pleasant seedtime and bountiful harvest.

A Successful Cement Silo.

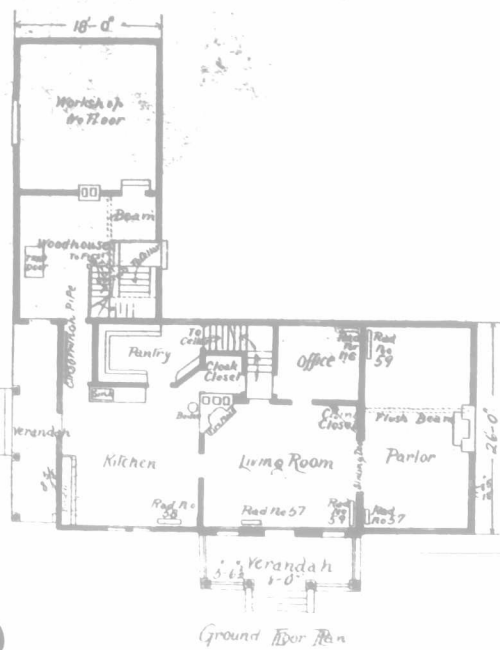
Mr. Harry Smith, the Shorthorn breeder, of Huron Co., Ont., gives us his experience with a round cement silo built last year. The dimensions were 12x30 feet, walls about eight or nine inches thick at the bottom and six inches at the top. Portland cement, one to ten parts good gravel, was used, and plenty of stones bedded in. No. 9 wire was laid in also, with every raise of the wooden crib. It was finished about six weeks before being filled, and in about three or four weeks after the walls were constructed they were plastered both inside and out. The walls were made a little stronger at the bottom; great care was taken with the foundation. The ensilage kept perfectly, and there was no sign of give to the walls. If the above conditions are complied with, Mr. Smith has no fear about the permanence and superiority of cement silos. Previously he had a wooden silo for many years. He grows the Leaming corn for ensilage, and cuts it a day or so before filling to wilt. Never heard of the juice of the ensilage softening the bottom of cement silo walls. The work of construction was done by Mr. Geo. McKay, of Kippen, Ont.

Hair as a Fertilizer.

Regarding the case of very marked results in potato growing through applications of human hair, recently reported to the "Farmer's Advocate," Prof. Shutt, of the Central Experimental Farm, writes as follows:

"Though hair may be considered rich in nitrogen (containing about 17%), its value as a fertilizer is extremely low, from the fact that it very strongly resists decay in the soil. Nitrogen, as it exists in organic compounds in hair, horn and allied substances, is inert and unassimilable by plants, and is so slowly converted into available plant food in the soil that it is very doubtful if any response would be observable from the direct application of these materials to the land. By previous treatment with acid, or by active fermentation, as in the manure pile, the nitrogen in hair, however, may be in a large measure rendered available for crop growth."

FRANK T. SHUTT,
Chemist, Experimental Farms.



Ground Floor Plan

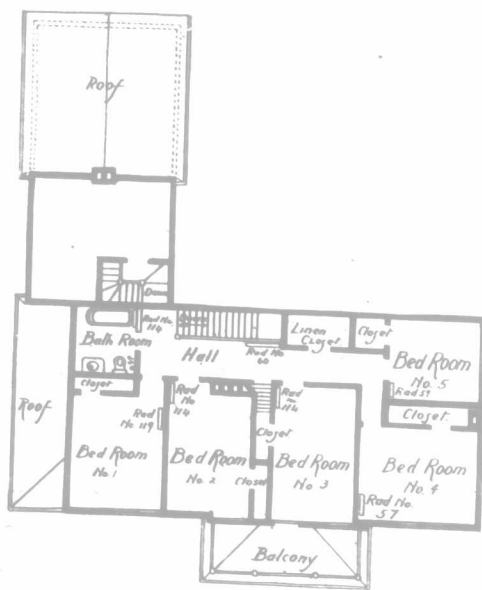
High-class Farmhouse.

I submit a sketch of farmhouse built on my farm during 1902, at a cost of \$4,500. I had in contemplation the purchase of a farm for four or five years, and during that time drew many plans of house, which were in turn submitted to the various members of my family, young and old, for criticisms and suggestions, my wife being principally consulted, as the house is the woman's particular field of action, and should be made as nearly as possible to meet her requirements.

There were two important points ever in her mind when discussing the plans. Her first was to have as much sunlight as possible in every room, and the second was to make it as convenient as possible. I was careful on my part to make it comfortable. To secure plenty of sunlight, the house has a large south exposure; all the rooms on the first floor, except my office and the pantry, having south windows, and one bedroom and the bathroom on second floor, only, are deprived of south windows. The main partitions in the cellar are built of hard brick, eight inches thick, the outside cellar walls being of stone, 22 inches thick. The cellar had a smooth rock bottom, which, however, was inclined to be damp, so it was cemented and properly drained.

The house is frame, sheathed inside and out with matched hemlock, and a fine grade of building paper was used between sheathing and weather boarding, and between sheathing and plaster. Furring strips were used to lath on, thus giving a double air chamber for protection against both heat and cold. The floors in both flats are double, with building paper between them; the first, or under-floor in each flat, being matched pine, the upper floors being selected red birch, except the kitchen and pantry, which are maple.

The finish or trim on the parlor, living-room,



First Floor Plan

office, stairway and bathroom is selected red birch, stained and finished in three coats of hard oil, each coat being rubbed with pumice stone and oil. The floors are natural finish, rubbed in same way. The kitchen, pantry, hall and bedrooms are trimmed in pine, the kitchen and pantry are stained to match the balance of the floor; the hall and bedrooms are painted. The walls and ceiling of the kitchen, pantry and bathroom are painted.

The walls of cellar are built flush with first floor, and floor is laid in mortar. Between inside and outside sheathing it is filled in six inches high with brick and mortar. The walls of cellar are plastered and white coated.

All windows throughout the house have storm sash, except the south bedroom windows, which are single. All doors opening outside have storm doors. The attic is floored with matched pine. The roof is covered with British Columbia red cedar shingles. The front porch, 8x20 feet, has two floors, for use of both flats. The west porch, 6x26, is roofed.

The house is supplied with soft water from a 300-barrel cistern, which is forced into the house by a windmill, the tank being in the loft over the cistern. Hard water is furnished to the house from a pump on the west porch. There is hot and cold water in the laundry, and on the first and second floors. The heat used is hot water.

The parlor has a handsome red brick mantel with mirror, and is arranged with coal grate. The living-room has a brick mantel arranged for burning wood.

The room in addition, marked woodhouse, is heated by hot water coil, and is being used as storeroom and to shed soiled garments and boots before entering the main house. As but little wood is used, the room marked workshop serves the double purpose of workshop and woodhouse.



Side Elevation

There are three chimneys, all built from foundation up, and have soot boxes for cleaning in cellar. The price named covers cost of house completed, including cistern, well, windmill and tank, and all decorations, painting, etc. The size is 26x54 ft. 8 inches, and 18x36 ft. The first floor ceiling is 9 ft. 8 inches high, the second 9 ft.

Since we have occupied the house, no member of our family has sighed because this, that or the other thing was not made different, each being satisfied that we have a comfortable, convenient farmhouse, full of light and sunshine.

I shall be much pleased should any intending builder of a farmhouse glean any ideas from our plans, which are the result of much careful consideration and labor on our part, and much expense and forethought for the wants and wishes of the readers of your valuable paper on your part.

Frontenac Co., Ont.

J. W. SUDDARD.

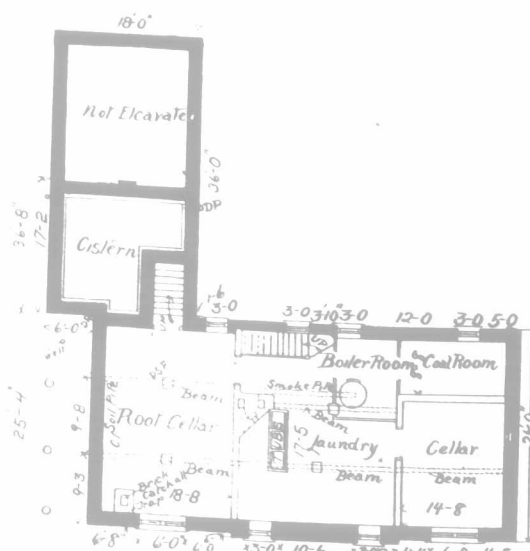
Farm Help from England.

To the Editor "Farmer's Advocate":

Sir,—I have read with interest in your Feb. 2nd issue the article by Mr. W. G. Cowie on "The farm labor problem." Having spent nearly seven years in the Province of Ontario, I can fully understand the above title. Since coming back to the Old Land, there is one thing that has come prominently to my notice, that is "the overcrowding of the labor market here." The papers are full of advertisements from men looking for work, in vain. They are to be seen standing on almost every street corner, and if an advertisement should appear in the papers for a man of any description, the situation could be filled twenty times over. They are glad to get work of any description, and the wage need hardly be mentioned, as they are too glad of anything. I have interviewed a good number on the question of going to Canada, as I think it is "the best" where work is plentiful and good wages for doing it. The answer in most cases is, because "I cannot get the money to pay my way out." "It takes all I can get to live." "I wish I could get out of this country, or I shall soon starve." Now, cannot these men be transferred in some way to help solve "the labor problem"? There are thousands of smart, active young men that would be only too glad to earn an honest living on a Canadian farm if they had the means to cross the water. Hoping this will not take up too much of your valuable space in the greatest of all farm journals, which I still get.

JAS. BODY,
Bristol, Eng., Feb. 20th, 1903. Late of Halton County, Ont.

We find the short-wool sheep to suit our climate best. The long-wool breeds collect the snow in their fleece, and are hence not as well able to withstand severe weather.—JNO. McQUEEN, Carievale, Assa.



CELLAR PLAN.

Schoolroom Decoration.

We have been asked to give a description of our schoolroom, but at the outset we wish to state to whom honor is due, namely, the pupils of the school, for they it was who supplied nearly all the material, and the arrangement is either their plans, or modifications of their plans, and, as such, aroused greater enthusiasm and greater pride than if the decoration had been done solely by ourselves.

Fortunately, we had a large schoolroom, the walls of which were kalsomined a light green shade, with a sixteen-inch border extending around the room close to the ceiling. This not only proved a very restful color for the eyes, but harmonized with the foliage plants which the pupils provided from time to time. The ends of the blackboard, the four museum cabinets, and the bulletin board, were draped with green burlap. For the wide, vacant wall space above the range of pictures, large blue eight-inch letters were procured from the D. C. Cook Co. and pasted to pieces of cardboard. The letters were then cut out by the pupils and suspended on thin spool wire in swinging loops, forming such mottoes as "Willing Workers," "Welcome," "Honesty, Industry, Intelligence and Integrity." At the end of each loop crossed flags of various nations served not only to break the natural curved outline of letters, but furnished subjects for talks on patriotism, and the use of flags. We had no place to store our storm windows, and decided to convert them into improvised picture frames. After fastening to the back of the glass on three sashes, 96 8x10-inch pictures of birds and animals in their natural colors, the sashes were fastened to the rear wall of the room. The other two sashes contained specimens of each pupil's drawing and writing, each being supplanted by a fresh specimen as soon as the respective pupils were able to provide a better sample of their work. Pictures were hung along vacant spaces. Our museum cabinets were not costly, each was 2 1/2 feet wide by 3 feet long and 2 inches deep, and lined with green felt. Each was provided with six shelves. In one cabinet we placed 150 one-ounce round bottles, containing the various kinds of seeds and grains, each labelled with the name of the grain, locality, and the name of the pupil who collected it. Another contained Manitoba grains in the ear, similarly arranged, while sections of the different woods of the world, and buds and leaves of Manitoba, trees and shrubs, filled the other two. Our most interesting collection was a number of small, delicate plants, for which we provided a glass case, made out of four window panes. In the bottom we placed loose, moss-covered sandstones, elevated in the center, with the space between the stones filled with suitable soil, in which the plants were set.

Four cylindrical, cracked lamp-chimneys, filled with sawdust, enabled us to observe the germination of the various kinds of seeds at different stages of development. The boys provided five brackets, and as many vases for flowers, and during the season when wild-flowers were in bloom there was considerable competition among the girls in each of the five classes in securing either the best arranged bouquet or one composed of the rarest flowers. Of course our few pictures formed a part of the decoration, as did also several flowers in pots, and sprays of various trees and grasses, placed in out-of-the-way corners.

In closing, we must say that a great part of our success was due to the active interest taken in the school by parents. Scarcely a week went by without visits to the school from parents and friends. The pupils thus felt encouraged, and realized that the school was their own; that their efforts were appreciated, and were thus stimulated to take a still deeper interest in the school. When parents are willing to hitch up night and morning during the period of bad roads and bring their children to school, we have evidence of that closer relationship between home and school without which it will be difficult for our boys and girls to meet the rapidly changing conditions of the present day. Intelligent farming, progressive methods and increased facilities are rapidly gaining for the farmer a social status equal to any of the learned professions. But if we are to keep in the van of modern advancement parent and teacher must co-operate in order to inspire our boys and girls with self-reliance, the dignity of true manhood and true womanhood, the desire to strive for perfection and to take hold of life with a purpose. We must realize that the future of our country, our prosperity and our institutions depend on the excellence of our schools.

"RUSTICUS."

Caleb Jenkins: His Letter.

Jenkins Corners Mar 10 1903

To the Edditer of the farmers Advocat, dear Sir,—es i haint got mutch to do jes at the presint time i wil set down and rite you a fue lines hoppin you air wel & harty. i gess you be jedgin by the apperence of the advocat whitch looks es peart es a daisey ever time it cums along and i calklate professor Kennedy wus bout rite in statin thet it is a cappel of laps ahead of all the other farmin papers he is acquainted with. But i wunt say no more on this pint es it wood spile you if you got the complante node es big hed, thay was a party ust to live not fur frum the Corners wus took with that diseese bout 2 years ago. He wus a farmer name of J. Wiffeltree & hed quite a tidey litle plase & wus gittin along snug & hapy es i wood spose, but sum distint relashin dide & left him sum munney. it wusent a grate pile but peers to bin jis about enuff to keep him & his famby, he haint got but a wife & 2 childern, sose thay cood git along thout hevvin to work. Wel, nex thing wus thay mus leave the farm and go to reside in toronto. the farm wus outen the questin fer a man of lesher and jinkins Corners wusent a leedin enuf place so thay moved to the sitty, and thay thay hev bin livin sense that time. Mr. Wiffeltree cum up hear on a visit las week & it looks like sitty life dont agree with him. he haint so helthy es he ust to be on the farm ner so brite in the hed in town haint wot it craked up to be and bout the hardist work a man kin do is do nothin. i calklate we will see this unfortnit man back on the farm agin afore long. I suspishin that is jes wot he cum up to see about.



We wus hevvin a debate tuther nite at the store on the subjeck how to keep fokes on the farm and mungst the plans thet wus menshind thay wus one good idee thet i bleeve in and am agoin to help along all i kin. it wus free delivry of leters & noosepapers in the kentry districks, es Mr. Brite the noo methdis preacher sed that wood be bringin the sitty to the farm and make life more worth livin ever shape and way in kentry places. he sed it is did now in the States and works like a charm, and enyhow wy haint the farmers got a rite to sech favers frum the govermint es mutch es sitty fokes. i wus glad to nottis sum artikels on this in the Advocat & i hopp yule go in fer it strong. it will help to spred infermashin and edicashin among the farmin community & that is wot Canady needs speshilly es crouds of new fokes is cumin in frum the States and the ole Kentry to settel in the West. i am tossin up my hat es you mite say bout this incresin of our poplashin speshilly es it is noo blood we air gittin and not our own fokes movin frum the other provinces to the west. We got to take rite hold and make good british Canadians outen



these noo Ameriken settlers & free delivry of leters & so 4th to farmers is one way we kin do it. And speek in bout the west thase no dout to my mind we got to hev more ralerodes. Thay haint no use thet i kin see to rase 60 millins of bushils of wheat up thare if bout one haff of it is left in the farmers hands cus it cant be took to markit fer want of ralerodes. But i want to make a pint jes hear, wen we git the noo ralerodes we mus git em sum way thout givin away the hull kentry to the cumpenys to speklate in. Sum fokes hear in the villege wen we are argyin in the store ses it is a sine of prosperity to see land cumpnys gittin formed and leedin men bein directtors of em, but i cant see ware that cums in. i tole em tother nite thet to my way of lookin at it it wood do the west jes es mutch good to put tole gates up on all the rodes and let sum felers set thare and take in toles. The west cant git along thout land but them cumpnys dont make land, thay oney set on it like the dog in the manger. The ginrel feelin hear at the Corners is agin subsidys to ralerodes & if the govermint haint mitey careful it will hear sumthin drop if it gose in fer sech a pollicy. Bildin ralerodes outen the publick munny & then makin a presint of em to big coperashins along with thousands of acres of land is a skeem we dont stand fer no longer. Let the cumpnys bild em es a biness interprise & the govermint hev nothin to do but see thet thay gin fare rates and good servise, that is the skeem. Yurne fer justis to the farmer,— C. jinkins.



Do Your Neighbor a Favor.

Any reader of the "Farmer's Advocate" may do his neighbor a favor by sending to the office of the "Advocate" the names and post-office address of those of his neighbors who are not subscribers to the paper, asking that a sample copy be sent to each. Then in a week, or so call on them and ask them to subscribe, and do not forget to show them your last Christmas number. I spent a few hours in this way, with good results. GEO. CRAWFORD.

Simcoe Co., Ont.

[Editorial Note.—The publishers of the "Farmer's Advocate" will be pleased to send sample copies as suggested above, without charge. Of course, at this late date, new subscribers cannot expect a copy of the 1902 Christmas number, the supply of which was long since exhausted, but it will give them an idea of good things to come, and the new subscription will date a full year on from the present time, including the Christmas issue of 1903.

By feeding 1,012 bushels frosted wheat to seventy-five pigs two years ago I made \$736.— HUGH DYER, Minnedosa.

In connection with the agricultural college to be built in Manitoba, it is intended to have a department of domestic science, such as will fit the young ladies of the farm to do better work.— HON. A. P. ROBLIN.

At the Ottawa Experimental Farm we have never raised hogs cheaper than when pasturing on rape.—PROF. GRISDALE.

The man who is content, feeling he knows all that can be learned about farming, is ready to learn about something else, and that is "failure."

Chas. Dickens said: "There is nothing so strong or safe in an emergency of life as the simple truth."

Grouchiness seldom gets us what we think we want.



The Nature Study of Insects.

Usually, teachers feel quite at a loss how to approach this subject. Where to begin and what to do are matters that oppress, but in no other subjects should they feel more at their ease. The trouble has been that the field is so wide, the helps so technical, and the previous training so inadequate that it has seemed impossible to bring the subject into any fruitful relation to elementary teaching. Leaving out all anatomy and classification and taking the common forms alive and at work, no study can furnish more fascinating or more valuable lessons.

In all nature-study, the teacher requires an aim—some goal to reach. What should be the purpose here? Information regarding insects is not sufficient. Something higher is needed to give vitality to the work. Has the teacher ever examined into the remarkable interrelation of the several parts of the world of nature? The flowers and the insects, the insects and the birds, the insects and the plants, the plants and the soil, are all bound together in a complex activity, each one influencing the others and affecting the general welfare of man. The human side cannot be left out of nature-study. For elementary study one must select just those things that stand in fundamental associations with life and about which the children can find something worth while to do. Has the teacher ever thought that elementary agriculture grows out of this practical phase of the study? It is possible and desirable to arrange all nature work so that many of the facts and principles of this "oldest of arts and most recent of sciences" may be grasped and an interest aroused which will lead pupils who expect to become farmers to appreciate the problems of the farm and to feel the need of a special study and training for that work. At the same time, those who do not afterward follow this occupation will gain a useful training and will better appreciate the dignity of the farmer and the grade of intelligence needed in his profession.

In thus relating your nature-study to what is practical you not only provide your pupils with a standard of measurements, but you may also train the intellectual faculties, increase the interest of your pupils in their school work, stimulate a real love for nature and cultivate a love and an appreciation of the beautiful.

We may suppose now that you have an aim in view. With what insect shall you begin? Take one that is common, one that can present an interesting life-story, a story easily read. The mosquito will answer the purpose. In your treatment, remember that you are to suggest and to guide, the scholars are to do the seeing and the thinking.

How shall you conduct the work?

(1) Find out what the children already know about this insect. This will give you a foundation to work upon.

(2) Obtain a collection of eggs.

(3) Observation work in connection with the hatching, the wrigglers, and the mosquitoes.

(4) The relation of the insects to water, man, cattle, etc.

(5) How can the mosquito be removed?

This, roughly speaking, is the "plan of campaign." You may have to assist the children in the finding of the eggs. When they have once studied the eggs, they will wish to find them in the swamps. What advice shall you give? Have them place shallow pans of soft water (the more rank the better) on the lee side of the house over nights in the height of the season. In the morning, sooty spots will be seen on the water-surface. Remove these and place in a sealer containing soft water. Bring to the schoolhouse, and place where the light of the sun will not be too strong. Obey nature in this particular. Cover the mouths of the sealers with cheese-cloth, and make your observations. To assist, note the following:

What is the shape of the egg-mass?

How many eggs in each?

What is the color?

Why are the masses arranged like a boat?

How many hours were the eggs in hatching?

From which end did the wrigglers escape?

How did they behave on their escape?

Compare this with the young lamb, the young chicken, etc.

What is the appearance of a wriggler?

Is it easier for him to rise or to sink?

Is it fond of coming to the surface?

Can you find a reason for this?

Do the wrigglers show signs of fear?

Can you find what they live on? To help here, smell the water in the course of a few days after the wrigglers have been at work.

What do the wrigglers do of service to the water? Later, when the pupils have studied this insect in its native haunts, and they will do this if the work at school has been effective, they

will be ready to discuss with profit such a question as: the place of the mosquito in nature.

The question of "remedies" is one adapted to the older pupils. As an experiment, have the pupils add a few drops of coal oil to a bottle containing several wrigglers. Watch what happens. Get the pupils to make the inference. Is it practicable? When should it be applied? Again, obtain the nature of the seasons for the past three or four years. Were all equally favorable to mosquito life? Which was best, and why? Infer another remedy here. Finally, have pupils watch for mosquito enemies, particularly the dragon-flies.

It is unnecessary to mention that the above work may be made the basis of both oral and written composition, and provide valuable training in drawing.

The teacher who has worked out carefully the story the mosquito has to tell will have no difficulty in understanding and will have no aversion in wishing to understand, the round of life in the case of the house fly, the house moth, the potato beetle, the grasshopper, the aphid fly, and the caterpillar.

ALEX. MCINTYRE,

Vice-Principal Winnipeg Normal School.

DAIRY.

Breeding Fine Dairy Cattle.

The breeding of typical and fine dairy cattle is an art of itself, and requires considerable forethought and study to attain the desired results. To be successful, the breeder must set himself an ideal for type and form, and with this combine the highest possible production of milk of rich quality. The type should be true to the breed he has chosen, and the form, that of the milk and beef combination, not coarse, angular or rawboned, neither must it show the nearly perfect squareness and evenness of the purely beef type (for it is impossible to produce the ideal dairy cow from this type), but the form must be pleasing to the eye, yet always show in preponderance those points which belong especially to the dairy cow, among which is a perfectly balanced udder. To obtain this ideal requires more than simply mating cows with a bull. It requires more, also, than just a study of pedigree (for this alone is often misleading), it requires a deep study of the latter in combination with the keen observation of the individuality of the animals coupled, always keeping your ideal before your eyes. The old saying that handsome is which handsome does is only partly true, and he who produces cattle which do handsomely, and at the same time are handsome individually, is a benefactor both to the breed he represents and to his country. It is a deplorable fact that fully 75 per cent. of our dairy cattle are bred without any apparent purpose in mind; in most instances cows are bred to most any kind of a bull, regardless of any breeding or type, while others breed to purely beef-bred sires, simply to get cows in calf and fresh for next season's work, yet many of these calves are raised and in time become members of the dairy herd. Is it any wonder, under such circumstances, that some men want to go out of the dairy business, saying that it is not profitable? What man would succeed in any other enterprise if he conducted it in the same haphazard way? However, under all these adverse conditions, the dairy interest, in combination with the raising of hogs (which so nicely go hand in hand), is one of the most profitable sources of revenue we have from the farm, and is destined to become more and more so, but we could, no doubt, double our real profit by paying closer attention to the business. Canadian dairymen have built up a good reputation for our dairy products, and great strides are still being made to further improve, and, if possible, to lead the world. Hand in hand with this should go the improvement of our dairy cattle of all breeds. We should, and I feel confident can, produce dairy cattle that will have a world-wide reputation, and will be in demand in many countries, for in this grand and great country of ours we have all the necessary requirements, abundance and variety of feed, a healthy, bracing and invigorating climate, and men of nerve and brain. So let us lay our hands to the wheel and set our brains to work and produce dairy cattle that will lead and be the envy of all countries.

Oxford Co., Ont.

H. BOLLERT.

After careful tests and records, extending over five years, the Nebraska Experiment Station concludes that on an average a cow reaches her maximum milk production during the second and third weeks of lactation, but her highest production of butter-fat is made at an earlier period than her greatest milk flow.

Butter from Gathered Cream.

It would be of great profit and advantage if each gathered-cream creamery had its own instructor to go around among the patrons to give instruction and suggest ways and means to handle the cream properly, so that it would be kept in a more uniformly good condition.

It would not be necessary for the instructor to visit all the patrons, only those whose cream is not received in good condition by the cream collectors. But it would be of advantage to the instructor to visit all the patrons once at least to see how each one provides efficient labor-saving ways and means by which they can, under unfavorable circumstances, keep their cream in fairly good condition, and thus be better posted how to help some who have poor ways of doing.

COOL THE CREAM AND MAKE BETTER BUTTER.

A little extra care to the cream will add very much to the quality and value of the butter made in the gathered-cream creameries, and it is absolutely necessary that some farmers store ice and make preparation so that the cream can be properly cooled and kept in good condition in warm weather. Farmers who have not a plentiful supply of well or spring water that can be conveniently used, should store some ice so that the cream can be kept in better condition for any purpose required. Good butter cannot be made unless the cream can be kept in a clean place and its temperature controlled. If the cream is not cooled and kept cool it will sour too fast, over-ripen and destroy the sweet flavor of the butter, as well as its good keeping quality.

WAYS TO HANDLE THE CREAM.

Farmers who have a good, clean cellar can handle their cream by putting it in small shallow pails or pans, set on a cement or ground floor, where it will cool quickly and keep in fairly good condition. Cream should not be put in a mouldy, bad-ventilated cellar, where the air is impure. After the cream is cooled in the small vessels, it may be mixed in a large vessel. It should be covered and stirred regularly twice a day each time fresh cream is added. Some progressive farmers have told me they have kept their cream in this way sweet and in good condition for the creamery. Better not leave the windows wide open to allow the hot winds to blow through and warm up the cellar, especially on the windy side; just a little open to ventilate and let in fresh air. Farmers who water their stock at the well can keep their cream with little labor by placing a water tank or barrel beside the pump, so that the water will cool the cream while it is passing through to the watering trough.

At some farms where the stock is not watered at the well, and where there are poor, mouldy cellars and no ice, a hole dug in the ground 12 to 15 feet from the well, about three or four feet deep, into which some small stones are put about 1½ feet in depth, will prove to be a good place to set in a barrel, into which the cream vessels can be set and the water pumped around to keep the cream sweet. There should be a hole in the bottom of the barrel to let the water out when it gets warm and has to be changed. A plug long enough to reach to the top of the barrel should be used to close the hole in the bottom. There might be a hole in the side of the barrel, just a little below the top of the cream cans, to prevent over-filling the barrel and letting the water in the cream. This overflow should be fixed so that the water can escape down the outsides of the barrel to the bottom, and not flow out on the top of the ground. The barrel should be sunk so the water and cream will be lower than the top of the ground. A small house should always be built of rough lumber over the water tanks when set outside and away from any other buildings, to keep the sun and the hot winds from warming the water.

Those having a good cold spring near the barn or house have the advantage of keeping the cream in fine condition with very little labor. These are some ways that cream may be kept in good condition without the use of ice, but it will require care and attention, as the cream will sour too fast if the water is allowed to get warm and not changed.

ICE.

If ice be used it will not be necessary to change the water often, so long as the water is clean. The conditions may be such about some homes that it would be necessary to store some ice, especially where there is not help and time to change the water often enough, and where the well or spring water is not cold enough, and where the well water is scarce. A little time spent to fix a proper place to keep the cream would be of permanent use and repay for the trouble, besides giving increased satisfaction in

being able to keep the cream in a condition that will give satisfaction, please the buttermaker, and improve the good reputation of the creamery.

CREAM SEPARATORS.

Those having cream separators should pay particular attention to the immediate cooling of the cream after it is separated. Although the cream is cleansed from all impurities, it is warm and will sour very fast, the same as the milk would do if not cooled down. Set it in water as soon as possible. Warm and cold cream should not be mixed together. It is while the cream is warm that lactic acid germs will multiply and start the cream to sour quickly. The cream vessels should be washed and scalded every time after they are emptied, as there will be enough ripened cream sticking to the sides to start the sweet cream to sour more quickly if not cleaned. Every patron should have a thermometer to guide him in the care of milk and cream. The cream should be cooled below 58° F., and butter to 50° F. The fresh cold cream added every twelve hours will help to keep the older cream sweet. Better butter should be made and can be made and less complaints will be made about the butter made in the gathered-cream creameries if the patrons would follow out the suggestions here given.

COLLECTING THE CREAM.

The patrons' cream should be collected in large tanks, round, oval or square, wood outside and lined inside with tin, with dead-air space between. Each tank should be large enough to gather all the cream on one route. Some creameries have an ice chamber in the center of the tank. One horse will gather the cream on two ten-mile routes, from about twenty-five patrons on each route, in mixed farming districts. It has been suggested that each patron's cream should be delivered at the creamery in separate cans, so that the cream of bad flavor could be detected and rejected. The place to reject cream is at the patron's home, and not at the creamery, as the patron would suffer great loss to have his cream hauled through the country on a warm day and have it returned the next in a fermented condition, as it would be wholly unfit to make marketable butter. The average patron sends only one to ten gallons of cream, and the volume of cream in each can would be so small that it would be overheated and overripe in warm weather when delivered at the creamery. This system will work where patrons send their cream in separate cans a long distance by train, but it would not work satisfactorily in any other way, except where the patrons have large herds of cows and live near the factory. But the gathered-cream creamery is usually established where the patrons keep few cows and live far apart. In such districts one tank will give much better results. When the large tank is used a tap is opened on arrival at the creamery, and the cream runs into a vat in the creamery without loss of time or labor. But with small cans, the cream-collector and buttermaker would have increased labor washing them, lose much more time, besides wasting more cream.

The high temperature of the cream delivered in this way would increase the labor and expense in the creamery cooling the cream, and the chances are that it would not be cooled quick enough to prevent it from overripening and to a low enough churning temperature to make butter of firm texture, especially in the busy season, and in creameries where 1,000 to 3,000 pounds of butter are made daily, such as in the gathered-cream creameries of Bruce and Grey counties, Ont., the one tank is cheaper, more economical in the saving of time and labor handling the cream, and will give better protection to the cream in transit, which is the most important thing in butter-making. There will not be so much trouble with the flavor of the butter if the patrons go to the trouble to fix ways to keep the cream sweet.

CLEANLINESS.

Patrons should be very careful not to spill milk about places where their cream separators and cream are kept, as the place will soon become filthy and the air foul if there is any carelessness in this way. Cream separators should be kept clean inside and outside, and should be set in a clean place where the air is pure, especially those kinds made with enamelled casings into which the cream and milk is discharged. The bowl, tinware and all parts touching the cream and milk should be removed to the house to be cleaned. When the cream separator is set in the barn all these parts should be kept away, only while the separating is being done. Pour hot water into a clean tin pail that has been in the stable or near a silo all day and notice the odor that will pass off, and be convinced that the stable is not a fit place to keep such parts of a cream separator or milk utensils of any kind. Hoping that these suggestions will lead many to improve their methods of taking care of the cream, and assist the buttermakers to make a finer quality of butter, that will command higher prices and bring increased profits to the patrons.

Wellington Co., Ont.

T. C. ROGERS.

Ottawa Cheese Board Farmers' Meeting.

The Ottawa Cheese Board has just completed a series of ten meetings in Carleton County. These have been conducted in the interests of the dairying industry of the county, and the enthusiasm which has been displayed at each and every meeting augurs well for a successful season in 1908. Mr. N. G. Somerville, of Brockville, at-



FUTSHAM RIVAL II.

Sussex steer. Weight at 1 year and 10 months, 1,728 pounds. Largest daily gain of any animal in Smithfield Show, 1902, viz: 2.33 pounds. Winner of 5 firsts, 3 cups, only times shown. (See Gossip, page 296.)

BRED AND EXHIBITED BY MR. GERALD WARDE, WEST FARLIGH, KENT.

tended each of the meetings, and dealt with the care of milk from the time of production until it reached the cheese or butter factory. In speaking of the benefits to be derived from ripening cheese at a temperature below 60 degrees, he pointed out that the saving in shrinkage in a cheese of eighty pounds weight was from a pound and a half to three pounds over the ordinary method of curing at an uncontrolled temperature. One factory in the neighborhood of Brockville, by curing its cheese at a low temperature during the last summer, had made a saving of \$150.00, due to saving in shrinkage. Mr. A. W. Woodard, of Montreal, gave very practical advice on cold storage, and described in detail homely methods of ice houses and the storing and handling of the summer's supply of ice. Mr. John Fixter, of the Experimental Farm, was present at several of the meetings, and gave addresses on the "Care of bees" and "The growing of clover and corn." The secretary of the Ottawa Cheese Board at-



COUNTRY BLACKSMITH SHOP AND POST OFFICE COMBINED.
Middlesex County, Ont.

tended each meeting, and placed before the dairymen the advantages to be derived by selling cheese by public auction on a board, over the method of private sale. The action of the Ottawa Board is a very commendable one, and could be followed with advantage by Western Ontario boards. Almost any County Council would surely supply the necessary funds when the prospects for doubling the investment are so secure.

with milking, will have to be operated upon by a veterinarian. It is possible this weakness may disappear with age, but as there are three teats now affected, I do not think it would be wise to breed her again.

The labor problem is, undoubtedly, one of the most serious that the farmers of this country have to deal with.—HON. THOS. GREENWAY.

Type in Dairy Cows.

To the Editor "Farmer's Advocate":

I would like to heartily endorse the sentiments of the article in your March 2nd issue, page 207, "Form as an indication of dairy propensities." We hear the trash argument that type has not anything to do with performance coming from the beef breeders, and very seldom from a dairyman.

My experience is that type is all we have to go by, and I firmly believe that I can take Jerseys and in twenty-five years' selection for beef points, breed them to the perfect beef form of the Durham, and in the same time can breed the Durham to the perfect dairy type of the Jersey, simply by selection and nicking.

If we cannot judge from type, we have nothing to go by. I have had fifteen years' experience in dairying, and I find that every time we try to couple the beef qualities with the dairy we lose in the production, and when the beef men breed their cattle to dairy production they lose their perfect beef type.

I am also confident that a man is just as big a fool to waste good feed on a dairy animal to make beef as he is to waste good feed on a beef animal to make dairy products, and the only person that needs a general purpose cow is a general purpose man.

Elgin Co., Ont.

EDGAR SILCOX.

Buying Milk Cans.

"Dairyman" writes: "As the season progresses, arrangements for caring for the summer's milk supply are being made. In this connection we are reminded of a milk can that got into pretty general use in many parts of the country. Outwardly it appeared like any other serviceable milk can, but the inside exposed one great defect, the bottom came toward you when you looked into the can. The fact of the bottom coming toward one might be a harmless enough thing in itself, but it is always associated with a deep groove around the edge at the junction of the bottom and the sides, where dirt and germs meet on one common ground, and with one common aim, namely, to contaminate the milk as soon as it is strained into the can. Therefore, if any of our readers find it necessary to buy a new can, be sure that the bottom draws away from you when you take the lid off. Otherwise, you shall have several 'quiet interviews' with the gentleman who is trying to make first-class cheese at your factory, and who employs the services of a factory instructor to assist him in the commendable work."

Bloody Milk.

Heifer calved in June last, and is still milking. During the summer one of her front teats would occasionally give clotted and bloody milk. There is now a small lump in the teat, and two of her other teats are similarly affected. Sometimes the milk is all right, and sometimes slightly bloody.

R. J. II.

Ans.—Bloody milk is due to rupture of a small blood vessel in the quarter. This may be the result of an accident, or inflammation of the gland. When it occurs repeatedly, without apparent cause, it is due to a congenital weakness of the vessels, and its recurrence cannot be avoided. Treatment consists in bathing with cold water and giving 14 oz. tincture of iron in a pint of cold water, three times daily, until cured. There is no danger in using the milk, but most people object to milk that is not pure. The lump is a little tumor, and if it interferes

GARDEN AND ORCHARD.

The Apple Orchard.

BY H. S. PEART.

When trees are received from the nursery they should be heeled in unless immediately planted, completely covered with soil, or placed in water until they revive.

The cultivation previous to planting should be thorough. A hoed crop the previous year makes a good foundation, but in any case the ground should be in a high state of cultivation and fertility. The apple will do well on almost any kind of soil, but nothing is quite as good as a friable clay loam. Stiff, clayey, sandy or gravelly soils will give paying results from a well-cared-for orchard. If the land is not naturally well drained, underdraining should be thoroughly done. No tree can grow and do its best on wet, cold land.

Every orchard should be set with some regularity. Some recommend planting on the square; that is, the trees are planted so as to be in line in all directions. Others prefer the hexagonal method; this enables one to set about fifteen per cent. more trees on an acre of land, a great item where land is valuable. In the latter method of planting, the trees in the second row are set alternating with those in the first, six trees forming a hexagon and enclosing a seventh in the center. To ascertain the correct position for the first tree in the second row, and, consequently, the distance apart for all the rows that way in the orchard, take two strings the same length as the distance apart which the trees are to be set, fasten one end of one to the first tree in the first row and the other string to the second tree in the first row. Next stretch out the strings, and the place where they meet is the position for the first tree in the second row.

[We have never seen an orchard set on the hexagonal method, and fail to see how by this plan any more trees can be set on a given area, although we believe the land will be more uniformly utilized, and consequently the sunlight more evenly distributed throughout the tree-tops.—Editor.]

Before any trees are planted the ground should be staked out, in order that the trees may all be placed correctly. It is better if a small stake is set where each tree is to stand.

To plant correctly and quickly, use a board four feet long, with a notch cut in the center and a hole bored near each end. Place the notch against the small stake and put a small pin in each of the end holes; remove the board and dig the hole where the first stake was placed. Replace the board and plant the tree, keeping it in the notch of the board; if the work has been done carefully the tree should occupy the exact position of the previous stake.

When planting, one man may go ahead and dig the holes, and another follow and set the trees. The holes should be dug about two feet deep, and a little surface soil placed in the bottom. Plant the tree four or five inches deeper than it stood in the nursery, and slightly inclined towards the prevailing winds. The roots must not be cramped, as every bend causes a stoppage in the circulation of sap upwards for the manufacture of plant food.

Only a few trees should be removed from the place where they are heeled in at a time, and the roots should be kept in thin mud or water to prevent them from drying out. Remove all broken or injured roots. Head back the tree to from three to five strong branches, and cut these off to about six to ten inches, so that the buds may be forced by the circulation of plant food. It is always well to leave the last bud pointing in the direction in which we wish the branch to grow, as the last bud usually makes the strongest growth.

With reference to a site for an orchard, a northern exposure is generally the best adapted, as it is not so likely to be injured by early fall or late spring frosts. In regions where there are many high winds and no natural protection for the orchard, a wind-break should be planted.

The best wind-break which I have ever seen was composed of a double row of Norway spruce, planted eight feet apart and alternate in the rows. A double row of Norway spruce and hard maple, planted alternately, makes a very serviceable wind-break, and forms a handsome background for the orchard.

In order that young trees may grow rapidly they should be thoroughly cultivated until the middle of summer, when cultivation should cease in order to allow the wood to harden for winter. In a young orchard, the regular rotation of crops is the best method to follow, but a strip should be left on each side of the row to permit cultivation. As the trees grow and require the plant food, a wider space should be left.

As apple trees are slow to gain their full size, it is often advisable to interplant with short-lived trees or bushes, which come into bearing early and give a good return from the land. As the apple trees grow, these intercrops must be re-

moved, as a robbed tree cannot give the best results. The greatest evil of interplanting is the tendency for some growers to allow the secondary plantation to remain too long and so injure the apple trees.

When an orchard comes into full bearing all cropping must cease and the orchard receive thorough cultivation until about the middle of summer, when some leguminous cover crop may be sown. Such a crop tends to prevent capillary evaporation from drying the ground, and also furnishes a large quantity of vegetable matter to plow down the following spring.

Where a large area is under orchard, the inability to obtain sufficient farmyard manure, the best of all fertilizers, causes the shrewd orchardist to tax his brain to conceive of some suitable substitute. When a leguminous crop is plowed down there is considerable vegetable matter left in the soil, and the bacteria on the roots furnish a large amount of nitrogen.

Other plant foods must be returned to the soil. For a supply of potash and phosphoric acid, unleached hardwood ashes are the best we can obtain. Many so-called commercial fertilizers are very useful, but their correct composition must be ascertained before using.

In the spring, after the ground has become somewhat dry on the surface, the orchard should be plowed rather shallowly. Great care must be exercised, as deep plowing will cut off many feeding roots. After plowing, keep the ground worked on top with harrows or cultivators, at least once a week. In rainy weather, if the ground could be worked soon after each shower so much the better.

About the middle of July is the best time to cease cultivation in order to have the wood properly hardened for winter.

When interplanting with small fruits is practiced, it is much more difficult to keep up the fertility than in cases of general rotation of crops, hence the cultivation and fertilization must be much more thorough.

(To be continued.)

Pear Scab.

I have a pear tree 25 or 30 years old; blossoms profusely, but bears very little. The leaves and fruit turn black and mouldy. Fruit cracks. Could you give a remedy in your valuable paper? Ontario Co. W. C.

Ans.—From the above description, I think it is apparent that your pear tree is affected with pear scab, a fungous disease known technically as *Fusicladium pirinum*. This disease affects to a greater or less extent most of the varieties commonly grown in this Province. It is particularly bad on the Flemish Beauty.

The fungus is supposed to live over winter in the young branches, and in the diseased fruit and leaves. In the spring it first appears on the leaves as roundish dark spots, which finally emerge into large black blotches. On the fruit it produces at first merely brownish markings, due to a deadening of the tissues. These become darker and increase in size until, if badly affected, the entire pear becomes covered and eventually cracks. This cracking usually accompanies the scab, although it may not be directly caused by the disease; as it is claimed to be, in some varieties, the result of certain irritable external influences.

Since it is believed that this fungus winters in the young branches and diseased fruit, it is quite evident that the early establishment of the disease should be prevented; for once having secured a foothold, the spores are rapidly produced and disseminated, especially in cool, moist seasons. The best means of prevention is spraying with Bordeaux mixture. The first spraying should be made soon after the leaf buds expand; the second, just before the blossoms open; the third, immediately after the blossoms fall; and subsequent sprayings at intervals of two weeks.

O.A.C., Guelph. A. B. CUTTING.

A Big Onion Crop.

I saw an article in the "Farmer's Advocate," of November 15th, regarding the profit to be obtained from growing onions, and which was fully illustrated in your valuable paper, and grown by Mr. G. P. Collyer, of Middlesex Co., Ont. Now I would like to state my profit on onion growing last season. My soil is of a sandy nature, or dark loam, and in high state of cultivation. I manure every year, with all the well-rotted manure I can plow under in the fall. In the spring of 1902 I drilled in a little less than four pounds of onion seed, which I purchased of J. A. Simmers, of Toronto, and in November I shipped over 600 bushels of onions from three-quarters of an acre. I have grown onions on the same ground for a number of years, and I find they do better every year. Brant Co., Ont. C. W. L.

Fertilizing Orchards.

A correspondent writes to know whether we would advise the use of commercial fertilizer on his orchard. The soil is sandy, and it is almost impossible to get barnyard manure. There is no doubt that the orchard needs barnyard manure, which should be applied as frequently and liberally as possible, but as it can scarcely be obtained, other alternatives must be resorted to. For this purpose we have several commodities. As the soil is sandy, we may safely say it needs all the fertilizing constituents, and as the owner has a business in town, we would suggest that he secure all the wood ashes possible to supply the potash to the trees. For nitrogen, and to supply humus, green crops may be grown. In the spring, if peas, oats and vetches are sown and plowed down, followed by a crop of buckwheat or crimson clover, and after that winter rye to retain plant food during fall and spring, the land will soon be plentifully supplied with nitrogen and humus. Phosphoric acid is still lacking, and in all probability will have to be bought, although considerable of it will be furnished by the ashes and green crops. Probably the best form in which to buy phosphoric acid is in the form of superphosphate of lime. The price per pound will depend upon the per cent. soluble phosphoric acid, and also upon local conditions. Sow the superphosphate with the spring crop, or a week or two later, then again with the summer crop. The amount to apply will also depend upon the per cent. of soluble phosphoric acid, and in buying, a certificate stating the percentage should be obtained. When this factor is determined, enough of the superphosphate should be added to furnish about 25 pounds of soluble phosphoric acid per acre to each crop. About the trees it may be sown a little thicker.

Another good method of obtaining phosphoric acid is to collect bones and stratify them in a large wooden trough or tank with wood ashes. When the bones become soft enough to mix with the ashes (which will require about six months), the whole mass can be applied to the soil. This is an excellent application for gardens or lawns, and is a most common-sense method of utilizing bones and ashes.

With such treatment, and by applying a liberal coating of manure about the foot of the trees, an orchard on the very poorest of soils should in a short time be coaxed into growth and bearing.

Canada Hardwood Ashes.

In the February issue of *Country Life in America*, published at Harrisburgh, Pa., is a large half-page illustration of a most beautiful private lawn and park. The object of the picture is to show "the benefits of Canada's hardwood ashes on our lawns." And we think there is just the slightest note of commiseration in the title of the illustration. Perhaps we feel too keenly on the subject, but why should our good hardwood ashes be taken to the States to be used as high-grade fertilizer, making their lawns and parks the most splendid in the world; while we, to accomplish the same end, spend large sums of money on their commercial fertilizers? Surely there is a lesson for us in that beautiful illustration. Our lawns and orchards need fertilizer to maintain their growth. Barnyard manure is good when it can be employed, but in many cases there are objections to the use of manure on lawns and about some trees. By sprinkling ashes over the lawn, and then giving it a watering with dilute liquid manure, the grass is given a new lease of life and increases its beauty and utility on the farm. The ashes may also be applied to any field crop with good results, and every garden is benefited by a sprinkling of them.

It is not the price which we get for our stock that means a profit, but rather the difference between the cost and the price obtained.—ANDREW GRAHAM, Pomeroy.

We have made a pound of pork from every three pounds of a mixture of shorts and chopped grain that we fed.—W. M. CHAMPION, Reburn.

POULTRY.

Wryneck and Roup.

I am glad to say that the wrynecked cockerel I wrote to you about seems to be getting better, so Mr. Graham won't have the pleasure of inspecting his carcass this time. After I wrote to you I saw an inquiry about a wrynecked hen, and the advice given was to starve the bird for six to twelve hours and then give two tablets of Santonin 2X, repeated every hour till six are given, and then give a tablespoonful of sweet oil, or feed the bird crushed garlic bulb. I gave the santonin and fed it onions. The bird's neck was like this S, with the head twisted under the neck; it is now nearly well; the head is still slightly to one side. It is said to be the result either of digestion trouble or worms, and is a brain or nervous disease.

I have just cured another cockerel of diphtheria or roup, am not quite sure which. It was dumpish in the morning, and would not eat, and its comb had been frozen, though it had not been very cold at night. I took it in and went to feed it, when I found its mouth was full of bad smelling mucus, and its tongue seemed glued down. I washed its mouth and throat, and sprayed with a mixture of coal oil, Graham's liniment and listerine. I think that checked the disease to some extent, as its head did not swell nor did it have any discharge from its eyes or nostrils. I was not able to get powdered calcium sulphide, so used peroxide of hydrogen, recommended for roup, but which is used by doctors in diphtheria. This was mixed with water, one to four, and used in a small oil can. I also used sulphur. I gave it once a day, a pill about one-half inch in diameter, of lard two parts, vinegar, mustard, and Cayenne pepper, each one part, with enough flour to make it thick. The bird is now doing well; it is very thin, and it will be a month at least before it is fit for breeding, but as \$10 would not buy me as good a one, I am well content to have saved it at all. Prescott Co. C. W. BEAVEN.

Raising Turkeys.

The first essential in raising turkeys is to have good breeding stock. In order to produce good table birds, small boned, plump individuals should be used, and old birds when not fat or otherwise incapacitated are better breeders than the younger females. A large range is always required for exercising. The hen turkeys usually begin laying in early spring, and to more easily secure the eggs, nests are arranged in secluded places about the yards. If the hens are inclined to stray away to lay, they should be kept up until they have used a new nest a few times; they then will not desert it. Generally speaking, turkeys become broody after having laid about eight to twelve eggs, and, if possible, they should not be allowed to sit until they have laid about twenty.

The eggs are most commonly hatched by natural incubation, and the best mothers are the turkey hens themselves. They are better protectors, better rangers, do not wean the young so early, and are kinder to their young than are chicken hen mothers. A turkey hen will cover from fifteen to twenty eggs, and requires twenty-eight days to hatch them. When the young hatch they should be left alone until the old turkey brings them off the nest. When possible a clean coop with an enclosed pen should be arranged near the nest to harbor the youngsters for the first week or two. If this is not practicable, they should be housed in a clean, grassy plot. They must be kept clean and dry. Running in the cold, wet grass in the mornings is fatal to young turkeys. They will not require any food during the first twenty-four or thirty-six hours. Green food must be liberally fed. Other foods for the young are stale bread crumbs, hard boiled eggs and curded milk, for the first week or ten days;

after this, cracked grain, table scraps, mill feeds, etc. Always give grit. When the poults (growing turkeys) begin to develop red comb and wattles, they are then about able to care for themselves, and will need nothing more than a feed of grain at night to induce them to come home, and the ordinary care that all stock is given in wet weather.



FOXHOUND PUPPIES. Owned by R. H. Roadhead, "Bow Hill," Calgary.

An Egg Record.

A lot of poultrymen are doing a good deal of talking about how many eggs their hens lay in one year, through your valuable paper, which I like very much myself. It is, I think, one of the greatest papers of the world, not only for the farmer, but everybody. But let me tell you what 38 pure-bred Plymouth Rock hens have done for me: During the month of January, 1902, my 38 hens laid 501 eggs; in February, 611 eggs; March, 844; April, 900; May, 839; June, 827; July, 709; August, 676; September, 611; October, 580; November, 301; December, 200. This makes a total of 7,599 eggs, or almost an average of 200 eggs per hen for the year. Now, if there is any man with Leghorn hens, or any other breed, that can beat my hens I would like to hear from him. T. J. ROBINSON. Durham Co., Ont.



HIGH-CLASS PEKIN DUCKS, INCUBATOR HATCHED.

APIARY.

Do we Need a Honey Exchange?

BY MORLEY PETTIT.

So many good ideas have been advanced of late with reference to co-operation and organization of honey-producers, that one is at a loss to know just what to say on the subject. The time seems to be ripe to do something towards the better marketing of our product, and it will not be out of order to consider carefully the conditions with which we have to deal.

In the first place, while it is growing rapidly, the industry is still in its infancy, and, although following the tendency of the age toward specialization, it is by many conducted as a side issue; consequently, the bees and honey do not receive their proper share of attention. If the six or eight hives happen to produce more than enough for family use, the balance is apt to be looked upon as so much clear gain, and turned over to the grocer at his own price. The latter, having bought at a low figure, can accommodate his customers by selling cheap. In other words, the small producer thoughtlessly sets the retail price low at the beginning of the season. He does not lose much on a few hundred pounds, but the large producer, who must to a certain extent follow his lead, loses considerably in his thousands and tons.

How is the producer to know how or where to sell to the best advantage? He may have a large average yield, and conclude that honey is very plentiful, while, perhaps, a few miles away there is little or none. This is often the case. He may have heard that Toronto, Winnipeg or some other place is a good market for his surplus. Others have heard the same thing, consequently certain centers are crowded with honey, while outlying points, perhaps nearer the producer, are experiencing a shortage. How is this to be avoided? These and other similar problems can be solved by the formation of a properly organized and properly conducted exchange, embodying the co-operation of the thousand and one honey producers throughout the land.

WHAT A HONEY EXCHANGE COULD DO.

A well-organized and properly-conducted honey exchange could collect and distribute information for the benefit of its members, the honey producers. Information could be collected from the members, and a monthly or fortnightly bulletin published for their especial benefit, showing the number of hives and condition of bees, also the amount of both new and old honey in sight in all parts of Ontario and adjoining Provinces at that date, of the current and two preceding years. These reports should also show how much honey has been consumed in each section of the country in former years, and whether the supply this year meets the demand. If a shortage exist, just enough and not too much can be shipped in from the nearest place having a surplus. In case of surplus, perhaps by judicious advertising, the demand can be increased to meet the supply. In any case no overcrowding of the market should be allowed. Better to export the surplus at a much lower figure and distribute the small loss over the members of the exchange, in proportion

to their honey crop, than allow it to remain and demoralize the whole market.

A matter which is at present sadly neglected is the advertising of honey. The very heavens resound with the names of food fads and medicines, while the most pleasant and nutritious of natural sweets is comparatively unknown in our Canadian homes. The reason is not far to seek. "Honey is honey," and under existing conditions if Smith advertised he would be increasing the sale of Brown's honey almost as much as his own. The only way out is for Smith, Brown, et al, to form a honey exchange and advertise the honey of the exchange. They would then agree upon a remunerative price, which would not become exorbitant, by the way, on account of the direct competition of fruit, syrups, and foreign honey. They would advertise extensively until "honey" would become a household word, learned along with "papa" and "mamma" by the lisping child.

Another matter which can only be mentioned here, is that of proper grading of honey and putting it up in the best shape for market. The agents of the exchange could see that the honey of members is properly graded and packed, and each package should be sealed with the seal of the exchange, not to be opened again except by the consumer. This seal would come to be sought after by buyers.

The thoughtful reader will be able to work out and add to these few suggestions until he sees the manifold advantages of a well-organized and properly-conducted honey exchange.

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.

DISEASED THROAT.

I have a cow that has a disease of the throat. She has a lump a little larger than a good-sized egg, not very hard, but she has considerable difficulty in getting her breath; she is running matter freely at the nose, and the matter clogs in her mouth and chokes her so she is coughing a good deal. Eats and drinks fairly well; she has had the disease for nearly three months. Is the trouble tuberculosis? The lump is between her jaws, right below the windpipe.

Roseland, Man.

SUBSCRIBER.

Ans.—The trouble is probably due to the lodgment of some foreign body in the soft tissues connected with the entrance of the windpipe or gullet (larynx or pharynx). Would advise you to examine, very carefully, the parts mentioned, which cannot be properly done without the aid of a speculum, an instrument to keep the mouth open, and if any foreign substance is discovered, it, as a matter of course, should be removed, which would likely be all the treatment necessary. The lump below should be freely opened with a knife. The symptoms you have mentioned would not necessarily indicate tuberculosis. You might, however, have the animal tested with tuberculin.

LUMP JAW.

Two cows had lumps between their jaw bones. When about the size of goose eggs I had a veterinarian remove them. He pronounced them cases of lump jaw. He gave me medicine to drench with, and now, three weeks after treatment ended, the cows have a cough. Was it lump jaw; is it contagious, and does a cough attend it?

Essex Co., Ont.

J. W.

Ans.—There is no doubt the cases were lump jaw, but the bones were not affected. It is not easily contagious, but a healthy animal, eating the discharge from a diseased one, might contract the disease. A cough is not a symptom, and the coughs mentioned have no connection with the disease. If the coughs continue, you had better have your veterinarian test with tuberculin.

INDIGESTION IN LAMB.

Lamb holds hay in its mouth most of the time. It will eat grain and roots, but is not thriving. It does not chew its cud.

Durham Co., Ont.

R. E. O.

Ans.—The lamb has indigestion. Purge with six ounces Epsom salts, and feed lightly for a few days. Give half dram each of gentian and nux vomica, twice daily.

MISCELLANEOUS.

1. Mare has scabs the size of pumpkin seeds in her ears. When trotting she whistles. When standing in the stable she kicks the side of the stall, and when tied outside she pulls back and breaks the halter. She acquired these habits within the last month. Are they due to worms?

2. Colt weaned late last fall is not doing well; his hair is dry and thin. I feed him two quarts crushed oats and one of bran, but he will not eat it all.

3. What will rid young pigs of worms?

4. Last spring my pigs, about three weeks old, took diarrhoea, which lasted three of four days.

5. Heifer has short teat next to one of her front ones.

D. M.

Kent Co.

Ans.—1. Dress the scabs three times daily with carbolic acid, one part; sweet oil, twenty parts. Nothing can be done for a whistler. Put her in a box stall until she forgets the habit of kicking, and tie her with a strong rope halter that she cannot break when outside. These vices are not due to worms, but to carelessness in handling, and they are hard to cure.

2. Give him a laxative of about eight ounces linseed oil; scald his chop, and give him only what he will eat. Feed often and a little at a time. Give fifteen grs. each, sulphate of iron and gentian, twice daily.

3. Give two to six drs. turpentine, in two to six ounces raw linseed oil, according to size.

4. This was due to something the pigs or sows ate.

5. A veterinarian can remove the teat, if it must be removed. It is an operation an amateur should not attempt.

LAME HORSES.

1. Horse went lame in his shoulder early last fall. I applied liniment, and followed by blisters of different kinds. He got nearly better, and I drew rails with him a few days ago, and he went as lame as ever before night.

2. Another horse sprained the tendons of fore leg about the same time. I bathed, bandaged, and rubbed with liniment, and followed by blistering. He is still lame, and the tendons hard and swollen.

A. B. C.

Middlesex Co., Ont.

Ans.—These horses require the same treatment, but it will, in all probability, take some months to affect a cure. Take biniodide of mercury and cantharides, of each two drams, vaseline, two ounces; mix. Clip the hair off the parts and rub the blister well in. Tie so that he cannot bite the parts. In 24 hours rub well again with the blister, and in 24 hours longer wash off. Let his head down now, and apply sweet oil every day until the scale comes off, then tie up again and blister as at first. Give rest, and after this blister monthly until cured.

SORE BACK AND WITHERS.

One of my horses has a sore back where the saddle rests. It was sore last summer, but worse now. It raises in little lumps and gets raw. Another is somewhat the same, but does not get raw.

W. H. W.

York Co., Ont.

Ans.—The harness must be fixed so that there will be no pressure on the affected parts. Dress the raw parts with butter of antimony, applied with a leather once daily for four dressings. Bathe well with cold water three times daily, rub dry and apply the following lotion: Sulphate of zinc and acetate of lead, of each one ounce; water, one pint. Simply bathe and use the lotion on the one that has no raw spots.

BURSAL ENLARGEMENTS.

Four-year-old colt has puffy lumps on the outside of his hocks; one appeared at two years and the other at three. He is not lame.

Dufferin Co., Ont.

A. J. S.

Ans.—These are bursal enlargements. Keep him quiet in a box stall. Blister with two drs. each, biniodide of mercury and cantharides, mixed with two ounces vaseline. Clip the hair off and rub blister well in. Tie so that he cannot bite the parts. In 24 hours rub well again with the blister, and in 24 hours longer wash off and apply vaseline. Let him loose in the stall now and apply vaseline daily until the scale comes off. Blister every month until cured.

INDIGESTION.

Cow calved last week; before calving she had been getting silage and two quarts oat and wheat chop. The meal was increased to twice the amount in two days after calving; she became sick, appetite impaired, and secretion of milk reduced. I am now feeding pulped mangels, two quarts chop, and clover hay.

SUBSCRIBER.

Ans.—The amount of chop was increased so suddenly that it caused indigestion, and, consequently, loss of appetite and decrease in secretion of milk. She should be purged with 1½ pounds Epsom salts, and fed lightly. The quantity of food should be gradually increased.

AGALACTIA IN SOW.

Sow farrowed in February, but had no milk. I tried to raise the litter on cow's milk, but they all died. The sow was in good condition and fed very lightly for four days before farrowing, and not fed at all for 36 hours after. She appeared sick in 24 hours after farrowing, and I purged her with oil and Epsom salts, and she got all right, except for the absence of milk. She had the same trouble last litter, and I thought it was milk fever from feeding soon after farrowing. She has bred successfully for several years.

Wentworth Co., Ont.

C. A. G.

Ans.—Agalactia, or an absence of milk, occasionally occurs in all classes of animals without apparent cause. I do not consider it good practice to withhold food for 36 hours after farrowing. The want of nourishment was probably the cause of the sickness in your sow. The starving or fasting would certainly tend to check the secretion of milk, and this is exactly what you should have encouraged. In cases of agalactia, the female should be fed liberally on soft food to encourage the secretion of milk. In some cases liberal feeding will correct the fault, and in others the mammary glands remain inactive. I would not breed the sow again; young pigs can be raised on cow's milk; it should be diluted with one-third of its own bulk of water, a little sugar added, and given often and a little at a time, at a temperature of about 100 degrees.

HEIFER WITH A COUGH—SWOLLEN TEAT.

1. Heifer had a dry cough all winter, now she wheezes loudly and breathes short and quick. The least exertion affects her breathing very much. Does it require a professional to test with tuberculin?

2. Heifer just calved. Before calving one of her teats swelled to about twice its normal size. She is hard to milk, especially the large teat.

Carleton Co., Ont.

A. E.

Ans.—1. The symptoms indicate tuberculosis. If a person has the necessary instruments and experience, it is not necessary that he be a veterinarian to test with tuberculin, but unless he has had experience it will pay him to employ an expert, as a person with no experience will probably bungle.

2. Experiments with a view to enlarging the external openings of the milk ducts, in order to make milking easier, have not been generally successful, and often set up such inflammation as to make the case serious. When the openings are congenitally small, as in your case, it is better to let them alone; either have patience in milking, or fit her for the butcher. At all events, do not allow any inexperienced person to experiment. Benefit has sometimes been gained by inserting plugs in the teats, and allowing them to remain in between milkings, with a view to expanding the openings, but great care must be taken to have them thoroughly disinfected, and of the proper size and shape.

MISCELLANEOUS.

1. How would you treat horses to make them have a sleek coat, keep them healthy and kidneys regular?

2. What causes horses to slaver at mouth?

3. What will prevent the mountings of harness rusting in the stable?

C. T.

Northumberland Co., Ont.

Ans.—1. Feed a reasonable amount of hay and oats of good quality, with a carrot or two daily and a feed of bran and linseed meal twice weekly. Groom thoroughly at least twice daily, and clothe warmly. This will keep them sleek and healthy. No drugs are required. The idea that horses require medicine to keep them healthy and the kidneys regular is all wrong. The regular or periodical administration of drugs for this purpose is injurious. Horses should not be given drugs unless sick, and, of course, the drugs to be given them will depend upon the disease. It requires careful feeding and plenty of grooming to keep horses looking well. A lazy man never has a sleek team, as nothing will take the place of grooming and attention.

2. The usual cause of slivering is irregularities of the molar teeth. A veterinarian will correct this. It is sometimes due to irritants in the food, and a change to pure food is indicated.

3. Rubbing the mountings with sweet oil will prevent tarnishing, otherwise it cannot be prevented in a moist atmosphere.

VICIOUS MARE.

I bought a mare a month ago. She appears to be in season all the time. She is wild and disagreeable to handle; is continually switching her tail and passing small quantities of urine.

Bruce Co., Ont.

G. M. D.

Ans.—Your mare is not suffering from any disease. She is a mean, cranky, vicious, irritable brute. If you are not very careful she will kick. No medicinal treatment will be of any value. Her tail can be tied down to the cross bar to prevent her switching, and it is possible that her crankiness is partially due to ill usage, and may be cured by kindness. A mare of such disposition is of little value. It is a very hard matter to be a Christian and drive such a mare.

FEET SHOULD BE TRIMMED.

1. My colt, 10 months old, runs loose in box stall and barnyard. Her fore feet are flattening out on the sides, and one is split up three-quarters of an inch.
2. What should he be fed?
3. How old should a colt be before being worked?
4. Would he have more life if not worked until four years old?

Ans.—1. Get a pair of hoof clippers, a foot knife and rasp, and dress the feet to as near the normal shape as possible, or get your blacksmith to do so. This should be done about once a month, as the wear is not equal to the growth, and if neglected the feet become abnormal in size and shape.

2. All the first-class clover hay he will eat; about two quarts scalded crushed oats night and morning, and one quart whole oats and a couple of carrots at noon. A feed of bran should be given in addition twice weekly.

3. A colt should be handled and educated to go in harness before two years old, but should do little work until four, or better, five years.

4. He will make a better horse if he does little work until fully matured.

WORMS.

1. I noticed my horse passing white worms. He does not look as well as he should, considering the food and care he gets.

2. Can anything be done for bog spavin?

Ans.—1. Take 1½ ounces each, sulphate of iron, sulphate of copper and tartar emetic, and one ounce calomel; mix and make into twelve powders. Give a powder night and morning, in damp food. If he will not eat them, mix with a little water and drench him. Starve for ten hours after the last powder, and then give a purgative of eight drams aloes and two drams ginger. Feed bran only for 24 hours after giving the physic.

2. Repeated blistering and long rest will usually effect a cure.

INDIGESTION IN COW.

Cow has been sick for fifteen days, eats little and does not ruminate, and bloats at intervals; holds her head low.

Ans.—She has indigestion. Purge with 1½ pounds Epsom salts dissolved in warm water. Repeat the dose in 36 hours if necessary. Follow with two drams nux vomica, and one dram each, sulphate of iron and gentian, night and morning. Feed lightly. If constipation and bloating continue, give 1½ pints raw linseed oil and two ounces oil of turpentine. A sick cow will not ruminate. The cud will return when the disease is cured.

ECZEMA.

I have a young mare with eczema in hind legs. She took it about a month ago; her legs are itchy and swollen; hair is also coming off. Please prescribe a cure.

Ans.—See last issue of our journal, page 213, "Indigestion and skin disease."

OPHTHALMIA.

Heifer is going blind. A white scum is growing over her eyes.

Ans.—Place in partially darkened box stall. Purge with one pound Epsom salts; bathe the eyes well three times daily with warm water, and after bathing put a few drops of the following lotion into each eye: Nitrate of silver, ten grs.; distilled water, two ounces.



W. M. CHAMPION, MANAGER,
President Manitoba Dairy Association.

FATALITY IN HEIFER.

Heifer was noticed shivering one morning, but ate her food. Next morning the same; was chewing her cud at noon, but did not appear right; at night was found hanging, and was put in box stall. Next morning she seemed better, but was dead at ten o'clock.

Ans.—It is impossible to diagnose the case without further particulars of symptoms. A post mortem examination would have revealed the cause of death. She may have died from slow internal hemorrhage, or possibly from inflammation of the bowels. In fact, death may have been due to one of many causes.

HORSES WITH COUGH.

My horses have a bad, hollow cough. Feel, eat and drink well.

Ans.—It is not possible to say what causes the cough, without further symptoms. There are many conditions that cause coughs. Hollow coughs are usually caused by heaves, and if your horses are affected this way, all you can do is feed little bulky food of first-class quality, and give larger quantities of grain, also of good quality. Dampen both with lime water.

THICKENING AFTER WOUND.

In the spring of 1901 my mare got her leg over the trace-chain, and scarified or burned the posterior surface of the pastern. It was very slow to heal, and now there is a thick, dry scab and the whole pastern is swollen.

Ans.—The swelling is due to inflammatory action in the parts. Give a purgative of eight drams aloes and two drams ginger. Apply hot poultices of linseed meal to soften the scab and allay inflammation. After the dry surface is removed from the scab it can be reduced by the daily application of a little butter of antimony. Apply with a feather. You will find it is a very hard matter to reduce all the enlargement caused by an accident, and in many cases an operation by a veterinarian is necessary.

ABSCESS IN FOOT.

Horse went lame. On removing shoe I found a bloodstained spot, from which matter escapes, and there is a projection of a soft fleshy material.

Ans.—This is an abscess caused by a bruise or prick. The protruding substance is a portion of the soft parts of the foot, and will disappear on subsidence of the inflammation. Apply carbolic acid, one part; sweet oil, fifteen parts, and poultice with boiled turnips and linseed meal, applied warm three times daily.

LUMP ON THROAT.

Please inform me, through your valuable paper, a cure for a two-year-old steer which has a lump on the side of the throat.

Ans.—Ascertain whether the lump contains pus; if so, lance and wash out with warm water and carbolic acid. If the lump is firm and does not contain pus, rub frequently with iodine. If the lump is hard like a bone and attached to the jaw, it is probably lump jaw. For treatment see last issue, page 213.

TORPIDITY OF KIDNEYS.

My mare's urine is milky, thick and foamy, and her hair dry. I have given sweet nitre, with little results.

Ans.—There is torpidity of the kidneys. Do not give sweet nitre; it is more of a stimulant than a diuretic. Give a dessertspoonful of nitrate of potash, in damp or boiled food, every night for three doses. If this does not clear the urine, repeat in ten days.

EWES VOMIT.

For a year and a half one of my ewes vomits what she eats, especially turnips and salt. She looks well.

Ans.—It may be that it is not vomition, but quidding her cud. Examine her mouth, and if her teeth are irregular have them dressed. I cannot account for a sheep vomiting turnips and salt and not other food, and if it really be vomition, I would advise you to not feed her any turnips. On account of some peculiarity of constitution, turnips may disagree with her.



PLOWING THIRTY-THREE ACRES PER DAY, ON THE FARM OF MR. C. THOMAS, MELGUND, MAN.

CRACKED HEELS AND OPHTHALMIA.

Last fall my mare's legs stocked and one heel broke out. Later her eyes got sore, and she became blind for about a week. I fed condition powders, and her legs are better and eyes some better, but the pupils are contracted. W. J. Ont.

Ans.—As her legs are better, no further treatment is needed. The soreness of the eyes had no connection with the cracked heels. She evidently has a constitutional disease called periodic ophthalmia. Its recurrence cannot be avoided, and if she has a few more attacks she will, in all probability, go blind from cataract. When affected give her a slight purgative of say, six drams aloes and two drams ginger; place in a comfortable, partially darkened box, bathe the eyes well three times daily, and put a few drops of the following into the eyes after bathing, viz.: Sulphate of zinc, ten grs.; sulphate of atropia, five grs.; distilled water, two ounces.

PARTIAL DISLOCATION OF PATELLA AND WEAK FETLOCKS.

1. Three-year-old colt has an enlargement on one stifle joint, and the other cracks when he trots.

2. Another colt, the same age, had weak fetlocks in front and walked on her fetlock pads the most of the first summer. The pasterns are too oblique, and she stumbles now when I am breaking her. R. A. T. Simcoe Co., Ont.

Ans.—1. The colt's stifle bones come partially out, and the cracking is the noise made by the bone slipping into place. There is usually an enlargement such as you mention. Absolute rest and repeated blistering will strengthen the ligaments, but it is not probable the lump can be removed or a perfect cure effected, but the colt will make a fairly useful animal, especially for slow work.

2. Very oblique and long pasterns are always weak. It is a normal conformation and little can be done. Repeated blistering might be followed by an improvement.

Miscellaneous.

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

MARE IN FOAL—FEEDING RATIONS.

1. I have a mare of about 1,600 pounds in foal to a sire of 1,900 pounds. She is eight years old this spring, and this will be her first foal. The time of gestation will be in about four weeks, and so far her udder has shown very little signs of enlargement. Have been feeding her clover hay and two quarts of ground oats three times a day, also a handful of oil cake both night and morning, and some salt at night. Is there any danger that she will not have enough milk to supply the foal? If she does not, what is the best thing to do?

2. Should the rations for dairy cows and fattening steers be the same? I have ensilage, threshed red clover hay, oat and wheat straw, plenty of oat and wheat chop, and some oil cake. What would be a balanced ration for each out of my feed?

3. Is it advisable to feed stock food which is put up by companies, or will stock do just as well if fed oil cake and plenty of salt? Simcoe Co., Ont.

Ans.—1. There should be no danger of her not milking, if you continue feeding her as described, and give plenty of exercise. Give her some light work if possible. If she does not prove a good milker, teach the foal to eat chopped oats and bran as soon as possible.

2. As the object in feeding cows and steers is almost identical, namely, to produce fat, the rations may be somewhat similar. Of late, however, there has been a strong sentiment in favor of feeding wider rations than were formerly used in fattening cattle. In this case it is difficult to determine a balance in the ration, on account of there being no analysis of ripe threshed clover hay. We have assumed, however, that it is of about the same composition as pea straw, and have based our calculations on this assumption. If bran cannot be had conveniently, thirty pounds of ensilage, fifteen pounds of clover, four pounds of oat chop, two pounds of wheat chop and two of oil cake might be given to get a ratio of 1-6.5. Where the wheat could be exchanged for bran, we would substitute it for wheat, and oil cake making four pounds of oats and four of bran, with the roughage. This would be fed to cows each day for every 1,000 pounds live weight. The steers might be fed thirty pounds of the ensilage, twenty of the hay, two of oats, and one pound each of wheat and oil cake, making a ratio of 1 to 7. As feeding proceeds the grain should be increased up to eight or ten pounds.

3. There are certain times when appetizing stock foods are valuable for toning up the system, and this is what they are intended for. A little oil cake is good to keep stock in a sappy condition, and salt should always be fed or be within reach.

MANY QUERRIES.

1. Is it a good practice to bury dead animals in an orchard, such animals as an old horse that has outlived his usefulness, or other farm animals?

2. Do you think the growing of ginseng is as profitable a business as the Chinese-American Ginseng Co., of Joplin, Mo., would lead one to believe? Would you consider it wise to attempt to raise it in this country for commercial purposes?

3. We are informed that the best grade of clover seed raised in Canada is exported to Europe. Is this true? What is the difference in price between the first and second grades, and where could one obtain first-class, reliable clover seed?

4. Is swamp muck or marsh mud in any way benefited by composting with lime alone? If so, what proportion of lime should be used, and how long should it remain in compost before applying to the land? T. M. P. E. I.

Ans.—1. In burying such animals, many of the roots of the trees would be broken, thus retarding their growth. Or it may be that the decaying animal would furnish too much manure to the tree, causing excessive growth. It would not injure the fruit.

2. We do not know what representations have been made by this company. The growing of ginseng has been carried on quite extensively on certain plantations in the States, and in some parts of Canada it is grown on a small scale. It requires special treatment and soil conditions, and unless one were prepared to furnish these it could not be made a success. It may be worth trying on a small scale.

3. As a general rule, the best clover seed is exported. It costs no more for freight than cheaper grades, and sells better on the foreign markets. The difference in price depends largely upon the local dealer. In the open market there is usually a difference of from fifty cents to one dollar. By applying to a reliable seedsman for the best export seed, you would probably get the best on the market.

4. Generally, muck has a certain amount of acidity which is injurious to bacteria working in the soil. By composting the muck with lime, the lime neutralizes the acid and the muck undergoes partial decay, thus hurrying the process that takes place in the soil. When composting with lime, use about ten bushels of fresh slacked lime to one hundred of muck. The two are laid in layers and the pile turned once or twice in the course of four or five summer months, at the end of which time the compost is ready for use. Wood ashes greatly improves this mixture.

SHEEP INJURING CROPS.

We are having some difficulty with our neighbor's sheep coming onto our fall grain. We will suppose the case to be as follows: A. rents an adjoining farm from B.; C., the present tenant, has possession until the first of April. A. had tilling privileges as soon as last harvest was completed, and went on and plowed and sowed fall grain. C., of course, has the privilege of keeping his stock at B's barn until the first of April, but he is allowing his sheep to come into A's fall grain, there being no barnyard fence. The sheep are doing considerable damage by eating off the grain, also injuring it by tramping on soft days. C's sheep also come over a lawful fence of A's and do similar damage. The sheep appear to be breaching, but the snowdrifts assist them in getting over A's fence.

1. What steps should A. take?
2. Has C. any right to allow his sheep to go on A's fall grain on the rented property?
3. Can A. legally impound C's sheep?
4. Can A. make C. house his sheep?

ONTARIO.

Ans.—1 and 3.—A. should warn C. against trespass on his, A's farm, by C's sheep coming thereon, and then, if such warning prove ineffectual, impound the sheep, which he is legally entitled to do.

2. Perhaps not; but as the case is stated we are unable to see that he is under any legal obligation to A. to keep them off. It would rather seem that if the grain is to be protected from C's sheep, A. must see to it himself, by arranging to have them in some way kept out of the field.

4. No.

PERCHERON COLORS.

Is there any standard color for pure-bred Percheron stallions? Is a black as pure bred as the gray? Should his legs be free from hair or like a Clydesdale's? H. J. M. Peterboro Co., Ont.

Ans.—Pure-bred Percherons may be either black or gray. We do not know that there is any standard of color for the breed, but we know that some of the best are black and some of the best are gray, and that the blacks are now quite as much in favor as the grays. The most approved have little, if any, long hair on back of legs.

LINE FENCING DISPUTES.

A. and B. own farms joining, 100 rods of line fence running between. A. builds north 50 rods and B. south 50. A. sells 40 acres off the south of his farm to C., keeping 10, and builds the 20 rods of line fence himself.

1. Can B. force C. to build 40 rods of the remaining 80, making him take 10 rods of B's former 50?

2. Supposing the 10 rods is a poor fence, must B. supply rails enough to build it?

3. Or must C. take what rails there is there and build from them, supplying more if he does not see fit to put up the same kind of a fence?

Ans.—The facts are not stated with sufficient clearness and fullness to enable us to answer your questions. But we may say that if you are unable to agree with your neighbors regarding these matters of line fencing, you should take advantage of the provisions in that behalf contained in the Line Fences Act (R.S.O. 1897, C. 234). Your first step thereunder would be to notify the other owners that you would, after one week from the service of the notice, cause three fenceviewers of the locality to arbitrate in the premises (Sec. 4). This might of itself tend to bring about an agreement between you, and by Sec. 14, any agreement in writing (Form 4) between owners respecting such line fence, may be filed or registered and enforced as if it were an award of fenceviewers. A short form of agreement (the Form 4 referred to) is to be found in the schedule to the Act.

WARBLES—KICKING OX.

1. Is it possible to destroy warbles or embryo of same in cattle by feeding flower of sulphur or some chemical in food, without injuring cattle?

2. How much sulphur is necessary to destroy vermin on adult animals?

3. Young ox was trained to kick by children of neighbor, from whom I got him, by tickling his heels with a fork. Is a fine beast to work, and very kind out of stable, except that he frequently kicks one leg over tongue of sleigh. Kicks forward out of stable and backwards in stable. Takes periodic turns of kicking. Will not punishment on legs for kicking make him worse? Please suggest a remedy which will prove effectual, if possible. B. S. Muskoka District.

Ans.—1. No.

2. Just enough to get into the air channels and so suffocate the lice; they do not eat it.

3. As the kicking spells are periodic, we cannot suggest any remedy, except always giving good treatment and never abusing him.

CROPS FOR HOG PASTURE.

Which is considered best for hog pasture, rape, lucerne or vetches? Are any of them good for cattle feeding, and when should they be cut? Can lucerne or vetches be cut same year as sown? Do hogs do well on pasture with little other feed? A. B. Huntingdon Co., P. Q.

Ans.—If our correspondent had all these crops he would have an ideal hog pasture. The lucerne would be ready for early summer pasture, the vetches for July, the second crop of lucerne for August, and the rape for August, September and October. Cattle do well on the same crops, although the rape sometimes taints the milk of cows. The vetches are cut same year as sown, just like peas; but lucerne requires a year to get a stand, like red clover, if sown with a grain crop, but if sown alone early in spring, which is decidedly the better plan, may be cut the same season. The second season it may be cut three times. By changing hogs about from one of these crops to the other very little other feed is required until the finishing period, say the last six weeks before marketing, when more concentrated food should be given.

PIG PASTURE.

Would you kindly give me some advice as to what would make a good pig pasture for coming summer? I have about an acre of ground near my pen that I have grown roots on for two seasons and would like to sow something on it so that my pigs can graze for part of their living. SUBSCRIBER. Grenville Co., Ont.

Ans.—Peas, oats and vetches on one-half the plot, and rape, sown at different dates, on the remainder, would give green food from the middle of June until roots were ready for feeding. Rape might be sown on the 1st and 15th of June and 1st of July. The most economical method would be to mow these crops and carry them to the hogs, but if kept short by pasturing or mowing will give good results. By sowing alfalfa with the grain a catch might be secured, thereby providing a crop for the succeeding year. For a permanent hog pasture there is nothing better than alfalfa when once established.

DUTY ON IMPORTED HORSES.

What is the rate of import duty on horses from Canada to the States, and how far is Chatham and London from Detroit? T. J. C. Michigan.

Ans.—The duty on Canadian horses entering the U. S. is \$30 per head on horses valued at \$150 and less, over that valuation 25% ad valorem. Pure-bred stock for breeding purposes, registered in officially recognized U. S. records, passes into the States free of duty. Chatham is forty-six miles from Detroit, and London is one hundred and eleven miles.

BUTTERMILK FOR CHICKENS - NATURAL BROODER.

1. Is buttermilk good for chickens as a drink, and to mix with chop feed for them?
 2. Could it be fed the same as skim milk?
 3. Is it as good as skim milk?
 4. What is a good ration for young chickens until they get about three weeks old?
 5. Could five old hens take care of the chickens from a 150-egg incubator as well as a brooder?
 D. M. Kent Co., Ont.

Ans.—1. It is frequently used.
 2. Yes.
 3. There is not much difference unless the skim milk is always sweet, and then it is most valuable.
 4. First feed to young chicks should consist of hard-boiled eggs, one part to three parts of dry bread crumbs. Then for five or six weeks feed coarse oatmeal, moistened with skim milk, with any bread crumbs alternating every two hours. About four o'clock each evening feed a little cracked wheat. Give green food often, and a little meat food occasionally.
 5. Yes, if the weather were not too cold; about 10 or 12 chicks to a hen in cold weather, and 15 to 18 when warmer.

CEMENT VENEER.

1. I have a house which is lathed and plastered on the inside, and clap-boarded on the outside. How would it do to take off the clap-boards and fill in with concrete, having the cement extend about two inches beyond the studding?
 2. How much cement will it take for 800 feet of face measure, six inches thick, and how much will it cost? Gravel is plentiful.
 3. What do you think was the matter with my sheep? Their legs got cold and stiff; they could not hold up their heads or stand up. I killed one, but could find nothing wrong with it; another one died a few hours afterwards.
 W. E. Huron Co.

Ans.—1. It would be a good plan.
 2. If you would correspond with cement companies advertising in this journal they would give you the most accurate estimates.
 3. We cannot tell by your description what was the matter with your sheep. Be sure they are not too fat, or constipated. See that they get salt and water.

AMOUNT AND VALUE OF ENSILAGE IN SILO.

I shall be greatly obliged to you if you can supply through the columns of your valuable paper a fair and accurate rule for estimating the amount and value of silage in bulk.
 H. H. Oxford Co., Ont.

Ans.—Much depends upon the depth of the silo. A cubic foot of ensilage taken from the bottom of the silo will weigh much more than that taken at the top. Generally speaking, thirty pounds per cubic foot is a fair estimate of the amount of corn ensilage in a silo, and the cost of putting ensilage in has been estimated at about \$1.75 per ton; under Ontario conditions this includes cost of preparation of the land, cultivation, rent for land, cutting and harvesting. The value for feed of course depends upon local conditions; the stage of maturity of the corn, and the prices of other feeding stuffs.

PRESERVING FENCE POSTS.

Can you give a method of treating cedar posts to make them more durable? It will be of interest to a great many of your readers. I am engaged in the Page fence business, and would like to know if there is any way of making cedar posts last a natural lifetime; also I intend putting up foot bridges across rivers with Page fencing; the anchorage will be cedar, buried six feet deep in the wet mud at side of river. What I would like to know is, is there any known process to prevent cedar from rotting in such a place?
 R. C. Huron Co., Ont.

Ans.—Coal tar is one of the best materials for covering wood to increase its durability. Three parts of coal tar to one of unsalted grease makes a good mixture, and should be applied hot. Lime whitewash is also good, but the parts should be dry when the preservatives are applied.

SOWING ALFALFA.

1. I want to sow fifteen acres of alfalfa, eight for pasture and seven for hay. What would be the best spring crop to sow it in? How much shall I sow per acre? Would you advise mixing any other seed with that sown for pasture?
 2. My land is clay loam, well drained; do you think that spelt would do well on it?
 H. R. Kent Co., Ont.

Ans.—1. Barley has always proven the best nurse crop for alfalfa, although we have seen good catches with oats when the season was favorable. Sow the nurse crop thinly. Most people advise sowing alfalfa alone, and thus sown early it may be cut once the same season. If the seed is pure and vital, from 15 to 20 lbs. per acre will give a good catch. Timothy, or better, orchard grass, might improve the field for pasture, but we would not advise any mixture.
 2. The chief trouble with spelt is its weakness of straw, otherwise it should do well on your soil.

TREE SEEDS - BEEKEEPING.

1. When do elm and white ash seeds get ripe?
 2. When is the time to plant them, and in what kind of soil?
 3. What kind of bees are the best for a farmer to keep?
 4. The kind you prefer; do they work in red clover?
 5. How do you make the best kind of beehive?
 A. Y. Kent Co., Ont.

Ans.—1. The seeds of elm ripen in early summer, May or June, and white ash in autumn.

2. Plant the seeds as soon as ripe, with the exception of slippery elm, which must be kept in a cool, not too dry, place, until the following spring. In propagating any tree or shrub, try and make the conditions of soil and shade as natural as possible.

3. A farmer going into beekeeping should get bees from a neighboring apiary that has been doing good work, as these will be accustomed to the conditions of the neighborhood. Later on improved queens can be bought.

4. None of the honey-bees work in red clover to any extent, owing to their tongues being too short to reach the nectar.

5. Make the hives out of dressed cedar, 12 inches wide. Fit the corners tightly. Put on a good sound bottom board, easily detached, that projects about two inches on the front end. On the top edges of the sides rabbets one-half inch deep by one-half inch wide should be made to rest the shoulders of the foundations upon without holding up the top. On top of this hive one or more stories may be placed during the honey flow, the supers being made like the hive, but without any bottom. Any kind of a board will serve as a top. The entrance should be about one-half inch by one-half the width of the hive. Have the hive just wide enough to take foundation that will fit your extractor. This is a description of the simplest kind of hive, and is very satisfactory with farmers. Of course you can build more elaborate hives if you wish, but we judge from your enquiry that you are starting beekeeping and want something simple.

CRIMSON CLOVER.

Would you give me some information in regard to crimson clover? I would like to know: (1) Time and method of planting. (2) Does it yield good hay, and what is an average yield per acre? (3) Does it seed in Ontario, and, if so, what is the yield? Any further information that you may be able to give will be thankfully received.
 A. R. McR. Elgin Co., Ont.

Ans.—Crimson clover is one of the most tender of the legumes. It is grown in Southern Ontario as a cover crop in gardens and orchards, and is used to enrich soils after early crops have been taken off. It is estimated that an average crop adds as much as \$20 worth of nitrogen per acre to the soil, and where there is a crop of two tons to the acre there will be four tons of roots left in the ground. It is sown in orchards in July, after cultivation has ceased, and also on corn land. It is frequently used after buckwheat to build up a poor soil. It is seldom harvested as a hay crop, and cannot be expected to live over winter. Its greatest value is as a cover crop and for plowing down on light soils. It retains nitrates, accumulates nitrogen, furnishes humus, and keeps down weeds in the fall. We have not known seed to be harvested in Ontario. Some Niagara district fruit-growers let the seed ripen, mow the crop, removing the hay to other portions of the orchard, scattering on the land and disking in to seed that portion, while enough seed is threshed out in the handling to reseed the soil on which the crop grew.

PEA WEEVIL.

Would you kindly let us know the cure or prevention of pea weevil?
 A. J. M. Victoria Co., Ont.

Ans.—Put the peas as soon as threshed in a light bin of about 20 bushels capacity, set a shallow dish containing carbon bisulphide on top of the grain, and cover the bin over to prevent the gas which will be formed from diffusing with the surrounding air. The carbon bisulphide quickly vaporizes, and the vapor, being heavier than air, settles through the peas, poisoning the bugs. A pound of the liquid should do 20 bushels of the peas. Lanterns or matches should not be used when the gas is in the granary, as it is very explosive.

ENGLISH PLANTAIN.

I have a field seeded with clover that is also badly infested with English plantain. How should I treat it?
 E. J. Y. Middlesex Co., Ont.

Ans.—Cut the clover early, and if spikes of the plantain are found, plow the land shallow and cultivate for wheat or spring crop. The weed has not a very bad reputation, except in grass crops that are cut for seed.

CEMENT FLOORS.

Would be pleased to know what thickness cement floors are made in stables.
 W. H. W. Maine, U. S. A.

Ans.—For alleys two inches, cattle stable three inches, and horse stables four inches. See June 2nd issue, 1902, and also March 2nd issue, 1903.

TRAINING FOR THE TRACK.

Can you recommend any good book on training, feeding and driving the race (harness) horse, especially on training? I am interested especially in the pacer, and am anxious to get information regarding their training for a race. SPEED. Wentworth Co., Ont.

Ans.—"Ed. Geers' experience with trotters and pacers" is one of the best works we know of for your purpose. The book, in cloth cover, can be had through this office on receipt of the price, \$2.00.

[For continuation of this department, see page 279.]

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NOTES AND NEWS.

Forestry Association.

The Canadian Forestry Association's annual meeting was held in Ottawa, March 5th and 6th. Being of but recent organization, and dealing, as it does, with a question which Canadians, up to the past few years, have needed to give but little concern, the association has not a large membership, nor were many of its meetings very largely attended. The evident and ever-increasing importance of the work of the Association and the foresight and deliberation which they show in planning and carrying out their work make it evident, however, that in a very few years it will be a very influential association. As was pointed out by Prof. Goodwin, of Queen's University, our forest resources are yearly depreciating in value, mainly because the people concerned are not educated to the necessity of conserving the forest resources. In Germany, on the contrary, the forests are yearly becoming more valuable, due to intelligent handling and a thorough appreciation of their national worth. Our future supply of lumber depends largely upon immediate action, and an organized system of forestry will most quickly satisfactorily arrange present conditions. It is expected that the courses soon to be organized in connection with Toronto and Queen's Universities will do a good work in more widely disseminating an interest in our forest wealth. An encouraging feature of the convention was the interest that is being manifested by leading lumbermen. It is to these that we must largely look for protection from forest fires, which annually work more damage than any other single influence. Mr. S. P. Stevenson, of Nelson, gave a useful paper on "Forestry Work in Manitoba." The Association passed a resolution urging on the Government the need of greater protection from forest fires, the exploration of unsettled land to decide whether or not it was suitable for agricultural purposes, and that those unfit be declared forest reserves; also, the undesirability of allowing the settlement of isolated lots.

The following officers were elected: Patron, Lord Minto; Hon. Pres., W. Little, Westmont, Que.; Pres., Hiram Robinson, Ottawa; V. P., Aubrey White, Deputy Commissioner of Crown Lands, Ont. Directors—Dr. Saunders, Prof. Jos. Macoun, Thos. Southworth, J. R. Booth, C. J. Booth, J. Bertram, E. G. Joly de Lothbines. Secretary, E. Stewart, Ottawa.

A Railway Commission and a Transportation Commission.

In the Speech from the Throne, at Ottawa, on March 10th, it was announced that a bill would be introduced this session providing for the formation of a Railway Commission and also the appointment of a commission to inquire into and report upon the transportation question and the terminal facilities in Canada. It will probably consist of three members. One will be a railway expert, and the steamship and mercantile interests also will each have a representative. It is understood that Sir William Van Horne will be the railway expert, and that he will be chairman of the commission. The other two members will be men in whose experience, knowledge and wisdom the public will have confidence. Inquiry will be made as to the best means of providing speedy transportation to the seaboard, and of promptly handling our products, especially grain, when they reach the Canadian terminals. The commission will doubtless report as to the improvements under way at Port Colborne, which is to be a point of transhipment for grain brought down on the giants which navigate the upper lakes, and they will probably also give some attention to the question of whether the depth of the canals is sufficient to meet the growing demands of the grain export trade. No time will be lost in appointing the commission and getting it under way.

That Big Beef Merger.

A few months ago, the city papers told the Aladdin story of the great packing-house merger, financed by Mr. J. Pierpont Morgan. A high authority, speaking on the subject, not long since, said: "The government mildly estimates the capital invested in the 1,000 abattoirs in the United States at \$186,000,000. The operating capital would be much larger. The value of the sheep, alone, killed each year is \$200,000,000. On a rough estimate, it would require \$2,000,000,000 to control the live and dead meat industries of the United States. This would be the mere control. There would still be room for large opposition." No; it's a little too big for even Mr. Morgan.

P. E. Island.

February, the month of storms and sunshine, was somewhat of a stormy month—lots of snow and rather poor travelling. But we like to see the fields well covered, and will look for good grass and grain next season if this condition continues well along into March. Mud lifting on the oyster beds is the order of the day. Great quantities of this fertilizer is being carried into the center of the county on the railroad. So great is the demand that all the available flat cars are being used; and still the demand is not half satisfied. This natural fertilizer has now been very largely used here for over forty years, and continues to give good results, especially when applied to new land.

A dairy school was opened in Charlottetown on the 16th of February. Prof. L. A. Zuleit, of the Kingston Dairy School, is instructor. The course in cheesemaking and milk-testing continued for two weeks. There was a large attendance from among the cheesemakers at our 56 dairy stations. The school is under the management of the P. E. Dairy Association, and receives a grant of \$100.00 each from the Dominion and Provincial Governments. W. S. Blair, Horticulturist at Nappan Experimental Farm, and Prof. A. G. Gilbert, Poultry Manager at Ottawa, are doing Institute work in King's County. Farmers' Institutes here have been discussing the matter of procuring better quality of grass and clover seeds. Last year, much of these seeds imported from Ontario were full of foul weeds. Mustard, one of the worst, got a great start last year on many farms. The object lessons on the adulteration of seeds, given to our farmers at the exhibitions, by G. H. Clark, Chief of the Seed Department, Ottawa, as well as his writings in the agricultural papers, have roused farmers to demand pure seeds as being not only the best, but also the cheapest. We are hoping for Dominion legislation this winter in this matter to protect the public from unscrupulous and dishonest seed dealers.

Horses were never so scarce here. There is a strong demand for all kinds at good prices.

This is the month that our dairy business is at the lowest and the greater number of the factories are closed and will not likely open till May 1st. Good beef is worth 6c. to 7c., dead, for shipment to Sydney. Best hogs are 6c., alive, but there are not many being marketed now. W. S.

South Peel.

The clover threshers are having a busy season, there being a large amount of red clover to thresh. Clover pastured last summer and the second growth started early in the season is turning out fairly well, averaging two bushels per acre. There is a great improvement made on the clover machines. The blower attachment is being used in place of the carrier, and is giving great satisfaction.

Cattle are in good demand. Milch cows at the sales bring from \$45 to \$60. There is plenty of feed on the farms, and most of the farmers could do with more live stock to transform this raw material into the finished product, such as beef, pork, dairy products, etc. Those who bought feeders last fall, when they were high in price, will have to study economy in feeding to make ends meet, as the trade in beef cattle has taken a drop.

Many horses left this part lately for use in the city, while some were shipped to the Northwest for breeding purposes. Horses bring from \$150 up, according to quality. In the writer's vicinity, there are quite a number of houses empty, simply because the young men who own them think that they would rather have single life than to take all the responsibilities that would come on their shoulders on becoming the head of a home. This should not be. Every young patriotic Canadian who has the welfare of his country at heart should not act so selfish. He should take advice from the words of the prophet, those words that are familiar to all: "It is not well for man to live alone." J. B. R.

Central Canada Exhibition.

The directors of the Central Canada Exhibition have changed the date of the annual exhibition from the last week in August to September 11th to 18th. It will now come immediately after Toronto, and will run concurrently with London. The change in date was due to the efforts of a great number of farmers and business men who claimed that August was too early for this part of the Province, as was indeed shown by last year's show. It is not expected that the London show will make any appreciable draft on the exhibits at Ottawa, as there are a comparatively few who exhibit at both places. The increase in the number of local exhibits, due to the later date, will undoubtedly more than compensate for the loss that may be incurred through the loss of a few professional exhibitors.

Farmers' Institute Specialist.

In order to bring the U. S. Department of Agriculture into closer touch with the Farmers' Institute movement, the Government of the United States has appointed a Farmers' Institute Specialist, with headquarters at Washington. The work of the new official will be to bring the results of experiments at experiment stations and all other advanced ideas to the notice of Farmers' Institute workers. Prof. John Hamilton, of Pennsylvania, has received the appointment to the office by the Secretary of Agriculture, and will soon enter upon his new duties.

Oxford County.

COUNTRY HORSE TRADE.

There has been quite a lively trade in horses in this district. Many farmers have been selling their teams that were getting up in years, say from 8 to 10 years, and buying three-year-old colts. But some have found it very difficult to buy again satisfactorily. Three-year-old colts of the right build have sold for \$150 up; parties who were looking for three-year-old colts say that at every farm they called at several parties had been there before them on the same errand. This plan of selling horses before they get to be 10 years of age, and buying or raising young ones, is perhaps the most profitable way for the farmer, but we often feel sorry to part with a team that suits us in every way; we get attached to them. If we keep them until they are 12 or 14 years of age, they deteriorate very fast, in market value at least. A great many mares were bred last season, and in course of time horses will not be quite so scarce. In the meantime, those who have them to sell are "in clover."

One of my neighbors had a mare in foal, and as she had not been out for several days, he turned her out for exercise. She jumped and played around the yard very lively for a time, and next morning a dead colt was lying behind her in the stable. We turned our driver out in the yard to play after several days of idleness; he jumped around very lively, and was very sick next day, and for several days. I believe unlimited exercise after several days' confinement is not good, especially for a young horse: far safer to hitch up and drive out.

VERMIN ON CATTLE.

Several farmers have been troubled with lice on their cattle this winter. If some sheep dip or kerosene or insect powder is applied shortly after the cattle go into their winter quarters, there is not generally much trouble, but when once they get bad with lice it is quite difficult to get rid of them. I prefer dry insect powder in cold weather, as the animals are very apt to get cold after an application of any liquid preparation.

STOCK FEEDING.

Young calves learn to eat sooner when they are tied up in such a position that they can see the older cattle eating.

Cattle are doing very well this winter, there are so many roots to feed to them. People may say as they like, but roots are the "clear thing" for cattle to keep them healthy and hearty. Our cattle eat straw as greedily as they ordinarily would eat hay. Of course, the straw is good and well saved. Our roots were what is here considered a great crop. I think our turnips would run about 36 tons per acre, but I notice from Bulletin No. 41 that the East Lothian variety at the experimental plot at Ottawa gave a yield of nearly 54 tons. They must have been "whoppers." A farmer in Scotland, wishing to get the farmers on the market to understand what a wonderful crop of turnips he had, told that it only took five turnips to make a cartload—one in each corner and one in the center to keep the others from rolling. But I further notice in the bulletin that this phenomenally large yield was obtained by sowing on the 12th of May, while the plot sown on the 26th of May only yielded a little over 34 tons, so that we know the first sown would naturally be coarse and woody, and ours, which were not sown until nearly the middle of June, were likely a much better quality than either of the Ottawa experimental lots. Moral: Get the ground ready for turnips as soon as possible and keep it stirred, but don't sow until about the middle of June in our latitude.

ODDS AND ENDS.

We have been busy getting our year's supply of firewood, and are spreading the manure on the fields as it is made. We have part of a day's threshing to do yet, and must get our harness washed and cleaned up and well oiled and repaired, and everything in readiness for spring. D. L.

The Telephone Monopoly.

As the readers of the "Farmer's Advocate" are aware, the effort of the promoters of the Markham and Pickering, Ont., farmers' telephone line to obtain the privilege of putting an instrument in the Locust Hill C. P. R. station was blocked, but it brought to light an agreement by which the C. P. R. had entered into an agreement granting the Bell Telephone Co. the exclusive privilege of using their stations on condition of their giving the C. P. R. free service. Action under the Criminal Code was taken against the Telephone Co. by the farmers, the monopoly being regarded as an interference with the course of public business. The result of the examination before two local magistrates, however, was a disagreement, but the farmers are disposed to institute further proceedings and push the prosecution to the bitter end. Municipal telephone systems are also suggested, or public ownership of the whole telephone system, to be run as is the postal department for the service of the people.

The Waters and Sockett Shorthorn Sale.

The auction sale, on February 26th, of the herd of Mrs. Waters and a contribution from that of Mr. John Sockett, of Rockwood, Ont., was quite successful and satisfactory to the sellers, the 21 females sold averaging \$115. The three young bulls catalogued were not up to a high standard, and did not find buyers. A large company was present. The popular auctioneer, Mr. Thos. Ingram, of Guelph, handled the sale in a masterly manner, and was complimented on the result by the sellers and buyers alike. We append the sale list:

Claret, 3 years, and calf; E. B. Battye, Gore Bay.	\$250
Circe, 3 years, and calf; Alex. Tupling, Honeywood	180
Nell's Duchess 5th, 4 years, and calf; Jno. W. Cook, Marmora	175
Nell's Daisy, 2 years; Jas. A. Watson, Eden Mills.	145
Nell's Duchess, 5 years; Geo. Fraser, Minnedosa, Man.	135
Iris 6th, 3 years; W. Agnew, Lowville.	135
Carnation, 5 years, and calf; R. M. Mortimer, Honeywood	135
Orange Blossom, 3 years, and calf; E. B. Battye.	135
Nell of Arkell 8th, 9 years, and calf; Henry Arkell, Arkell	125
Iris 8th, 2 years; Geo. Fraser.	115
Frances, 2 years; Geo. Fraser.	110
Alexandria, 2 years; Wm. Parkinson, Eramosa.	105
Nell's Daisy 2nd, 2 years; Geo. Fraser.	100
Bertha's Pet, 2 years; Wm. Parkinson.	100
Elsie, 2 years; Jas. Auld, Eden Mills.	95
Victorine, 2 years; Wm. Agnew.	90
Nell's Arkell 2nd, 11 years; Geo. Armstrong, Speedside	70
Lulu, 2 years; Geo. Fraser.	70
Nell's Daisy 3rd, 10 months; Geo. Anderson, Eden Mills	70
Nell's Daisy 4th, 10 months; Geo. Anderson.	70
Nell's Daisy 5th, 9 months; John White, Eramosa.	65

South Perth.

Since last report, we have had a plentiful fall of snow, which has lain on the ground fairly well, protecting the wheat and young clover. Up till this last week, the weather has also been remarkably mild for February, and from these two indications we infer that the outlook for the clover and wheat crops next year is quite promising. This fact, we think, is of no small importance, as in spite of the inroads of stock-raising, wheat is still the staple product of the average farm; and upon the legumes, unless we purchase artificial fertilizers, depends ultimately the fertility of our soil, and of these green-manuring crops, clover still holds first place.

There is considerable depression among the stockmen, owing to the big slump in the price of fat cattle. Many purchased heavily at high prices, when the boom was on last fall, and are now suffering the inevitable consequences. The prospects for butter and cheese are much better than for beef; but the extreme scarcity of help on the farm is causing the turnover from dairying to stock-raising.

Our cheese factories have had a very successful season, and will doubtless be strong competitors of the big creamery next summer. With cheese at 10c., and butter 20c., there are many who prefer the former, because they get a bigger lump of cash for the season's operations, and don't count that the calves are much the worse off. In fact, we have seen cheese factory calves which looked as well as any fed on skim milk, but they were being constantly "doctored up" with flaxseed, oatmeal, etc.

At the annual meeting of the South Perth Agr. Society, it was decided not to send delegates to the meeting of the Fairs and Exhibition Association in Toronto, as it was felt that the circuit fair idea would in time work disaster to the township fair. The Spring Seed Show was held in the Town of St. Mary's, and was crowned with a fair measure of success. It is a good idea, and, like other movements for the farmers' benefit, will no doubt yet come into general favor.

The institutes were well attended this year, and at several places in the Riding, Women's Institutes were organized, but with what measure of success it is yet too early to anticipate. On the whole, prospects are bright for agriculture during the coming year. J. H. B.

A Grain Shocker.

From Nebraska comes the report of a grain stoker or shocker attachment to a binder. It is claimed for the device that it will stook grain as tightly as can be done by hand. Several firms have investigated the apparatus, and some are reported to have made hand-some offers to the inventor. Its introduction will be watched with interest by all countries where help is scarce.

Foot-and-Mouth Disease.

The above plague is not yet stamped out of the New England States. New Hampshire has been quarantined, animals shipped from that State into Massachusetts being found affected with the disease.

Messrs. Hartman's Shorthorn Sale.

The dispersion sale by auction, on February 24th, of the small but choice Shorthorn herd of Messrs. J. W. Hartman & Sons, Elm hedge, near Meaford, Grey County, Ontario, was very largely attended by farmers from the surrounding district and breeders from many sections of the Province. The cattle were nicely bred and in excellent condition. Capt. T. E. Robson, Ilderton, officiated as auctioneer in his usual happy style. The bidding was brisk, and the prices very satisfactory to the sellers, while the buyers got good value for their money. The highest price, \$320, was paid for Nonpareil 61st, a red three-year-old cow with calf at foot by Imp. Stephen Fitz Forrester. She was bred by J. & W. Russell, Richmond Hill, and was bought by Mr. J. Bowes, Strathparr. Mr. Harry Smith, Exeter, took the red five-year-old Ury cow, Jelle R., with calf at foot by the Watt-bred bull, May Duke, at \$275, and the red six-year-old Mysie cow, Marjorie, by Imp. Blue Ribbon, with calf by her side, at \$250, and Mr. N. Dow, Tara, took Effel 2nd, a red four-year-old Ury cow, at \$250. A pleasing feature of the sale was the good prices bid for bulls, the four sold making an average of close to \$160, while the average for the whole herd was \$170. The aged roan bull, Abbotsford, bred by Harry Smith, a noted prizewinner and breeder, now in his ten-year-old form, looking fresh and vigorous, brought \$225, and fell to the bid of Mr. W. G. Millson, of Goring, Ont. The total of \$4,270 for 25 head ought to be considered very satisfactory.

Following is the sale list, with purchasers:

Cows and Heifers.	
Nonpareil 61st, 3 years; J. Bowes, Strathparr.....	\$320
Nellie K., 5 years; Harry Smith, Exeter.....	275
Marjorie, 6 years; Harry Smith.....	250
Effel 2nd, 4 years; N. Dow, Tara.....	250
Centennial Isabella 66th, 2 years; W. Douglas, Caledonia.....	240
St. Vincent Belle, 7 years; R. T. Clute, Toronto.....	230
Mina Lass 5th, 10 months; R. D. Bowes, Elm hedge.....	210
Perfection Queen, 10 years, and calf; F. Foster, Thornbury.....	190
Mina Lass 4th, 9 years; J. Lemon, Walter's Falls.....	185
Isabella 67th, 7 months; H. Muxlow, Goring.....	170
Mabel, 10 years, and calf; D. Mills, Bay View.....	160
Ury Maid, 10 months; Hudson Usher, Queenston.....	150
Clara, 3 years; Thos. Bristow, Rob Roy.....	140
Mina H., 5 years; Robt. Batty, Meaford.....	140
Perfection Queen 2nd, 1 year; I. T. Baker, Not-tawa.....	140
Scottish Lady, 1 year; J. Lemon, Walter's Falls.....	120
Flora May, 2 years; W. Douglas.....	95
Minnie May 2nd, 1 year; A. W. Hough, Meaford.....	95
Clara 2nd, 11 months; J. Conn, Heathcote.....	80
Lady Richmond, 2 years; A. W. Hough.....	80
Elmhedge Blossom, 4 years; W. G. Millson, Goring.....	80

Bulls.	
Abbotsford, 10 years; W. G. Millson.....	255
Duke of Colonus, 1 year; H. Heisie, Thornbury.....	155
Duke of Albany, 1 year; F. Foster, Thornbury.....	130
Royal George, 1 year; H. Fulford.....	90
21 females sold for \$3,640, average \$173.50.	
4 bulls sold for \$630, average \$157.50.	
25 head sold for \$4,270, average \$170.00.	

Canadian Horse Show.

The executive committee of the Canadian Horse Show have decided to make some alterations in and additions to their 1903 prize list. The height of pairs of harness horses will be 15 hands 2 1/4 inches, instead of 15 hands 3 inches, as previously decided. In the hunter events two additional classes are added to the heavy and middle weights and a special class is added to the lightweights. The lady's hunter class will again be a feature of the show. The special classes are for livery team, delivery wagon single horse, butcher's cart horse, four-year-old Canadian-bred mare or gelding suitable for riding or cavalry purposes, over 15 hands and under 15 hands 3 inches. Horse and runabout, mare or gelding, mare or gelding suitable for lady to drive, and team of horses to be shown before a T cart, mail, demi-mail, Stanhope or spider phaeton. There will be no classes for Clydes or Shires this year, as the Spring Stallion Show catered to the interests of the heavy horses. April 29th and 30th and May 1st and 2nd are the dates fixed for the show, which will be held as usual at the Armories, Toronto.

Annandale Stock Sale.

The sale, on the E. D. Tillson estate, of the Annandale dairy herd came off as advertised, on March 5th. Never before in Canada was so large a herd of dairy cattle offered in a single sale, the total number to go under the hammer being 121. This included bulls, cows and young stock, thirty-one of the number being pure-bred Holsteins. The longest price paid was \$125, by Nelson Clement, for Annandale Queen. This cow has a milk record of 7,616 lbs. milk in 10 months, the old cows and calves tending to pull the average down. The bidding on the grade cows was very brisk and ranged about \$60.

It is now the intention of the proprietor of the estate to go into the breeding of beef cattle.

Live Stock at St. Louis.

At the large and representative joint meeting of breeders of pure-bred live stock, held at Guelph last month, the unanimous sentiment was that Canadian studs, herds and flocks should be strongly represented at the St. Louis Fair in 1904, in order to advertise the claims of this country to favor as a stock-raising country and a center for the breeding and development of high-class breeding stock unsurpassed in thriftiness and constitutional vigor. The meeting above referred to embodied their views in a resolution which declared: "We feel that the breeding of pure-bred animals is one of the most important industries in Canada, and that the Government of the Dominion should make liberal grants to pay the expenses of such an exhibit and provide a liberal prize list as well. We think that a grant of \$250,000 at least would be necessary, and that the exhibit would be a great advantage, appreciated by Canada." At previous international exhibitions in the United States the grant for an exhibition of live stock made by the Dominion Government had been mainly enjoyed by Ontario. The other Provinces are now becoming alive to their opportunities, and the intention is, if possible, to exhibit at St. Louis live stock from all the Provinces, including the sturdy live stock from the Western ranges. Arrangements are, we understand, being made for the visit of an influential deputation to Ottawa to represent to the Government the importance of providing liberally and early for an adequate display of our live stock at St. Louis, and it would seem to be only necessary to call attention to the importance of the occasion to ensure favorable consideration and prompt provision.

Pork Packing Troubles.

Application has been made by the Campbell-Shearer Co., of London, Eng., whose claim is \$20,000, for the winding up of the Palmerston, Ont., Peck Packing Co. The Bank of Hamilton also has a claim for \$33,000. The company was incorporated in 1898, with an authorized capital of \$99,900. Of this, \$75,000 was subscribed, \$57,000 paid up in cash, and notes given for \$18,000.

Guelph Horse Show.

The Guelph Horse Show Association, recently organized, has decided to hold a show on June 4, 5 and 6, with prizes amounting to \$1,500. The officers are: John M. Bond, Hon. President; H. Lockwood, President; Dr. J. H. Reed, First Vice-President; J. M. Duff, Second Vice-President; C. L. Nelles, Secretary-Treasurer; R. A. Harvey, Assistant Secretary, with a committee of prominent business men and horse-men.

MARKETS.

Canadian Hogs in Buffalo.

To the Editor "Farmer's Advocate":
Sir,—Our market is still taking Canadian hogs, and will be in a position to take quite a good many for a long while to come. Hogs are scarce in this country, and are selling high. They sold here to-day up to \$7.90. In Chicago, the extreme top to-day is \$7.60, so you can see our market is in line with any of them. There is every prospect of a good trade in Canadian hogs for a long while to come.
East Buffalo, March 9th, 1903. EIRICK BROS.

Chicago Markets.

Chicago, March 12.—Cattle—Good to prime steers, \$5 to \$5.75; poor to prime steers, \$5 to \$5.75; poor to medium, \$3.50 to \$4.80; stockers and feeders, \$2.75 to \$4.80; cows, \$1.40 to \$4.40; heifers, \$2.25 to \$4.60; canners, \$1.50 to \$2.50; bulls, \$2 to \$4.25; calves, \$3 to \$5.40; Texas-fed steers, \$4 to \$4.60. Hogs—Mixed and butchers', \$7.30 to \$7.65; good to choice heavy, \$7.60 to \$7.80; rough heavy, \$7.30 to \$7.60; light, \$6.90 to \$7.35; bulk of sales at \$7.30 to \$7.60. Sheep—Good to choice wethers, \$5 to \$5.75; fair to choice, mixed, \$4.25 to \$5; native lambs, \$4.75 to \$7.

Buffalo Markets.

East Buffalo, N. Y., March 12.—Cattle—Receipts light; steady; veals steady; tops, \$8.50 to \$9; common to good, \$5.50 to \$8. Hogs—Heavy and medium, \$7.90 to \$8; Yorkers, \$7.85 to \$7.90; pigs, \$7.70 to \$7.80; roughs, \$7 to \$7.25; stags, \$5.50 to \$6. Sheep and lambs—Western top lambs, \$7 to \$7.35; natives, \$7.25 to \$7.40; culls to good, \$5.25 to \$7; yearlings, \$6 to \$6.70; ewes, \$5.75 to \$5.90; sheep, top, mixed, \$5.65 to \$5.90; culls to good, \$3 to \$5.50.

Montreal Markets.

Montreal, March 12.—Offerings very light. The best cattle sold at 4 1/2c.; ordinary, 3c. to 3 1/2c.; common stock. Sheep sold 4c. to 4 1/2c., and lambs at 5c. Calves, 50c. to \$2 each, according to quality.

Toronto Markets.

Business at the Western Cattle Market is dull. Now that finer weather is approaching, drovers are expecting to see things brighten up and cattle more easily brought to market. The Lenten season seems to have very little effect on the cattle trade.

Export Cattle.—No demand for export cattle, no shipping space offering. Very few on offer, none wanted. Choice cattle sold at \$4.40 per cwt.; best price paid to-day was \$4.75, for load of extra choice export cattle; medium export cattle, \$3.40 to \$4.25.

Butchers' Cattle.—A good demand exists for best butchers' cattle for local demand. The hotel business of this city was never so good. Best butcher cattle, equal in quality to export, not so heavy, sold at from \$3.50 to \$4.40; one load only reached \$4.40; medium, \$3.00 to \$3.75; canners, \$2.60.

Bulls.—Very few on offer. A load of fairly good export bulls sold at \$4.00; light bulls \$3.00 to \$3.50.

Feeders.—Good demand from farmers for best short-keep feeders, at from \$4.00 to \$4.15, average 1,000 lbs.; medium light-weight feeders, at from \$3.60 to \$3.85.

Stockers.—Not many on offer; no demand from Buffalo; are quoted at from \$3.25 to \$3.40; off-colors of poor quality are worth \$2.75.

Sheep.—The run of sheep rather light. The trade fairly brisk on all offered, at unchanged prices; best export ewes at \$4.00 to \$4.25; bucks at from \$3.00 to \$3.50 per cwt.

Lambs.—A few spring lambs on offer, which met ready sale at from \$4.50 to \$5.75 per cwt. One pair of spring lambs, reared by Mr. I. Skeen, Port Credit, sold at \$11.00 each.

Milch Cows.—Not many on offer. All milch cows of good quality readily sell at from \$35.00 to \$55.00 per head.

Calves sold at from \$3.00 to \$10.00 per head, or at from \$4.50 to \$6.00 per cwt.

Hogs.—Owing to light supplies, the price advanced from \$6.10 to \$6.35, and will surely go to \$6.50 next week. To fetch top prices they must scale 160 lbs. and not above 200 lbs., live weight, off cars, unfed or watered. Drovers report a scarcity of hogs ready for the market in the western districts, while the eastern and northern districts predict a greater supply than ever for the ensuing season.

	Prices to-day, Mar. 9th, 1903.	Two weeks ago, Mar. 2.	Same date last year.
Export cattle.....	\$ 4.80	\$ 4.75	\$ 4.60
Butchers' cattle.....	4.40	4.40	4.60
Export bulls.....	4.25	4.00	4.25
Feeders.....	4.15	4.00	4.75
Stockers.....	3.30	3.25	3.60
Sheep (per cwt.).....	4.25	4.25	3.75
Lambs (per cwt.).....	5.75	5.50	4.90
Hogs.....	6.35	6.00	6.10
Milch cows.....	55.00	65.00	60.00

PRODUCE MARKET.

Wheat.—Red and white are worth 70c. per bushel, middle freights; goose, 67c.; No. 1 hard Manitoba, 87 1/2c.; No. 1 northern, 86c. In Toronto, white at 72c. to 73c. per bushel; red at 72 1/2c.; goose at from 67c. to 68c.

Barley.—No. 3 extra for export, 46c. per bushel; in Toronto, at from 41c. to 51c.

Oats.—31 1/2c. for No. 2 north and 33c. east; in Toronto at from 36 1/2c. to 37c. per bushel.

Bran.—City mills sell bran at \$16 to \$17 per ton; shorts at \$18, car lots, f. o. b. Toronto.

Hay.—The quality of hay on offer is bad, and prices are away down, from \$3.00 to \$15.00 per ton.

Straw.—Four loads on offer at from \$6.00 to \$8.00 per ton for sheaf.

Dressed Hogs.—Deliveries light, owing to bad roads. Light at \$8.50 per cwt.; heavy hogs, \$8.25; and sows at \$6.50 per cwt.

Hides.—No. 1 steers, 8 1/2c. per lb.; No. 2 steers, 7 1/2c. per lb.; hides, 7c. per lb.; calf skins, selected, 10c. per lb.; sheep skins, each, 80c. to \$1.00; wool, fleece, 16c. per lb.; wool, unwashed, 9 1/2c. per lb.

Butter.—Deliveries were liberal at from 20c. to 25c. per lb. for choice gilt-edge farmers' prints.

Eggs.—Deliveries were large at from 18c. to 22c. per dozen for choice new-laid eggs.

Cheese.—The market steady and unchanged at 13c. per lb.

Potatoes.—Prices range from \$1.00 to \$1.10 per bag from farmers' wagons; in car lots, at about \$1.00 per bag; in good supply; no indication of a rise in price.

Apples.—There is a good demand for choice dessert apples. Greenings are quoted at \$1.25 per barrel, and Spies at \$2.00, for choice, unspotted fruit; 10 loads on offer.

Poultry.—Turkeys are quoted at 19c. per lb.; chickens, per pair, at 80c. to \$1.75; ducks sold at 18c. to 20c. per lb.; geese from 12c. to 15c. per lb.

British Cattle Markets.

London, March 11.—Live cattle steady at 12c. to 13 1/2c. per lb. for American steers, dressed weight; Canadian steers, 11 1/2c. to 13c. per lb.; refrigerator beef, 9 1/2c. to 10c. per lb.; sheep, 14 1/2c. to 15 1/2c. per lb., dressed weight.



"Be sure that Luck
Is only Pluck
To do things over and over;
Courage and Skill,
Patience and Will,
Are the four leaves of Luck's clover."

Mission of a Mrs.

The postmaster smiled a little when he passed out the mail, but Luther Wilkins did not notice. He was trying to remember whether it was a yeast cake or a pound of cheese he had meant to get at the store.

After he got home and had eaten his supper, he thought of the mail in his overcoat pocket. He brought it to the table and sat down to examine it. There was the weekly county paper, a popular journal, an agricultural monthly, and, last of all, a letter.

"Well, now," said Luther, picking it up, "I wonder who's been writing to me. I don't know when I've had a letter."

He looked at it eagerly, held it nearer his eyes, then further off.

"Mrs. Luther Wilkins," he said. "Mrs. Luther Wilkins. And I an old bachelor who never so much as hardy thought of getting married! Mrs. Luther Wilkins; why, where is she, and who is she?"

"Well, I guess I'll see what's in it." He inserted the point of his knife under the corner of the envelope flap, then he hesitated.

"What business have I opening of her letters?" he asked himself. "I never did open other folks' letters, and I guess I won't begin now." He rose to his feet, and, carrying it to the mantelpiece, leaned it up against the clock.

He settled himself to his papers, but thoughts of Mrs. Luther Wilkins kept intruding on what he was reading about patent nest-boxes and underdraining, and the news of the village.

Thereafter, during all his waking hours, Mrs. Luther Wilkins was often in his thoughts. She even haunted his dreams at times. He wondered what she was like, and he thought of the kind of woman he would wish her to be, and enjoyed himself very much in imagining how it would seem to have her meet him at the door when he came in from the fields, and how nice it would be not to have to get his own meals.

He worked doggedly, trying hard not to think of the disquieting subject. It was no use, and toward the end of July it was observed that Luther was becoming very neighborly. He spent his evenings at different neighbors' houses. He accepted invitations to tea, he went to church regularly, and to all Sunday-school picnics. And still he could not find a suitable owner for the letter.

It was one cold, raw day in early November that Luther sat at a window making clumsy attempts at mending a very ragged pair of socks. Happening to glance across the road, he saw a woman out in the Hammonds' yard. She was busy raking up the fallen autumn leaves.

"Letitia Hammond," Luther commented, "Bill Hammond's sister. We don't see much of her lately. She don't even go to church, there's so many of Bill's children to look after, and Bill's wife is so took up with her clubs and things. It's hard on Letitia, but she never finds a word of fault."

The sock he was mending fell on the floor, and the wooden egg inside it struck with such a loud bang that the cat started in his sleep. Luther did not notice. He was standing at the window staring out.

"That is the best which lieth nearest," he said solemnly. "What a fool I've been."

He found his hat and left the house, almost running across the road. He took the iron rake away from Letitia gently. "That's too hard work for a little thing like you," he said.

Letitia's blue eyes were full of wonder, but she yielded up the rake weakly.

"You'd better go into the house, too," said Luther. "It's cold out here."

No one had been thoughtful of her before for a long time, and Letitia couldn't understand it. When Luther returned the next day, she asked him to let her do something for him.

He carried her his best pair of socks. She was horrified at their condition, and mended them in a very artistic manner.

Luther looked at them in wonder and reverence. "I'll never wear 'em," he said, when he was at home again. "I wouldn't have let her do it, only I knew

it would make her feel better, and it gave me a chance to see her, too."

He found that it was an easy matter to invent excuses for seeing her, and finally some time in the winter, he asked her, in fear and trembling, if she would be Mrs. Luther Wilkins.

So it happened in little less than a year the letter was given to its rightful owner.

"Why, it's nothing but an advertisement of some new preparation of cereals," she said, when she had opened it.

"Let's keep it," said Luther, softly. "If it hadn't been for that —"

"Yes, we'll keep it," said Letitia, blushing.

Power of a Sweet Voice.

There is no one thing that love so much needs as a sweet voice to tell what it means and feels, and it is hard to get and keep it in the right tone. One must start in youth, and be on the watch night and day, at work and at play, to get and keep a voice that shall speak at all times the thoughts of a kind heart. But this is the time when a sharp voice is most apt to be acquired. Watch your voice day by day as a pearl of great price, for it will be worth more to you in the days to come than the best pearl hid in the sea. A kind voice is a joy, like a lark's song to a hearth and home. It is to the heart what light is to the eye. It is a light that sings as well as shines. Train it to sweet tones now and it will keep in tune through life.

There is no saying to what perfection of success a man may come who begins with what he can do, and uses the means at his hand. He makes a vortex of action, however slight, towards which all the means instantly begin to gravitate. Let a man but lay hold of something—anything—and he is on the high road to success, though it may be very long before he can walk comfortably in it.

To be sensitive is to be lovable; but to carry sensitiveness into self-consciousness is to be very unlovable.

The one safeguard against such a nature is to look out, and not in. To think what we may be able to do for other people, not what they might do for us—that is the keynote of harmony.

What we think, or what we know, or what we believe, is in the end of little consequence. The only thing of consequence is what we do.

If, then, you would wish to live in the true sense of the term, cultivate the mind, give vent to the purest affections and noble feelings, and pen not every thought and desire in self. Live more for the good of your fellow-creatures; and in seeking their happiness you will promote your own.

If you wish to be miserable, you must think about yourself, about what you want, what you like, what respect people ought to pay you; what people think about you; and then to you nothing will be pure. You will spoil everything you touch; you will make sin and misery for yourself out of everything which God sends you. You will be as wretched as you choose.—Kingsley.

It doesn't amount to much to always promise and never perform. Nothing ever attains confidence in this world excepting what is attended by honesty and truth.

Finish every day and be done with it. You have done what you could. Some blunders and absurdities no doubt crept in; forget them as soon as you can. To-morrow is a new day; begin it well and serenely, and with too high a spirit to be cumbered with your old nonsense. This day is all that is good and fair. It is too dear, with its hopes and invitations, to waste a moment on the yesterdays.—Emerson.

Bad luck is not apt to pursue long the man who is going in the right direction.

Humorous.

A man left his umbrella in the stand in a hotel recently with a card bearing the following inscription attached to it:

"This umbrella belongs to a man who can deal a blow of 250 pounds weight. I shall be back in ten minutes."

On returning to seek his property, he found in its place a card thus inscribed:

"This card was left here by a man who can run twelve miles an hour. I shall not be back."

"When Mrs. Parvenu was poor, they used to say she was a great talker, but since she became rich it is different?"

"Indeed! What do they say now?"

"They say she is a brilliant conversationalist."

Gladys—Did he get on his knees when he proposed to you?

Marie—No; I was already on them.

THE QUIET HOUR.

Counting the Cost.

"When God is to be served, the cost we weigh
In anxious balance, grudging the expense.
The world may use profuse magnificence.
A thousand lamps from gilded roof may sway,
Where its poor votaries turn the night to day,
And who will blame? But if two tapers shine
Apart before some solitary shrine,
Why was this waste? Indignantly men say.
Oh! hearts unlike to his who would not bring
To God, releasing him from dismal fears,
What cost him nothing for an offering!
Unlike to hers, commended while she shed
Of that true nard which grows in spiky ears,
A rich libation on her Saviour's head."

There is in this age a great tendency to make Christianity as easy as possible. Just as we are bribed to buy tea or baking powder by the prizes offered, so the young especially are enticed to join this congregation or that for the entertainment provided. Of course, when the novelty wears off, the easily won disciples are easily lost—and what is such discipleship worth at any time? Will it stand any strain? It was easy to win the applause of the crowd, the multitudes were easily induced to follow Christ on Palm Sunday—when His cause was popular and pleasant—but the crowds were just as ready to shout "Crucify!" a few days later, when His cause had become unpopular. Let us see the attraction the Master Himself holds out to those who would follow Him. St. Luke says that when great multitudes went with them He turned and said unto them: "If any man come to Me, and hate, not his father, and mother, and wife, and children, and brethren, and sisters, yea, and his own life also, he cannot be My disciple. And whosoever doth not bear his cross, and come after Me, cannot be My disciple." He then explained by two parables, that we must count the cost before starting out on His service. It is not only in times of persecution that we must face the necessity of being called to give up all for our King; only those who hold themselves and all that they have in an open hand, ready to sacrifice everything if He requires it, can possibly be said to fulfil the hard conditions He requires of a true disciple. The will may be taken for the deed, as in the case of Abraham: For "was not Abraham our father justified by works, when he had offered Isaac his son upon the altar?" But let no one think it is an easy thing to follow Him who has solemnly declared: "Whosoever he be of you that forsaketh not all that he hath, he cannot be My disciple."

Now comes the strange fact that it is the very costliness of this service that makes it so attractive. If the Son of God had come to earth and lived here a life of luxury and ease, departing gloriously in a chariot of fire, He would never have won the admiration of the world.

David refused to offer to God that which cost him nothing, and it is certain that a religion which costs us nothing is a very worthless thing. It is not really attractive, for no one cares even for a game if he can win it without effort. Why do so many boys wish to be soldiers? It is not the desire to kill, but rather the enthusiasm of self-sacrifice, which makes them think it a grand and glorious thing to go forward, in obedience to the word of command, even "into the jaws of death." We don't really want to slide easily and comfortably through life; in theory at least we are all attracted by heroic self-sacrifice more than by a life of self-indulgent luxury. The conductor of a train was once taking up the collection in church. When a man failed to put anything on the plate he reached up absent-mindedly for the bell cord, and said: "I will put you off this train if you do not pay your fare." Of course it is not always possible to put a contribution on the plate, but let no one think he can "beat his way" to heaven. God does not need our sacrifices, but from the earliest days He has required them—and it is well to remember that He sometimes refuses to accept the gifts offered. In the very beginning of man's history it was so, for "the Lord had respect unto Abel and to his offering; but unto Cain and to his offering He had not respect." "Don't let us be satisfied with giving away only the things we have no use for; don't let us spend all we can on our own pleasures and then give to God a little of what is left. He requires the "first" fruits, and if we present only the "last" fruits of our lives, our money, or anything else we have to give, is it likely that He will accept our offerings? A young man once said to a college friend: "If I fail in my exam. I shall probably go into the church, as we have a living in our family." His friend answered, shortly, "That seems rather like giving the refuse to the Almighty, doesn't it?" The words struck home, and the young man did indeed enter the ministry, but instead of accepting the comfortable country living, he devoted himself, body and

soul, to his Master's service among the crowded London tenement houses.

The Israelites were warned that their sacrifices must be without blemish; they were forbidden to bring anything "blind, or broken, or maimed." The prophet says: "If ye offer the blind for sacrifice, is it not evil? And if ye offer the lame and the sick, is it not evil? Offer it now unto thy governor, will he be pleased with thee, or accept thy person? saith the Lord of hosts." Don't we Christians often feel perfectly satisfied to offer worthless sacrifices? It might be well for us to cultivate the spirit of the little girl who kept all her brightest coins for church and S. S. If she had no bright ones she scoured the old coppers until they shone, singing all the time, "The brightest for Jesus."

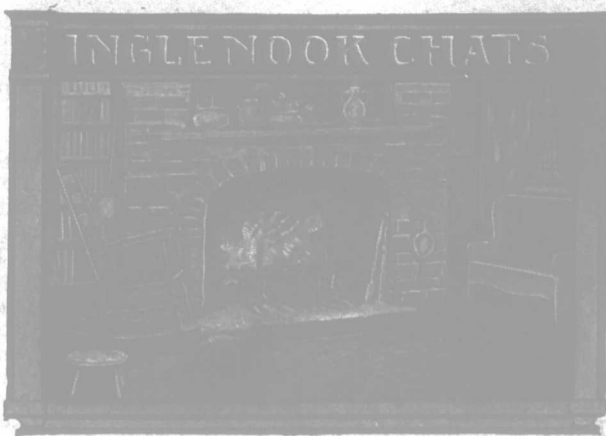
We must count the cost before choosing Christ's service, lest, as He says, we begin and are not able to finish; but we are forbidden to count the cost when actually offering our gifts. We must not count the cost of our offerings, for Christ has said: "Let not thy left hand know what thy right hand doeth." It was not Mary who explained that the ointment she poured out so gladly in her Master's honor might have been sold for more than three hundred pence. King-sley's sad irony may often have been true of our gifts—don't let it be applicable in the future:

"I was not good enough for man,
And so was given to God."

HOPE.

"Thursday."

The way to thoroughly enjoy your dinner, we are told, is to have earned it yourself. Probably these worthy monks will find the fish which is to be their Friday's fare twice as toothsome because they all went a-fishing on Thursday. That they are enjoying their outing can be plainly seen by a study of their several faces; and why should they not? The artist has brought out delicate shades of character, and has fittingly grouped them. The four kindred spirits watch with keen interest the landing of his prey by the jolly old monk in the foreground; the monk who, having tied his rod to the stake, sits placidly by the jar of bait; the studious monk, lying prone at his feet, and the monk behind him baiting his hook, but catching no fish; with the monk to the left, with chair tilted backwards, taking his ease without disguise—has each a place in the typical picture of monastery life across the ocean. Thursday work and healthful play will assuredly result in too good an appetite for a fitting fast on Friday.
H. A. B.



My dear Guests,—

The three best sets of Canadian Memory Gems have been sent by Miss A. L. McDiarmid, Ormond, Ont.; Miss Marion Lewis, West Flamboro, Ont., and Miss Mary Ker, Fenwick, Ont., to whom the prizes are accordingly awarded in order of names. Only eleven competitors entered this contest, and three of these did not limit their selection to Canadian writers, and, therefore, could not be judged. The contributors, other than the prizewinners, were: Janet E. Waterman, Elsie Arnold, M. Adelle Kyle, Alberta Bastedo, Maggie Love, Jessie McIntyre, Myrtle Bailey and Sadie Ruttle.

[Note from Editor.—Many of our most noted Canadian writers were entirely overlooked in this contest, but, in spite of this, the quotations sent in were of great literary excellence. Among the authors chosen were: Roberts, Ralph Connor, G. W. Ross, E. H. Dewart, Edward Blake, Chas. Sangster, Morton, Brown, Lampman, Stafford, Eaton, Duncan C. Scott, Annie Jack, Seranus and Ethelwyn Wetherald.

Many of the extracts sent were of such length that we have decided not to publish them this time. The prizewinners will receive their books promptly, and the editor of the Home Department takes this opportunity of acknowledging with thanks the many kind recognitions of the worth of these prizes, which are, indeed, well worth striving for.]

A. B.—I hope you will no longer be "a stranger to the Ingle Nook." Did not your name appear in the "Advocate" in the old puzzle days? "Jewess."—I have lived all my life on a farm, and my occupation has always been that of the orthodox farmer's daughter. I have often visited in towns and cities, but much prefer country life. I never sent a valentine in my life, and received

but one—that was from an admirer four years old.

Jessie McI.—Your letter was quite interesting. I should like to visit your Prairie Province.

I hope those who were not successful this time will not be too discouraged to try again. We have something new for next time.

OUR COMPETITIONS.

Not all of our readers care for essays or memory gems, but the majority of them like something in the puzzle line, so this time we will cater to the taste of the greater number.

Do you know your alphabet? Here, then, is a chance to test your knowledge. In the following puzzle certain letters are used phonetically, to represent certain words, and three prizes will be awarded for the most correct and neatest sets of answers to the questions given below. Example: What two letters name a well-known plant? Answer, I V (Ivy).

1. What two letters mean to adorn?
2. What three letters mean one who hates?
3. What two signify to impair?
4. What two mean to surpass?
5. What two signify an attempt?
6. What two are shabby or worn out?
7. What four mean higher, more lofty?
8. What three are excited by malice?
9. What two are an ornamental molding?
10. What two signify frigid?
11. What two describe this puzzle?
12. What two form a weapon?
13. What three make a mournful poem?
14. What three signify vigorous operation?
15. What two mean to coop up?
16. What two are a transgression of due limits?
17. What two are overgrown with rushees?
18. What three beget weariness?
19. What two mean malignity?
20. What three name a book of the Old Testament?

A certain amount of license is allowed in sounding some of the letters, but all are clearly recognizable. Answers to this puzzle will be received until May 10th. Send all work to Pakenham, to the address given below. This is a very simple contest, and I look for a large number of competitors.

THE HOSTESS.

Ingle Nook Chats, Pakenham, Ont.

"Thar bein' nothin' to cultivate in the city," remarked the farmer, "of course you folks don't have no harvestin'-time."

"Well," replied the summer boarder whose city home was next door to a conservatory of music, "there are voices to be cultivated, and then we have a harrowing time."



"THURSDAY."

A Wise Adviser.

"Mother," said Nettie Small, "I believe that is Mrs. Grahame coming along the road. I expect she is coming here, and the floor isn't clean. I am sure I never dreamed of any visitor coming to-day, and just look at my dress! I am afraid Mrs. Grahame will talk."

"Dismiss your fears, Nettie," said her mother (who was busy hooking), "Mrs. Grahame never talks, at least not in the way you mean. No, Nettie, Mrs. Grahame is a good, conscientious woman, a wise counsellor and a faithful friend. There is no deceit about her. If more women were like her in this respect, there would be far less ill-feeling and unhappiness in the world."

Nettie ran upstairs to dress. The door-bell rang, and Mrs. Small warmly welcomed her visitor.

"Come into the dining-room, Mrs. Grahame, and take off your wraps. You can stay the afternoon, can't you?"

"No, Mrs. Small, only a little while, for Maud has gone to visit a friend. Oh, you are busy hooking. That is why we haven't seen you for so long a time. Nearly all the women in the settlement have caught the hooking fever. It is very prevalent during the months of February and March. I am glad that I am not susceptible to the disease."

"Why," said Mrs. Small, "don't you believe in hooking mats?"

"No, I don't. I used to, but I have grown wiser (though some people might term it lazier). But I learned a lesson when I hooked the last mat, which I shall never forget. I was hooking all alone, for Maud was kept quite busy doing the housework, attending the poultry, etc., and hadn't time to help me. It was a large mat, nicely stamped, and I was very proud of it. I was anxious to get it finished up early, so I worked very hard. Sometimes I was so tired that I could scarcely walk, but I kept on until one morning I couldn't get out of bed. The doctor was sent for, who pronounced the disease nervous prostration, caused by overwork and lack of outdoor exercise. I was laid up for several weeks, and I vowed that I would never hook another mat."

"Really, Mrs. Grahame, I am not surprised that you don't believe in hooking, after such a trying experience. It is certainly hard work, especially when one is hurrying up to finish. I feel very tired when night comes."

"Take care, Mrs. Small, remember my experience. I am certain that mat-hooking is not a healthful occupation for women. Yet many women still persist in breaking down their health, and starving their minds, merely for the sake of having some rag mats to put on the floor. They talk of economy, but I fail to see where the economy comes in. Half-worn garments are cut up, that with a little mending would last for months, and I have known women who actually bought new material to finish up their mats. Worn-out rags are almost useless, for they are hard to hook, and the mats won't last long if they are used. The way to make a strong, durable mat, is to buy cuttings from the tailors."

"But they are expensive, aren't they, Mrs. Grahame?"

"Yes, rather, but homemade mats are expensive articles anyway. Just figure up the worth of the material used, and so much precious time spent, which should be better employed. Farmers' wives and daughters have no time to hook mats. If they have, some more important work is neglected, or they suffer from the effects of overwork."

"Very true, Mrs. Grahame. Nettie does not believe in hooking, either. She would much rather read the papers and magazines."

"Nettie is wise, if she always reads only good practical literature. But where is she this afternoon?"

"She is upstairs, Mrs. Grahame, and I shouldn't wonder if she is reading the 'Advocate.' She often forgets all about her work when she is reading an interesting article. We just received the 'Advocate' this morning, and James and the boys all want to read it the minute it is brought from the office."

"Just like our folks, for all the world. There is a general rush for it. We subscribe for four other magazines, but it is the especial favorite. It contains so much profitable and instructive information, it is truly a credit to the publishers. My boys laugh when they see me reading the agricultural columns."

"Why, Mrs. Grahame, do you really read what I call the men's department? I always read the Home Department, and enjoy it very much, but I don't bother reading all about live stock, agriculture, etc. That is the men's business."

"It is the women's business, too, Mrs. Small. Farmers' wives and daughters do not read enough good practical literature. We should encourage the children to read agricultural magazines. Our boys take far more interest in the farm since we have taken the 'Farmer's Advocate.' We consider it the best magazine published in Canada.

Isn't the Christmas number something to be proud of and prize highly?"

"Yes, indeed. We were all delighted with it. Such a handsome cover, beautiful engravings, and so many instructive, well-written articles."

"Now, Mrs. Small, take a friend's advice. Hook less, and read more; provide the children with plenty of good literature, but don't allow them to read trash. Don't sit leaning over that mat all day long, but go out for an hour or two every day, to enjoy the fresh air and sunshine. I know that we should be industrious, but we should not work too hard. We should always arrange our work systematically, and take some time every day for rest, reading, and recreation. It never pays to violate the laws of nature. We should never forget that prevention is better than cure. But I must start for home at once; come and see us soon. Good-bye."

"Thank you for your advice; I am sorry you can't stay for tea. Good-bye, Mrs. Grahame."

(MRS.) ANNIE RODD.

Charlottetown, P. E. Island.

THE CHILDREN'S CORNER.

Growing Up.

We often hear it said that there are no children nowadays; the little ones are so clever (or think they are), and learn such a quantity of things at school, that they seem quite grown-up long before they get into their teens. Now, it is not very wise to grow up too fast. Perhaps you may have heard that "the people who get up too early in the morning are conceited all the forenoon and stupid all the afternoon." I know that people who live on a farm will be shocked by that saying, but whether it is true or not, it is certainly true that the children who insist on growing up too soon, and who look down on their elders, are conceited all the forenoon of life. They are pretty sure to be stupid all the afternoon of life too, for as they feel sure they know more than anyone else, they soon give up trying to learn—becoming like a stagnant pool of water. Sometimes they are not even sensible enough to be ashamed of themselves, as the snowdrop was when it found out what a mistake it had made in pushing itself forward in too great a hurry.

"One day in spring, a snowdrop woke,
Far down beneath the snow,
And said, 'I mean to sleep no more,
I want to stir and grow.
I want to leave the cradle-bed,
I will, I will grow up,' it said.

"'You must not go,' the tulips cried.
'Why, you can scarcely creep;
It is not time, the ground is cold;
So nestle down and sleep.'
'No, no,' it answered, quite ill-bred,
I will, I will grow up,' it said.

"So up it crept, and soon its head
Peeped forth above the ground.
The air was chill, and drifts of snow
Lay melting all around.
'But I will not go back to bed,
I will, I will grow up,' it said.

"And so it upward pushed its leaves,
Though yellowed with the frost;
And soon a flower-bud shot forth.
And by the storm was tossed.
'Tis time my pretty flowers were spread,
I will, I will grow up,' it said.

"In April days so soft and warm,
The other flowers were seen
Making their way in thrifty clumps
Of deepest emerald green.
No storm winds now; warm sun, instead,
To kiss their buds of blue and red.

"And there they saw the snowdrop stand,
Who would grow up too fast;
Its leaves were pale, its feeble flowers
Were tattered by the blast.
And all ashamed it hung its head,
And wished that it were down in bed."

It is very foolish to look down on other people because they show signs of age and hard work. Once upon a time a Kettle started to make fun of a poor old Saucepan that was busily boiling a pudding. The Kettle was new and shiny, and the Saucepan was old and chipped.

"I should think it was about time you retired to the dust-bin," sang the Kettle mockingly.

"I suppose I shall go there soon," replied the Saucepan, "but I hope to do some more work first. I can boil cabbage or potatoes as well as ever I did. The only fear is that I might begin to leak, for I have been patched twice."

The Kettle sang louder than ever. "What! Patched up," he laughed. "Now, look at me! Not a speck!"

"There will be a good many specks on you

soon," answered the Saucepan. You should not jest at the misfortunes of age. You will be old yourself some day."

Be as bright and shining as the kettle by all means, but don't sing your own praises or look down on your elders. You would admire a soldier who came back from Africa wounded and shabby, far more than one who was just starting gaily off to the war, without a scratch on himself or a spot on his uniform. But you will vote me a worse "old bore" than the Saucepan, if I preach too much when you are wild to get out of doors and play marbles.

"Hurrah! Hurrah! It's marble time!
And every boy who's got a dime
Or nickel somewhere stored away,
Will, after school, be out at play.
What if the wind blows chill?—it's fun!
And there are corners in the sun.

"Now bring your 'allies' bright, and bring
Your bag of 'mibs' and make a ring,
And if it's little or it's big,
There's not a feller'll care a fig;
But if you 'hunch,' no boy in town
Will play, and you must 'knuckle down.'"

Oh, don't I wish that I might go
Unto the land where marbles grow
Upon the trees like fruit, and pull
Them off, and fill my pockets full!
Though I can't find that country, I'm
Just jolly glad it's marble time."

COUSIN DOROTHY.

Domestic Economy.

FOR "SQUEAKY" SHOES.

To prevent shoes and boots squeaking, put a few drops of oil round the shoe between the uppers and soles with a small oil can.

THE EMERGENCY CABINET.

Every household should endeavor to have an emergency cabinet or cupboard, carefully furnished and promptly replenished, when supplies begin to lower. In it should be kept a cleaning fluid, turpentine, gasoline or benzine, oxalic acid, prepared chalk, chloride of lime, ammonia, absorbent paper, alcohol, and the thousand and one things which, if not used daily, are indispensable when they are wanted.

QUICK RELIEF FOR SLIGHT BURNS.

For the immediate application to a burn or a scald, perhaps there is nothing more efficacious than simple flour. It should be applied immediately and spread thickly over the affected surface, the part being wrapped afterward in cotton wool, kept in place by a bandage or strips of old linen. If the burn or the scald be merely superficial, this remedy will be found most excellent, but where the deeper tissues are involved, other remedies are to be recommended in preference.

A NEW VARIETY OF APPLE FRITTER.

An attractive and timely dish is apple fritters, for which the Boston Cooking School Magazine gives the following recipe:

Select seven or eight apples that will cook quickly (mellow Greenings are good for this purpose). Cut out the stems together with a round piece of apple and clean out the core carefully. Cut out the blossom end, but do not cut deep enough to meet the cavity in the center. Pare the apples, fill the centers with marmalade, dip the corresponding pieces of apple with stem adhering into fritter batter and press them into place. Dip the apples in fritter batter, covering every portion, and fry in deep fat. They will require six or eight minutes' cooking. Drain and dust with powdered sugar.

Hygienic Chat.

How few things are so dangerous to health as damp clothes. Both outer and under garments should be thoroughly aired before worn, and a new garment should have particular attention paid to it in this respect. Stockings, vests and skirts are all put on, as a rule, just as they come from the shop, and things which have been in a shop for months, probably for winter months, are most liable to be damp.

When garments have become wet while being worn, the wearer should discard them as soon as possible.

Wet clothes should be dried slowly. To put them before a hot fire is to ruin them. Cloth and other materials are liable to shrink and cockle, and boots and shoes contract and become stiff and are generally soiled and useless if quickly dried. Always change damp shoes as soon as may be convenient. When it is not convenient to change, bodily exercise should be taken to ward off ill effects. These will not arise (unless the person be very delicate) if the body and limbs are kept in motion, but if the wearer remains still or dries the clothes while wearing them, colds, rheumatism and other evils will most probably follow.

Something About Devonshire.

no. III.

There is an old house with its three bow windows, one above the other, at the junction of the narrow Strand and the still narrower Queen Street leading down to the harbor, where it is believed that Keats, already in bad health and needing a warm climate, spent a winter and spring putting the finishing touches to his "Endymion," revising its proofs as they came to him from the London printers, and writing his "author's preface," which bears the inscription "Teignmouth, April 10th, 1818." It is evident that Keats could sometimes come down from the clouds and enjoy some of the good things of this life, for after speaking of the beauty of the River Teign, he thus scribbles in doggerel form:

"Here all the summer I could stay;
For there's Bishop's Teign, and King's Teign,
And Coombe at the clear Teign head,
Where close by the stream
You may have your cream,
All spread upon barley bread."

What Devonshire man, woman or child does not, at all events, know of Coombe Cellars, with its cockles, cream and skittles, which for over a century has been the picturesque goal of many a water-picnic up the Teign? The old thatch has been replaced by tiles of a more modern date, but there have been retained, I am told, nearly all its old characteristics, its foundations of piles, and the balcony upon which visitors love to linger to view the summer sunsets before they reluctantly leave the enchanted spot. They have enjoyed during the afternoon hours the distant views of "Dartmoor, with the three lofty tors standing up against the sky, below them the undulating hills, meadow-clad, that lie beyond Newton." They have discussed with one another the accuracy of Baring Gould's description of Coombe Cellars, which he has adopted as the scene of his novel, "Kitty Alone." They have heard some of the old smuggling legends which adhere to Coombe Cellars, although it is doubtful whether the guilty spots were not rather the old salt factories near by, but they still linger on, for a sight of the going down of the sun on a summer's evening from the river bank at Coombe Cellars, is worth the extra effort required at the oar if the tide and time limit has been somewhat overstepped to ensure an easy passage of their little craft under the arches of the big bridge which spans the Teign between Shaldon and Teignmouth.

For Shaldon I have a very soft spot in my heart, and a prouder around its queer little tangle of streets between the water side and the main street, and the climb upwards to the Torquay Road, has lost none of its enjoyment for me. The ferry lands me almost in front of the house where we lodged more than once in the old days. It is evidently in private hands now, and I am not daring enough to ask for a peep inside, but I have been into an old garden where I used to play with those who have all passed away before me, and I have seen the spot where a slow-going old tortoise used to drag itself and its house up and down the pebble pathway, snapping at the passing insects until the winter coming, with its warning that it was time to go to bed, it would burrow underground and not reappear until spring-time. "Yes, ma'am, I've heard tell that there used to be a tortoise in the garden, but that was long before our time," as I might have known without the asking. I was glad to see that the old gateway at Hunters' Lodge still stands as of old, its posts being formed of the enormous jaws of a whale, and, as it were, in defiant attitude, testifying to the fact that in life the creature could have swallowed two Jonas at one snap if it had had the opportunity. Starting from Shaldon as a center, there are many lovely walks to villages around, most of them with an old church or manorhouse, or some old-time record, to make them worth visiting. I will mention some of their names, in the hope that they may strike familiarly upon the ears of old Devonians into whose hands our Home Magazine may fall. They will know that to reach them one's way generally passes through the winding, high-banked lanes, at all seasons picturesque and beautiful (but sometimes a trifle narrow, if the pedestrian is headed one way and a herd of cattle another), for which Devonshire is so celebrated. Going up the Torquay Road, there are gaps in the hedges and several gateways, where from an elevation as high as the Ness, and on either side of it, there are lovely peeps at the sea, but if you want to climb up to "Fuzzy Dee," through a lane most uncompromisingly steep, leading you to Stoke-in-Teign-Head, you must turn off to your right. A kind land-owner has placed in a sheltered nook a seat upon which you may rest yourself, and while you rest you may learn a lesson from the lines inscribed upon the pedestal of a sundial facing you. They run thus:

YOUTH.

"Mark well the hour of need,
The too fleeting shadow tells;
And, reader, ne'er commit a deed
On which a shadow dwells."

AGE.

"And as yon sun declining rolls away,
To rise in glory at return of day,
So may we set this transient being o'er,
So may we rise upon the eternal shore."

Stoke is described as "buried in a hollow threaded by flowery lanes, noted in springtime for their white violets." I am afraid I shall be "over the seas and far away" by then, though I should dearly like to gather with my own hand a big bunch of those sweet-scented, pure white blossoms which grow in such profusion. Walking, one cannot go on to Coombe-in-Teign-Head; nor to Netherton, "with its glittering ford;" nor to Haccombe Park, the seat of the Carews, of whom the ancient record says that they, "with Carey and Copplestone, when the Conqueror came he found them at home," but later on I may treat myself to a carriage or a bout to Coombe Cellars, and then see more of these old places than I could possibly do on foot. If I do either of these I shall be glad to tell you about them another time.

H. A. B.

Beautiful Land of Nod.

Come, cuddle your head on my shoulder, dear,
Your head like the goldenrod,
And we will go sailing away from here
To the beautiful Land of Nod.
Away from life's hurry and flurry and worry,
Away from earth's shadow and gloom;
To a world of fair weather we'll float off together,
Where roses are always in bloom.

Just shut up your eyes and fold your hands,
Your hands like the leaf of a rose,
And we will go sailing to those fair lands
That never an atlas shows.
On the north and the west they are bounded by rest,
On the south and the east by dreams;
'Tis the country ideal where nothing is real,
But everything only seems.

Just drop down the curtains of your dear eyes,
Those eyes like a bright bluebell,
And we will sail out under starlit skies
To the land where the fairies dwell.
Down the River of Sleep our bark shall sweep,
Till it reaches the mystic isle,
Which no man hath seen, but where all have been,
And there we will pause awhile.

I will croon you a song as we float along
To that shore that is blessed of God,
Then, ho! for that fair land, we're off for that rare land,
The beautiful Land of Nod.

—Ella Wheeler Wilcox.

"What can I do for my little boy," asked mamma,
"so that he won't want to eat between meals?"
"Have the meals ficker together," replied the young hopeful.

On Women in Canada.

AS TOLD TO THE WOMEN IN ENGLAND.

Mollie has been "off duty" for awhile, and her friends across the big herring-pond may think she is getting lazy. Perhaps she has no better reason to offer, but she will not waste any more of her small allowance of space in the Home Magazine in making mere excuses. What she wants to tell you about now, is the high tribute of praise and appreciation paid to Canadian women at a meeting held under the auspices of the Colonial section of the Society of Arts on Tuesday last, the 10th February. Lady Aberdeen had consented to read a paper on the Women of Canada. There was a very large attendance, and amongst the audience were several well-known Canadians and some notabilities from Great Britain itself and our sister Colonies, a few of whom took part in the discussion which followed the paper.

Lady Aberdeen, who was cordially received, said there were few countries whose past history and whose present development were so closely identified with the influence of its women as Canada. The early days of the history of Canada, after it was settled by white races, were illumined in all its Provinces by the cherished traditions of the high courage and devotion of heroic women, traditions which had remained the inspiration of descendants worthy of themselves. There could not be too much said about the beauties, the attractions, and the rich promise of life in Canada; but its present position has been won by the unremitting toil of its pioneer settlers, and none had borne a heavier share of that toil than the young mothers, who, well educated themselves and brought up in comfortable homes, had afterwards passed through all the vicissitudes of rearing young families far away on the great lone prairies or in the depths of the forests and mountains. She could best sum up the chief impression made upon her by very close intercourse and friendship with Canadian women for several years, official and unofficial, by one word which was much in our mouths to-day—efficiency. French-Canadian, or Manitoban, Nova Scotian, British Columbian, or the women of Ontario, they were all alike hall-marked by this stamp. Meet them in society, watch them at their sports, examine their philanthropic or missionary work, or observe into the ways of their households, and they would find, as a general rule, capacity, alertness everywhere.

After telling the stories of the fourteen-year-old Madeline de Vercheres, who, with her little brothers of ten and twelve, and two soldiers, defended the Fort of Vercheres against the Iroquois for a week; of the Lady de la Tours' defence of her husband's castle in Acadia against his enemies in his absence; of the heroic Laura Secord in 1812, who travelled on foot for twenty miles, alone and wholly unprotected, through a wild country full of hostile Indians, to warn the Commander of a secret plan of attack of which she had heard accidentally, thus saving, not only the lives of our soldiers, but enabling them to secure a brilliant and most important victory; of that other band of heroic women who with their husbands and children sacrificed their all for their country in the days of the American Revolution, rather than relinquish their allegiance to the flag of Britain; of the women settlers in the outlying



COOMBE CELLARS ON THE TEIGN, DEVONSHIRE, ENGLAND.

parts of Canada, and more recently, in those wonderful Western Provinces of the great Dominion, they too have counted, and are counting, for much in the building up of the new country, whether as wives of farmers, or ranchmen, or lumbermen, or Hudson's Bay hunters, or miners. These stories had their climax in the following, which, having occurred within her own personal experience, and being a typical illustration of the "all-round capacity" of the women of the Canada of to-day, not only aroused peculiar interest in her hearers, but appeared in several of the daily papers on the following morning. It ran thus: The Governor-General and his wife when they were making a journey across the Dominion, dined one night at a house "remarkable even among Canadian homes for its charm and beauty, presided over by one of the most attractive of mistresses." They were waited on by so trim a parlor-maid that Lord Aberdeen felt constrained to compliment the hostess on the results of her training. "Oh," said the lady, "I am so glad you think Jane did well—I should like you to tell her so presently." "And when that 'presently' came," said Lady Aberdeen, "what should he discover but 'Jane' arrayed in evening dress, and proving to be the daughter of the house, who, in consequence of the unexpected departure of the servant, had had not only to wait at table, but to cook the meal, with the assistance of her mother. Thus, she said, do Canadian women learn easily and gracefully to combine the domestic duties of the household, whilst at the same time, dressing charmingly, taking their place in society, participating in outdoor sports, and directing philanthropic work with great effectiveness."

Lady Aberdeen's last words were: "I trust that what I have said has left the impression that the daughters of Canada are worthy of that land of sunshine and of promise, and that women who are seeking a new home will find no better country, nor one where they will have fuller scope for the exercise of all their abilities."

The chairman, the Rt. Hon. Leonard H. Courtney, after a tribute to the important part played by both the French and Scotch element in the "great and magnificent whole," said "women were asserting their place and making their place in the building up of society throughout the whole of the Dominion. To them they looked as the great co-operators in bringing out the real development of the Canada of the future."

Sir John Cockburn, of South Australia, in thanking Lady Aberdeen for her beautiful word picture of the women of a sister Colony, spoke eulogistically and as one who knew of what Colonial women were capable, and Mr. Preston, Emigration Commissioner for our Dominion, went still further and claimed for our country that it held within its vast boundaries the very "highest type of womanhood," an assertion which henceforth we must all do our best to deserve.

The only other lady speaker was Mrs. Boomer, of London, Ont., as representing the National Council of Women of Canada, to which frequent and most appreciative allusion had been made in connection with its broad scope of philanthropy generally, but more especially with the Victorian Order of Nurses, the several hospitals built under its auspices, and the establishment of the Aberdeen Society for the distribution of literature amongst the several outlying districts of the Dominion. Mrs. Boomer was allowed five minutes over the regulation ten, in which she was enabled not only to confirm all that had been already said from her own experience and knowledge, but to offer a few added facts to the record of women's work in Canada within and without the ranks of its National Council of Women. Perhaps some of her words of testimony may offer material for another little chat from—

MOLLIE.

The Sphinx's Riddle.

"What animal walks on four legs in the morning, two at noon, and three in the evening?"

How many of the young readers of the "Farmer's Advocate" can answer that puzzle? Do you know the story of the Sphinx and her riddle? I will tell you; there may not be a word of truth in it, but it is a matter of history, and you may not meet with it in your school books. The old writers tell us that Juno was angry at the King who reigned in Thebes, a city in Greece, and sent this Sphinx to plague the country. This the Sphinx did by proposing enigmas or difficult questions to the people, and the condition was that if any one answered one of her puzzles correctly she would destroy herself and relieve the country, but if any one tried and couldn't answer she would put him to death. But you ask, "What is a Sphinx?" It is only an imagination; something that never had an existence, but they are described as monsters, with the body of a lion and the head and face of a man or woman. These were called Androsphinxes, and there were others with the face of a hawk, called Criosphinxes. The Sphinx that plagued Thebes had the face of a woman and a terrible voice. She took her seat just outside the city and allowed none to

pass unless they solved the above riddle. This vexed the King of Thebes so that he offered his crown, and daughter to wife to any man that answered the riddle. The story tells that a young man called Oedipus, lame in both feet from childhood, came limping along, intending to enter the town, but was stopped by the monster, who told him he must answer the riddle before he would be allowed to go further. When Oedipus heard the riddle he answered it correctly, at which the Sphinx dashed her head against the rock and disappeared. Oedipus then entered the city, became King of Thebes, married the King's daughter, Jocasta, who turned out to be his own mother, which leads to another sad story. Now here is the answer to the Sphinx's riddle: Man, who while a child in the morning of life crawls on hands and knees, walks erect on two feet in the middle of life, but growing feeble in the evening of his days, needs a staff to support him.

J. O.

In the Saddle: A Winter Ride.

III.

Riding is enjoyable at any season. There is an inspiring charm about it in spring weather when freshets gambol and frisk in runaway courses, when "the folded leaf is wooed from out the bud," and under the warm zephyrs the peach trees blow in blushing profusion. On summer evenings, when the new-mown hay rests fragrantly over the meadows, and the cooling air is still, save for the chirp and hum of many insects, there is a dreamy pleasure in riding slowly and quietly; and on the "days that darken to winter," when the whole landscape is a vivid pageant and a perishing one, in its dying robes of red and gold, and the crows gather to their annual caucus, calling querulously, and the thin ice-layer breaks under your horse's hoofs, there is a fascination in a meditative, leisurely ride. But what about a ride on a winter morning in the teeth of a gale, when your horse's nostrils are white with frost, and you brace up and bend your head against the stinging storm? You'd "rather stay in the house and knit?" I wouldn't. You don't know what riding means till you try it on such an occasion.

I tried it recently—buckled the girths tightly, dressed warmly, fastened my veil securely, tapped my horse on the shoulder, and away! The sky was black-grey, the roads icy, the wind wild, and from the north-west there drove fine, hard snow-siftings. As I rode, the sky grew darker, the wind wilder, the snow more fine and dense, until all the elements seemed waging a furious battle. But I enjoyed it, and to all appearances so did Thucydides (call him that for short). He shook his head, kicked up his heels, and bounded off at a speed that seemed to me like that of Tam O'Shanter's Maggie. On we went, up hill and down, and I almost caught myself looking back to ascertain whether any terrifying witch was about to rob my Thucydides of his tail, as that nimble witch of Tam O'Shanter fame robbed Maggie. But I had no cause to pay such a penalty as Tam.

It was a picturesque road that we traversed, with numerous picturesque farmsteadings along the route. There were long, steep hills, sudden turns, bridges where one least expected them, and various cross-roads, every one of which Thucydides would fain explore as a possible short-cut, I suppose, to his own warm stable. The snow crept under my chin, and sifted into my horse's mane, and I rubbed my nose to keep it from freezing, while the wind moaned through the firs and shrieked through the elms, and whistled through the oaks, and switched about in eerie wails up through the glens. Not much enjoyment about such a ride, you think? Well, all I can say is what I have said before, "Try it."

At one time Thucydides stumbled slightly in crossing a bridge, and I gasped a little, but he sprang up and cantered along more vigorously than ever; another time he shied at a stump that somewhat resembled a steam-engine, and, again, he tried to take the bit in his teeth and carry me whither I would not, but on my admonishing him slightly he became all docility again. On passing some homes the snow was rather a welcome screen, as a good many things appeared off and on that by rights should have been on and off. For instance, gates were off their hinges, fences off the truth, shingles off the roof, boards off the barns, and shutters, lightning-rods, etc., off at various angles, while barrels, boxes, sticks, stones, bones and implements of all kinds were on the lawn, on the driveway, on the very spot, in fact, where each object should not have been. It is a pity to see such disorder and evidence of backsliding about any home; and no matter what a farmer's drawbacks or difficulties may be, is there any excuse for such carelessness and lack of method? But there were beauty-spots, too, along this road, and as Thucydides and I were strolling past one of them the storm abated, and the sun shone. It wasn't a palatial home by any means, but it was very neat and cosy, and habitable-looking. Everything seemed to have been put on straight, and kept so. There were some

new shingles on the roof, the tidy front porch had had a fresh coat of paint in the fall, the little row of evergreens on the lawn were trimmed to one size, and the same precision and care were evident about the barns.

That little beauty-spot seemed to influence the whole landscape, for as we went on I thought, "How can people see no color or loveliness in winter scenery?" The curling snowbanks glittered, and the road wound ahead of us like gleaming silver rails. There were clumps of faintly blue woods in the distance, a bit of very blue sky above, and deep blue shadows on the snow. Some of the slopes looked almost pink, and against their brightness rested the lovely greens of the pines. The willows, with their tiny yellow branches, were like spots of amber, and the goldenrod's brilliant autumn beauty had changed to a fawn feathery lightness. Along the fences clustered the brambles in shades of golden-brown and purple, and even the lichens on the old rail fences were green like the first spring leaves. And now, how soon those leaves will be unfolding! How soon this pure snow-mantle will fall from the shoulders of the hills and mother earth will come to her own again, and there will be no more winter rides for another year!

"O glad brown earth, we greet thee
Freed from the shrouding snow!
Soon shall the shadowy forests wake
To starry bloom for thy dear sake,
Soon where the rivulets flow,
The crumpled ferns their sheaths shall break,
The slender rushes grow.
O glad brown earth, to greet thee
The skies of Spring lean low."

CHRYSOLITE.

Floral Notes.

March is a good time to start pansy seed for early blooming.

Cut back oleanders early in spring before starting into growth.

Drooping house plants will revive if sprinkled with camphor water.

Plant gladiolus bulbs early, as soon as the frost is out of the ground.

This is a good time to take heliotrope cuttings for your flower garden in the summer.

All things considered, the Virginia creeper is the best climber for shading a veranda.

Do not forget to plant a few dahlia seed about the middle of March; then the plants will bloom this year.

Hollyhocks can be made to bloom the first year if the seeds are planted now in boxes and transplanted later on.

Bring your fuchsias up from the cellar. Cut back old plants, and cuttings may be taken from plants that are well grown.

A little lime water occasionally will help your pot and other plants; at the same time it will kill all angleworms in the soil.

Sweet peas can be started in a cool place in the house and transplanted outdoors as soon as the ground is ready. It may, perhaps, hasten bloom somewhat.

Cut branches of the lilac and other lawn shrub, or fruit or woods tree, bring to the house and place in water in the sitting-room; they will burst into bloom.

Canary bird vine is a good annual climber. It is very easy of culture, and a profuse bloomer; its pale green, finely cut foliage and yellow fringed blossoms are very attractive.

Unless your rubber plant is growing well do not give much water. Keep the foliage free from dust, and give fresh air frequently. Do not place in full sunshine, but do not keep it in much shade. Aim to have the temperature about seventy degrees.

February or March is a good time to start verbena seed. A light rich soil is required. Verbenas growing thriftily can use considerable water, and they should be in full sunlight. Pinching in the ends of the shoots in the early stages of growth causes the plants to branch freely. When seed sowing is left until late in spring it should not then be attempted, but plants can be procured at small cost.—[Woman's Magazine.]

During a sham fight an old general came unawares upon a soldier who was lying fast asleep in a field among the corn.

"Is this your post?" exclaimed the general, rousing him with the full intention of making an example of him.

The soldier, thus suddenly startled out of his slumber, rubbed his eyes, and on recognizing the officer, sprang to his feet, presented arms, and said:

"I beg your pardon, general, but we were going through a sham fight, and in order to make an illusion more complete I was just pretending to be dead."

GOSSIP.

Messrs. R. & S. Nicholson, Sylvan, Ont., in ordering a change in their advertisement, send the following notes of their Shorthorn herd: "Of our last season's importation were four yearling heifers from the herd of Mr. John Marr, sired by his chief stock bull, Luxury, a Rosewood, full brother to the champion Smithfield steer of 1899, and almost full brother to the noted Silver Plate. These heifers are of the Rosemary, W. S. Marr Lady Annie, Avene and May Bud families, and are a beautiful lot. Another yearling is Honeycomb 6th, of A. Crombie's Hawthorn tribe, sired by Spicy King, considered, in Scotland, the best son of Spicy Robin. The yearling, Coronatia, was purchased from Mr. S. Campbell, Kinellar. The last three sires in her pedigree were bred by Mr. W. S. Marr, W. Duthie and A. Cruickshank. She is three times descended from the noted Scottish Archer, and is due to calve to Prince Sunbeam, a son of Scottish Archer. These six I consider the best lot of yearling heifers imported in 1902. The two-year-old heifer, Lady Hope Wimple, was sired by the grand getter, Prince of the Vale, lately illustrated in the 'Advocate,' and her heifer calf, Spicy Wimple, came with her. They are a beautiful pair. Of a former importation, we retained the handsome young cow, Pineapple 9th, who during the last 18 months has produced two superb heifers that, if not sold, will be in Toronto next fair time. They are sired by Imp. Chief of Stars, the best getter we ever used. Amongst the home-breds are six red Nonpareil females, most of them having none but imported bulls on pedigree of imp. cow, Nonpareil 31st. We have five red Minas of the purest Scotch breeding, a low, thick, even lot, and two Campbell Clementinas that are extra producers, one Cruickshank Lovely, a granddaughter of old Imp. Lovely 19th. She is the dam of the Lovely heifer that Mr. Flatt purchased for \$500, and we consider these two the best bred Lovelys in Canada. There are also a number of the grand old Miss Syme sort, more than half of which have won prizes at Toronto, and why should not they, as the last six or seven sires in their pedigrees were all first-prize winners at Toronto or the old Provincial. The herd is now headed by the imported yearling bull, Spicy Count, a Clara, sired by Spicy King, bred by Mr. Wm. Anderson, Saphock, Old Meldrum. Spicy Count is full brother to the International junior female champion at Chicago in 1901. He was the best bull calf we saw in Scotland, and has exceeded our most sanguine anticipations. At just one year old his heart-girth was six feet two inches. His upper and lower lines are perfect, his evenness of development, width of back, beautiful carriage, width and depth of buttocks is something remarkable."

A SHORTHORN DISPERSION SALE.

Attention is directed to the dispersion sale of the entire herd of seventeen head of registered Shorthorn cattle belonging to E. C. & E. C. Attrill, Ridgewood Park Farm; Goderich, Ont., to take place on April 14th. These cattle were nearly all purchased from the well-known standard herds of Robt. Miller, Stouffville; James Douglas, Caledonia, and T. Douglas & Sons, Strathroy, and have the benefit of the blood of the high-class sires used in those herds, and all are in excellent condition. The cows and heifers of breeding age are in calf or have calves at foot by Genora's Prince =31745=, a son of Valkyrie =21806=, by the champion Abbotsford, out of Vanity, a Toronto first-prize winner; or by World's Fair King =38431=, by Beau Ideal, a Toronto winner, sired by Sittyton Stamp (imp.), and out of Bessie Lass (imp.), bred by Sylvester Campbell, Kinellar. Goderich, on Lake Huron, is the terminus of the Buffalo and Goderich branch of the G. T. R., 45 miles west of Stratford Junction, and 13 miles from Clinton Junction, on the London and Wingham branch. Catalogues are in preparation, and will be sent on application.

NOTICES.

THE HAMILTON PROVIDENT AND LOAN SOCIETY, of Hamilton, Ont., place an advertisement in these columns, calling attention to the favorable terms on which they are willing to lend money to farmers. Parties interested should look up this advertisement and correspond with the manager.

"COCK O' THE NORTH."—The most attractive and effective catalogue reaching our offices for many a long day is that recently issued by the American-Abell Engine and Thresher Company. It is a beauty outside and in. There is a fine portrait of King Edward VII., a description and cut of the Gordon Highlander charge at Dargai Hill, the music of the regimental march, the last Duke of Gordon, besides all about up-to-date threshers and engines. A post card, mentioning the "Farmer's Advocate," will secure you a copy. Address American-Abell Engine and Thresher Co., Toronto, Ont. Do so at once, as the supply may be exhausted.

FREE BOOK ON FORTUNE-TELLING.—The Mystic Fortune-Teller, Palmist and Dream Book enables you to entertain your friends in a most novel way, makes you sought after at parties and social gatherings, and arouses in those around you the belief that you possess the mysterious and occult powers which are attributed to those who tell fortunes. This book is composed of 48 pages, and besides a treatise on fortune-telling, contains valuable information regarding Dr. Chase's famous family remedies. It will be sent postpaid along with a free sample box of Dr. Chase's Ointment to anyone sending their name and address, and mentioning this paper, to Edmansson, Bates & Co., Toronto.

SELECTION OF OATS FOR SEED.—

We wish to advise you that there is an increased demand for oats for milling purposes, but on account of foreign grains, especially barley mixture, a large proportion of the oats we received from you are unfit for milling. As oats for this purpose command a premium, we request that you see that your seed oats for this season are free from barley, wild oats and other foreign grains, as it is absolutely necessary that oats for milling purposes shall be choice white oats. With your hearty co-operation in furnishing us with choice oats suitable for milling you will enable us to obtain the highest prices for oats at all times, as we will then have both an export and a milling market for the same. Yours truly, GRAIN MERCHANT. March 9th, 1903.

A PIANO WITH A RECORD.—

We have every confidence and the greatest pleasure in drawing the attention of "Advocate" readers to the advertisement of Heintzman & Co. that appears in these columns from time to time. This famous firm of piano-makers have been in business in Canada for fifty years. Their pianos have received the endorsement of the world's greatest artists and all the leading musical conservatories, and of prominent citizens in all parts of Canada. Readers who are thinking seriously of buying a piano should address this firm, whose head office and warerooms are at 117 King St. west, Toronto, and who have a branch at 217 Dundas St., London. The firm is noted for their straightforward dealing at all times.

GOSSIP.

H. K. Fairbairn, Thedford, Ont., writes: "Our Shorthorn cows are of the following families: Watt Matchless. Village Maid, from the same herd, has dropped a bull calf of grand quality, sired by Coming Star. The heifer, Matchless 34th, is a good, sappy, growthy animal, and has a model calf by Royal Wonder =34682=, sold to the States at \$1,000. Golden Gem, by Golden Rule, by Golden Crown (imp.), is a fine red cow, six years old, with a red-roan bull calf at foot. Frances Folsom 3rd, dam of the heifer calf that was shown by Capt. T. E. Robson at Toronto and Western fair.

IMPORTING PERCHERONS FROM U. S.

In reply to an enquiry from the "Farmer's Advocate," asking if Percheron horses for breeding purposes registered in the Thompson record were admitted duty free into Canada, or must they be recorded in the new Stubblefield registry, we have received the following reply from the Department of Agriculture, Ottawa: "Either certificate accepted, provided animal possesses qualifications for improvement stock."

FREE ENTRY TO U. S. OF REGISTERED STOCK.

A bill passed both branches of the U. S. Congress on March 2nd, providing explicitly that all animals registered in books approved by the Secretary of Agriculture shall be admitted free of duty whether being imported for purposes of sale or not. This action disposes of a question of interest to Canadian breeders, which for a limited time has been enshrouded in doubt, and the intelligence will be received with satisfaction.

QUESTIONS AND ANSWERS. MISCELLANEOUS.

FEEDING RAPE TO HOGS—PRUNING TREES.

1. I would like to hear, through the "Advocate," something on feeding rape to pigs. One of our neighbors tried some last year, and it made his hogs fearfully sick. Is it good for sheep? 2. Is February a good month in which to prune trees? W. B. Pictou Co., N. S. Ans.—Rape is not very widely used for hog pasture, but where employed it gives good satisfaction. The trouble with your neighbor's hogs was probably due to pasturing when the rape was wet with dew or rain, or perhaps they were too suddenly put upon rape alone for feed. All kinds of stock should be gradually accustomed to rape, and should not get it when wet until they are well used to eating it. It is one of the best fall foods for sheep and cattle. 2. Trees may be pruned in winter. See Feb. 2nd issue.

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.

For prompt delivery, orders must be placed with nearest sales agent at once. We invite correspondence.

R. ALISTER & CO. LTD. 579 & 581 ST. PAUL STREET. MONTREAL.

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.

Valuable Farm and Residence for Sale

In Lambton Co., Ont., s. 1 lot 11, con. 2, Plympton Tp.; 1 1/2 miles from Wyoming, 12 from Sarnia, 6 from Petrolia; the best markets 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 40x70, 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. CHEAPMAN, Box 156, Wyoming, Ont.

GOSSIP.

A high-class German Coach stallion is advertised for sale by Robt. Anderson, Salford P. O., Ont., near Ingersoll, G. T. R. and C. P. R.

Mr. L. Rodgers, formerly of Weston, Ont., breeder of Improved Yorkshire hogs, desires to inform readers of the "Advocate" that he has changed his P. O. address to Emery, Ont., and will be pleased to hear from his old customers, and many new ones, whom he is prepared to supply with young stock of either sex and different ages. A good crop of spring pigs is coming and expected, for which orders will be booked for shipping when weaned.

Six Governments
in America and Europe have adopted and use exclusively THE SPRAMOTOR in their experimental work. Eighty-two Outfits are in use by Ontario and Dominion Governments alone. The Spramotor has won over one hundred Gold Medals and First Awards in the past three years.

Wins a Government Spray Pump Contest.
This is to Certify, that at the Contest of Spraying apparatus, held at Grimby, under the auspices of the Board of Control of the Fruit Experimental Station of Ontario, in which there were eleven contestants, the Spramotor, made by the Spramotor Company, was awarded first place.

It is any further endorsement needed it will be found in the superiority of the Spramotor itself. It is an easy, quick and thorough eradicator of fruit and vine diseases and insect pests. Unequaled in white-washing and painting buildings inside and outside—oil or water paints. We publish an 80 page book, "A Gold Mine on Your Farm," which in addition to formulas, tables, best methods, etc., in spraying, tells about the Spramotor. We mail it free. Ask for a copy.

SPRAMOTOR CO., BUFFALO, N. Y. and LONDON, CAN.

GOSSIP.

Prof. H. W. Mumford, Chief Animal Husbandry Department, University of Illinois, formerly of Michigan Agricultural College, has purchased the famous 400 acre Springbrook Farm, said to be about the best in Michigan, and long noted for its Shorthorn cattle and Merino sheep. He intends it for his future home, though he does not purpose giving up college and station work in the meantime.

At the sale of Shorthorns from the Windsor and Sandringham herds of His Majesty the King, February 26th, an average of £82 2s. 6d. for forty-eight head was realized. The bull, Royal Duke, champion of the Royal Show three years in succession, made the highest price, being secured by Mr. Miller for exportation to the Argentine Republic, at 800 gs. (\$4,200). The young bull, Body Guard, realized 300 gs., the purchaser being Mr. J. Douglas Fletcher, Rosehaugh. The highest price for cows or heifers was 210 gs., Sweetheart (bought by Lord Calthorpe); Sir Alexander Henderson gave 200 gs. for Circe, and Mr. Sydney Hill, 165 gs. for Prima Donna.

Messrs. Wm. Grainger & Son, London-boro, Ont., in sending in a change of ad., write: "The young Shorthorn bulls we are offering are a grand lot. We would especially draw the attention of intending buyers to the two 24-months-old bulls. They are extra good ones, will weigh 1,700 lbs. in nice working order. Sired by the Isabella-bred bull, Golden Eagle =30943=, from Isabella 14th, same dam as the champion Moneyfufel Lad, and their dams by Beau Ideal =22554=, the third-prize bull at Toronto in 1900—a grand bull, of great substance and quality, weighing at five years old 2,700 lbs. Golden Eagle =30943= weighed, at 3½ years old, 2,800 lbs. Our recent sales are: one bull to H. Smith, Exeter, Ont.; one bull to T. H. Evans, Trenholm, Que., and one bull to Sandy Matchet, Peterborough, Ont."

Messrs. Brown Bros., Lyn, Ont., breeders of Holsteins, write: "We are well pleased with the results from advertising in 'Advocate.' Have made the following sales since February 13th: To Robt. Miller, Stouffville, the yearling bull, Sir Ybma De Kol Hengerveld, a son of Ybma 3rd's Pledge, A. R., 18 lbs. 5 ozs. butter in seven days at two years old, and sired by De Kol 2nd's Butter Boy 3rd. He was winner of first prize at Ottawa and Sherbrooke, 1902. To Gordon H. Manhard, Fairfield East, the three-year-old heifer, Lady London, a prizewinner at London Exhibition. Mr. Andrew Kennedy, Winchester, secured a fine yearling bull and a young heifer, winner of second prize at Ottawa Exhibition, and sired by Emperor Joseph, sweepstakes bull at same fair. To Thos. Anderson, Lyn, an eleven-months-old son of Emperor Joseph. Mr. E. W. McRea selected the richly-bred young bull, Sir Waldorf De Kol, whose dam, Mondamin's Daisy's Pearl, gave 1,903 lbs. milk in 30 days. His sire, Lady Waldorf's De Kol, was by De Kol 2nd's Butter Boy 3rd, and out of Lady Waldorf, A. R., 22 lbs. 5 ozs. butter in seven days. W. D. Milloy, Winchester, took two fine bull calves, sons of Lady Waldorf's De Kol, one of them out of Lady Akkrum's Pietertje's Josephine, two of whose daughters are in Advanced Registry, and one of them winner of first prize at N. Y. State Fair and Pan-American Exposition, 1901. Another son of Lady Waldorf's De Kol went to R. H. McAlpine, South Lake. To Dr. Craik, Montreal, a promising pair of heifers, one of them a daughter of Lorena Diamond Netherland, official record 16.68 lbs. butter in seven days. Grace's Lord Roberts went to John Davis, Pitt's Ferry. S. E. Brown, Ian, took the imported cow, Isolina Netherland. We still have a few sons of Lady Waldorf's De Kol, from two weeks to eight months old, for sale."

About one mile from Allanford station, on the Owen Sound branch of the G. T. R., in the county of Bruce, Ont., lies Grand View Stock Farm, the home of a very choice herd of up-to-date Shorthorn cattle, the property of Messrs. J. H. Black & Son. This herd numbers about 20 head of Mary Booths, Meadowsweets, Floras and Roan Duchesses, at the head of which stands the richly-bred Missie bull, Marengo 81055, by Mysis's Sailor, a son of Imp. Royal Sailor; dam Missie of Neidpath 23rd, by Scotsman; grandam 3rd Missie of Neidpath, by Imp. Methlick Hero. Marengo is one of the bulls that is certain to become famous as a sire, as he possesses abundance of sire, has plenty of quality, is built on true Shorthorn lines, and handles like silk. The females of this herd, both old and young, are an exceptionally nice lot, being large, broad, smooth, and in grand condition. One of the Floras is Mayflower 16808, by Julius Cæsar 8566; dam Flora 87th (imp.), by Sovereign. She has a one-year-old heifer, by Fergus Chief 26876, that is certainly a cracker, and a five-months-old white bull calf, by Royal Bear, a son of Imp. Royal Member. This young bull is the making of something extra. One of the Meadow-sweet family is Blue Ribbon Lass, Vol. 15, by Imp. Blue Ribbon; dam Meadowsweet 2nd, by Imp. Sussex; grandam Imp. Meadowsweet. This cow is now in calf to Imp. Baron's Heir. Maggie Lauder, Vol. 15, is one of the Mary Booths, sired by Imp. Prince Royal; dam Nancy of Alma, by The Baronet (imp.). The Roan Duchess foundation cow is Oatfield Daisy, Vol. 12, by Don Vampa 9th; dam Lena, by Scottish Prince. There are a number of other females bred on these lines, rare good ones, several sired by Fergus Chief 26876. In bulls, besides the young white one mentioned above, is the three-year-old, Golden King 35084, by that grand, good bull, Golden Count 26440; dam Queen Mary 2nd, by Rantin Robin; grandam Queen Mary, by Rantin Robin. Golden King is as nearly perfect in his make-up as possible. He is very low down, very thick and even, grand quarters, and a nice soft handler, and can be bought very right. Another bull is the fourteen-months-old red one, by Fergus Chief; dam the above described Maggie Lauder. This bull is also a typically-formed animal, low, thick and beefy. All these bulls, with the exception of the stock bull, are for sale; also, a number of females of various ages. Also, Messrs. Black have for sale about 8 head of high-grade cows—a lot that would do credit to any pure-bred herd. Write them to Allanford P. O.

IMPORTANT DISPERSION SALE.

Readers are asked to take notice of the advertisement, appearing in this issue, of the dispersion sale of the splendid herd of registered Shorthorns of the late Lieut.-Col. Tyrwhitt, to be sold by auction, April 8th, at the beautiful home of Mrs. Tyrwhitt, near Bradford, Ont., on the northern branch of the G. T. R., 40 miles north of Toronto. The herd is headed by the grand red bull, Royal Standard =27134=, bred by J. & W. Russell, Richmond Hill, a bull of exceptional merit and strong individuality, having already shown his good qualities as a sire. He was sired by Scarlet Velvet 21446, dam Isabella 15th. There are besides five yearling and two-year-old bulls, which are so evenly matched that it would be hard to choose between them, having in them the blood of such noted ancestors as Barmpton Hero, Prince of Wales, etc. The females, representing a number of first-class families, are nearly all young or in the prime of life, and all of breeding age have been bred to Royal Standard or Heir-at-Law. There will also be sold two Clydesdale teams; two drivers, accustomed to be driven by ladies; a nice, even, well-fleeced flock of twenty-four Cotswold sheep; four Yorkshire brood sows and boar, and a number of store pigs; a few Bronze turkeys, etc. Further notes respecting these cattle may be looked for in our next issue. In the meantime, the catalogue will be issued, and mailed to those applying in accordance with the advertisement.

Send Us Your Name

FOR

Our Spring Catalogue

It's a safe guide for those who do shopping by mail.

It's a money-saver for homeowners and housekeepers all over Canada.

It gives correct information about the latest dress styles for men, women and children.

It's a great help to those who buy things to wear, things for the home and things to eat.

MAILED FREE TO ANY ADDRESS.

Write for a copy at once. Your name and postoffice address on a postcard will do it.

THE T. EATON CO. LIMITED
190 YONGE ST. TORONTO, CAN.

ROSES OUR GREAT SPECIALTY.



To bring our immense stock and low prices prominently before every flower-lover in the Dominion, we make the following special offer:

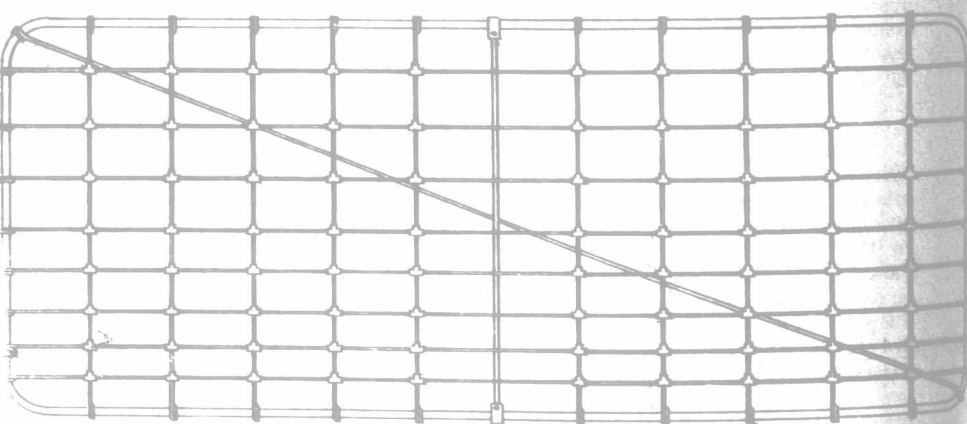
5 Tea Scented Roses, one-year-old plants, for the house, each a different variety, named; will bloom this year.

Mailed to any Canadian address for only 30c.

Two or more sets to one address, 26c per set.

To anyone sending in orders for six sets of these roses, with the names and addresses of the parties getting the sets, we will give a beautiful premium plant. With each order we send our descriptive catalogue, "Canadian Plants for Canadian People," and full cultural directions for growing the roses. Address all orders,

LEADING CANADIAN FLORISTS. on WEBSTER BROS., HAMILTON, CANADA.



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.

APPLE TREES.

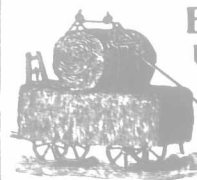
Choice Stock. True to Name.

Also all other kinds of Fruit and Ornamental Trees, Shrubs, etc. Prices reasonable. Send for catalogue.

THE DOMINION NURSERIES,
St. Catharines, Ont.

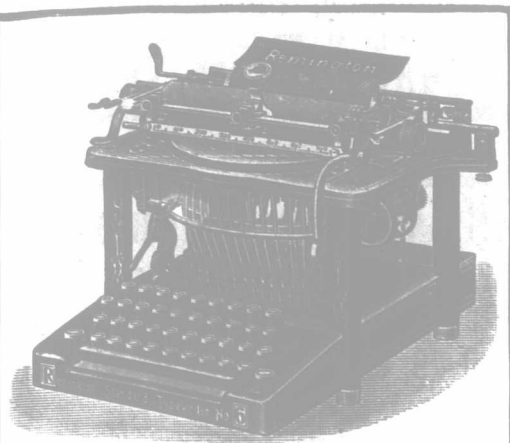
THE SMITH & REED CO.

BUCHANAN'S UNLOADING OUTFIT



Works well both on stacks and in barns, unloads all kinds of hay and grain either loose or in sheaves.

Send for catalogue to M. T. BUCHANAN & CO., Ingersoll, Ont.



Remington Typewriter

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

Remington Typewriter Co.

26 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.

Every house needs a New Century Washer.

It is the best, you cannot afford to deprive your wife of so valuable an aid.

It has ball bearings and strong spiral springs—thoroughly cleanses a tub-full of clothes in five minutes.

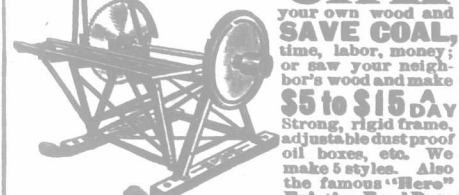
Have your dealer show it to you or write us for booklet.

THE DOWSWELL MFG. CO., LTD., HAMILTON, ONT.

The High Price of Coal

is the cause of much present anxiety but there is a practical way of overcoming it to some extent.

SEE! With an Appleton Wood Saw you can rapidly and with ease and safety



SAVE COAL, your own wood and time, labor, money; or saw your neighbor's wood and make a \$5 to \$15 a day. Strong, rigid frame, adjustable dust proof oil boxes, etc. We make 5 styles. Also the famous "Here" Friction Feed Brag

Saws, Feed Grinders, Ensilage and Fodder Cutters, Huskers, Shellers, Sweep Horse Powers, Tread Powers, Wind Mills, etc. Write to-day for Free Catalogue. APPLETON MFG. CO., 53 Fargo St., Batavia, Ill.

GOSSIP.

Harry Shore, White Oak, Middlesex Co., Ont., in his advertisement in this issue, offers Shorthorn heifers and bulls sired by Golden Stamp =21830=, by Sittyton Stamp (imp.). They are said to be in first-class condition, and the prices reasonable.

Messrs. J. & W. B. Watt, Salem, Ont., write of their Shorthorns: "Imp. Scottish Beau is home in his new quarters, and is doing well. We have now two bulls, Scottish Beau and Viceroy, sired by the two best breeding bulls in Britain, namely, Silver Plate and Royal Star. Scottish Peer, our other imported bull, two years old, is now for sale. He is of the low-down type—a right good bull, and his calves are a credit to their sire. We have still several imported and home-bred females and three strong, vigorous young bulls to dispose of. The herd, numbering nearly one hundred, is looking well, never better."

Four miles west of the flourishing town of Owen Sound, in the county of Grey, Ont., lies that perfectly-arranged stock farm, Rosevale, the property of Mr. W. J. Shean, wholesale tea merchant, Owen Sound. Mr. Shean is one of those men that is never satisfied with a thing half done, and in planning his barns and stables on his splendid farm has spared neither time nor expense in finishing what is one of the best-arranged stables in the county. The main barn is 87 feet long by 52 feet wide. The stables are all finished in dressed beech lumber, with cement floors, thoroughly drained. The ceilings are 11 feet high; the windows large and plenty of them, admitting an abundance of sunlight. The ventilation is the most modern in use. Every stall is supplied with a patent metal water bowl, the supply being regulated by the latest improved valve system. There are a number of nicely-fitted-up box stalls. The whole as white as the driven snow with a coating of non-rub-off whitewash. The yard is limestone paved; the whole drained into one huge cement tank, from which the liquid is pumped and distributed over the fields. On the opposite side of the yard is the boiling and steaming house, where feed is mixed, boiled or steamed as necessity requires. Mr. Shean's crack herd of Shorthorns now numbers 30 Lead of Crimson Flowers, Minas, Polyanthus, Strawberrys and Lavinias, at the head of which is the richly-bred and typically-formed stock bull, Marengo Heyden Duke (imp.), a son of the great Royal champion prize-winner, Marengo. Few, if any, better bulls than Marengo Heyden Duke, either individually or as a stock getter, have crossed the Atlantic, and the enormous demand which Mr. Shean has for his get shows that the people appreciate his royal breeding. On the farm at present are a number of very choice heifers, a few of which are now in calf to Golden Abel (imp. in dam), a son of the great Imp. Golden Fame. There is only one bull calf left—an eight-months-old roan, sired by Imp. Golden Conqueror, by Bapton Conqueror. This is an exceptionally good calf, and should develop into something above the average. Mr. Shean reports trade as extremely brisk. Orders are coming in from near and afar, and during the last year he has sold to parties from Manitoba, N.-W. Territories, Virginia and different parts of Ontario. This herd, as might be expected, are in the pink of condition, reflecting great credit on the herdsman, Mr. A. McNabb, whose ability as a fitter and untiring energy in caring for the cattle is amply demonstrated. Lately, Mr. Shean has also added to his herd that splendid show cow, Augusta 3rd, by Lyndehurst 2nd 18276. She is now suckling a grand heifer calf by Lord Roberts 41032, and is again in calf to the champion Spicy Marquis (imp.). There are several heifers sired by Marengo Heyden Duke (imp.) and Golden Abel (imp.). Anything in the herd is for sale, and parties looking for good cattle will do well to address Mr. Shean, at Owen Sound, Ont.



If there is one lesson farmers ought never to forget it is the poor economy of buying cheap seeds, just because they are cheap. We sell none but what are thoroughly reliable—the kind that grow with a flourish from start to finish and produce enormous crops. We make a specialty of

- Improved Short White Carrots
- Royal Giant Sugar Beets
- Good Luck Swede Turnips

and challenge all Canada to produce their equal. The persistent argument of this business is not "how cheap" but "how good," with the result that Steele, Briggs' seeds always lead the procession.

Send for a catalogue and order direct by mail if your dealer can't supply you.

THE STEELE, BRIGGS SEED CO., LIMITED

"Canada's Greatest Seed House"

BRANCH STORE WINNIPEG, MAN.

TORONTO, ONT.

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 vast number of orders entrusted to us, and at this early date this season we are again busy 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.

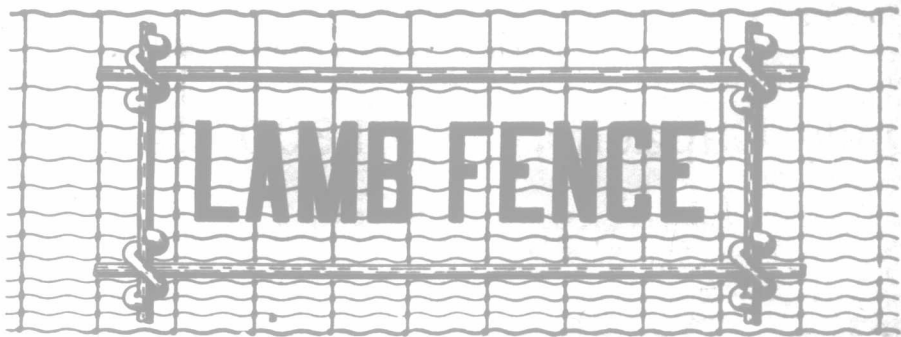
Bush, \$1; 5 bush, \$4.50.

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. Spelts, 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.



HARD WIRE CROSS-BAR.

The H. R. LAMB FENCE CO., Ltd., LONDON, ONT.

Please Mention Farmer's Advocate.

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 Kempford 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. Sittytan Conqueror, and four heifers, from 10 to 20 months old, by 20th Crown Jewel.

Guelph four miles.

HENRY ARKELL,
Arkell P. O. and Station.



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.

E. C. & E. C. ATTRILL,
GODERICH, ONTARIO.

DISPERSION SALE of 30 Shorthorns

Property of the LATE COL. TYRWHITT,

OR

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.

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.

JAS. BODEN, Mgr. R. Reford's "Tredinnock Stock Farm."

Portland Cement

CONCRETE SILOS

CANNOT BE EXCELLED
WHEN BUILT WITH

"RATHBUN'S STAR"
BRAND,

MANUFACTURED BY

THE
Canadian Portland Cement Co.
LIMITED.

Works at {
Strathcona, Ont.
Marlbank, Ont.
Montreal, St. Lawrence Portland Cement Co.

Daily Capacity, - 1,800 Barrels.

For tests, prices and
other information write to

The Rathbun Company,

SOLE SALES AGENTS,

310 and 312 Front St. West.

TORONTO.

GOSSIP.

Mr. Hugh Pugh, Whitevale, Ont., who advertises Shorthorn cattle and Shropshire sheep, writes, under recent date:

"Trade has been splendid with me this year, and I have sold about all the females I care to part with and a good number of bulls. The three calves I am now offering are all nice ones, in fine condition, and with good colors. They are sired by Scotch Stamp, a bull that has done remarkably well for us, leaving calves of splendid symmetry and with plenty of bone, heavily fleshed and rich in color. We never had a better season with our Shropshires. Home and foreign trade has been excellent. Ewes are now looking splendid, and the lambs are coming plentifully and strong. This year's crop are all sired by Rudyard, our imported ram, and knowing his past record, we are looking for something extra this year.

SPRINGBROOK HOLSTEINS AND TAMWORTHS.

Springbrook Stock Farm lies in the county of Waterloo, about one mile north of Breslau station on the main line of the G. T., and about eight miles west of Guelph. The owner, Mr. A. C. Hallman, is a gentleman well known on account of his high-class herds of Holstein cattle and Tamworth hogs, and, to a lesser degree, his large flock of B. P. Rock fowl. The herd of Holsteins now number 38 head, headed by Judge Aakrum De Kol 3rd, winner of first prize and sweepstakes at Toronto last fall. He is sired by Judge Aakrum De Kol 26676, a son of Lady Aakrum 2nd, whose five-year-old milk record is 67½ lbs. a day, and butter record is 24 lbs. in seven days; dam Mosetta 32083, three-year-old milk record 58 lbs. a day, testing 3.5 per cent.; also prominent in his pedigree are such noted cows as Imp. De Kol 2nd, butter record 26 lbs. 9 ozs. in seven days; Lady Aakrum, butter record 21½ lbs. in seven days, and others equally as good. The cows of the herd are the get of such noted bulls as Netherland Statesman's Cornelius, a sweepstakes winner at Toronto; Prairie Aggie Prince, another sweepstakes winner, and the herd is also strongly infused with the blood of that great bull Netherland Prince. In fact, none but Advanced Registry bulls have ever been used. As milk producers, this herd averages from 8,000 to 12,000 lbs. each per year, and from 50 to 65 lbs. a day. They are an exceptionally large, evenly-balanced lot, and show a wonderful development of udder. Last fall, at Toronto, they won second on mature herd, third on young herd, second on four the get of one bull, and, as stated above, first and sweepstakes on stock bull; in fact, out of 14 entries they won 14 prizes. For sale there is one very choice yearling bull, a Toronto winner, and four bull calves; also, 15 head of females from six months to four years of age, a number of which are Toronto and other winners.

In Tamworths, the main stock boar is Imp. British King. Second in service is Huron's Lad, by Hawkshaw's Duke, by the great Amber Luthur. All told, there are eight brood sows that for perfect bacon type could not be excelled. At present for sale there are a number of both sexes, some of which are fit for service, and pairs can be supplied not akin. Mr. Hallman has on hand yet for sale a few cockerels that are good ones. The farm is connected with Breslau by telephone, so can be called up from almost any point.

This Will Interest Many.

F. W. Parkhurst, the Boston publisher, says that if any one afflicted with rheumatism in any form, or neuralgia, will send their address to him at 804-57 Winthrop Bldg., Boston, Mass., he will direct them to a perfect cure. He has nothing to sell or give, only tells you how he was cured after years of search for relief. Hundreds have tested it with success.—Advt.

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,

Parliament Buildings, TORONTO.

Shorthorns and Yorkshires—Stock bull, Scotch 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.

Winter in California

Sunshine and summer, fruit and flowers all winter long in California. The quick way to get there is via the Chicago, Milwaukee & St. Paul and Union Pacific line. Three thro' trains, Chicago to San Francisco, every day. If you're interested drop me a card.

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

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.

Where Will You Go when You Want to Borrow Money?

It will pay you to borrow from the
Hamilton Provident & Loan Society
of Hamilton, Ontario.

The Society is always willing to lend on good first mortgages on Farm Property at the very lowest current rates and on any reasonable terms that the borrower may choose. Neither the Society nor its agents ever make known a borrower's business, and many of our old borrowers say that they would, for many reasons, much sooner borrow from us than from a private party. We insist upon having GOOD SECURITY, and leave nearly everything else to the borrower.

If you wish to borrow, write us with full particulars, and we will arrange your loan, quietly and privately, from Head Office or through our valuator in your neighborhood. Address:

C. FERRIE,

Hamilton Provident & Loan Society,
Hamilton, Ontario.

SPECIAL SEED OFFER!



LONG BILLS MADE SHORT
 ANY 15 PACKETS FOR 25 CENTS
 YOUR OWN SELECTION
 ANY 32 PACKETS FOR 50 CENTS
 POSTPAID

Order by number only, or cut out list and mark varieties wanted. Send money, your name and address, and seeds will be mailed promptly.

EVERYONE wanting Garden and Flower Seeds should consider this special offer, as it discounts all competition. You will be surprised with what we send for a mere trifling expense. Large packets, new seed and of finest quality. You can only get these papers at this low price by ordering direct from us.

If what we send is not as represented return the seed and price will be refunded.
 We want you to try our seeds and prove their worth. Order now. Save money.

VEGETABLES

- 1 Beans—Dwarf Wax.
- 2 Beet—Early Flat Red.
- 3 Beet—Early Blood Turnip.
- 4 Beet—Long Smooth Blood.
- 5 Cabbage—Early Summer.
- 6 Cabbage—Early Winningstadt.
- 7 Cabbage—Large Late Drumhead.
- 8 Cabbage—Red Dutch.
- 9 Carrot—Early Scarlet Horn.
- 10 Carrot—Scarlet Intermediate.
- 11 Cauliflower—Early Paris.
- 12 Celery—White Solid.
- 13 Corn—Early White Cory.
- 14 Corn—Mammoth Sweet.
- 15 Cucumber—Green Pickling.
- 16 Cucumber—Table Variety.
- 17 Herbs—Sage.
- 18 Herbs—Summer Savory.
- 19 Herbs—Sweet Marjoram.
- 20 Lettuce—Summer Cabbage.
- 21 Lettuce—Early Hanson.
- 22 Melon—Musk, Early Prolific.
- 23 Melon—Water, Early Sweet.
- 24 Melon—Citron "Preserving."
- 25 Onion—Large Red Wethersfield.
- 26 Onion—Yellow Danvers.
- 27 Onion—Small Silverskin.
- 28 Parsley—Extra Curled.
- 29 Parsnip—Hollow Crown.
- 30 Peas—Earliest of All.

- 31 Peas—American Wonder.
- 32 Pepper—Large Red.
- 33 Pumpkin—Large Pie.
- 34 Radish—Early Turnip, Mixed.
- 35 Radish—Olive Shaped, Mixed.
- 36 Radish—Long Scarlet.
- 37 Squash—Hubbard.
- 38 Squash—Vegetable Marrow.
- 39 Tomato—Extra Early Red.
- 40 Tomato—Large Smooth Red.
- 41 Turnip—Yellow Fleaked.

FLOWERS

- 42 Alyssum—Sweet.
- 43 Aster—Fine Mixed.
- 44 Balsam—Mixed.
- 45 Candytuft—White.
- 46 Mignonette—Large.
- 47 Morning Glory—Climbing.
- 48 Nasturtium—Tall Mixed.
- 49 Nasturtium—Dwarf Mixed.
- 50 Pansy—Very Fine Mixed.
- 51 Petunia—Fine Mixed.
- 52 Phlox—Fine Mixed.
- 53 Pinks—Beautiful Mixed.
- 54 Poppy—Show Variety.
- 55 Portulaca—Mixed Colors.
- 56 Stocks—German, Mixed.
- 57 Sweet Peas—Choice Mixed.
- 58 Verbena—Showy Variety.
- 59 Wild Flower Garden.
- 60 Zinnia—Double Mixed.

ROBERT EVANS SEED CO., Limited, HAMILTON, Ont.

The Livingston Linseed Oil Co., Ltd.,
 BADEN, ONTARIO,
 Manufacturers of strictly pure

Old Process Linseed Oil Cake and Meal, also Ground Flax Seed.
 Write for prices.



CREAM SEPARATORS

AT REASONABLE PRICES. A FREE TRIAL.

WE are not a party to any trust or combination to maintain high prices on cream separators. We employ no agents, but give their commission to the purchaser, so that our customers get their separators for about the same prices agents pay for other makes. Our Windsor Separator is equal to the best high-priced separator, and has advantages over most if not all of them. We sell them for from \$35.00 upwards, and send them out on a free trial for one week. Put one of them in competition with the highest-priced separator you can find, and if it does not do at least as good work, the trial costs you nothing. We do not ask any money in advance, nor do we send any representative to bother you. You do all the testing and deciding for yourself. Send for our printed matter, giving the history of cream separators and explaining their operation, also prices, etc.

Windsor Supply Co., Windsor, Ontario.

GOSSIP.

Mr. W. D. Platt, Hamilton, Ont., in a note regarding change of advertisement, writes that he has two imported bulls, ready for service, now for sale.

A few days ago, a representative of the "Advocate" called on the well-known firm of Jersey breeders, B. H. Bull & Son, of Brampton, Ont., and had a look over their splendid herd of 80 head of choice Jerseys, and found them, as usual, in splendid condition, yielding an abundance of rich milk. That wonderful old stock bull, Monarch (imp.), is still hale and hearty. For the last three years bulls of his get have won at Toronto, first, second and third in the junior classes, and there are at present on hand for sale seven sons of his, from a few months up to fifteen-months old, some of them already winners; also, two sons of the noted prizewinner, Biz of Dentonia. These young bulls are all out of winning, tested cows. This firm have lately purchased the richly-bred bull, Imp. Brampton Nameless King, bred by Wm. Rockefeller, New York, for a long price; sired by Imp. Financial King, a bull for which the owner refused the enormous price of \$5,000. His dam, Adoration, won first on the Island several times, and she is out of the champion cow, Nameless. Again, his dam and sisters are all tested cows and hold the highest records in the world. This firm reports sales away ahead of any previous year. Lately they have shipped seven females and one bull to Hamilton, six females and one bull to N.-W. T., one to Quebec, and one to British Columbia. In females, they have for sale any number of young animals and a few older ones; also a number of high-grade cows, heavy milkers, some fresh and some springers. Mr. D. O. Bull has just been elected a life member of the American Jersey Club, an honor held by no other man in Ontario.

CLYDESDALES FOR CANADA.

Quite an important shipment of nine highly-bred Clydesdales was made from Glasgow on February 23rd by Mr. Oswald Sorby, Guelph, Ont. Mr. Sorby had been in Scotland for several weeks making selections. Amongst the stallions shipped are the noted Prince Romeo (8144), and the Mearns Club stud horse, Ideal (10573), a pair of big, well-bred horses. The well-bred son of Baron's Pride, Black Baron (10987), and Golden Victor (11056), are young horses of blood and merit. At Lord Cecil's sale, Mr. Sorby bought the noted prize mare, Baroness Montague, and her son, Baron Montague. Both were shipped with another from the same quarter named Lady Callista (14167), the daughter of the champion Edith Plantagenet. These, with a well-bred filly bred at Balmangan, complete Mr. Sorby's shipment, several in which were bought from Messrs. A. & W. Montgomery.

GOOD ONES FOR THE WEST.

Messrs. James Henderson, of Belton, Ont., and J. M. Sanderson, Indian Head, N.-W. T., recently shipped to the latter place a good consignment of draft horses, including the Clydesdale, Amphion (imp.), a showy young horse of good quality and action, that won first as a three-year-old at the 1902 Western Fair; the Clydesdale, Florist (imp.), bred by Sorby, Guelph, rising three years old, that took fifth place in an entry of seventeen at the 1903 Toronto Spring Stallion Show; the Shire, Vulcan 2nd (318), bred by Morris & Wellington, Fonthill, Ont., and winning second at the recent Toronto Spring Stallion Show; Prince Llewellyn, the Shire, rising five years old, a big strong horse imported by Morris & Wellington; also, two extra good Shire mares, Lena and Mary, both in foal to Morris & Wellington's Imp. Mars. The great rush of settlement this season in the West and the demand for good breeding and work horses will result in this lot of stallions and mares being very quickly picked up.

Plant Dimes—Harvest Dollars.

Lack of nitrogen in the soil is detrimental to the size and quality of the fruit. The cheapest and most available Ammoniate is

NITRATE OF SODA

A few cents worth applied to each tree will give the largest possible yield of choicest fruit, returning many times its cost.

Send your address on a Post Card for our Bulletin "Food for Plants," containing the views of the most eminent authorities as to how, when and what to feed plants for best commercial results, information which every horticulturist should know. It is FREE.

WILLIAM S. MYERS, Director,
 18 John Street,
 New York.



"Firms and Softs" in Bacon.

Fat hogs do not grade as "softs" in greater proportion than do lean ones, but soft fat is more easily detected by the inexperienced than is soft lean, and for this reason the impression has become common that the fat hog is more apt to grade soft than the lean one.

Rushing a hog to maturity without due consideration of his digestive organs is the most common cause of soft pork. Rush him from start to finish by making his digestive organs the chief consideration, and you will not only make a successful rush, but you may be absolutely sure of producing pork that will grade A1 "Firm."

The Ingersoll Pork Packing Co., in a somewhat lengthy letter, speak very decidedly on the advantages of feeding Herbageum to pigs from start to finish, and many of the leading breeders and exhibitors of hogs, among whom are Mr. D. G. Platt, of Millgrove, and Mr. J. M. Brethour, of Burford, speak very highly of Herbageum as a means of keeping pigs thrifty and always ready for their feed.

It is an undisputed fact that the Herbageum-fed hog always grades "firm," and that his weight is always greater than his appearance would indicate. om-

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.



WHAT SEEDS DO YOU USE ?

HUMAN nature is pretty much the same all over—everybody looking for a chance to buy things cheap. The everlasting rush for bargains is well enough in its way, but you can't afford to juggle in regard to seeds. Weeks and months of time and energy will be wasted if you get poor ones and the only safe way is to insist on

STEELE, BRIGGS' SEEDS

THE KIND THAT GROW!

Never any disappointment with them. We charge what good seeds are worth to begin with, and keep the business on a solid foundation by improving the quality year after year. We have enormously the biggest trade of any seed house in Canada. Such things don't happen by chance.

All kinds for farm and garden on sale by all reliable dealers. Send for illustrated catalogue and place orders early. Insist on Steele, Briggs' Seeds, and avoid all substitutes.

THE **STEELE, BRIGGS SEED CO., LIMITED**
"Canada's Greatest Seed House"

BRANCH STORE
WINNIPEG, MAN.

TORONTO, ONT.



McLAUGHLIN CARRIAGES

ARE GOOD CARRIAGES

They are sold by reliable agents and are bought by reliable people, who want the best grade only.

WE BUILD NOTHING ELSE AND GUARANTEE SATISFACTION.

McLaughlin Carriage Co., Ltd.
OSHAWA, ONTARIO.

NO HUMBUG Three in One.

Swine V. Stock Marker and Calf Debarker. Stops swine from rooting. Makes different ear marks. Extracts Hums. Price \$1.50. Send \$1 for trial. If you like send back same. Paid May 6, 1902. Buy and sell holder only 15c.

FARMER BRIGHTON, FAIRFIELD, IOWA.

PLEASE MENTION FARMER'S ADVOCATE.

SAVE 20 CENTS PER SHEEP on every sheep you shear with
STEWART'S PATENT SHEEP SHEARING MACHINE

The day of the old fashioned hand shears is past. No owner of 10 sheep or more can afford to shear by hand, even though the work be done for nothing. Don't butcher your sheep shear with this machine and get **ONE POUND OF WOOL EXTRA PER HEAD**. It will more than cover the cost of shearing. Send today for valuable book, "Shears and Shearing." It is free and will save you money.
CHICAGO FLEXIBLE SHAFT CO., 110 Ontario St., CHICAGO.

SPELTZ

Yields 60 to 70 bushels to the acre. What is it? What is it for? How does it grow?

Speltz is a species of wheat. Being comparatively new of introduction, during the past couple of years its habits of growth, yield and climatic conditions have been rigorously watched, **WITH THE RESULT THAT IT HAS BEEN FOUND TO BE HIGHLY ADAPTED TO THIS COUNTRY**, and may be regarded as a permanent crop for stock-feeding. The heads are similar in form to two-rowed barley. It is peculiarly adapted to poor, impoverished soils that are unsuitable for wheat or other grains. Spring frosts do not damage it. The drier the weather the better it thrives. The past season has confirmed the opinion generally held in this grain, that it is one of the best kind to resist the effects of wet weather. Stocks which have stood out for weeks in the rain were found to be as bright as when built, and the kernel entirely free from injury. It is an immense yielder. In a feeding experiment conducted on the Brandon Experimental Farm in the winter of 1901, Speltz was found to be superior to mixed grain as a feed for fattening steers. It is a magnificent feeding cereal for live stock of all kinds. Many farmers have spoken to us about its superior value for fattening hogs. Every farmer should try Speltz in 1903.

Price—1 bush., 90c.; 3 bush., \$2.50; 10 bush., \$8.00; cotton bags, 17c.; jute bags, 10c. each. Cash with order.

For further information regarding this excellent grain, see the "Farmer's Advocate" of Feb. 2nd (page 111). Address all orders to

DARCH & HUNTER, Seedmen to the Canadian People, LONDON, ONT.

We publish 5 catalogues, viz.: Farm Seeds, Flower and Vegetable Seeds, Bee Supplies, Dairy Supplies, Poultry Supplies. Which do you want? All free.

GOSSIP.

Registered Hereford bulls of breeding age are advertised in this paper by Mr. R. J. Mackie, of Oshawa, Ont., whose herd is one of long standing and first-class breeding.

Parties desiring to import cattle from Scotland should note the advertisement of Mr. James Boden, of St. Anne de Bellevue, Que., the careful and experienced stockman and breeder of Ayrshire cattle. His address, while in Scotland, will be as stated in the ad., care Farnaldson Bros., 58 Bothwell St., Glasgow.

We have received from the International Stock Food Co. their handsome catalogue for the famous stallion, Directum, 2.054. The catalogue lists the performances of the great horse, gives his breeding, with photo-engravings of his ancestors, and, incidentally, mentions that International Stock Food is being used with great success in the International Stock Food farm stables. The stud at this farm is headed by Dan Patch 1.59 1-5, Directum 2.054, and Roy Wilkes 2.064. It will be made a great horse-breeding establishment.

FARNHAM OXFORDS AND SHORT-HORNS.

Forty-nine years is a long time for any firm or individual to retain a reputation, and when that reputation improves with age it is the surest guarantee that the motto has been honest and square dealing. Such is the heritage of Mr. Henry Arkell, of Farnham Farm fame. This noted farm lies half a mile from Arkell Station, on the C. P. R., and four miles from Guelph, on both the C. P. R. and G. T. R. In 1881 the present Farnham flock of Oxford Down sheep was established by the importation of a number of choice sheep from the leading flocks of England, and from that time until the present, periodically, fresh importations have been made and the flock enlarged and improved, until at the present time there are 280 head, comprising 125 one and two year old rams, 85 of which are flock headers; 50 breeding ewes, 28 of which have lambed and are now suckling over 50 lambs; the balance, younger ewes and ewe lambs. One of the stock rams is Bryan's 125, bred by John Bryan & Sons, Witney, England; without doubt one of the best Oxford Down rams alive; weighs, in ordinary breeding condition, 350 lbs., and shows a faultless form and covering. The other stock ram is Hampton Hero 5th, bred by J. T. Hobbs, Maiseyhampton, Eng. This ram is a prizewinner of note, having won second place at the Pan-American; first place at the following State fairs: Illinois, Indiana, Wisconsin, Minnesota and St. Louis. With such a record, comment is needless. He cost Mr. Arkell \$150, and he considers him cheap at the money. During the last year, Mr. Arkell has shipped Oxfords to Wisconsin, Ohio, Minnesota, Indiana, Massachusetts, Maine, New York, Pennsylvania, Michigan, British Columbia, N.-W. T., Manitoba, Nova Scotia, Quebec and Ontario, and has over \$800 worth of orders now booked for next fall.

BOOK REVIEW.

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

One of the most complete and concise works that has come to our desk is "Engineering for Land Drainage," by Charles G. Elliott, C. E. The book is exceptionally well bound, the quality of the paper excellent, and the typography clear and well executed. There are 230 pages of good practical information in the book, including many illustrations. It is principally intended for those who are charged with the responsibility of making plans for and executing drainage improvements, but it is also valuable to anyone doing drainage on a smaller scale. As a text-book in colleges and technical schools, it will fill a large gap. Our thanks are due John Wiley & Sons, publishers, who have generously placed the volume in our office, where copies may be had on receipt of \$1.50.



Baby enjoys his bath all the more, and his sleep is the sweeter when you use

BABY'S OWN SOAP

It softens and soothes all skin irritations, keeping it healthy and fresh. Don't use imitations on Baby.

ALBERT TOILET SOAP CO., Mfrs. (MONTREAL) 3-2

MAGIC
TRADE MARK
SODA
OR SALERATUS IS THE BEST.
E. W. GILLETT COMPANY LIMITED
TORONTO, ONT.

DO YOU KNOW THAT WORN OUT LANDS MAY BE MADE PRODUCTIVE AND PROFITABLE BY THE JUDICIOUS USE OF THE RIGHT KIND OF FERTILIZER? NOW IF YOU HAVE A PIECE OF LAND THAT WON'T GROW ANYTHING BUT WEEDS TALK WITH US ABOUT IT AND LET US SUGGEST THE RIGHT FERTILIZER. WE FEEL VERY SURE THAT WE CAN SHOW YOU HOW TO USE FERTILIZERS WITHOUT GREAT EXPENSE, SO YOUR LAND WILL PAY. CONSULT US FREELY IT IS OUR BUSINESS TO KNOW ENQUIRIES FREELY ANSWERED. AGENTS WANTED FOR TERRITORY NOT TAKEN UP. THE W. A. FREEMAN CO. LIMITED HAMILTON, ONTARIO

AUTO-SPRAY
Best Automatic, Compressed-Air Hand Sprayer made.—For trees, vines, shrubs; for applying Whitewash, Cold-water Paint; washing buggies, etc. Does the work of a barrel sprayer at one-third the cost and one-half the labor. Will save its cost on Potatoes alone in one season.
Cavers Bros., Galt, Ont.

GOSSIP.

Mr. Wm. Howe, North Bruce, Ont., breeder of Yorkshire hogs, writes: "My stock is in excellent shape, and sales are very satisfactory; have shipped stock to several States, also to Manitoba and different parts of Ontario. I have some choice young sows, just bred and some yet to breed, on hand; also, a few boars about ready for service, and young stock are arriving strong and numerous. The young stock are the get of Oak Lodge Justice—4822—and North Bruce, Herald (imp.)—7496—. These boars are both excellent breeders. I am also offering for sale a good young Shorthorn bull of a good milking strain."

On March 5th, Mr. Geo. Jackson, auctioneer, Port Perry, sold for Mr. John Morrison, of Whitby Township, who is retiring from business, his farm stock and implements for the handsome total of \$6,225. Six horses brought \$1,225; 17 Shorthorn cattle, \$2,657 (average \$156); 33 sheep, \$400; and 4 grade cows, \$402. Mr. Morrison had previously sold, this year, privately, \$1,000 worth of pure-bred cattle, \$770 of horses, \$200 of sheep, and has at least \$1,000 worth of fat cattle yet in his stables. At the beginning of the year, it is estimated, he must have had over \$9,000 worth of stock and implements on his farm. Who will say that farming does not pay? Mr. Morrison, however, was no slipshod farmer. What he did he made it a rule to do well.

Mr. Harry Smith, Exeter, Ont., in his advertisement, offers some choice young Shorthorn bulls of exceptionally good breeding. Mr. Smith writes us: "Among these is Vulcan, a very thick, blocky fellow, by Imp. Royal Prince 36092, and out of Village Maid, by Imp. Earl of Mar; second dam the famous imported Cruickshank cow, Village Blossom, who was the dam of the well-known sire, Abbotsford, and the greatest of all modern Shorthorns, Young Abbotsburn. It is worthy of note that the dam of this young bull is now 16 years old. Her dam bred until she was over 20. Abbotsford, as fresh and useful as a two-year-old, recently changed hands at a good price when nearly eleven years old; while Young Abbotsburn was long past the usual age of show bulls when he defeated all beef breeds of all ages at the Columbian Exposition in 1893—a record for vigor and vitality that probably cannot be equalled by any other tribe of Shorthorns. All interested should send for a catalogue of the young bulls Mr. Smith is offering."

Thos. Mercer, Markdale, Ont., is well known over a goodly portion of the continent, on account of the splendid herd of Shorthorn cattle kept in his commodious barns, one and half miles from Markdale station on the C.P.R. Through his untiring energy, Mr. Mercer is the owner of one of the best 200-acre farms in the County of Grey, on which stands one of the best equipped stock barns in the Dominion. Running along the ceiling of the stable is a power shaft operated by one of Mr. J. McGill's noted tread powers, connection with the shaft being made to the straw cutter, grinder, root pulper, wood-sawing machine and threshing machine. Mr. Mercer's herd at present numbers 60 head of Missies, Stamfords, Clarets, Floras, Young Sterlings, Matchlesses, Red Roses and Fashions, headed by the superb bull, Broadhooks Golden Fame, Vol. 19, (imp.), bred by S. Campbell, Kinellar, Scotland; sired by the great bull, Golden Fame; dam Roan-Rose, by Abbotsford 2nd. This bull is a roan of the best build. In the herd are a large number of young females, from which can be picked winners, and any or all for sale. In bulls, there are three for sale that are fit for service, two of them especially good ones. Mr. Mercer enjoys a splendid trade in Shorthorns, which extends from the Southern States to the Northwest Territories.

"PURE, HEALTHY, TASTY."
Their sale proves their worth.

"SALADA"

CEYLON GREEN teas are displacing Japans, just as "SALADA" Blacks are displacing all other black teas. Sold only in sealed lead packets—25c., 30c., 40c., 50c. and 60c. per lb.

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



BARN AS IT APPEARED IN COURSE OF CONSTRUCTION.

WHAT MR. T. L. PARDO SAYS:

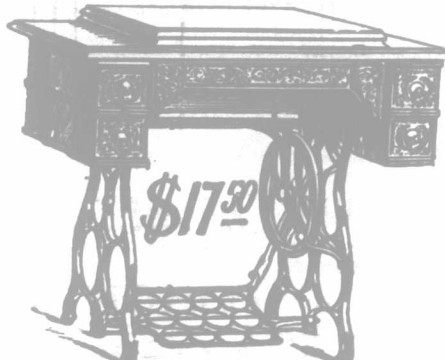
CEGAR SPRINGS, KENT COUNTY, ONT., NOV. 21, 1899.
ESTATE OF JOHN BATTLE,
THOROLD, ONT.:
DEAR SIRS,—I write to say that we have now fully completed the stabling in my new barn, and I am well pleased with the work done throughout the whole building, which is 54 x 100 feet, with the basement walls 9 feet high, and a silo 14 x 14 feet, same height as walls, built in a corner of the basement wall, there being a concrete floor throughout the whole building. We used in all 200 bbls. 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
THOROLD, (Manufacturers of "Thorold" Cement.)
(and Dealers in Portland Cements.) ONTARIO



\$10.00 GRAND CONCERT VIOLIN FOR \$2.95
Now, tuning pegs, extra strings and Instructor Free. SEND NO MONEY, just your name and nearest Express Office, and we will send this high-grade Violin there for examination. When it arrives, call and examine it thoroughly, and when satisfied that it is equal in every respect to Violins sold regularly for \$10.00, pay Express Agent our special price, \$2.95, and express charges, and secure the biggest and grandest bargain ever seen or heard of. This is a genuine Stradivarius model violin, made of selected wood with highly polished top, inlaid edges and ebony finished trimmings, a splendid, clear-toned instrument of remarkable power and sweetness. Handsome, highly polished, black Violin Case, with brass trimmings and pockets for strings, only \$1.15 extra. Order to-day. JOHNSTON & CO., BOX 548, TORONTO.

SEWING MACHINES Sent on 20 Days' FREE TRIAL.

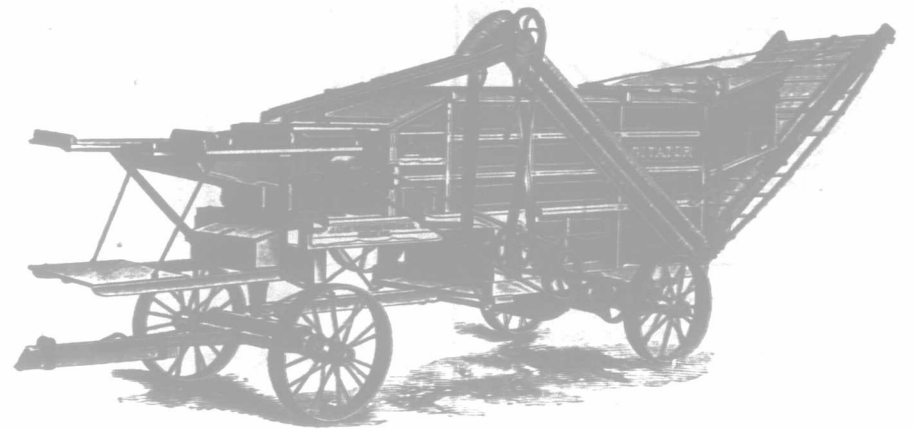


WE will send any of our sewing machines to any point in Canada for a 20-days' Free Trial. If you are satisfied with the machine at the end of that time, you keep it and send us the money; if you are not satisfied, send us back the machine, keep your money, and the trial has not cost you a cent. Besides, no representative of ours will call on you or bother you in any way. You will be the only judge in the case. Our prices are very low compared with what others charge. We sell a good 5-drawer, drop-head sewing machine for \$17.50; a better one for \$21.50, and the most handsome library cabinet machine made for \$35. Our catalogue, "All About Sewing Machines," describes our 8 styles, and gives more information about sewing machines in general than any other book we know of. It is a handsome, well-printed little book, with very fine engravings in colors, and will be sent to all who write for it. It also gives the freight rates to all points in Canada, which are much lower than most people suppose.

Windsor Supply Co., Windsor, Ont.

PLEASE MENTION THE FARMER'S ADVOCATE.

J. I. Case Threshing Machine Co.



OFFICE HOURS
FROM 8 AM TO 6 PM
NOT OPEN ON SUNDAYS
OR HOLIDAYS.

O.L.D. Abe, M.D.
SPECIALIST ON THRESHERMEN'S WEAK-BANK ACCOUNTS
RACINE WIS U.S.A.



FOR *Mr Thresherman*

*For that lired feeling when things don't go right take 3 1/2 drop
of Ank, pen it on postal and send your address
to Case for Catalog on modern Threshing Machinery.
immediately you receipt them of feed your brain and digest contents for 3 6
soon after you'll be on the road to recovery.
and your good judgement will prevail upon you to order 3 1/2 Can Engine
to which must be attached 3 1/2 Can Tender
both made to successfully operate 3 1/2 Can separator
which is fed to the limit with 3 1/2 Can feeder
all grain threshed is weighed correctly by 3 1/2 Can weigher
take early in season and your Bank account will
be strong before it is ended.*

O.L.D. Abe.

FOR CATALOGUE, ADDRESS

MENTION "FARMER'S ADVOCATE."

J. I. CASE THRESHING MACHINE CO., - Corner of Duke and Jarvis Sts., - TORONTO, ONT.

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.

YOU FEED 4 COWS or STEERS ENSILAGE at same cost as 3 on other Rations. 25 to 40 per cent. saved feeding good sweet ensilage. We furnish you STAVES, one piece, full depth of 8 1/2. Our FREE book "Silos and Silage" has full details, and much of interest to your purse. **WILLIAMS MFG. CO., Kalamazoo, Mich.**

GOSSIP.

There is not a house in the country but what uses more or less antiseptics during the year. In this enlightened age, they are used for a thousand and one purposes—in the sick room, in general household work, in flushing sinks, cesspools, closets, drains, in destroying contagious germs, foul odors, etc.—but among farmers perhaps their greatest use comes in in destroying lice on cattle, horses, pigs and poultry, and ticks on sheep; also, scab on sheep and mange on horses, ringworm on cattle, and in cleansing and healing foul ulcers and wounds on stock of all kinds. In another column will be noticed the advertisement of W. W. Stephen & Co., wholesale druggists, of Meaford, Ont., in which they are offering the world-renowned sheep dip, antiseptic and disinfectant, Kemp's Sheep Dipping Fluid. This well-known dip is manufactured in England by Kemp & Co., of Horncastle, where for a great many years it has stood the test of time, and is to-day second to nothing for all purposes where a reliable dip and antiseptic is in use. Mr. Stephen is the sole Canadian agent for this dip, and any orders sent to him, either by the trade or private individuals, will receive prompt attention. Price, in Imperial half-gallon tins, 75 cents, making it not only one of the best, but also one of the cheapest dips on the market.

WANTED:

The Washington Experiment Station desires to secure the services of a competent farm foreman, a Canadian or a Scotchman preferred. The duties are those usually performed by a working farm foreman, and full information on the subject can be secured by addressing the undersigned, E. E. ELLIOTT, Washington Experiment Station, Pullman, Wash.

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.

GENUINE

Pratt's Astral Lamp Oil

SOLD IN ALL COUNTRIES, AND RECOGNIZED AS THE HIGHEST-GRADE OIL MANUFACTURED.

WHOLESALE ONLY.

THE QUEEN CITY OIL CO., Limited, TORONTO.

Poor time has its ending



Good time has its beginning

in an
ELGIN WATCH

Every Elgin watch has the word "Elgin" engraved on the works, and is guaranteed against original defect of every character. A booklet about watches will be mailed to you for the asking.

ELGIN NATIONAL WATCH COMPANY, Elgin, Illinois.

GOSSIP.

Stockmen desiring pure-bred cattle from the Old Country are referred to the announcement, elsewhere in this issue, of Mr. Jas. Boden, the old experienced breeder, who is leaving for Glasgow, Scotland, to bring out an importation.

Improvement all along the line is the aim of Mr. W. G. Millson, owner of Green Grove Stock Farm, situated in Grey Co., Ont., about seven miles north of Markdale station on the Owen Sound branch of the C. P. R. A few years ago, Mr. Millson established a small but select herd of Shorthorn cattle, and every year since, through careful and judicious selection, has improved and increased his herd, till now can be seen in his stables 35 head of very choice Scotch-bred cattle, representing such rare good families as Missies, Urys, Clarets, Floras, Isabellas, Village Girls, Fairy Queens, Red Roses, and Rose of Autumns, at the head of which is the noted sire of prizewinners, Abbotsford 19446, whose record as a winner and whose reputation as a sire of winners is well known all over America, and who, despite his ten years, is to-day as active as a yearling. Second in service is the splendidly-formed bull, Freebooter 39009, a son of the noted sire, Imp. Knuckle-duster. In Mr. Millson's herd can be seen the sweepstakes winners and winners of the herd prize at the leading northern shows last fall. Nothing in the herd is reserved, and in males there are several from a few months to a year old, the get of Freebooter, Imp. Wanderer's Last, the \$2,000 bull sold at the Hamilton sale last summer, and Imp. Fitz Stephen Forrester, and a rare good lot of bulls they are. Write Mr. Millson, to Goring P. O., Ont.

BROADLEA OXFORDS.

This magnificent herd of Oxford Down sheep was established twelve years ago, by the late Henry Arkell, of Teeswater, Ont., by the importation of a number of animals, selected for their superiority individually, from the leading flocks of Oxford, England. Since then, frequent importations have been made, and in every case the best that money would buy were selected, and the enormous demand for Broadlea Oxfords, not only in Canada, but from different parts of the United States as well, shows that Mr. Arkell's venture was duly appreciated. The flock at present numbers 110 head, every one of which is either imported or bred directly from imported stock, nothing but the choicest imported rams having ever been used on the flock, and a look over them in their various pens will convince the most skeptical that Broadlea Oxfords have few equals and no superiors for size, form, quality and covering. Since the death of Mr. H. Arkell, the flock is owned by his son, Mr. W. H. Arkell, a young man of sterling integrity, and whose knowledge of Oxford Down sheep is equalled by few. There are on hand, just now, for sale, 15 ram lambs, fit for flock headers nearly every one of them, and 25 ewe lambs; also, a number of very choice shearing ewes. Parties in want of Oxfords would do well to correspond with Mr. W. H. Arkell, whose P. O. is Teeswater, Ont.

"VIGILANT" NEST

SLIDING-ADJUSTABLE
(Patented Can. & U.S.)

The only nest in the World which positively prevents hens from eating their eggs.
Simple-Efficient-Durable
No springs - Eggs cannot break. The inclined nest gathers them safely in lower section. Prevents fleas, or parasites, etc. Everlasting, never failing, comfortable. Thousands now in use. Ask your dealer for it or write to L. F. MORGAN & SONS, Mfrs., R. Antoine St., St. Hyacinthe, Que.
Price 45c. each. Shipped only in crates of 5.



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.

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. Hawkins' Royal Blue strain; \$1.00 per setting of 13.
A. E. SHEERINGTON, Box 100, Walkerton.

FOR SALE: 100 Mammoth Bronze Turkeys

sired by 43-lb. imported tom. Also a choice lot of White Wyandottes and Black Minorcas.
R. G. ROSE, Glanworth, 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. PETTIT, Fruitland, Ont.**

Plymouth Rock COCKERELS.

A selected number of very choice cockerels of the National strain, bred from a pen of Rock hens noted for their large size, perfect color, and persistent laying of good large eggs.
W. C. SHEARER, Bright, Ont.

For nearly half century we have been making the Famous Fanning Mill. We stake our reputation - ON -

The Chatham Red Bird INCUBATOR

Make poultry raising a business. It pays. Keep the hens laying. The Red Bird will beat 20 setting hens for hatching. 3 Sizes. Write for Catalogue.

M. Campbell Fanning Mill Co., Chatham, Ont.

GOSSIP.

In addition to his ad. for seed oats, John Campbell, of Fairview Farm, Woodville, Ont., places in this issue an ad. offering Barred Rock eggs for hatching. He has a very nice yard of birds, and one kind only, which have proved constant layers the winter through, far beyond the average. Birds sent out last season, as advertised in "Advocate," gave universal satisfaction.

We are pleased to learn that the favorable mention made in these columns of Dalgety Bros.' latest importation of Clydesdales, in our last issue, has been well sustained, as shown by their sales. Royal Kerr (see last issue, page 288) has been sold to Mr. J. M. Gardhouse, Weston; also, to the same purchaser, the grand filly, Duchess of Millfield, Vol. 25, got by the noted Marquis of Millfield 10813. To Coughlin Bros., Calgary, Alta., the dark brown four-year-old Clyde stallion, Brymbo, weight 1,700 lbs.—a good, useful-looking sire, with plenty of bone; also, Welbeck—dark chestnut Hackney stallion—sire Duke of Connaught's Heir. Took second prize at Cottesingham in field of eighteen; stands sixteen hands, with plenty of action. The Clydesdale stallion, Prince Alexander Albert 10840, was bought by Mr. J. L. Patterson, who had intended to have gone over to Scotland to purchase, but was well satisfied to purchase from Dalgety Bros. instead. Prince Alexander Albert has all the action and style of a Hackney, and should prove a valuable sire for his owners. There remains yet, the handsome bay Clyde stallion, Dividend 10729, rising five, sire Pandora's Prince; dam Darling VIII., by Cairnbrogie Stamp. He is an uncommonly well-bred horse, tracing back to Prince of Wales; stands seventeen hands, and weighs 2,150 lbs. Although only just landed from a sea voyage of twenty-four days, he is almost fit to enter the show-ring.

Eggs for Hatching
We offer eggs from pure Barred Plymouth Rock pens at \$1 per 15, \$2 per 45, \$4 per 100.
Pekin Duck eggs, \$1.50 per 12. Free circular.
H. GEE & SONS, Fisherville, 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, LYONS, ONT.

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

EGGS FOR HATCHING. Barred Rocks only from two pens. Choice pullets and excellent cockerels. Eggs and birds sold in 1902 gave splendid satisfaction. Per 13, \$1.50, or 40 for \$3.50. John Campbell, Fairview Farm, Woodville, 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.

THE SAFETY Incubators
are the most perfect hatching on the market. Fully guaranteed. Built to last a lifetime. Write for circular to
J. E. Meyer, Gourock, NEAR QUEENSTON, (Instead of Kossuth.)

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.
O. W. BEAVEN, Pinegrove, Prescott, Ont.

EGGS FOR HATCHING. Barred Rocks (exclusively) bred from A. C. Hawkins' Royal Blue strain. \$1.00 per setting of 15.
J. B. COWLES, Queensville, Ont.

THE SPRAYER SONG AND STORY.

Why not join the chorus of our pleased patrons:

The Aylmer Sprayer.
LONG-LIVED, because well made; not a purposeless particle in the whole outfit. Superlatively simple; no soft packing to sag and loosen; mechanically perfect spring rings hold all the pressure. Thorough agitation within the barrel before spraying, and always at point of intake while in use, hence an entire absence of clogging.

"We sing the song of the Sprayer strong, Of the Sprayer built for wear; It will agitate and operate, Running along at a rapid rate, With an ease beyond compare."

Write now **THE AYLMER IRON WORKS, AYLMER, ONTARIO.**

98½ POINTS
Highest Score at any Dairymen's Convention
this season, was received by butter made from cream separated by a U. S. Separator at the Vt. Dairymen's Meeting, Rutland, Jan. 6-8, '03.

THE U. S. SEPARATOR WINS HIGHEST HONORS AT MANY OTHER STATE CONVENTIONS

New York, JAMESTOWN, Dec. 9-12, '02.
THE HIGHEST SCORE . . . 98 POINTS.

Maine, WATERVILLE, Dec. 3-5, '02.
HIGHEST, SECOND HIGHEST AND THIRD HIGHEST SCORES.

New Hampshire, LITTLETON, Dec. 2-3, '02.
HIGHEST IN DAIRY TUB, DAIRY PRINTS AND CREAMERY PRINTS.

Nebraska, LINCOLN, Jan. 22-23, '03.
HIGHEST SCORE OF ALL

Buy the U. S. Separator if you wish to make the Best Butter.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

BIBBY'S FOR CALVES

CREAM EQUIVALENT is used to substitute cow's milk where milk is scarce. Never disappoints. Calves all like it. Give a trial. Per 50 lbs. \$2.00; 100 lbs. \$3.75.

MADE IN ENGLAND.

SOLD IN CANADA BY LEADING DEALERS,

OR DIRECT FROM **WM. RENNIE, TORONTO.**

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 Priestaker, Salzer's Free Silver, and Hammond's Wonderful. Also a few Shorthorn bays, English Berkshires and Improved Chester Whites. Young stock always for sale. Write for prices to **T. B. BOWMAN, - BERLIN, ONT.**

No. 3 "Prize"

Best Feed Grinder Money Can Buy for Operation with Gasoline or Steam Engine, Tread Power, Power Wind Mill, etc. **WHY?** Because it makes splendid feed, for brood or graham flour, has ample capacity for 4 or 5 horse power, and an automatic feed regulator, which prevents its choking down the lightest power. It built throughout of iron and steel and will last a life-time. Thousands in use for 10 and 15 years still as good as new. We make 65 sizes and styles of Feed Grinders, including the only really successful Corn and Cuck, and Oats, Cob and Shovel Feed Grinders. Also a full line of Ensilage and Fodder Cutters, Huskers, Shellers, Wood Saws, Sweep Horse Powers, Tread Horse Powers, Wind Mills etc. Write for prices and free catalogue. **APPLETON MFG. CO., 25 Fargo St., Batavia Ill.**

FREE VIOLIN



Powerful, Sweet-toned Violin, full size, Stradivarius Model, made of selected wood with highly polished top, inside edges and ebony finished trimmings giving it a rich, mellow tone. Choice of colors. They are the easiest sellers ever handled. **Every lady buys one.** Write for a free catalogue. **THE HOME SPECIALTY CO., DEPT 563, TORONTO.**

CHINA FRUIT SET FREE



One large Fruit Bowl and 12 dainty Fruit Dishes, all hand decorated with beautiful sprays of Violets, Lilies of the Valley and delicate leaves, in lovely natural colors. Each dish has the latest fancy-shaped edge, decorated all around to a depth of 1/2 inches with a beautiful raised design in pink and gold, very rich. This handsome set could not be bought in any store for less than \$5.00. It will set off your table better than anything you have ever owned, and will not cost you one cent. Simply send us your name and address on a Post Card and we will mail you 1 dish, 25¢ Cook Books to sell for us at 15¢ each. When sold return \$1.80 and we will immediately forward this elegant set. **Laura Barry, Backville, N.B., said: "Your Cook Books went like hot cakes. Everyone was pleased with them." A 50¢ certificate free with each Book. Write us to-day. You will never get another chance like this. The Home Specialty Co., Dept. 522 Toronto.**

\$2.69 Rain Coat WORTH \$5.00



SEND NO MONEY. Simply write us, giving your name, address, nearest express office and highest net amount and we will send you this coat free for examination. When it arrives, try it on and examine it carefully, and if found exactly as represented, and equal to any rain-coat ever sold for \$5.00, pay the Express Agent \$2.69 and express charges and secure this great bargain. This is a genuine English Mackintosh Raincoat, single breasted and made of the quality popular steel gray waterproof cloth, cut in the latest pattern, velvet collar, dressy plaid lining, double stitched and covered seams, concealed pockets, silk worked buttonholes and reinforced buttons. An easy fitting coat, well finished throughout. **Will wear like iron. A perfect protection against cold and wet and all their ill-effects, Croup, Pneumonia, Consumption, Rheumatism, etc.** No one exposed much to the weather can afford to be without one. Looks well, wears well, gives great protection and saves the only life. We have only a few more of these coats. When they are gone they will never be made at this price. **Lady's Waterproof Raincoat, \$5.00. Write us to-day. When each is gone with \$2.69, we will post-poned. JOHNSTON & CO., DEPT. 573 TORONTO.**

Going to Build?

A new house, barn, silo, concrete floor, or any other such work? If so, use

Queenston Cement

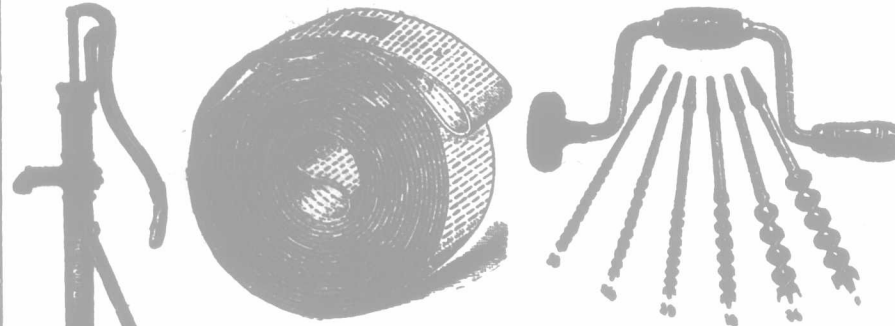
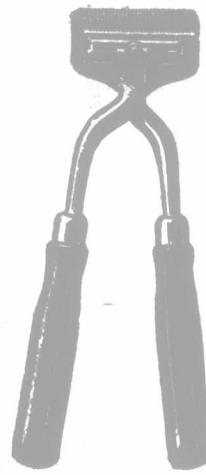


THE old brand made by a new process. No better cement made. All who contemplate using cement should first inspect the different structures built of the different kinds of cement, and then they would know which is best and cheapest. We especially request those interested to ask our many patrons about 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.

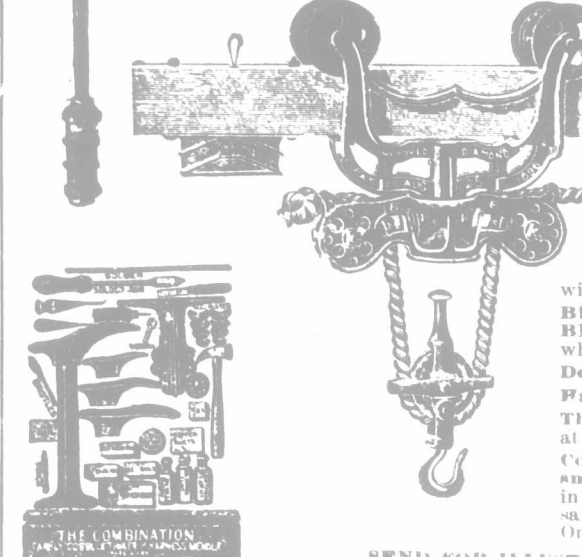
ISAAC USHER, QUEENSTON, ONTARIO.



HORSE-CLIPPERS, \$1.25, \$1.50 and \$1.75 each. Our \$1.75 horse-clipper is a daisy and fully guaranteed. They are all postpaid at that price.



BICYCLES ONLY \$10.00—We are again handling second-hand wheels this year. During last year we sold more second-hand wheels than ever before. We sent them to all parts of the Dominion. They are nearly as good as new; with a little touching up it would be a difficult matter to tell them from new ones. The fact of the matter, they are actually worth \$20.00, but as we do only a cash business, and make a great many sales, we sell at this very low figure. With each wheel we send a tool bag and a full kit of tools. And remember, every wheel is fully guaranteed. Order early and you will get a better choice. Only \$10.00.



BRACE AND 6 BEST AUGER BITS, only \$1.50; postpaid anywhere in the Dominion for \$2.00. **Deep Well Pumps**, only \$6.50 each. **Faying Outfits** from \$12 to \$25. **Threshers' Supplies**, Belting, etc., at wholesale prices. **Combination Cobbler's and Tinsmith's Outfits**—\$1.85. Should be in the possession of everyone. Will save its cost over and over again. Only \$1.85 per set.

SEND FOR ILLUSTRATED PRICE-LIST. **WILKINS & CO'Y, 166-168 KING STREET EAST, Toronto, Ont.**



New Book on how to 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. Dickinson, 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., Crampont, Ont., 7 miles from Ingersoll.**

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.

Registered Clydesdale Fillies

FOR SALE. The well-matched fillies, Maud Lawrence 3531, by Imp. Lawrence Again, 3 years old, dam Hattie McInnis; and Lady MoInnis, by Imp. McInnis, dam Imp. Maid of Bardsing. She is 2 years old. They are one of the best pairs in Canada. **R. D. DUNDAS, Fraserville Station, SPRINGVILLE P. O.**

J. M. GARHOUSE, WESTON P. O., ONT.

SHIRE AND CLYDE HORSES, SHORT-HORN CATTLE, LEICESTER SHEEP. One imp. 4-year-old Clyde stallion, half-brother to the champion Hiawatha, for sale. Also Clyde and Shire stud colts. Newnam'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.

"SURE-GO" HAMEFASTENER.

A 20th Century Idea, No Buckle. Outlasts Harness. Simple; quick; works like a charm. Sent prepaid at 50 cents a pair, in current funds; this low price being to introduce them. Money refunded after 30 days' trial if not satisfactory. Address: **JOHN HAUSAM, 175 B, RACINE, WIS., U.S.A.**

To Cure a Wind Puff or Strained Joint:


Steam the part with very hot water for 20 minutes, rub dry, and apply.

ABSORBINE

once or twice a day, rubbing it in. At night saturate the hair full of the following wash: 1 oz. **ABSORBINE**, 1 pint vinegar and 14 pints water; cover with a layer of cotton, and bandage over. Repeat as above until cured. **ABSORBINE** sold by regular dealers or delivered for \$2 per bottle. Mfg. by **W. F. YOUNG, P.D.F., Springfield, Mass.** Lyman, Sons & Co., Montreal, Agts. for Canada.

AN INCOME FOR LIFE Send for our prospectus telling how every one who invests with us can secure a quarterly income. **BE INDEPENDENT IN OLD AGE** **M. L. COFFEY, 1111-COLO. OIL, GAS & COAL CO. 1638 Unity Building, CHICAGO.**

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 3% 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, 330 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.

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.

Please Mention the Farmer's Advocate.

GOSSIP.


Mr. A. B. Armstrong, formerly of Codrington, who has long been an advertiser of pure-bred Yorkshire hogs, poultry and collie dogs, in the "Farmer's Advocate," writes: "I beg to announce that I have formed a partnership with my brother for the bettering of our facilities for supplying the trade with high-class stock. The address will now be Jas. & A. B. Armstrong, Warkworth, Ont. We have disposed of all our fowls except the Barred Plymouth Rocks and White Wyandottes, which breeds will be kept on separate farms and with unlimited range. We can supply eggs for hatching from first-class stock.

"In Yorkshires, we have increased our stock of breeding sows, and are now in a position to supply the most exacting customer. One of our stock boars, Summerhill Model, is bred from imported sire and dam, and has plenty of quality. He has proved himself to be one of the most successful sires in Ontario. The other stock boar is a younger hog that will make his mark in breeding circles.

"In collies, we have some of the handsomest females that can be found, and they are bred or ready to breed to the best sires to be had. They are handsome, active and good workers."

Mr. C. Rankin, of Wyebridge, Ont., reports the sale to Mr. J. J. Kiteley, Dunkerron, Ont., of his imported Shorthorn bull, Gladiator. This bull was bred by P. L. Mills, Ruddington, England. He is a red, of great substance, and has proved himself to be a grand breeder. His sire was Pride of Fashion (73239), by Pride of Morning (64546), the sire of the highest-priced calf at Mr. Duthie's sale, 1902; dam Imp. Gladys, second highest-priced female at the Hamilton sale last January. Mr. Kiteley is to be congratulated on securing this excellent bull. Mr. Rankin has paid careful attention to the breeding of Shorthorn cattle for several years. He visited Scotland last summer and selected a nice lot of thirteen head, which have lately arrived home from quarantine. Pride of Scotland is now at the head of the herd, bred by Mr. Watson, Aberdeenshire; his sire Clifton (74241), dam Roan Bessie, by Sittyton Sort (61831). This is a roan bull of massive build, and was bought at a long figure in Scotland. He is out of the same cow as the celebrated Lord Banff, which Mr. Flatt sold in Chicago, 1901, for \$5,100. Among the females is Merry Lass, a red, three years old, sired by Fortune (70467); dam Merry Lass 4th, by Tip Top. She was bred by Mr. Cameron, Balnakyle, Ross-shire, a second-prize winner at the Highland Society Show, 1901, and is a heifer of extra front, plenty of depth and thickness. Another three-year-old, Deeside Lass, bred by J. Young, Maryculter, Scotland, sired by Scottish Prince (73593); dam Rosie. She has a nice calf, a heifer, by Lord Methume (79281), and is in calf again to King of Fame, bred by Mr. Durno, Jackston. Lovely, bred by Mr. Shepherd, Shethin, Aberdeenshire, a nice roan of good quality, sired by Cyprus (66894), a Collynie-bred bull; dam Lovely 53rd, by Mirabeau. An exceptionally good red heifer is Princess 33rd, sired by True Scotch (80128); dam Princess 31st, by Village Archer (71789). Butterfly 54th, bred by John Marr, Aberdeenshire, got by Luxury (74958), dam Butterfly 50th. This is a big red growing heifer, not two years old until the middle of June, and looks like making a good cow. A typical breeding heifer will be found in Baroness Cromwell, a stylish roan, bred by Sir John Gilmour, Montrave, Fife; got by the great bull, Spicy Baron (77944); dam Lady Cromwell, by Royal James (54972). In a younger class is a beautiful red, Dalmeny Veronica, bred by the Earl of Roseberry, K. G. Her sire is Golden Gift (81168); dam Veronica 3rd, by Minateur of Dalmeny. The other heifers are very promising, and a few in calf to Rosicrucian of Dalmeny. These are all for sale, as also are two red bull calves, six months old, by Imp. Gladiator, and from imported cows.

Horse Health



is one of the most important things for every farmer to consider.

Dick's Blood Purifier

will build up a run down horse. It tones up the system, rids stomach of bots, worms and other parasites which undermine an animal's health.

50 cts. a package.

LEEMING MILES & CO. AGENTS. MONTREAL.

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


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.

DR. PAGE'S ENGLISH SPAVIN CURE



For the cure of Spavin, Ringbone, Curbs, Splints, Windfalls, Clipped Hoofs, 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.

BARON DE CHAMPLONIS

Proprietor.

USY REEDERS ELIEVING LOOD

USINESS Y UYING ELGIANS

BOOM

Importer.

DANVILLE, QUEBEC

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 Jacks are direct from Spain, and registered, two to four years old, 14 to 15 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.

H. H. CALISTER, Manager and Salesman.

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. Shorthorns, imported and home-bred, all ages. Stations:

Oshawa & Brooklin, G.T.R., Myrtle, C.P.R.
Long-distance Telephone, Columbus.
Telegraph, Brooklin.



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 long-distance telephone.

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.

Hodgkinson & Tisdale

BEAVERTON, ONT.,

Breeders 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.



GOSSIP.

GUELPH SALE.

The following is the list of animals, with the purchasers and price paid, at the recent Government sale at Guelph:

- Diamond; W. D. Flatt, Millgrove...\$275
- Thomas Ingram; Hector Parker, Everton 190
- Barney Barnato; Robt. McEwen, Byron 165
- Yorick 4th; S. H. Farrell, Kin-cardine 155
- Ramsden; A. J. C. Shaw, Thames-ville 155
- Prince Royal; A. Campbell, Haver-gal 155
- Victor of Hillhurst 2nd; F. Mur-dock, Ponsonby 150
- Scotland's Hero, Richard Williams, Craighurst 145
- Crimson Prince; Jas. McEwen, Mel-ancthon 135
- General Buller; A. F. McRae, Bols-over 150
- Prince Comet; Thos. Laughlin, Dun-dalk 130
- Donald of Hillhurst; Colwell Bros., Newcastle 130
- John Gilpin; W. B. Warren, War-ren 120
- Red Cruickshank; Wm. Dickson, Hanover 110
- Sir Garnet; Arthur Johnston, Greenwood 110
- Prince of Kenwood; Alex. McCaig, Aberfoyle 105
- Hon. J. I. P.; A. M. Fisher, Mild-may 105
- Ranton's Boy; Jno. Ketchen, Cor-whin 105
- Johnny Cape; R. H. Lehman, Orillia 100
- Buchan Hero; R. Moodie, Guelph. 100
- Crown Jewel; G. W. Keyes, Hyde Park 100
- Prince of Peel; Peter Campbell, Amberley 100
- Good Stock; Jno. Thompson, Ches-ley 90
- Sir Arthur; J. C. Shephen..... 90
- Wilmot Beauchamp; Geo. Fraser, Minnedosa, Man. 85
- Sir Oliver; M. J. McKillicuddy, Kennilworth 85
- Missie's Boy; J. A. Cockburn, Aberfoyle 85
- Prince Younger; Geo. Tucker, Bos-worth 85
- Grey Robin; J. Cornish, Orchard.. 85
- Baron's Pride; Wm. Ormiston, Columbus 80
- Red Beauchamp; Geo. Fraser..... 75
- British Consort; Fraser 75
- Klondike of Vasey; S. Kay, River-bank 75
- Rockingham; W. W. Claus, Vine-land 75
- Kinellar's Pride; H. Kean, Guelph. 75
- Bridesman 2nd; S. Fraser, Luck-now 70
- Onward; Jas. McBride, Goderich. 70
- Prince of Coverdale; Andrew Porter, Guelph 70
- Silver King; Jno. King, Hills-burgh 70
- Ian Beauchamp; J. W. Kerr, Mor-ristown 70
- Bruce Landsdowne; Jacob Gies, Macton 70
- Chief Justice; J. M. Roth, Tavi-stock 70
- Prince Elder; Geo. Oliver, Galt.. 65
- Johnny Bruce; Wm. Wilson, Hux-ley 65
- Rockingham Boy; J. Gilroy, Galt.. 65
- Scotland; S. Fraser, Minnedosa.. 65
- Roan Prince; Alex. Erskine, Dut-ton 65
- Bertha's Chief; J. Muir, Port Elgin 65
- Warder; W. Holland, Alliston 60
- Beauchamp 4th; P. S. Snyder, Bloomingdale 60
- Hopeful; Thos. Jackson, Guelph. 60
- Red Prince; Mrs. A. Quarry, Mont-rose 60
- Mahomed; J. C. Evans, Guelph.. 60
- Sir John; A. S. McRae, Bolsover... 55
- Sir George White; R. McKim, Orangeville 55
- Moorland Andrew; Wm. Hearn, To-ronto 55
- Matchem Sailor 2nd; Sol. Nelson, Eramosa 55
- Guelph Lad; Sam'l Hunter, Beams-ville 55

(Continued on page 291.)



Warranted to give satisfaction.

GOMBAULT'S CAUSTIC BALSAM

A safe, speedy and positive cure for

Curb, Splint, Sweeny, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS COMPANY, Toronto, Can.

You Lose Money

every time your horse is laid up with Sore Shoulders, Neck or Back.



Tuttle's Elixir

cures them and Curb, Splint, Sprained Cord, Spavin, etc. Given internally it is unequalled for Colic, Distemper, Founder, Pacumonia, etc.

Used and Endorsed by Adams Express Company.

Tuttle's American Condition Powders

—A specific for impure blood and all diseases arising therefrom.

TUTTLE'S FAMILY ELIXIR cures rheumatism, sprain, 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—some genuine but Tuttle's. Avoid all others; they offer only temporary relief, if any.

LYMAN, KNOX & 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-breds,

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.

om

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 full foal. The best lot I ever imported. Write quick.

om

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

Freeman P. O. G. T. G. 1/4 mile from farm, om

Stallions

DALGETY BROS.,
LONDON, ONT.,

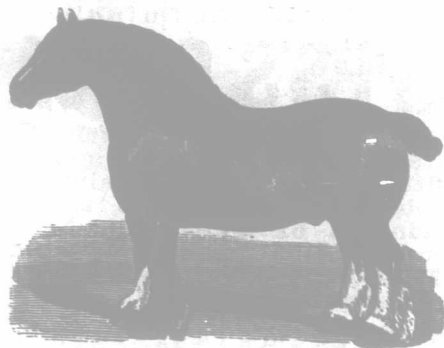
Largest Importers of Horses in Canada.

FIFTH CONSIGNMENT this season will arrive at Toronto first week in March, and will include some extra good horses.

Our motto: Small profits and quick returns.

om

DALGETY BROS., LONDON, ONT.



CAIRNBROGIE'S GREAT STUD.

Graham Bros., Claremont, Ont.,

BREEDERS AND IMPORTERS OF

Clydesdale and Hackney Horses



HANDLING only the best of their representative breeds. We have now on hand more good young stallions and mares than ever before—home-bred and imported—of choicest breeding and ample size, combined with the very best quality and action. Prices in keeping with the quality of our offerings.

New importations just arrived. Claremont is 25 miles east of Toronto, on the C. P. R. Farm one mile from station. Correspondence and an examination of our stock solicited.

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.

om

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,

607 WEST MAIN ST., CRAWFORDSVILLE, IND., U.S.A. o

GOSSIP.

(Continued from page 290.)

Doreen's Prince; Geo. McGill, Guelph	\$ 55
Dane 4th; Jno. Dearing, Palermo.	55
Max of Bonnie Burn; J. Galfat, Sweaburg	55
Mimosa Prince; Thos. Welsh, Guelph	55
Robbie Buckingham; M. Thompson, Walkerton	50
Beauchamp 3rd; Robt. Bain, Lion's Head	50
Dr. Buckingham; Geo. A. Bennell, Carlisle	45
Nelson; Wm. Alcorn, Swinton Park	45
Guelph Boy; Peter Lamb, Arkell.	45
General White; Jno. Murnahern, Guelph	45
Crimson Chief; H. Patterson, Mofat	45
Eben Holden; W. B. McGowan, Marsville	45
Baden Powell 2nd; W. Grill, Hespeler	45
Baden Powell 3rd; H. Scott, Shiloh	45
Charming Lad; David Malthy, Guelph	45
Mimosa; Jas. McRope, Corwhin	45
Lord Gloster 4th; Henry Sanders, Fairbank	35

The attention of horse breeders is directed to the advertisement of Mr. R. C. Coates, Thamesford, Ont., of two large Standard and registered stallions that have shown good speed, pedigrees and particulars of which will be supplied on application to proprietor.

A. M. Shaver, Ancaster, Ont., writes: "Sales are good. Our Shorthorns are in prime condition for breeding. We find farmers would rather pay a few more dollars and get quality, even for grade herds. We have just added the noted stock bull, Imp. Christopher =28859=, to head our herd."

Mr. Jas. A. Russell, Precious Corners, Ont., breeder of Yorkshire hogs, reports a good demand and sales of over 20 boars and as many sows since September last. One four-months sow left for sale from the imported sow bought from D. C. Flatt at a long price, good enough to win next fall under one year. Two imported sows to farrow to imported boars in April and May, and litters will not be akin. Will book orders now.

Mr. Smith Evans, Gourack, Ont., writes: "I wish to draw your attention to an error in one of the January numbers of the 'Advocate,' in regard to prizes won at Guelph Fat Stock Show. It read thus: 'K. Findlayson won first, second and third in wether lambs.' It should have read thus: 'Smith Evans, of Gourack, Ont., won first, second and third for wether lambs.'"

Mr. W. O. Burgess, Queenston, Ont., advertises, in this issue, eggs for hatching of a noted prizewinning strain of S.-C. Brown Leghorns that has won highest honors at New York, Boston and Philadelphia shows. His hens, he says, are daughters of the first and second prize winners at the above shows, and have been bred to a very fine "Bright" cock, and have tails carried well down. The settings are of 15 eggs, and the price is reasonable. See the ad.

Attention is directed to the advertisement, by Dr. S. S. Dickenson, Veterinary Surgeon, of Port Hope, Ont., of his new book, soon to be issued, on the treatment of domestic animals in health and disease. Twenty years' experience in such treatment should qualify for sound and reliable teaching. The book will include prescriptions for the various ailments of horses and other farm stock, as well as advice and instruction in judging and buying horses and guarding against tricks of unscrupulous dealers. Parties interested will do well to apply to the Doctor for the prospectus of the book.



Lamp Jaw

Spavin

Rinsbone

Fistula

Poll Evil

Knee Sprains



Cure Them All

You can cure all these diseases and blemishes easily, thoroughly and inexpensively. You can also cure Curb, Splint, Sweeny and softening of every description. If you have any such cases to treat, write us. We will send you two big booklets giving you all the information you need. No matter how old the case or what has failed, we will guarantee a cure by the methods the books tell of—methods now employed by over 140,000 farmers and stockmen. Write today.

FLEMING BROS.,
Chemists,
45 Front St. West,
Toronto, Ont.

Dehorned Cattle

rest easy and show better milk and beef results. The job is quickly done with the

KEYSTONE

DEHORNER.

Cuts four sides at once. Leaves the smooth and clean cut, no breaking or crushing of horns. More widely used than all others. Fully guaranteed.

R. A. MCKENNA, V.S. PICTON, Ont.

FOR SALE—Good threshing outfit; complete, and good-will of first-class route in North Brant. Big bargain if sold at once. Address, LOCK BOX D, Paris, Ont.

FOR SALE: Pure-bred Rough-coated Collies, from prizewinning stock; dark and light colors; male and female. J. D. HODDICK, Cobourg, Ont.

HOLWELL MANOR FARM

FOR SALE: Two Scotch Collie bitches, one 8 mos., the other 15 mos. old.

D. G. GANTON,
ELMVALE, ONT.

W. R. Bowman, Mt. Forest, is offering

YEARLING DURHAM BULL

of an excellent dairy strain (weight 1,300 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.

HIGH PARK STOCK FARM GALLOWAY CATTLE.

8 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.

"Tweedhill" Aberdeen-Angus. Individual in 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.

ABERDEEN - ANGUS.

For Sale: Laird of Tweedhill 29488. A prizewinner, 4 years old; 1-year-old bull and two bull calves, sired by him and out of winners. W. HALL, Washington P. O. Drumbo Station.

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 4 bred Hereford cows and heifers. 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 4 to 6 years, nearly due; 2 heifers 2 years old, and 4 heifer calves. Visitors welcome. O'NEIL BROS., Southgate, Ont. Elderton station, L., H. & E.; Lucan station, G.T.R.

HEREFORDS—Eight registered bulls, from 12 months up, for sale. Breeding as good as any. A snap if taken at once. R. J. MACKIE, Oshawa, Ont.

NEVER TOO LATE

To Try a Good Thing.

I am fifty-two years old, and for forty years of that time I have been a chronic catarrh suffer, says Mr. James Gleshing, of Allegheny City; with every change of weather my head and throat would be stuffed up with catarrhal mucus. I could not breathe naturally through the nostrils for months together, and much of the time I suffered from catarrh of the stomach. Finally, my hearing began to fail, and I realized something must be done. I tried inhalers and sprays and salves, which gave me temporary relief, and my physician advised me to spray or douche with Peroxide of Hydrogen. But the catarrh would speedily return in a few days, and I became thoroughly discouraged. I had always been prejudiced against patent medicine, but as everything else had failed I felt justified in at least making a trial. Our good old family physician, Dr. Ranzadell, laughed at me a little, but said if I was determined to try patent medicines, he would advise me to begin with Stuart's Catarrh Tablets, because he knew what they contained, and he had heard of several remarkable cures resulting from their use, and, furthermore, that they were perfectly safe, containing no cocaine or opiates. The next day I bought a fifty-cent box at a drug store, carried it in my pocket, and four or five times a day I would take a tablet; in less than a week I felt a marked improvement, which continued, until, at this time, I am entirely free from any trace of catarrh. My head is clear, my throat free from irritation, my hearing is as good as it ever was, and I feel that I cannot say enough in praise of Stuart's Catarrh Tablets. These tablets contain extract of Eucalyptus bark, bloodroot and other valuable antiseptics combined in pleasant tablet form, and it is safe to say that Stuart's Catarrh Tablets are far superior in convenience, safety and effectiveness to the antiquated treatment by inhalers, sprays and douches. They are sold by druggists everywhere in the United States and Canada.

Shorthorns, Clydesdales and Leicesters

FOR SALE: Young animals of both sexes always on hand for sale; bred in the purple, and as good as the best. 20 Leicesters, both sexes, all ages.

WM. McINTOSH, Burgoyne P. O. For: Elgin Sta.

Scotch Shorthorns

Duchess of Gloster and Mina strains. Three bulls, ready for service. Also a few choice heifers.

HARRY SHORE, 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.

A. W. SMITH, ALBA CRAIG STA., G. T. R., MAPLE LODGE P. O., ONT. 3 1/2 miles.

WANTED Half-dozen registered Shorthorn heifers (preferably in calf), also young bull. Price must be reasonable to receive attention. Send full particulars. **Louis D. Barchfeld,** Grimsby, Ont.

SPECIAL To Stock Raisers

500 Packages Given Free.

We will give a 35 cent package of cream for calves free to any person purchasing 50 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.



NOTICES.

SPRING OPENING.—The Central Business College, Stratford, Ont., opens for the spring term, April 1st. Mr. W. J. Elliott, the principal of the college, states that this is an excellent time for any one to commence a course of study. Write to Mr. Elliott for one of his handsome catalogues.

THE FENCE PROBLEM.—Farmers and everybody interested in the fence question should send to the Carter Wire Fence Machine Co., Box B, Mt. Sterling, Ohio, for their new illustrated catalogue, which will be mailed free to any address. It tells about wire fences, how to build them, what kind of wire to use, and how they can be made tight. It also describes the Carter Wire Fence Machine, with which a farmer can weave a wire fence right in the field. Agents are wanted everywhere to sell these machines and the Carter coiled wire.

FARMER BRIGHTON, of Fairfield, Iowa, is just entering upon a new advertising campaign in this paper. It is apparent that in his combination tool—the Swine V to prevent hogs from rooting, Cattle Dehorner and Stock Marker—Farmer B. has something which other farmers want, and buy liberally, else he could not afford to advertise so regularly. His ad. has come to be a familiar face in this and many other papers. It is just a little ad., headed, "No Humbug," and accompanied by a cut showing the tool and a hog's snout operated upon to show how it works. Look up this ad., if you keep hogs or have occasion to mark or dehorn.

YOU OUGHT TO SPRAY.—In another column appears the advertisement of the Auto-Spray, a self-operating or automatic sprayer, the sole Canadian agents for which are Cavers Bros., Galt, Ont. This machine combines many points of excellence, including economy, durability, low price and ease of handling and operating. A few strokes of the plunger in the air chamber will compress enough air to discharge the entire contents and make a continuous stream for nine minutes; hence, there is no necessity for constant pumping. The sprayer is not only useful for killing insect life and fungous growths upon all plants and trees, but may be utilized wherever any other kind of washing or spraying is to be done.

SPREADING MANURE.—The great rise in popular favor of the Twentieth Century Manure, Lime and Fertilizer Distributor has occasioned no end of interest throughout Canada, and this is now heightened by the establishment, at Stratford, Ont., of a modern manufacturing plant designed to meet the exact need of our country's trade. Here the machines are being turned out free from any import tariff, at a minimum of expense, and with that degree of satisfactory perfection which has always characterized the output of the parent firm, the J. S. Kemp Mfg. Co., of Newark Valley, N. Y. The first practical spreader appeared in 1875, from the inventive talent of Mr. J. S. Kemp, and from that date has been improved and bettered. Thousands of farmers are utilizing this reliable pulverizer and distributor of any kind of manure found on the farm. Thoroughly seasoned ash, selected whitewood, perfect maple, staunch metal and three good coats of paint combine to achieve solidity, long service and an effective appearance. Seen at a distance, the spreader looks like an ordinary farm wagon, but upon closer inspection one discovers the secret of the mechanism—a complete movable bottom carrying the manure back to a revolving beater which pulverizes and automatically scatters with evident evenness as the machine move forward. Among other special features may be mentioned the "tight box," which makes the handling of very wet or very dry manure comparatively easy; a device enabling the operator to change the feed instantly, and also regulate the amount per acre; and a safety board, which prevents the beater from clogging. It's easy to manipulate, and it has been claimed that one will pay for itself in a season through the saving of time and labor. If you are interested, write the Kemp Manure Spreader Co., Stratford, Ont.

THE MOST NUTRITIOUS.

EPPS'S COCOA

An admirable food, with all its natural qualities intact, fitted to build up and maintain robust health, and to resist winter's extreme cold. Sold in 1/2 lb. tins, labelled **JAMES EPPS & Co., Ltd., Homoeopathic Chemists, London, England.**

EPPS'S COCOA

GIVING STRENGTH & VIGOUR.

MANITOU LIN SHORTHORNS Edwin Beck, Gore Bay, Manitoulin Island. Breeder of SCOTCH and SCOTCH-TOPPED SHORTHORN CATTLE. A few choice animals.

SCOTCH - BRED SHORTHORNS. Combining size and quality, at "let-live" prices. Bulls from 6 to 15 months old, reds and roans, including the Sultana imported bull—Gold-finder—, now at the head of herd; also several young cows and heifers. **L. E. WEBSTER,** Co. Waterloo. Hawkeville P. O., Ont.

CEARDALE SHORTHORNS **FOR SALE**—3 bulls from 1 to 2 years old, two of them of Lord Gloster 26955 and Flora dam, the other by Cedarville Chief 26835, Beauty dam; a big, growthy, sappy lot. **Dr. T. S. Sproule, Markdale, Ont., P. O. and Sta.**

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.

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.

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 15, \$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 choice Abbotsford heifers, and have some cows; set to calve, in calf to Abbotsford, O. J. K. HUX, Rodney, Ont.

High-Class 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 & LEICESTERS HERD ESTABLISHED 1855.

A number of young bulls and females for sale. Also my herd bull, imp. Christopher = 28859 =. A satisfactory roan-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 mos. 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. BRADIE,** Stouffville Sta. o Bethesda, Ont.

SHORTHORNS FOR SALE. Five young bulls of choicest breeding and quality; also forty cows and heifers, a very choice lot. Herd headed by Bandoleer = 40106 =. **F. MARTINDALE & SON,** Caledonia Station York, 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.

The "STAY THERE" Aluminum Ear Markers are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. If 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 tag, catalogue and prices mailed free. Ask for them. Address **WILCOX & HARVEY MFG. CO.,** 154 Lake St., Chicago, Ills.

GREEN GROVE SHORTHORNS

This herd comprises such noted families as Napoleons, Crimson Flowers, Mysias, Languishes, Butterflies, Jessamines, etc., and is headed by the noted Watt-bred bull, Spicy Robin = 28250 =, 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 prize-winning S. C. White Leghorn fowl. Eggs, \$1 per setting. **GEORGE D. FLETCHER,** ERIN SHIPPING STA., C.P.R. BIRKHAM P. O., Ont.



T. DOUGLAS & SONS, STRATHROY, ONT. MEMBERS OF **Clydesdales**

100 SHORTHORNS TO SELECT FROM. Herd bulls (imp.) Diamond Jubilee = 28861 = and Double Gold = 37822 =. 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.

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, LAVINAS AND BEAUTYS,** Sired by such Scotch bulls as Commodore 31095, Scottish Bard, imp. Baron's Heir. 18 heifers, 12 bulls, a number of cows (heavy milkers), to be sold well worth the money. **E. J. DOYLE,** Owen Sound P. O. and Station and Port.

CHARLES RANKIN, WYEBRIDGE, ONT. Importer and breeder of **Shorthorns, Oxford Downs and Berkshire Pigs** Young stock always on hand.

BELLEVEUE SHORTHORNS. Both sexes, imported and home-bred. All ages. Prize-winners at home and abroad. **EDWIN BATTYE,** Gore Bay P. O. and Port. HARTHOUSE 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 prize-winners—a low down, thick lot also, Yorkshires. **WM. McDERMOTT,** Living Springs P. O., Fergus Station.

Imp. Shorthorns and Lincolns **A. D. McGUGAN,** 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 shagging 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 heads herd. We have for sale 4 imported bulls, 15 imported heifers, and a large number of home-bred bulls, cows and heifers belonging to the most popular Aberdeenshire families. **Burlington Jet, Station and Tele. Office.**

HIGH-CLASS SHORTHORNS Now offering 12 bulls, reds and roans, from 6 to 24 months old—the thick, fleshy kind—and a few heifers. Also Clydesdale horses. **JAS. McARTHUR,** o Goble's, Ontario.

SHORTHORNS: JILTS and MARAS: 6 heifers from 1 to 3 years old; 5 with calves at foot and in calf again to imp. British Statesman. Also two young bulls (roan). **LOUIS ELLARD, Loretta P. O., Beeton Sta.**

FOR SALE The Shorthorn bull, Matchless Chief = 45142 =, Vol. 19; dark red, calved May 19th, 1902; dam Matchless of Oxmead = 21058 =; sire May Duke = 21048 =; a son of the Cruickshank Clipper bull, Clipper King, bred by the Hon. John Dryden, and of the Watt-bred cow, Mildred 4th, by imp. Hospodar. For further information address **Elias A. Fligg, - Oxmead, Ont.**

DE LAVAL CREAM SEPARATORS

First in the field they remain, after twenty-four years, the most Efficient, the most Reliable, the most Durable.

There are no others "just as good."

Our free catalogue will explain.

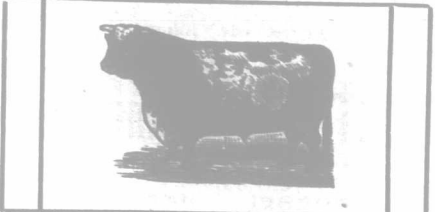
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GEO. ISAAC, BOMANTON, ONT.

Scotch Shorthorn Cattle

Have imported, this year, 62 head of Shorthorns—6 bulls and 56 females. Twenty-seven head left quarantine 11th Sept., 1902. Intending purchasers should see this stock or correspond.



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.

IMPORTED AND CANADIAN-BRED SHORTHORNS

A number of 2-year-old heifers, bred to Bapton Chancellor (imp.). Also young imported cows (with calves at foot), and a few choice Canadian-bred bulls and heifers of popular breeding. Address:

H. J. DAVIS, WOODSTOCK, ONT.

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

W. C. EDWARDS & CO.,
Rockland, Ontario.

VALLEY HOME STOCK FARM

Choice young bulls and heifers for sale from imported and home-bred cows. Also some young Berkshires.

S. J. PHARSON & SON, 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.

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.

TROUT CREEK SHORTHORNS



JAS. SMITH, Manager, Millgrove, Ont. W. D. FLATT, 378 Hess St. South, Hamilton, Ont.

MERCER'S SHORTHORNS

Comprise Missies, Stamfords, Floras, Claretts, Princesses, Red Roses, Young Sterlings, Fashions and Matchless. 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 cows 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.

For Sale: One Shorthorn Bull Calf

Twelve months old, roan, of the well-known Wimble family. He is a good one. Also some females of the Crimson Flower, Golden Drop and Cruickshank Lovely strains.

HUGH THOMSON, BOX 556, ST. MARY'S, ONT.

ROSEVALE SHORTHORNS.

Herd comprises Augusta, Polyanthus, Crimson Flowers, Minna, 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.

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 Pugh, Whitevale, Ont.

GRANDVIEW SHORTHORNS

Are made up of Floras, Meadowsweets, Mary Booths 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, 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.

Bulls! Shorthorns Bulls! IMPORTED and CANADIAN-BRED

ORDERS TAKEN FOR BULLS AND HEIFERS, COTSWOLD AND LEICESTER SHEEP, YORKSHIRE AND BERKSHIRE PIGS, AND DELIVERED TO ANY PART OF MANITOBA OR THE NORTHWEST.

Write for prices. Satisfaction guaranteed.

Goodfellow Bros., Macville, Ont.

R. & S. NICHOLSON

Sylvan P. O., Parkhill Station, Ont. Importers and breeders of

SHORTHORNS

Have for sale: 13 IMPORTED HEIFERS, 2 IMPORTED BULLS, 7 YEARLING BULLS, 30 HEIFERS (choice).

Home-bred herd composed of Nonpareils, Minna, Cleo-entina, Cruickshank Lovelys, Shethin Rosemarys, A. M. Gordon's Estelles, Miss Symes, etc.

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.

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 \$2,000. High-class Shorthorns of all ages for sale. Also prize-winning Lincolns. Apply

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.

ROBERT MILLER, - STOUFFVILLE, ONT.

SCOTCH SHORTHORNS AND SHROPSHIRE.

Present offering:—Five young bulls and 4 yearling 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.

James Caskey, Tiverton P.O., Kincardine Sta.

SHORTHORNS.

Dark red bull calf, Blue Ribbon 2nd, 13 months old, sired by Blue Ribbon (imp.) 17005 (63703), dam by Royal George (imp.) (64728). Bull calf, 7 months old, dark red; also yearling and two-year-old heifers.

JOHN McFARLANE, - DUTTON, ONT.

SHORTHORNS.

Imp. Christopher—28859—heads herd. Stock for sale, all ages, milk and beef combined.

A. M. SHEAVER, HAMILTON STATION, ARCASTER P. O.

THE VALUE OF CHARCOAL.

Few People Know How Useful it is in Preserving Health and Beauty.

Nearly everybody knows that charcoal is the safest and most efficient disinfectant and purifier in nature, but few realize its value when taken into the human system for the same cleansing purpose.

Charcoal is a remedy that the more you take of it the better; it is not a drug at all, but simply absorbs the gases and impurities always present in the stomach and intestines, and carries them out of the system.

Charcoal sweetens the breath after smoking, drinking, or after eating onions and other odorous vegetables.

Charcoal effectually clears and improves the complexion, it whitens the teeth, and further acts as a natural and eminently safe cathartic.

It absorbs the injurious gases which collect in the stomach and bowels; it disinfects the mouth and throat from the poison of catarrh.

All druggists sell charcoal in one form or another, but probably the best charcoal, and the most for the money, is in Stuart's Absorbent Lozenges. They are composed of the finest powdered willow charcoal and other harmless antiseptics in tablet form, or rather in the form of large, pleasant tasting lozenges, the charcoal being mixed with honey.

The daily use of these lozenges will soon tell in a much improved condition of the general health, better complexion, sweeter breath, and purer blood; and the beauty of it is, that no possible harm can result from their continued use, but, on the contrary, great benefit.

A Buffalo physician, in speaking of the benefits of charcoal, says: "I advise Stuart's Absorbent Lozenges to all patients suffering from gas in stomach and bowels, and to clear the complexion and purify the breath, mouth and throat. I also believe the liver is greatly benefited by the daily use of them. They cost but twenty-five cents a box at drug stores, and although in some sense a patent preparation, yet I believe I got more and better charcoal in Stuart's Absorbent Lozenges than in any of the ordinary charcoal tablets."—Adv. om.

Shorthorn Cattle, Lincoln Sheep

Imp. Prime Minister at head of herd. Imp. Clippin, Miss Ramsden, and other Scotch families. Lincoln won more than half the money and sets for stock 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 Lavender and Miss Ramsden dams. THOS. ALLEN & BROS., om Oakawa, 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. om H. PANKER, DURHAM P. O. and STATION.

SHORTHORNS. Imported and Canadian-bred. I have for sale eight young bulls 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. CREKAR, Shakespeare, Ont. om

SHORTHORN BULLS FOR SALE: A choice lot of Shorthorn bulls from 10 to 16 months old, sired by Imp. British Statesman (63729) = 26833 = and cows of the Mara family. They must be sold at once. Prices away down to suit customers. FITZGERALD BROS., om Elmvale Station, G.T.R. Mount St. Louis P.O.

GREEN GROVE SHORTHORNS: I am now offering a few heifers, Claretta, Floras, and one Missie; also a choice year-old bull, by Aberdeen of Markham. om W. G. MILSON, GORING P.O. and MARKDALE STATION.

FOR SALE 6 SHORTHORN BULLS. 4 months old; also heifers and cows. Would sell a carload. Imp. Prince William at head of herd. om Jas. Gibb, Brooksdale, Ont.

SHORTHORNS and CLYDESDALES. We have for sale five bull calves, from 8 to 24 months, from imp. sire and dams; also six extra good stallions, from two to six years old.

JOHN MILLER & SONS, BROUGHAM, ONT.

CLARMONT 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.



GOSSIP.

I have been a regular reader of the "Farmer's Advocate" since 1898, and I like it better all the time, as there are always good lessons in it along agricultural lines especially, and stock-raising of all kinds. It brings correspondence to advertisers from all over the continent. I could not do without it. J. K. HUX.

Elgin Co., Ont.

Messrs. H. Cargill & Son, Cargill, Ont., make a change in their advertisement in which they offer imported Scotch-bred Shorthorn cows and heifers, with calves at foot or in calf to their best imported bulls; also, Oxford Down sheep, bred straight from imported stock. See notice in March 2nd number of "Farmer's Advocate," page 240, referring to Messrs. Cargill's new tabulated catalogue and the character of their herd. Send for the catalogue, which is a model one in that it is not one-sided, but shows all sides of the pedigree.

STRANGLES.



STRANGLES is an acute, febrile disease affecting horses. It is most common in young animals, and is characterized by swelling and abscesses forming between the

bones of the lower jaw, sometimes at other points.

Symptoms.—Languor, dullness, loss of appetite, staring coat and general unthriftiness precedes attacks. The glands between the jaws are swollen and extremely sensitive to the touch. There is a rise of temperature, with increased pulse rate. Sore throat is shown by food and water returning through the nose or dropping from the mouth. As the disease progresses, abscesses in the glands point and break.

Treatment.—Animal should be placed in a well-lighted, clean box stall, where the temperature is fairly even, and sufficient clothing should be applied to keep the animal comfortable. If temperature runs high, say 104° to 105° Fahrenheit, and the pulse is strong, give 10-drop doses of aconite with half-dram doses of fluid extract of belladonna in an ounce of sweet spirits of nitre, three or four times a day.

If the throat is much irritated dram doses of chlorate of potash with two drams of powdered golden seal placed on the tongue three times a day after feeding gives good results.

Like all febrile troubles, strangles reduces the vitality. Tonics should not be neglected. Administer, as directed, regular doses of Dr. Hess' Stock Food—the most powerful of tonics and reconstructives. It is the only stock food formulated and manufactured by a regular graduate of both medical and veterinary colleges. If the medical and veterinary colleges know of nothing better than Dr. Hess' Stock Food it must be good. It gives vigor to both appetite and digestion, and rapidly improves the whole systematic condition of the animal. Sold on a written guarantee: 7 lbs., 65 cts.; 12 lbs., \$1.00; 25 lbs., \$2.00; 50 lbs., \$3.70; 100 lbs., \$7.00.

In every package of Dr. Hess' Stock Food a little yellow card is inserted. By returning it to Dr. Hess & Clark, care Information Bureau, together with symptoms and conditions of sick or injured animals, you will receive a letter from Dr. Hess describing the disease, its cause and the latest treatment, including a prescription. This article on strangles is a sample. Judge the value of it yourself.

Dr. Hess has also written a book on diseases of stock and poultry. It is the most comprehensive work for stockmen produced, and enables them to treat their own domestic animals. This valuable book will be mailed free, postage paid, if you will write, state what stock you have, what kind of stock food you have fed, and mention this paper. This work is used and commended by many veterinary surgeons. Address: Dr. Hess & Clark, Ashland, Ohio, U. S. A.

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.

SUNNYLEA FARM. For sale: Jerseys—6 yearling bulls; females any age. Tamworths—30 boars and sows, different ages. Shropshire sheep—rams and ewes of good breeding. Prices reasonable. om H. E. WILLIAMS, Knowlton, P. Q.

HAWTHORN HERD of deep-milking Shorthorns for sale. Six young bulls of first-class quality and breeding and from AI dairy cows. om WM. GRAINGER & SON, Londonboro, Ont.

Lakeview Shorthorns. Herd represented by such noted families as Stamfords, Minas, Marr Floras, Crimson Flowers, Village Girls, Bucan Lassos, and Lavinias. Stock of both sexes and all ages for sale. om James Bowes, Strathclair P. O., Meaford Sta.

SHORTHORNS. THORNTON 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., Hillbrook 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 sows. All at farmers' prices. Inspection invited. om D. H. RUSSELL, STOUFFVILLE, ONT.

SCOTCH SHORTHORNS. Urya, Stamfords and Matchless. Young, vigorous females, all ages, for sale. Shropshire sheep and Yorkshire pigs. ROBT. BATTY, om 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. SALLECK, Druggist, Morrisburg, 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 prizewinning stock. Write for prices. om W. W. EVERITT, Du-edin Park Farm, CHEATHAM, 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. o

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. Write for information. Prices reasonable. Address om ISALEIGH GRANGE FARM, - - DANVILLE, QUE.

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, sweepstakes and diplomas, with one exception. The cows are all imported, and were carefully selected for strength and constitution, style, size of teats, and milk (quantity and quality). The herd is headed by Douglasdale (imp.), champion at the Pan-American and at Ottawa, Toronto and London, in 1902, ably assisted by Black Prince (imp.). Stock, imported and home bred, for sale at all times. om

JERSEYS, COTSWOLDS, YORKSHIRES.

Registered Jersey cattle, Cotswold sheep and Yorkshire pigs for sale. A few nice heifers, 6 months to 2 years, and 1 yearling bull, by Count of Plum Ridge, grandson of Adeline of St. Lambert, record 84 lbs. milk daily, om WM. WILLIAMS, NEWMARKET, 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 2087, 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. om H. George & Sons, o Crampton, Ont.

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, Edgely Mol, milk record 104 lbs. in 24 hours; Emery Beauty, the great public test winner, and many others with heavy records. SIDNEY WACKLIN, om Streetsville P. O. and station, C. P. R.

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. Tamworths of all ages for sale. Write at once for bargains. om A. C. HALLMAN, - - BRESLAU, ONT.

HOLSTEIN-FRIESIANS Three Holstein yearling bulls and one heifer (in calf) for sale. Apply to WM. SUHRING, Sebringville, Ont.

4 HOLSTEIN BULLS

For sale: From 4 to 7 months old, having some of their pedigrees from such strains as Inba, Netherland, Royal Asgeric, and Tritonia Prince, and out of imported females that have proven their worth at the fair. THOS. B. GAHLBACH & SON, om Warkworth.

Brown's Holsteins

We are offering for sale: 2 three-year-olds, 4 two-year-olds and several younger heifers. Also a few young bulls, out of record cows and by our grand stock bull; in fact, we will sell anything in the herd. om BROWN BROS., Lya P. O. and Station.

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. om

GEO. RICE, Carrie's Crossing, Ontario, OXFORD COUNTY.

Riverside Holsteins

8-BULLS FOR SALE—8 from 3 to 10 months old, sired by Victor DeKol Pietertje and Johanna Rue 4th Lad. These young bulls are from Advanced Record of Merit stock.

MATT. RICHARDSON & SON, Baidmand Co. o Caledonia, Ont.

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. om JAS. A. CASKEY, Madoc, Ont.

IF YOU WANT A HOLSTEIN BULL, bred from producers, and that is again capable of siring producers, at a living price, write om H. BOLLERT, Cassel, Ont.



ROBERT HUNTER, Manager. Near Montreal. One mile from electric cars. Lachine Rapids, P. Q.

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. R. W. WALKER, Uticon P. O. Shipping stations: Fort Perry, G. T. R.; Myrtle, G.P.R. on

HOLSTEINS, TAMWORTHS, COTSWOLDS.
 Present offering: Young boars and cows fit to breed, and younger ones. Choice animals. Ram and ewe lambs and two 2-shear rams. Perfect covering. R. O. MORROW, Hilton Ont., Brighton Sta.

FOR SALE: IMPORTED AND HOME-BRED AYRSHIRES,
 including cows, heifers and young bulls out of our prize and sweepstakes cows. Foundation selected with due regard to quality and productiveness. Come or write.

W. W. WILIE, - HOWICK, QUEBEC.

High-Class Ayrshire Cattle
 For Sale: Both sexes; bulls and heifer calves from 2 to 9 months old; cows and heifers all ages. Famous prize-winners bred from this herd, including Tom Brown and White Floss, sweepstakes prize-winners at Chicago. DAVID BENNING & SON, Williamstown, Ont.

Homecroft Stock and Dairy.
 Ayrshires, Chester Whites, B. P. Rocks. Write us for best young bull in Canada. Some A 1 bull calves; also some beauties for young cows. See that you look up our chickens. J. F. PARSONS & SONS, BARNSTON, QUE.

Springhill Farm Ayrshires.
 FOR SALE
 One bull 16 months old, three bulls 7 months old, all from imported sire and deep-milking dams. Females, all ages.

Robt. Hunter & Sons, Maxville, Ont.

DAVID A. MCFARLANE,
 Breeder of high-class AYRSHIRES.
 Young stock for sale from imported and home-bred foundation. Prices reasonable.

Springburn Ayrshires. We are making an special offering of five bulls, from 9 to 12 mos. old, bred by Lord Minto 10133, and out of producing dams. A grand, typical lot. Write quick, as we are selling cheap. H. J. WHITTAKER & SONS, North Williamsburg P. O.

Maple Cliff Dairy and Stock Farm
 BREEDERS OF
 AYRSHIRE CATTLE, BERKSHIRE AND TAMWORTH PIGS.

Cattle of both sexes in single or carload lots. Pigs both sexes, pairs not akin. Farm adjoins Central R. REID & CO., Experimental Farm, Hintonburg, Ont.

AYRSHIRE CATTLE
 SHROPSHIRE SHEEP, B. P. ROCK FOWL and 20 YOUNG LARGE ENGLISH BERKSHIRES FOR SALE.

J. YULL & SONS, on Carleton Place, Ont.

HIGH-CLASS AYRSHIRES
 At "Live and Let Live" Prices.
 Two bulls fit for service; one February and three March, 1902, bulls, and a number of young bull calves; also heifers bred lately, and younger.

W. W. BALLANTYNE, Stratford, Ont.
 Neidpath Farm adjoins city, main line G. T. R.

NETHERLEA AYRSHIRES.
 Present offering: 3 bulls fit for service, prize-winners; also a few young females, sired by Napoleon of Auchinbrain (Imp.), whose dam's record was 72 lbs. a day, and all of them out of record cows. T. D. MCCALLUM, Danville P. O. and Station, Quebec.

Tredinnock Ayrshires.
 Imported bulls at head of herd: Glencairn 3rd, Napoleon of Auchinbrain, and Lord Dudley. Forty imported females, selected from leading Scotch herds, and their produce from above-named bulls. Size combined with quality and style, well-formed udders, good-sized teats, and capacity for large milk production. Bull calves for sale; also a few young cows and heifers. For prices and particulars address JAMES BODEN, Esq., St. Anne de Bellevue, Quebec.

Farm close to St. Anne Station, G.T.R. & C.P.R., 20 miles west of Montreal, on

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. J. W. LOGAN, Allan's Corners P.O., Howick Sta., Que.

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. Bulls a specialty. WATT BROS., Allan's Corners P. O. St. Louis Sta., near Howick, Que.

AYRSHIRES AND YORKSHIRES.
 My Ayrshires are all bred from imported stock; Yorkshires from Mr. D. C. Flatt's imported stock. Choice young animals for sale. James McCormick, Sr., Rockton, Ontario.

W. F. STEPHEN, Trout River, Que., breeder of Ayrshire Cattle. A few choice bull calves for sale at reasonable prices; also by Klondike of St. Annes 2897, and from deep milkers with good udder and teats. Carr's Crossing, 1 mile, G. T. R.; Huntingdon, 5 miles, S. L. & A. R. O.

AYRSHIRES and YORKSHIRES
 Young bulls fit for service and young calves of either sex, all from heavy-milking dams and imported sires. Sows safe in pig, and early January pigs, either sex, of the right type and breeding. Write us for anything you may need in either breeds, and you will find our prices very reasonable. ALEX. HUME & CO., Menie P. O.

Menie Stock Farm Choice young AYRSHIRE bulls and heifer calves, from 2 to 9 months old. Also cows and heifers all ages. Write W. L. STEWART & SON, Menie, Ont.

EUROPEAN ADVERTISEMENTS. SUSSEX CATTLE
 The breed for hardiness and early maturity. The highest average daily gain, alive, 2 lbs. 8.31 oz., and also the highest percentage, 68.02, of carcass to live weight of any animal, for its age, at Smithfield Show, was given by Mr. Gerald Ward's first-prize Sussex steer at the age of 681 days. Leading honors won at all the principal shows. Selections always on sale. Apply G. Warde, West Farleigh, Kent, England.

English Shorthorns.
 Booth and Bates Shorthorns, topped with Oriskany shank bulls. Young cows, bulls and heifers always on hand for sale. Eligible for the American herdsbook. Royal and Highland prize-winners included for the last two years. Close on A400 won in prize last year and this. W. L. BELL, Raichough Farm, Alwrick, Northumberland, Eng.

Robert W. Hobbs, Kelmscott, Lechlade, England.
 One of the largest flocks in Oxford Down Flockbook. Numerous prizes obtained for ram lambs at principal shows. Rams and ewes always on sale.

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.

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 Cables—Sheepsote, London.

FAMOUS ALL OVER THE WORLD ALFRED MANSELL & CO., LIVE STOCK AGENTS AND EXPORTERS, SHEEPSBURY.

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Sheepsbury, England, or to our American representative, Robert Miller, Mountville, Ont., Canada.

LIVE STOCK EAR LABELS
 Send for circular and price list and order early before the rush. Please say what paper you saw the ad. in. E. W. JAMES, Downsview, Ont.

Dorsets & Chesters Young stock in Dorset Sheep and Chester White Hogs of good quality for sale, reasonable. R. H. HARDING, THORNDALE, ONT. "MAPLEVIEW FARM."

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, prize-winners at all the leading fairs. ELGIN F. PARK, on 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. BROOKS & LANGMAID, COURTOISE, ONT.

SUMMERHILL HERD OF Large English Yorkshires.

HEADQUARTERS FOR THE IDEAL BACON HOG.



Our winnings at the large shows, for 1901, are as follows: At Toronto every possible first prize and two seconds, two silver medals, and first for pen of pure-bred bacon hogs, also sweepstakes on bacon hogs over all breeds; at London every possible first-but-two; while at the Pan-American, where our herd was exhibited, half going to Toronto, we won six out of ten possible firsts, also sweepstakes on boar any age. At the Pan-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. G. FLATT & SON, MILLGROVE, ONT. om Telephone: Millgrove, Ont.

HILLGREST 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.

SHROPSHIRE FOR SALE.—Shearing rams, ewe lambs, ewe lambs, also shaggy and other ewes, about 50 head all told. All English or English. Low-cut, well covered, in fine condition and form. Sires from Campbell and English. MALCOLM HEDDOUGALL, Ixworth, Ont.

W. S. CARPENTER, "MODEL FARM," SIMCOE, ONT., Importer and breeder of Shropshire sheep. My flock was represented at Toronto, and won first on shaggy rams, first and second on aged ewes, and second on the pen. First time exhibiting. It is not a fact that any other ram, imported or home-bred, will give you such a good result, 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. on Station One-half Mile from Farm, Welton and G.T.R.

SHROPSHIRE.
 One well-covered yearling ram, with good bone, from imported Massey ram, and four home-bred ram lambs. Write for prices. HOWAT BROS., HILLSDALE, ONT.

SHROPSHIRE
 This season I am offering for sale hogs of both sexes. Also shaggy ewes and 2 shaggy rams. Prices right and quality guaranteed. C. G. HEDDERLEY, Alisa 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 young ewes and ewe lambs. All these ewes selected in flock and the best rams. R. J. HERR, Dutton, Ont.

Oxford Down Sheep at a bargain. Having decided to give up farming in the spring, I will sell for the next 30 days, at reduced prices, 4 imported ewes and 1 imp. ram; also ram and ewe lambs, and a few ewes from 1 to 6 years old. SMITH EVANS, Gourock, Ont.

40 Superior Oxford Ewes for Sale:
 From one to three years. Bred to "Bryan 125" and "Hampshire Bred," both imported. One hundred shaggy and heavy ram and ewe lambs. Prices reasonable. Also, Shorthorn bull calf and two heifer calves. Good animals. HENRY ARSELL, "Farnham Farm," Arkell P.O., Ont.

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. H. J. DAVIS, WOODSTOCK, ONT. Box 518.

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. GUN. LANGELIER, Quebec City.

Spruce Grove Herd Yorkshires—A few choice service; also choice pairs, not akin, from 7 weeks old to 3 months, for sale. Prices right. FRFD. C. SMITH, New Hamburg, Ont.

Yorkshires for Sale—Some choice young sows of different ages; also one Shorthorn bull, Royal Charlie 2nd = 38762. Write on C. & J. CARRUTHERS, 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, EMERY P. O.

Yorkshires, Poultry and Collies
 Pigs of all ages, both sexes, pairs not akin. Quality strictly first-class. Eggs from W. Wyndolites and B. P. Rocks; imported stock. Choice pedigreed collies. Satisfaction guaranteed. Address J. A. & A. B. Armstrong, Warkworth, Ont.

NEWCASTLE HERD OF Tamworth Swine
 Here 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: Several young sows, bred and just ready to breed; also a lot of beautiful young pigs of both sexes, 2 to 4 months old, all descendants of our champion stock. Pairs supplied not akin. Also saw 15 months old, in pig. Enquiries promptly answered. COLWILL BROS., NEWCASTLE, ONT.

WILLOW LODGE BERKSHIRES
 Head headed by Long-fellow 10th of E. F., selected by the noted prize-winner, Highchute Crown 2nd. Sows, the best mummy will buy, and are winners. Young stock of both sexes and all ages for sale, not akin. W. WILSON, SNELGROVE, ONT.



This is the kind of test that only one fence can stand

This actually happened to a **Page Wire Fence** on the farm of Joseph M. Reist, Alsfeldt, in Normandy township, Grey County, and this is what Mr. Reist writes about it:

"Last spring I purchased 120 rods more and had the fence erected in the woods. Lately there fell three trees over it, crushing it to the ground without breaking any wires. After the trees were removed the fence went back to its place and is as tight as before. I can say from my experience, the Page is the cheapest, best and only fence worth a man's time and money to put up."

"Page Fences wear best"

PAGE WIRE FENCE CO., Limited
Walkerville, Ont. Montreal, P.Q. St. John, N.B.

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No one should expect a fence to hold up of itself between the posts.

The Frost upright wires are large and strong. The Frost Lock holds them in place and each support its own share of the weight. Light tie wires give no support. Bending to tie weakens them and they are apt to break when the strain is severe. Frost Fence never breaks.



The Frost Lock give no support. Bending to tie weakens them and they are apt to break when the strain is severe. Frost Fence never breaks.

Strongest Made. Frost Fence never breaks.

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THROW THEM AWAY



That old defective Regulator and Lamp are probably to blame for the poor work your Incubator did last year. The loss on one hatch will more than pay for our new Lamp or Regulator, which make the results of hatching a certainty, not a hazard.

They Fit any Incubator and Will Improve Its Work. THE ACME COMPOUND REGULATOR is positively the simplest and most sensitive, and is sold under a guarantee that it is absolutely perfect and far superior to any other regulator on the market. Double Disc, gives double expansion and power. Patent allowed; beware of infringements or worthless imitations.

THE ACME AUTOMATIC SAFETY LAMP does away with the work and annoyance of frequent filling and trimming required by all other lamps. Large reservoir with automatic feed supplies oil to burner as needed and no faster. Indestructible wick, needs no trimming. Water jacket around burner. **POSITIVELY THE LATEST AND MOST IMPROVED LAMP MADE.**

Double Disc Makes it Doubly Sensitive

Price of Acme Compound Regulator, complete, \$2.00
Price of Acme Automatic Safety Lamp, complete, \$2.50
BIG REDUCTION IN PRICE For a limited time only, we will send One Acme Compound Regulator, complete, for only \$1.00
One Acme Automatic Safety Lamp, complete, for only \$1.50
BOTH IN ONE ORDER, for only \$2.50

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We have regulators from 75 cents up, and all other goods in proportion. Write for special offer circular quoting other bargains on incubator fixtures, etc. Complete catalogue, testimonials, etc., free on application. Write to-day and keep in touch with the newest and best things in this line.

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Manufacturers of Regulators, Lamps, Tanks, Poultry Markers, Leg Bands, and all Incubator supplies and specialties.

We Have Hundreds of Testimonials.

The Hardie Spray Pump

has defeated all its competitors in the United States and owing to the great demand for these

UP-TO-DATE SPRAYERS

in Canada, we have opened up a branch factory in Windsor, Ont.

"The Hardie" is made almost entirely of brass. No Cast Iron is used in its construction, there is nothing to break, wear out or rust out. It maintains such a high pressure that the fog-like spray is driven to the highest twigs, penetrating everywhere. **AND IT WORKS SO EASY.** 12 sizes and styles each the best of its kind. Our book on spraying tells the whole story, it is free. Send for it now.

THE HARDIE SPRAY PUMP MFG COMPANY,
93 SANDWICH ST., WINDSOR, ONT. and DETROIT, MICH.

GOSSIP.

Smith Evans, of Gourock, Ont., writes that his sales of Oxford Down sheep never were better than they have been this winter. "Have sold over 30 head since Dec. 1st, 1902; over 20 of the lot have gone into the State of Maine. Have sold all I care to sell at the present, as I am going to have an auction sale on April 7th. I find that the 'Farmer's Advocate' has no equal as an advertiser of stock for sale."

Mr. Mac Campbell, breeder of Short-horn cattle, Leicester sheep and Berkshire swine, writes: "I beg to say that I am doing business in the old stand. Being favored with a P. O. opened a few rods from my door, I will change my address to Samson, Ont. Being a daily mail, it will put me in a much better position to answer correspondents, as mail at London 2 p.m. will reach me at 5 p. m., same day."

See the ad., in this issue, of seed oats, spelt and seed potatoes offered for sale by T. E. Bowman, Berlin, Ont. His potatoes, he claims, are large and smooth, free of scab and rot, and only varieties that proved to be the best yielders and best quality for a number of years were planted last spring and are now offered for sale. Salzer's Big Four oats have proved to be a good early variety, and New Century and Waverly promising late varieties. A few Shorthorn bulls, English Berkshires and Improved Chester Whites are also offered. Write Mr. Bowman for prices.

Messrs. Shaw & Marston, breeders of Galloway cattle, Brantford, Ont., write: Our stock are coming through the winter in good shape. The six young bulls we are offering for sale are a good, even lot, strong and vigorous, with a fine long coat of good hair. They are nearly all descended from that famous old cow, Flora McErin 5735 (11082), and sired by MacCartney 9739, Charteris 14627, a Crusader-bred bull, and Biscoe 18672, a descendant of the old Hannah family. They are in good shape for either ranch or farm, and will be offered at reasonable prices, considering quality.

Mr. Wm. Thorn, breeder of Ayrshire cattle, Lynedock, Ont., writes: "The two heifers I am offering for sale in my advertisement are bred from high-milking stock. One is from Royal Star Ste Annes, grandsire Glencairn 3rd (imp.). Her grandam is Lottie, with milk record of 64 pounds per day. The other heifer is a granddaughter of Beauty Style of Auchenbrain (imp.). The bull calf three months old is a grandson of Beauty Style of Auchenbrain, and his dam was third-prize cow in Guelph dairy test. The other calf is from Royal Star. His dam is Addie, with milk record of 45 pounds per day at three years old on dry feed."

SUSSEX CATTLE.

This hardy and thrifty beef breed of cattle, noted for early maturity and also for good milking propensities, is advertised in this paper by Mr. Gerald Warde, of West Farleigh, Kent, England, whose first-prize entry at the late Smithfield Show gave the highest average daily gain, alive, and also the highest percentage of carcass to live weight. The Sussex cattle are uniformly red in color, smoothly turned, thick-fleshed, deep-ribbed and compact in form, first-class feeders, and give as good returns for their feed and in less time than most, if not any, of the beef breeds, and we see no valid reason why they should not have a place in the list of cattle on Canadian farms and at Canadian fairs. Their introduction in this country at this juncture, we have no doubt, would prove a paying investment to the enterprising importer who makes the venture of bringing out a consignment of this breed. They are attractive, handsome, vigorous and thrifty cattle. For full information, write Mr. Warde.

Let Us Thresh the Matter Out

**No Potash—No Fruit
No Phosphoric Acid—No Seeds
No Nitrogen—No Leaves**



These three things must be supplied to your soil.

Write to us and we will send you some books giving the gist of the whole matter.

GERMAN KALI WORKS
98 Nassau St., New York



Our Priced

CATALOGUE

is our agent for Reliable nursery stock, in variety. Direct deal will give you satisfaction. We can please customers at all times.

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CENTRAL NURSERY,
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H-T-T. Published monthly, 62 pages. Tells all about Hunting, Trapping and Raw Furs. Sample copy, 10c. Hunter-Trapper, Box G, Gallipolis, Ohio.

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are planted by farmer and gardener who has stopped experimenting. It pays to pay a little more for Ferry's and reap a great deal more at the harvest. All dealers. 1902 Seed Annual, postpaid free to all applicants.

D. M. FERRY & CO.,
Windsor, Ont.

BEAUTY

Do you want it? **ALPHA SKIN CURE** will remove pimples or eruptions caused by impure blood. Trial 25c.

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NEW OATS—TARTAR KING

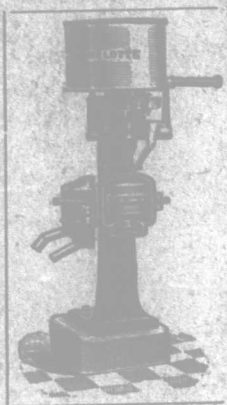
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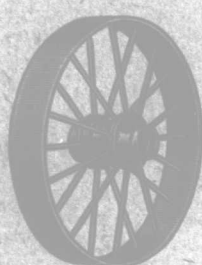
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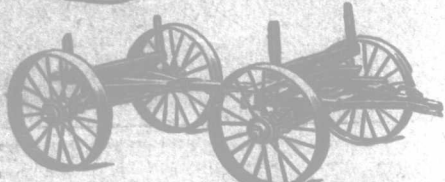


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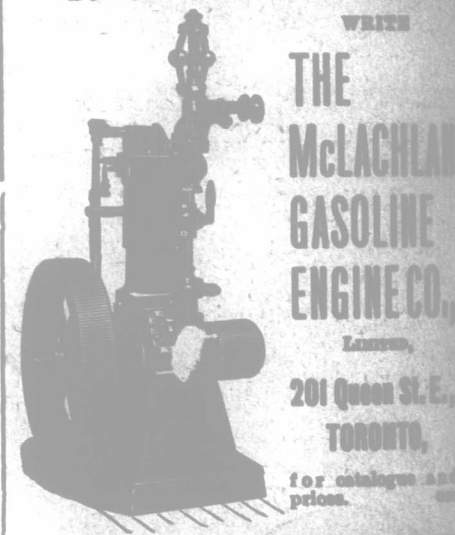
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