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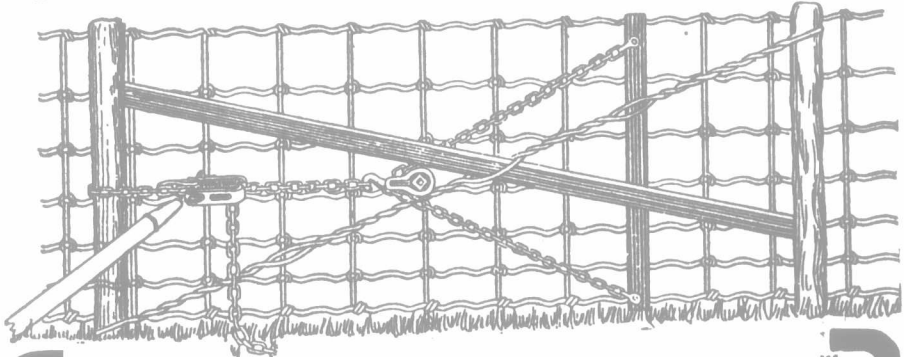
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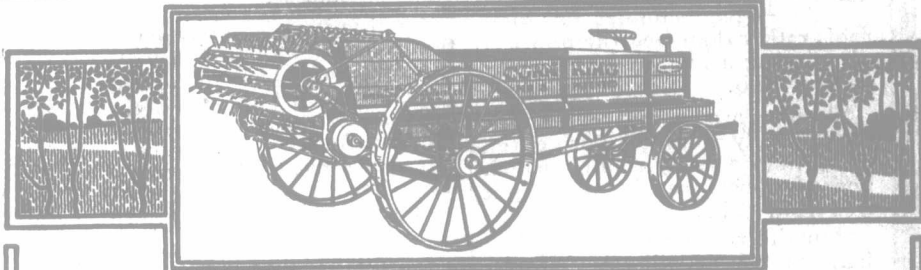
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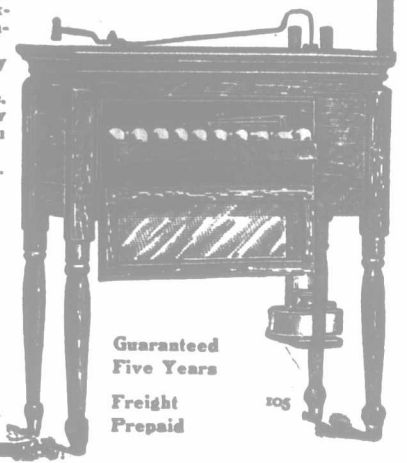
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Vol. XLIII.

LONDON, ONTARIO, APRIL 2, 1908.

No. 810.

EDITORIAL

CANADIAN HOGS FOR CANADIAN PORK FACTORIES.

Notwithstanding the logic of ultra free-traders, who insist that the admission of cheap goods into a country must, of necessity, and under all conditions, prove beneficial to the country into which they are imported, mature consideration indicates, and experience proves that the temporary admission of the cut-rate surplus product of another country, familiarly known as "dumped" goods, may, by upsetting and disorganizing established business, work more harm than good to the importing country, more particularly seeing that, after the dump product ceases to arrive in sufficient quantities, the usual sources of supply have again to be depended upon, and, frequently, these having been crippled more or less, are unable to produce so well or so economically as before. Thus, while a temporary advantage to consumers, the unrestricted importation of these cheap surplus or "dumped" goods in large quantities often works out little or no net advantage to them in the end, while the effects on home production in the particular line or lines affected are commonly injurious, and often disastrous. Considered by and all, "dumped" goods are liable to prove more of a disadvantage than benefit to the country which receives them. In recognition of this principle, the Canadian tariff has been provided with an anti-dumping clause, which specifies that, "In the case of articles exported to Canada, of a class or kind made in Canada, if the export or actual selling price to an importer in Canada be less than the fair market value of the same article, when sold for home consumption in the usual and ordinary course in the country whence exported to Canada at the time of its exportation, there shall, in addition to the duties otherwise established, be levied, collected and paid on such article, on its importation into Canada, a special duty (or dumping duty) equal to the difference between the said selling price of the article for export and the said fair market value thereof for home consumption." It is provided that this special dumping duty shall not exceed fifteen per cent. ad valorem in either case, and a number of exceptions are specified.

The introduction of the dumping clause into the Canadian customs tariff was welcomed by manufacturers. A case has now arisen where it may be fairly applied to the advantage of farmers. We refer to the importation by Canadian packers of American pork, concerning which matter members of the Dominion Cabinet were recently interviewed by a committee representing the Dominion Swine-breeders' Association. For a report of interview and copy of the resolution presented, see pages 552 and 553 of "The Farmer's Advocate" of March 26th. The point of it was that importations of American pork have had the effect of depressing prices of live hogs in Canada to a point below the profit line, and below the notch which present prices realized by the packers in Britain and Canada would seem to warrant; that pork production in Canada has been so seriously curtailed that there are 50 per cent. fewer young hogs produced in Canada to-day than six months ago, as a result of low prices and alleged unfair competition, the packers being able to buy a stock of United States product on a low, glut market, and tide themselves over until conditions are favorable to stocking up again. In view of these facts, the committee urged that an immediate inquiry be made as to the quantities of pork in various forms coming into Canada at present

from across the line; also as to the tariff head under which it comes, and the correctness or otherwise of the price, weights, etc., as represented for tariff purposes. In short, it was asked, in case the conditions were found to be as believed, that the anti-dumping clause should be applied. Failing this, the committee believe that the schedule of duty should be increased by two cents a pound. The resolution fittingly concludes with a paragraph as to the importance of the Canadian export-bacon trade, the wisdom of safeguarding it, and also the interests of Canadian producers, by endeavoring to see that the reputation of our Canadian-grown bacon in Britain is protected from injury by substitution of American-grown for the genuine Canadian product.

There is no question but that these arguments will commend themselves to the judgment and support of Canadian farmers and the Canadian public generally. The Canadian bacon industry is a peculiar one, catering to a special trade, with a special type of hog, depending for its development upon the co-operation of our own producers and our own packers. The Canadian farmer's only market is the Canadian packing-houses, which fix the price. It seems to us the price is often depressed below what it might be. However, that is a matter to be adjusted by competition. The one condition insisted upon is that the packers must take the consequences of their own course. The farmer has only one market; the packer must have only one source of supply; and so long as this state of affairs is maintained, and the packer made to abide by the restriction of production that naturally follows depression of prices, no reasonable exception can be taken to whatever course his business discretion suggests to him. The one essential is that he may not be allowed to escape the consequences of his own cupidity by importation of cheap American pork. With a fair field and no jug-handled arrangements, the matter of hog prices may, and, in fact, must be left to competition.

EDUCATIONAL MOVEMENTS IN NOVA SCOTIA.

The pre-eminence of so many Maritime Canadians in statesmanship, literature, and corresponding walks of life, may in large measure be traced to the special emphasis laid upon the education of the people in the Provinces by the sea. Man, rather than what we call "the material," has been the great desideratum, until, by the laws of heredity, one might say, it has become almost ingrained in the very fibre and constitution. As a contributing coincidence, it is interesting to find, in a United States Government report, Nova Scotia credited with the largest attendance of pupils at school for the population of any country in the world; and, in the report for 1907, of the distinguished Provincial Superintendent of Education, A. H. MacKay, shows an increase of nineteen in the number of schools open during the year, and the largest number in the history of the Province, 2,465. There has been a steady and encouraging reduction in the number of vacant schools, but the drain of the Canadian West upon the trained teachers of Nova Scotia continues. The number of male teachers shows a further decrease, although there is an increase in the average salary paid them; but there is a decrease in the salaries of classes "A" and "D" of female teachers, which is taken to indicate that trustees generally do not find them of so much value as male teachers, which suggests, in the report, that a premium in their favor might be justified, especially for certain schools. A scathing reference is made to the fact that so many will undertake to

teach without the necessary special training therefor, and to those who exploit the profession as a temporary money-making industry, it being high time, in the interests of the public, that such a policy should disappear.

Amid so much that is encouraging in this report, we come upon the anomalous condition in isolated situations, reported by one of the inspectors, at least, where improvement by the union of sections is resisted, and schoolhouses actually burned down by boorish reactionaries in their opposition to the payment of school rates in sparsely-settled communities.

A considerable section of the report is devoted to an explanation of the new policy in Nova Scotia, in regard to physical culture and military drill in the public schools, a former regulation having proved ineffective for lack of trained teachers or instructors. It is now proposed to take advantage of the offer of the Militia Department of Canada to supply specially-trained instructors at the more important centers of the Province to give a three-weeks' course of instruction to teachers of both sexes, and grant to those competent grade "B," physical training and elementary drill certificates. Male teachers who obtain a grade "A" military-training certificate at a military school, and take charge of a company of Rifle Cadets, and drill their pupils of High-school age, may, on report of a military officer, receive a grant of \$50 or \$100 from the Militia Department. The syllabus of physical exercises in use in British elementary schools is being adopted, which is without the military bias which so seriously damaged the educational value of earlier systems. In so far as the public schools are concerned, it is intended to be physical drill, though given to the teachers primarily by military officers; and in the High Schools, the Rifle Cadet system will be continued, and teachers encouraged to take the place of the military-drill sergeant. To develop orderliness and a better physique in the public-school boy is the declared object, and in the High-school boy such a training as will make him useful as an effective reserve as a citizen soldier, in case of necessity, instead of a professional soldier class. It is claimed that the High-school Cadet, instead of having the "soldiering" idea developed in him, will want no more "soldiering" "for the fun of it," after three years' rigid drill. It is contended that the proposed system will tend to prevent in Canada the development of the militarism of Europe, by preparing better raw material for an effective citizen-army, to resist, if need be, the predatory Oriental, and act as national police; and, on the other hand, avoid the extreme of the non-combatant Doukhobor. The need for physical drill, orderly conduct and prompt obedience will at once be conceded as part of the public-school education, and the Nova Scotia experiment will be observed with great interest elsewhere in Canada, especially because of the natural apprehension that, under direction of military men, a military propaganda might develop; and in the Province of Ontario, for example, fear that to interject military features would imperil the strenuous effort in the direction of public rural-school reform now being made in other directions.

In view of the suggestion several times urged through "The Farmer's Advocate" upon the Ontario educational authorities, in favor of locating a Normal School at Guelph, we note with satisfaction Mr. MacKay's reference to the fact that the Nova Scotia College of Agriculture, in affiliation with the Provincial Normal School at Truro, has

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very materially increased the prestige of the latter, and teachers trained in the Normal School are becoming increasingly alive to the influence which can be exerted in the schoolroom on the ideals of the young with respect to the high cultural value of an education which fits people to govern the forces of nature and to transform their surroundings into happy homes, where industry, intellect, good morals and patriotism unite with higher influences to develop strong bodies, healthy minds and useful purposes. Principal M. Cumming reports the total attendance at the Agricultural College in 1907 as 132, and the indications are that when the records of 1908 are complete, the number will be increased to almost the 200 mark. Prof. Cumming, judging from the varying attainments of the students coming in from rural sections, suggests that a more comprehensive knowledge on the part of teachers of the various sciences relating to agriculture and allied industries would be desirable.

Special attention is being paid to rural-school improvement, and a few consolidations of small sections are reported. The Macdonald Consolidated School at Middleton was efficiently conducted during the year, but on a smaller scale than during the three preceding years. Four of the sections which formed part of the original consolidation, and which were situated farthest away from the central schoolhouse, retired at the close of the previous year, and maintained schools within their own borders. The consolidation now existing consists of Middleton and three contiguous schools. In a reference to school-garden work, especially in connection with urban schools, Dr. Bagley is quoted as saying that it marks one of the most promising advances made in present-day education.

We find, also, very encouraging references to manual-training and mechanic-science departments. In fact, technical education is now made a sub-department in Nova Scotia, with Prof. F. H.

Sexton at the head of the College in Halifax, local schools in industrial centers, and coal-mining and engineering schools, all of which are to be established, as the subject has awakened a deep and widespread interest.

* * *

A special and most instructive feature of the report is the chapter on "The Trend of Education in Europe," by Mr. MacKay, who visited Great Britain and several European countries to investigate the subject for the benefit of Nova Scotia. As showing the practical results in putting a small country upon a sound economic basis, by means of a statesmanship policy of education and forest preservation, the case of the Kingdom of Wuerttemberg is cited, which, although only about one-third the size of Nova Scotia, and without many of its natural advantages, supports a happy and prosperous population fifteen times as dense through its industries. The Government forest in 1904 covered an area of 483,421 acres—only one-tenth the woodland of Nova Scotia—and when all the expenses of maintenance were paid, there was a net revenue of \$2,701,587, and that without impairing their value in any way. The industrial and commercial schools of Wuerttemberg give a broad vocational training to boys and girls of fourteen to eighteen years who have left the common schools at the end of the compulsory period (6 to 14 years) as nearly all do, and have gone to work. A new law, to take effect next year, will make compulsory the maintenance of vocational schools in all localities, where, for a period of three successive years, at least forty youths are employed in industrial or commercial pursuits, and compulsory attendance of young workmen is also stipulated. This little kingdom has the oldest agricultural college in Germany, and in a table given there is recorded an attendance of 946 students in the agricultural schools. Here, surely, are some object lessons for progressive Canada! An impartial inquiry discloses the fact that where the "cultural theory" of education has not been allowed to defeat the purpose of vocational training, a profound and universal conviction has gained sway, not only that it pays, but that it is necessary in order to give the people that supremacy in skilled labor which will enable the country to support its population, and prevent excessive emigration to other countries.

* * *

Taken all together, the Nova Scotia public schools report is one of the most suggestive we have had the pleasure of reviewing for a long time, and we trust that its distribution will be effective in promoting an improved system of education for the masses of the people.

JURISDICTION OF AUTOMOBILE TRAFFIC.

An Ontario correspondent raises the question as to where we should look for regulation of the automobile traffic on our country roads. The answer is that the jurisdiction lies in the hands of the Provincial Legislature, on which we must depend for laws regulating the traffic. This is apparent from the following quotation from the Ontario Statutes, 1906, Chapter 46, Section 6, which reads:

"No motor vehicle shall be run upon any public highway within any city, town or incorporated village at a greater speed than ten miles an hour, or upon any public highway outside of any city, town or incorporated village at a greater speed than fifteen miles an hour. Provided that the council of any city, town, township or village may by by-law set apart any public street or highway, or any part thereof, on which motor vehicles may be driven at any higher rate of speed than herein limited, for the purpose of testing the same, and may pass by-laws for regulating and governing the use of any such street or highway, or part thereof, for the purposes aforesaid."

That is to say, the law of 1906, which is yet in force, prescribed certain general rules applicable all over the Province, fixing rates of speed, and generally regulating the use of motor vehicles on the highways, except that power was given local municipalities to set aside certain roads as speedways, the councils being empowered to pass by-laws regulating the use of these.

The principle herein adhered to, of general Provincial regulations, with prescribed municipal

latitude for by-laws, is unquestionably the proper one. To place the control of the traffic in the hands of various municipalities, allowing one to prevent entirely and another to pass any kind of a by-law it chose, would entail all kinds of embarrassments and inconvenience to motorists, and lead to great confusion. "The Farmer's Advocate" believes in strict regulations, but they must be of Provincial application, so that chauffeurs may readily inform themselves concerning the law in the Province; anything else would be un-British.

As to just what form the law should take, we are still open to suggestions. As already stated, we believe in a heavy license fee or road tax, strict regulations, and severe penalties for infraction. In addition, we believe that automobile traffic might advantageously be limited to certain highways and to certain hours of the day thereon. This may seem hard on the motorists, but existing conditions are unjust to the users of horses, and as the latter outnumber the former by perhaps a hundred to one, some adequate consideration for their rights and interests is surely no more than fair.

THE SUMMER-FALLOW QUESTION.

The success of any prescribed system of farming depends largely upon how it is carried out. This reflection occurs after perusal of an article on the summer-fallow question, by a Simcoe Co., Ont., subscriber, who expresses alarm at the increasing prevalence of weeds, quite properly deplores the practice pursued by some of seeding down dirty land to smother them out, urges the need of thorough cultivation to combat them, questions the practicability of a straight three-year or four-year rotation on the average farm, and discusses the advisability of resorting to the old practice of summer-fallowing as a means of cleaning the land and preparing it to be seeded down. He considers that the average farmer is not so situated that he can advantageously have one-quarter of his farm in hoe crop every year, and recommends summer-fallowing half the area on which a four-course rotation would call for hoed crop.

Of course, circumstances vary widely, and no one rotation can be laid down for everybody. In general, however, a rotation is practicable or impracticable, according as one thinks it is. On well-managed, up-to-date Ontario farms, a three-course or four-course rotation is entirely practicable, as we know by our own experience, and it is easy to point to a good many farms, in widely-separated localities, where it is proving eminently satisfactory in cleaning the land, increasing fertility, and producing profits. As a man thinketh, so is his practice. In the last analysis, it is not so much a question of help, or soil, or situation, as of enterprise, gumption and perseverance.

We freely admit that a farm tilled by a feckless tenant is liable to become foul unless summer-fallowing is occasionally practiced. Certainly, seeding down to grass is a poor way to grapple with the situation, except in the case of a few particular species of weeds. Even when temporarily choked out, the seeds often remain to assert supremacy when next the land is broken. One season of thorough cultivation in three or four is probably necessary if the land is to be kept reasonably clean, profitably productive, and in a good state of tilth, but, by the use of the two-horse corn cultivator, the weeder and the scuffer, this cultivation may be given almost as well to a field under corn, roots or potatoes as to a bare fallow. In a properly-cultivated cornfield, what few weeds remain by the last of July may be easily despatched with the hoe.

The main objection raised by our correspondent is that the majority of farmers cannot plant one-third or one-quarter of their land to hoe crop every year. Let us see. Assume that the average hundred-acre farm has twenty acres that should be in woodland, permanent pasture or alfalfa. That leaves eighty for rotation. A four-course rotation would call for twenty acres each year in corn, roots and potatoes, supplemented, if necessary, with a piece of soiling crop or, perhaps, a field of peas. Allowing five acres for roots, potatoes and soiling crop, we have fifteen

acres for corn. The majority of Ontario farmers would probably find it profitable to grow about that much corn every year, and if one employs modern methods of planting, cultivating and handling—ensiling the greater portion of it, and husking the rest, or feeding it whole—the labor entailed will be handsomely repaid. In fact, a system of short rotation, with a large quantity of feed raised and fed to stock in winter, is the very method calculated to solve the labor problem, by providing remunerative work all the year round.

This country should grow far more corn. Next to clover and alfalfa, it is easily our most profitable general farm crop. The trouble is that too many of us still have the "corn-patch" idea. It is time for us to expand and grow corn in earnest. Some men are already doing so, and, as a general thing, they are the ones who are making the money. When a farmer has from one-sixth to one-fifth of his arable land in corn, there is no trouble in arranging a short-course rotation. Meantime, those who are not in a position to grow corn largely may advantageously fill out this section with peas.

An indifferent farmer may have to summer-fallow; a good one should set his face resolutely against it. Bare-fallowing, it is true, cleans the land if it is properly attended to, and prepares for a good crop of wheat, as well as a successful seeding of clover, by rendering available much soil fertility, but, on the other hand, it dissipates a large amount of humus, exposes a great deal of the liberated soluble fertility to loss by leaching, thereby tending ultimately to soil impoverishment, involves considerable labor, and deprives us of a season's return from the fallowed area. Summer-fallowing is at the best a necessary evil. Let us bend our efforts to avoid it.

AUTOMOBILES AND DENATURED ALCOHOL.

Editor "The Farmer's Advocate":

I have noticed in your columns numerous articles from farmers re the automobile nuisance on our country roads, and while I agree with most of the sentiments therein expressed, it might be well for us farmers to take a look into the near future, and see what in all probability lies in store for us. Some of the principal objections raised to the automobile are the following:

First.—The rapid speed at which they travel causes the dust to rise from the suction produced and the air rushing in, which, especially on stone roads, is injurious, having a tendency to loosen the stones and injure the surface of the road. The great clouds of dust they create, visible at times for over a mile, is none of the most welcome visitors when one is travelling along our highways. But in this respect, judging from the hideous creatures I have seen emerging from the machines, I have fully come to the conclusion that they are getting their just share. If some man could devise a cheap means of overcoming this objection, he would prove a great benefactor to humanity. In California, where crude petroleum is very cheap, all trolley and steam roads, as well as all the principal highways, are oiled, which overcomes this nuisance.

Second.—The most serious objection is the unprincipled chauffeurs, who do not exercise proper caution in passing vehicles on the road, but rush by at breakneck speed, thus frightening the horses and the occupants in turn, with the result of many serious accidents. One might almost infer, from the tone of some of your correspondents, that anyone driving a motor car, or even riding in one, was almost a maniac. That almost riled my usually good temper. While I am not a manufacturer of these "darn devils," as they are sometimes vulgarly called, and do not even own one, I enjoy a ride in one occasionally. Because there are reckless drivers, I do not like to see the other fellows abused and insulted, who exercise due precaution, stop machine, alight, and assist by leading the horses past the machine. Such men may be out for pleasure, or the benefit of their health, or on business, possibly a doctor attending to an urgent call, and I do not like to see them included along with the other class, whom I would like to see banished from our roads, or taught a lesson. It is true the country roads were made by the farmers for the farmers; so, too, the streets in the towns and cities were made by the town and city people principally for their use; but country people are privileged to use them, and it would hardly be fair on our part to banish all the autos from the country roads. The autos are their only means of getting out into the country, many not being able to keep horses and carriages.

Accidents occasionally occur by reckless driving of horses, and we must expect that now and then accidents will occur by the automobile, even with the utmost precaution, and in spite of any

legislation that may be enacted. Most horses soon get accustomed to them, and if people would only take a little time and gently lead the horse up to this horrid machine, introduce him to it and explain its mechanism, there would be far fewer accidents. It is better to do that, since the auto has come to stay with us! In the meantime, till matters get adjusted, we must have patience—"patience endureth all things."

Not many years since, when the bicycle rage started, a certain New England church passed a law that any of its members riding a wheel on Sunday would be expelled from church membership; then, the bicycle was only used for pleasure. That same church, a few years later, provided quarters for the bicycles and placed a man in charge; then the wheel was used as a means of transportation.

I am looking forward to the time—not far distant—when the automobile, in one way or another, will be among the farmer's best friends. Already, in London, England, the motor car has taken the place of the omnibus, to a decided advantage. In parts of England, France, Germany, and even in America, the motor cars are making regular runs on highways, picking up passengers anywhere, the same as trolley cars, and it will not be many years before we here in Canada will see these cars on all our principal roads. Will not that be a great convenience to the farmers who may, unfortunately, not be located near a trolley line? Then, too, there will be freight motors, that will carry our produce to the market or the railway station more cheaply than the farmer can haul it. Our supplies from town will be delivered in same way. You can give your grocer or butcher the order by 'phone—every farmer will have one—and have your order delivered in time for dinner, just as city people do. Already, ordinary horseless buggies and carriages are made, and in a few years more we may expect to see motors adjusted to farmers' buggies and car-

riages. can afford it, will have his horses and carriages.

The question of cheaper fuel, or something to take the place of that which produces such an unpleasant odor from passing autos—gasoline—is at our very door. We country people are very much annoyed by the filthy stench. I presume the city people don't mind it so much, being accustomed to all such unpleasant odors, with their perverted sense of smell.

I wish to draw attention to the matter of cheaper fuel—denatured alcohol. The farmers of Canada must do as they did in the United States, unitedly demand from our Government that they give us free denatured alcohol. The distillers, coal and coal-oil men, will fight such a movement as they did there. There are at present thousands of dollars lost annually to the farmers of Canada, especially the fruit men, in the way of waste materials, such as worthless or rotten potatoes and fruits of all kinds, that could be utilized in the manufacture of denatured alcohol. This could be used for lighting, heating, running motor cars and machinery on the farm. It gives a clear, soft, white light, similar to acetylene gas, and has the advantage of coal oil in not having any odor, nor the greasy nuisance to contend with, and no danger of an explosion.

If Canadian farmers do not, at the next Dominion election, stand together, and demand of their candidates, no matter what political stripe they may be, that they will use their influence and vote in the House to give the farmers of this country free, denatured alcohol, they will not be looking to their own interest.

Lincoln Co., Ont. W. B. RITTENHOUSE.

SOME HARD NUTS FOR A MILITARY-DRILLED FARMER.

Editor "The Farmer's Advocate":

Since my article on military drill appeared in "The Farmer's Advocate" of Feb. 27th, someone has been firing at me from behind the cover of a "Military-drilled Farmer."

As military training has been in fashion since the time of Joshua, I fail to see why I should be called behind the times when I advocate a change. Like many others, I long for the time of which the prophet Isaiah foretold, when the people shall beat their swords into plow-shares and their spears into pruning-hooks; nation shall not lift up sword against nation, neither shall they learn war any more. Also the time of which the angels sang when they proclaimed the birth of the Prince of Peace. If we persist in teaching the barbaric customs of our ancestors, how can there be peace on earth?

With regard to military training in schools, one writer in a Toronto magazine, says:

"These good people who would abolish all references to war will be in a dilemma when they come to the Old Testament, and will probably revise such phrases as the 'God of Battles.'" One would think, by those words, that the Prince of Peace had not come, and that His sayings and the New Testament had never been written. If Christ had not already revised these things, we should still have sacrifices, polygamy and slavery.

Militarism is directly opposed to the teachings of the Prince of Peace which we in Canada profess to believe, though in reality we worship Mars. The early Christians, rather than bear arms for the emperor, suffered martyrdom, thus displaying courage unequalled on a field of battle.

"Military-drilled Farmer" says that were I more conversant with military drill and calisthenics as taught in our more progressive schools, I would change my mind. I am familiar with military drill, which I believe to be wrong. I am



Buchlyvie Laird [6102] (13389).

Clydesdale stallion; roan; foaled May, 1904; sire Baron of Buchlyvie. First and reserve champion as a two-year-old at Perth, Scotland; third at Toronto; second at Ottawa, 1907; second at Ontario Horse Show, Toronto, 1908. Imported and owned by Smith & Richardson, Columbus, Ont.

riages, and possibly, also, to our heavy wagons. With this improvement in construction, their cheapness from the immense number required, their simplicity of operation, and cheaper fuel or gas, the farmer will not be able to afford to drive a horse on the road. It is then that he will run to and from town, when in a hurry, with that breakneck speed that these other fellows are now going. Then our good housewives and daughters can run to town unmolested—no fear of their steed ditching them, and no bother or delay in hitching. Why, they will be there before the hired man could even get up a horse. There seems to be a golden age for them looming up in the near distance.

In the past we have been accustomed to look upon those owning automobiles as being among the wealthy; in the near future, the man of ordinary means, such as the average farmer, will be the man using the auto, while the wealthy man, who

also familiar with physical training as taught in Canada, and in English and Swedish training colleges, which I believe to be splendid. I am heartily in favor of everything that will develop the body, both for boys and girls, but I still think that work in the fresh air of the farm stands ahead of them all, for there we have the satisfaction of having accomplished something. Still, if it is impossible to work out of doors, the gymnasium is the next best place.

There are two distinct sides to a soldier's training, the military side and the gymnastic side. The latter is given to counteract the stiff positions of the former. By all means, let us have physical culture (and gardening) in the schools, but why add the rifle to it and call it military drill? That is the part to which I object, for it is the first step to conscription and the banishment of liberty from a free country.

"Military-drilled Farmer" says that military drill will make boys better citizens. Listen to what Lord Wolseley says in his "Soldier's Pocket-book": "If a soldier is to succeed in spy-duty, he must lay aside the belief that 'honesty is the best policy' and that 'truth always wins in the long run.' These pretty little sentences do well for a child's copy-book, but the man who acts upon them in war had better sheathe his sword forever." The Reverend J. P. Gledstone, missionary to soldiers at Aldershot, England, says: "The soldier's life is also injurious to chastity, and for proof of it we point to the shocking immorality of all military centers." Rudyard Kipling confirms this. One has only to read his story, "Black Jack," which paints the army as morally bad.

Last year, when forty-one hundred militiamen were encamped near Kentville, the Kentville Advertiser said: "The effect of Aldershot on Kentville the last fortnight has been no credit to the town or to the soldiers. The town authorities are not getting proper hold of the situation in enforcing the temperance laws or in preventing rowdyism, drunkenness and free fights in our streets. The soldiers, all through camp, made our streets a place where respectable people would not care to be found. Stores were rifled and thieving went on night after night. A fight which nearly cost the life of a harmless fellow, the attempted burglary of the jewellers, and the kicking out of a plate-glass window were but a few of the scenes which the soldiers enacted while here."

As I saw fighting and drunkenness on the drill ground, it has only strengthened my opinion that military training is not right. The aim of military drill in schools is to draft more boys into the militia, where there are many young men from the best families in the country. But the pleasant life under canvas also attracts the idle and bad boys; can these latter come in contact with the cream of the country without tainting it? No!

From my own experience, camping out is delightful, but why go to the militia for that pleasure? Is it not a sad statement of "Military-drilled Farmer's" that, after all these centuries, since the first Christmas, "Farm boys live a whole year to go to camp" (where they will be taught the latest methods of killing men?)

As for military drill making children obedient to their parents, that is hardly possible. If parents cannot exact obedience from a child during its first six years, it is almost hopeless to expect it later.

Like Ontario, Nova Scotia is very go-ahead in the profession of farming. We also have our agricultural and horticultural institutions (from one of which I received my diploma). If "Military-drilled Farmer" could attend some of the agricultural meetings and shows of frequent occurrence, he would find that we have just as few "moss-backs" and "hayseeds" as they have up in Ontario. (What this has to do with military drill I do not know, except that the men who belong to the militia are usually made conspicuous at the farmers' meetings by their absence.)

Statistics taken from the Glasgow (Scotland) Police Force show that the man who is a reservist is less trustworthy than the man who has not been through the army; but, in fairness, I must say that we have had ex-soldiers in our employ whom I believe to be thoroughly trustworthy.

A soldier is a parasite. He produces nothing, and lives on the produce of the workers. As a means of defence, I do not think that military drill in schools will be of much value. Other countries will try to get one step ahead of us, and we shall be just where we were before, only our purses will be lighter, and the ore which should have been beaten into plow-shares will have been turned into swords.

According to "Military-drilled Farmer," it seems to be correct to wind up with poetry. Instead of quoting the "Arsenal at Springfield," I will ask him to take down his Longfellow and read it, while I congratulate him on being germ-proof, and thank the editor for his space.

King's Co., N. S.

EUNICE WATTS.

UNSIGNED INQUIRIES.

At least a dozen letters of inquiry received at this office during March have been tossed into the waste-paper basket because unaccompanied with full name and address. Since January we have been fairly deluged with inquiries of all kinds. It taxes our energies to attend to the bona-fide communications from correspondents who conform to the rules, and some of these have been unavoidably deferred in some cases for a week or so, awaiting the attention of an industrious staff. Under the circumstances, it is nothing short of imposition for subscribers or others to bother us without strict conformance to our rules, which appear regularly in the standing announcement on the second page of reading matter of each issue. It is not necessary that the name be published, but it must be attached to the inquiry as an evidence of good faith. We are aware that some new subscribers may overlook the rules, and some older ones occasionally forget them, but nature exacts the same penalties for ignorance as for willful transgression, and in this matter nature's principle is ours.

HORSES.

EXPERIENCE WITH DRAFT AND CARRIAGE HORSES.

Contribution by Archie Bell, Huntingdon Co., Que., to the Horsemen's Experience Contribution.

I give you herewith my experience with horses from the time I commenced farming for myself, about twenty years ago. I will first give my experience with Clydesdales, then with carriage horses.

I began by buying a first-class registered Clydesdale

had been keeping them in nights. I not being at home that day, the hired man put them in as usual in box stall. After getting home I noticed they were both sweating badly; the night being warm I turned them out; night turned cold, colt got chilled, died next morning. It was a dear lesson to me, for I valued it at five hundred dollars. I think that had it not been put in that evening and got sweated it would have been all right. She bred another good horse colt and another good mare colt which turned out well.

This mare I have been writing about was shown many times, never coming out without a prize, very often first, including taking first prize and diploma at Montreal for mare and two of her progeny in the year 1892. Two years after at same show she took the twenty-five dollar prize offered by the association for the best imported or Canadian-bred Clydesdale mare, and also bronze medal and diploma. This time she had no foal; she was in fine shape; her weight was seventeen hundred and sixty pounds; girth, seven feet five inches.

She was chosen the following year by the Quebec Government to go to the World's Fair at Chicago—the only Clydesdale mare chosen in the Province. She had a foal by her side when going there. I went with her to look after her. It was a nice trip for me, as the Government paid all expenses. I learned a good deal about horses of all kinds there.

Understand, I always bred this mare to the best registered Clydesdale horse I could find.

Horses got so cheap that I, like hundreds of others, became discouraged, stopped breeding them for a time, and went into dairying.

After having considerable experience showing at exhibitions, I would not advise everyone that breeds good horses to follow the shows, as there is a lot of hard work and expense attached to it.

My advice is, breed good horses, feed them well, and you will always get sale for them at a good paying profit. With my experience a low-set,

broad, heavy-muscled mare bred to a good large horse will raise better draft stock than a big rangy mare will.

I will outline what I consider a good draft stallion to breed from: The head should be medium in size, clean and bony, broad between eyes; eyes large and bright, with a courageous appearance; ears medium length, set well apart; neck good length, well arched, strongly-muscled cords at the collar; shoulder well sloped back; breast full and strong, well filled with muscles; forearm strong, well muscled, going well down the leg; knee broad, flat, straight, not inclining either forward or back; knee to fetlock, short, wide, flat; fine hair on back of leg; pastern clean, medium length, well set to grip the ground; feet large, round, deep, close grained, dark-steel color; back short, broad, with a strong muscle running along both sides of the back-

bone right into the coupling; ribs well sprung out from back; barrel deep and round; coupling broad, hard, well filled in; hind quarters broad, coming well forward into coupling, going back gradually rounding, gutter on top between quarters; tail well set up in the rump; stiles broad, heavily muscled, running well down; hock wide, flat, clean, smooth outside and inside; hock to fetlock short, wide and thin; fine feather of hair on back of leg; pasterns clean, medium length, well set; foot large, not so round as fore foot. As to action, it is very essential that a draft horse be a good walker, so as to gain time, as he is seldom put to the trot at heavy work. It is very essential that a stallion should stand square, and walk and trot square on all his feet.

When standing or moving the hock should incline to turn a little in instead of out, so that he will not travel too wide behind; a good, long, strong, solid stride at both walk and trot, showing the sole of the foot every time.

I think we can apply this standard to the mare as well, with perhaps a milder appearance of disposition. It is difficult to get all this combination in one horse or mare, but we can try for it as near as possible. There are many other points I might have mentioned, but I give what I consider some of the most important.

CARRIAGE HORSES.

With regard to carriage horses my experience along this line has not been so extensive as in heavy drafts,



Floshend Princess (imp.) [13788].

Clydesdale mare; bay; foaled 1904; sire Prince Tom, by Prince Thomas (10262). Third at Toronto Industrial and first at Ottawa, 1907; first and championship, Ontario Horse Show, Toronto, Feb., 1908. Imported and owned by Smith & Richardson, Columbus, Ontario.

filly foal, for one hundred dollars, which when a year old took first prize at our county fair. Bred when two years old, she had a nice horse colt at three. I fed them some crushed oats on the grass. He was a great colt when brought into stable; weaned him in December; fed him green clover and timothy, crushed oats, bran, oil-cake meal mixed, twice a day; let him run in large box stall. When sixteen months old he weighed thirteen hundred pounds. He was sold for six hundred dollars to a firm in Lachute, Que. Mr. Robert Ness, the well-known importer, said he never saw a yearling fitted like him in Scotland.

The mare missed one year, having another horse colt when five years old. The same parties offered me four hundred dollars for him when six months old. I held for five hundred. That was one of the times I made a mistake, for after keeping him till three years old I sold him for less money. The following year the mare had another horse colt, for which I was offered two hundred and fifty dollars at six months of age. I held for four hundred, and missed it again. After coming into the stable he got one hind leg hurt. We had to castrate him, and when three years old sold him for less money. I made up my mind when I got a good offer for anything again I would let it go. Next year another horse colt came. I traded it when a year old for a pure-bred filly foal. The following year had an extra fine mare foal about September 1st, but lost it when ten days old by a bad mistake. Wo-

from the fact that perhaps I was too hard to please, but nine years ago a noted horse dealer of Huntingdon County, Quebec, brought from the County of Simcoe, Ontario, a beautiful German Coach mare, four years old, which struck my fancy as being as near perfection as was possible to obtain.

He mated her as closely as he could, and disposed of the team to a Montreal gentleman at a handsome figure. Six years later, having her still in mind, I visited Montreal, and she became my property. She stands sixteen hands high, weighs twelve hundred and fifty pounds, jet black color, star on face, small white marking on off hind foot. She has excellent action, with true movement, with an exceptionally intelligent appearance, carrying head up gracefully, with beautifully long, clean-cut and well-arched neck; body is well rounded and smooth, girth measuring six feet four inches; her muscles well developed in forearm and stifle, constituting great stability and breeding properties; her limbs are wide, clean, hard, flat, with exceptionally smooth curb and spavin joints; pasterns clean, of medium length, well set; nice round plump feet of good quality; altogether, in my opinion, a typical carriage mare.

I bred this mare to a blood stallion three years ago last June. She raised a beautiful mare colt, which I sold when one year old for two hundred dollars. I have since bred her to a French Coach stallion that is owned by a syndicate in New York State, costing three thousand dollars. She raised me a fine horse colt, now rising two years old, which I value at five hundred dollars. She raised a beautiful mare colt last year that I value at four hundred dollars, and she is with foal again to the same horse. The sale I made and the quality of the progeny owned yet, give me encouragement to believe that my investment will be of a profitable nature.

My belief with regard to brood mares of any breed is that too much attention cannot be given to selecting the best, and as to temperament, this is a strong feature which should not be overlooked, and a point of excellence in the mare above described which makes her a grand assistant in performing work of the farm, and a pleasant companion in any team. This valuable quality of excellence is well developed in her offspring, as they are all of a gentle and winning disposition.

I will not enter into horse breaking, but would say this: Start to handle and harness colts when rising two years old, as they are much more easily handled at that age, and not so apt to contract bad habits.

My method in breaking horses is to be kind and firm with them. Be sure to make them do what you ask them to do at first—they will not be looking for favors afterwards—but be sure to clap them after you have conquered them.

My cure for all cuts, bruises and bunches, bathe well with warm salt water as hot as the horse will stand it, rub till perfectly dry with dry cloth, then rub on some liniment. I use cold water and ice for sprains. As colic seems to kill more horses in the country than all other diseases, I will give you my cure: Dissolve in one quart of warm water one pound of Epsom salts, one pound of coarse salt; add to this one pint of raw linseed oil, one-quarter pound of ginger. After getting that down him, give half a cup of soda dissolved in water. If this does not give relief in one hour, repeat the dose. When first noticed sick put two blankets on him; keep moving around slowly if he will stay on his feet. I never yet had to give the second dose, and always got relief in half an hour or less, and I have cured some very bad cases. He will steam up warm, so be careful not to let him cool down too fast. Feed and water lightly for a few days; take the cold chill well off the water. You may think this a strong dose, but I want to tell you a bad colic is not to be trifled with, and it takes a powerful dose to check it. The dose given is for heavy draft horses, so use your own judgment as to lighter horses.

As it is quite a task for farmers to give a horse medicine, the best way is to back him into a corner where he cannot run back, put a hamestrap into his mouth, buckle it on top of his nose, tie another strap or rope into it, throw the rope over some beam or pulley, pull his head up high enough so that he cannot spill out the medicine. Do not pour it down too fast, so as to choke him and get it on his lungs. It is well to let his head down so that he may get his breath for a little at times.

In conclusion, my opinion is the average farmer on heavy lands would be better to breed heavy draft horses, as they will do heavy work younger, go to the market younger, are more easily broken in, not so easily blemished as light horses, and will generally give a good profit. There is no doubt the man who is capable of breeding, fitting and handling the right kind of carriage horses will be well paid for his work, as the cities must have them, whatever they cost.

PREFERS A 32-CALIBRE REVOLVER.

Editor "The Farmer's Advocate":

I noticed in your issue of February 20th last, a paragraph on killing a horse, the writer saying that he did not like Dr. M. Horace Hays' ways or methods of despatching old horses. I think that if the writer had seen many killed with axe or gun he would readily agree with Dr. Hays. He also thinks that a 22 or 32 calibre gun is not heavy enough. I have had a good deal of experience with both axe and gun, and find that the gun is the most effective. I think that when the writer saw his father's horse killed he must have been somewhat excited, as well as the man with the gun. To kill a horse successfully, I take a 32

calibre revolver and place the muzzle within two or three inches of the horse's forehead, and press the trigger, and I never have had to fire the second shot. Will say in conclusion, that a man does not need to have any experience to kill a horse or any animal successfully if he has a gun, but with an axe he needs considerable nerve and experience, because a horse comes down harder than a beef, and I have seen able-bodied men who could not bring a horse down with an axe.

NEW BRUNSWICK.

THE HACKNEY IS POPULAR.

The most interesting and popular of Harness classes at leading horse shows, not only in America, but in Britain and several other European countries, are the Hackneys, which, for style, conformation, constitution and disposition, are unequalled by any of the lighter classes. A writer in the Live-stock Journal, commenting on the display of Hackneys at the late London Show, says:

Two of the chief of these features was the almost international character of the entries, and the remarkable number of foreign visitors who were among the keenest of spectators of all that took place in the ring. In the galleries, around the ring-side, and among the horses' boxes, could be heard the varied speech of France, Germany, Holland, and many other European countries, mingled with the unmistakable accent of the American and the now-familiar tones of the Spanish-speaking Republics of the South. It is at the Hackney show that they are the most in evidence. The cause of this widespread interest in the Hackney is well worth a few moments' consideration. Why should it be, for instance, that the Hackney, more than any other breed of horses, should attract to our shores the representatives of the foreign Governments, besides those directly concerned with the horse-breeding industry of other nations?

The answer is not difficult to discover. No other country possesses a breed of horse that can in any way compare with the Hackney for the purpose it is intended to fulfil, and no breed is so well adapted to the requirements of the age for

the past seventeen years, no less than 6,331 horses have been submitted to the rigid veterinary examination enforced by the Hackney Horse Society at its London Show, and of this number, only 301—or about 5 per cent.—have been rejected for unsoundness. What other breed could come through such an ordeal so creditably?

One occasionally hears the detractor of the Hackney complain of its artificial action, of its wasting energy in lifting its feet to its chin and never getting over the ground. Such an accusation can only come from those who are ignorant of the history of the breed. For 200 years, at least, the Hackney has been known as a distinct breed, a breed that, although tracing back to the same ancestors of the Thoroughbred, has for generations been selected for its capabilities as a trotter, just as the Thoroughbred has been chosen for the saddle. Widely as the two branches have now diverged, the taproot of both remains the same, and just as the canter is the natural gait of the Thoroughbred, so is the trot the pace that comes by instinct to the Hackney.

But all this is perhaps beside the mark, since no apologies need be made for a breed which can attract, as the Hackney has done, representatives from most of the principal countries of the world, for among those who have lately surrounded the ring at Islington have been visitors from Europe, Asia, Australasia, and both the Americas. More than this, during the past year Hackneys have been shipped to Argentina, Australia, Austria, Belgium, Canada, Chili, France, Germany, Holland, Italy, the United States of America, and Uruguay. So long as the records can show such a trade as this there need be no fear that the Hackney will cease to be chosen as the means of traction by all who still appreciate the pleasure of sitting behind a good trapper, or by those desirous of imparting to other breeds some of the many good qualities of which the trotting horse of Britain has shown itself to be the possessor.

ADVANTAGES OF CLIPPING.

We have never been quite able to satisfy ourselves that clipping horses is an unqualified advantage. It seems unnatural, and reflection suggests an uneasy suspicion that, like some other things that appear beneficial at first, the ultimate disadvantages may offset the obvious benefits, especially where repeated with successive generations.

However, where clipped horses are properly cared for, and carefully blanketed, they do not seem to suffer any perceptible injury, but rather to gain in condition, health and energy. The argument on behalf of clipping is very well presented in the subjoined article, reproduced from "The Farmer's Advocate and Home Journal," of Winnipeg:

The chief advantage of clipping is that it lessens the tendency to sweat, and makes it easier to keep the skin in a clean, open condition, and the coat dry. A horse that has had his heavy winter coating of hair taken off before he goes out to the strenuous work of the seeding season will feel

more fresh and vigorous, fuller of vim, and less easily tired by the labor, than will a horse put into heavy work after a winter of idleness, with a full growth of heavy hair filled up with dust and dirt, the pores of the skin clogged up, and the animal dull, lifeless, out of condition, lacking in energy and vigor. It is surprising the difference a thoroughly-clean skin makes in a working horse, the ease with which he performs his work, the increased activity which he displays, and the increased amount of work which he can do on the same quantity of feed.

Sweating is one of nature's means of maintaining the temperature of a horse's body at a point most favorable to life. Sweat glands are situated in various parts of the body which exude perspiration, to a certain extent continuously, but in increased amounts as the temperature of the body rises. The evaporation of this perspiration into the atmosphere reduces to some extent the temperature of the skin, and unless the horse is required to perform abnormally hard work, will maintain his temperature below the danger point. Now, the condition of the skin plays an important part in the quantity of sweat exuded. If it is clean, and the pores open, the sweat glands require to secrete and pour out



Copper King (7764).

Hackney stallion; chestnut; 15.3; eight years old; sire Mathias. First in class and grand champion, London, England, Hackney Show, March, 1908. Breeder and exhibitor, Alfred Benson, Surrey.

a speedy and yet showy animal that possesses the stamina, courage and action of the king of harness horses. This being the case, the Hackney is assured of a place in the world's markets as long as the breed can be kept up to the high standard that it at present occupies; and this in spite of the opposition with which it meets in some quarters in which its qualities are still unrecognized, and in spite of the rapid increase and popularity of the mechanically-propelled vehicle.

It has sometimes been urged by the opponents of the Hackney that the breed is lacking in those qualities which go to constitute the perfect harness horse; that it is soft, wanting in courage, and capable only of showing exaggerated action in the show-ring. To such as these, one may point to the demand that at present exists for the breed by nations that have seen its worth as a cross for the battery horse, and even for the mount destined to carry cavalymen. It is not European nations alone that have found the Hackney suited to military requirements, for even Japan has been, and continues to be, a buyer, while each year sees more of the breed exported to South America and elsewhere. As to soundness, few breeds can show such a record in this respect as does the Hackney of to-day. During

less fluid in order to maintain this optimum body temperature. The air comes in closer touch with the skin itself, and the cooling effect of evaporation is direct in its application. In a skin clogged with dust and dried-up sweat, and with long, matty hair protecting it from the cooling action of the atmosphere, more perspiration must be secreted and exuded, more work is required of the sweat glands, and energy which might be applied in useful work is employed in sweating out moisture to hold the temperature down to normal.

Anything that adds to the comfort of a horse while he is at work increases the amount of work which he can do, and decreases the amount of food which he must consume and the energy which he must expend in doing it. Irritation and discomfort of any nature decreases a horse's ability to work, and any means that can be taken to reduce irritation discomfort will enhance to the extent they are effective in so doing, a horse's value to his owner. What shoeing is to the feet, clipping is to the body. The horse feels better, and does not require one-quarter the grooming that is required by the shaggy-haired, dispirited nag. There is no shedding of hair all the season through to blow over everybody and everything; no sores or skin disorders, but healthy, well-conditioned horses, comfortable in body, active in spirit, capable of performing the maximum amount of work. Clip the horses early in spring, before seeding begins.

TO PREVENT SORE SHOULDERS.

With reference to the article on "Preparing Horses for Spring Work," in "The Farmer's Advocate" of March 12th, an experienced reader, Mr. John Hunter, of Lambton Co., Ont., says he considers one of the most important points is to bathe the shoulders daily with salt-water for a week before spring work commences. If the horses can be moderately exercised, and bathing done evenings, after they come in from work, so much the better. It tends to toughen the skin, allay inflammation, and prevent or heal any abrasions. Of course, it is also necessary to see that the collars fit. Observing these precautions, he informs us that he has never had sore shoulders on a colt. We might add that this suggestion was offered editorially in the above-mentioned issue, and is approved by a large number of careful horsemen. It is simple, and well worth while.

HORSE - COLLAR SUGGESTIONS.

Editor "The Farmer's Advocate":

The question as to which is the best style of collars, leather-lined, cloth-lined, with or without sweat-pads, seems at first an easy question to answer; but, after a little consideration, my answer is, "You pay your money and take your choice."

The best collar is the collar that fits best! Here, of course, comes the difficulty. A collar should fit snugly, with just room to insert the fingers between the collar and the windpipe when the horse has his head in the position in which he will carry it when working. Here is when we come to the use of the sweat-pad. When a horse goes to work in the spring, presumably, he is fatter and bigger in the neck than he will be later on. So the teamster must watch carefully and put in the sweat-pad before the loosened collar gives the horse a sore shoulder.

Personally, I like a cloth-faced collar; their pattern is slightly different to that of the leather-lined ones, being heavier and thicker through. Therefore, keeping the traces further out from the shoulders, avoid rubs on the side of the shoulders. Also, the cloth absorbs the sweat. When I use leather-lined collars, I always use sweat-pads; the leather lining seems to me to get too hard. Of course, I can understand that the collar itself must be rigid, but I can think of no reason why a nice soft surface, such as is provided by a sweat-pad, would not make the horse more comfortable, especially when drawing hard.

Perhaps your subscribers are not aware that there is a big difference in quality between collars of much the same appearance; i. e., whether they are short straw or long straw. The short-strawed collars are just "stuffed" full of short straws, and are liable to become "lumpy." The long-straw collars are hand-made, with the straw placed in position "up and down" the collar. The stuffed collars are about fifty cents cheaper, but that is only a small matter when compared with the good qualities possessed by the long-straw, hand-made collars.

In harvest, horses are liable to get sore on the top of the neck. So far as I know, the best remedy for this is to use a zinc pad; this idea was traded off by an English-army veteran to an American for a glass of beer, who patented the device, and lived happy ever afterwards (on the royalties).

Another point worth watching is the point of the shoulder! Horses that carry a low head quite often get a sore here. To avoid this, put up the draft of the traces about an inch.

Perhaps your subscriber would be interested in

a story about a man who had trouble in getting a collar big enough to fit himself! Well, a friend of mine took a trip to the Old Country, and when in Dublin wanted some new collars, so he went into a men's furnishing store, and asked the girl behind the counter to show him some collars; she did so, but they were all far too small (he weighed about 250 pounds). The bold Alex. then asked the girl if she could direct him to a place where he could get collars to fit him. The girl said, "Certainly; I am sure they will be able to suit you with collars next door." On going out into the street, Alex. found "next door" to be a harness shop! G. H. BRADSHAW.
Russel Mun., Man.

LIVE STOCK.

FROZEN WHEAT AS FEED FOR STOCK.

RESULTS OF EXPERIMENTS AT THE CENTRAL EXPERIMENTAL FARM.

As soon as it was known that frozen wheat would be on the market in considerable quantities, it was decided to make some tests of its feeding qualities at the Central Experimental Farm. A carload was accordingly purchased from a farmer near Indian Head, Sask. It reached Ottawa in December. It was made up of about equal parts No. 1 frozen and No. 2 frozen. No. 1 cost \$1.06, and No. 2, 98c. per 100 lbs. delivered at Ottawa.

The feeding tests conducted were quite varied, and on a fairly large scale, but it is not proposed to do anything more at the present than give mere summaries.

HORSES.

It was fed to horses, where it made up about one-third of the meal ration, the other two-thirds consisting of bran and whole oats. It proved unsatisfactory as a feed for this class of stock. It appeared to be unpalatable to them, and when eaten seemed to be the cause of digestive troubles. No. 1 frozen was used.

DAIRY CATTLE.

When fed to milch cows results were quite satisfactory. A number of cows receiving as a meal ration a mixture of 8 parts bran and 3 parts gluten were changed to a meal ration of 5 parts No. 1 frozen wheat and 3 parts bran. They did as well on the new ration as on the old. By this change the cost of the meal ration was reduced by about one-fifth. For this class of stock it appeared very important to grind the wheat very fine. For the benefit of those not familiar with gluten, it may be said that in feeding qualities and composition, the gluten used compares very favorably with oil-cake meal.

BEEF CATTLE.

Since steers are the class of cattle to which it is likely to be fed in considerable quantities in the West a fairly large experiment was planned. For the most part No. 1 frozen was used. On a small number, however, No. 2 frozen was used with quite as satisfactory results.

The No. 1 frozen wheat was fed in varying quantities and in different mixtures to 24 cattle. These were divided into three groups of 8 each. Another lot of cattle of similar quality but somewhat heavier, was fed during the same period on a mixture of bran and gluten. This mixture is one that has always given most excellent results here, so it will be understood that the wheat mixtures were up against a difficult proposition when running in comparison with the bran and gluten mixture. The feeding experiments with cattle were continued for ten weeks.

LOT B.—YEARLINGS.

Weight December 24 (average)	Lbs.	730
Weight March 3 (average)		881
Gain in 70 days (average)		151
Daily rate of gain (average)		2.15

Average Daily Ration per Head for Lot B.

Corn Silage	Lbs.	40
Oat Straw		5
Clover Hay		3
Oats (crushed)		2
Frozen Wheat No. 1		4½

LOT C.—TWO-YEAR-OLDS.

Weight December 24 (average)	Lbs.	834
Weight March 3 (average)		1001
Gain in 70 days (average)		167
Daily rate of gain (average)		2.4

Average Daily Ration per Head for Lot C.

Corn Silage	Lbs.	44
Oat Straw		6
Clover Hay		3
Bran		3
Frozen Wheat No. 1		4

LOT D.—TWO-YEAR-OLDS.

Weight December 24 (average)	Lbs.	945
Weight March 3 (average)		1090
Gain in 70 days (average)		145
Daily rate of gain (average)		2.07

Average Daily Ration per Head for Lot D.

Corn Silage	Lbs.	44
Oat Straw		6
Clover Hay		3
Bran		2
Frozen Wheat No. 1		5

LOT E.—TWO-YEAR-OLDS.	Lbs.
Weight December 24 (average)	1068
Weight March 3 (average)	1252
Gain in 70 days (average)	190
Daily rate of gain (average)	2.71

Average Daily Ration per Head for Lot E.

Corn Silage	Lbs.	50
Oat Straw		6½
Gluten		5
Clover Hay		3
Bran		3

In every case it will be observed the steers made good gains. It was found necessary to grind the wheat very fine, or part of it passed through undigested.

SWINE.

Since swine are supposed to be particularly suited for making use of this sort of feed, it was decided to give as thorough a test as possible. The results given below are quite incomplete, but will serve to indicate the high value of different grades of frozen wheat for pork production. The hogs were divided into groups of 5 each, and fed as follows:

Lot 1—Frozen Wheat No. 1, 200 lbs., with shorts 100 lbs.
" 2— " " No. 1, 200 lbs., " shorts 100 lbs.
" 3— " " No. 2, 200 lbs., " corn 100 lbs.
" 4— " " No. 2, only.
" 5— " " No. 2, only.
" 6— " " No. 2, 200 lbs., " barley 100 lbs.
" 7— " " No. 1, 200 lbs., " oats 100 lbs.
" 8— " " No. 1, 200 lbs., " oats 100 lbs.
" 9— " " No. 2, with skim milk, 3 lbs. daily
" 10— " " No. 1, only. [per pig.]
" 11— " " No. 1, only.
" 12— " " No. 1, 100; No. 2, 200; corn 200 lbs.

Lots 13 and 14—Check lots, both fed with following ration:—Shorts, 500 lbs.; Imperial flour, 100 lbs. (coarse feeding flour); corn, 100 lbs.; skim milk, 2 lbs. per day per pig; roots, equal parts by weight with meal fed.

All pigs were fed on these rations for 56 days, exclusive of 7 days allowed for change of ration. Pigs were weighed every Tuesday and careful notes made of results each week. The summary is as follows:

	Lbs. per day per pig.	Lbs. meal for 1 lb. gain
Lot 1 gained	.76	3.9
Lot 2 gained	.77	3.7
Lot 3 gained	1.03	3.9
Lot 4 gained	1.23	3.6
Lot 5 gained	.71	3.8
Lot 6 gained	.81	4.1
Lot 7 gained	1.02	3.9
Lot 8 gained	.66	3.9
Lot 9 gained	.86	3.4
Lot 10 gained	.94	4.1
Lot 11 gained	.79	3.9
Lot 12 gained	.94	4.7
Lots 13-14 gained	.92	3.2

The pigs enjoyed uniformly good health. The lots were fairly uniform in size, except in cases where two lots were on the same ration when one was a heavy lot and the other a light lot; as, for instance, in lots 10 and 11, where pigs in lot 10 averaged at finish 203.2 lbs., and pigs in lot 11 averaged at finish 140.8 lbs. Weights are given below:

AVERAGE WEIGHT PER PIG IN LOT, IN EACH CASE.

	Weight to Start.	To Finish
Lot 1	99.1 lbs.	141.8 lbs.
Lot 2	76.0 lbs.	119.2 lbs.
Lot 3	118.2 lbs.	176.2 lbs.
Lot 4	140.0 lbs.	209.2 lbs.
Lot 5	85.0 lbs.	124.8 lbs.
Lot 6	104.1 lbs.	149.6 lbs.
Lot 7	112.1 lbs.	169.4 lbs.
Lot 8	74.2 lbs.	111.6 lbs.
Lot 9	99.0 lbs.	147.2 lbs.
Lot 10	150.4 lbs.	203.2 lbs.
Lot 11	96.3 lbs.	140.8 lbs.
Lot 12	124.8 lbs.	176.7 lbs.
Lot 13	108.6 lbs.	159.3 lbs.
Lot 14	83.8 lbs.	137.2 lbs.

It will be observed that pigs on pure frozen wheat made excellent gains. It must be noted, however, that very careful feeding was necessary in lots where pure wheat was used. On averaging up the wheat lots it will be found that gains cost on pure frozen wheat less than 4 cents per pound live weight. This compares very favorably with gains made on other feeds or mixtures. The wheat should be finely ground.

POULTRY.

Mr. A. G. Gilbert informs me that No. 1 frozen wheat has given him good results with his hens. The wheat should, however, be asserted, constitute only a part of the grain ration.

CONCLUSION.

Frozen wheat may be fed with profit to dairy cattle, steers, swine and poultry. It should, however, be finely ground. It is better to mix with it some other meal. Bran or oats are most suitable for this purpose.

J. H. GRISDALE,
Agriculturist.

Central Experimental Farm, Ottawa.

THE HOG CONTROVERSY REVIEWED.

Editor "The Farmer's Advocate":

A few years ago farmers, through the press, charged the packers with unfair dealing; first, in controlling prices by combination, and second, in not paying for quality.

The Department of Agriculture sent out men to Institute meetings, etc., loaded with charts and talks on "Bacon Hog." But as fast as the farmer was educated at public expense, the packer uneducated him by paying as much for a scrub as for a prime Wiltshire. A considerable reduction in hogs began to loom up. Davies Co. called the Department and press to their office. At this conference the farmer was turned down—he had no grievance. The Davies Co. was taken under the wing of the Department, and the Davies experiment endorsed and accepted. Circulars were issued to the farmers, with conditions that he was to bear all risks—feed, clean, bed, ring, load and market, for the good of his health. I suppose Prof. Day expressed the feelings of the Department when he said that this was very kind of the Davies people. But the farmer who persisted in furnishing the packer with scrubs got a roasting from the same source: I refer to language in bulletin on "Hogs of Ontario."

About this time a little hitch in the Davies Co. was aired in court, where the net profits for 14 years were revealed. In 1897, a net profit of 100 per cent.; 1898, 120 per cent.; in 1899, 82 per cent.; and so on. In view of those figures let me ask, "Had not the farmer a grievance?" These facts are known to the Department, and Prof. Day, as their mouthpiece, had continued to flout the Davies figures of the experiment before the farmers. "The Farmer's Advocate" says, editorially, "that the press as well as Prof. Day has pointed out the unwisdom of rushing out of a business because profits are temporarily contracted." There are deeper reasons. Not many care to be patrons of a concern that can pocket 120 per cent. out of your product, nor would I so advise any one. T. B. SCOTT. Middlesex Co., Ont.

[Note.—While holding no brief for the packers, candor compels us to point out that Mr. Scott has mentioned only the years of exceptional profits. The average dividends paid by the Wm. Davies Co. during a period of fourteen years, as disclosed in the court proceedings alluded to, was a trifle less than 51 per cent. per annum, which, however, is not bad. It is but fair to note, also, that this profit of 50 per cent. is bulked up by a comparatively small margin on a large turnover, and considerable credit is due the above company for the enterprise and economy with which they have prosecuted their business. That is not saying but that the packers may have been at times guilty of killing the goose that lays the golden egg, nor is it any palliation for their deliberate refusal to assist the educational propaganda by devising and instituting an effective system of payment according to quality. We may also point out that at the celebrated conference referred to, the representative of "The Farmer's Advocate" strongly urged the advisability of such discrimination. As for the prices paid, these must depend upon such competition as may exist among the packers and upon market conditions. If they do not pay enough to induce liberal production of hogs, they will have to walk with us in the funeral procession.—Ed.]

HOG PASTURE.

A timely bulletin has been issued from the Missouri Experiment Station by Dean H. J. Waters, giving the results of some experiments to determine the value of different forage crops for hogs.

Thirty-six pigs, weighing about 50 pounds each, were fed in lots on different forage crops, in connection with corn, until they were ready for market, accurate account being kept of the cost of gains made.

In cheapness of gains, the feed used ranked as follows, according to Missouri valuations: Corn and skim milk, cheapest; corn and alfalfa, second; corn and red clover, third; corn and bluegrass, fourth; corn and rape, fifth; corn and ship stuff, sixth.

A saving of about 75 cents a hundred in the cost of gain was effected by using green clover instead of fresh blue grass. A saving of \$1.00 a hundred was effected by using alfalfa instead of blue grass.

When it is realized that alfalfa comes on early, and, when properly clipped, stays green all summer, and until the very hard freezes of early winter, its importance as a hog pasture is apparent. Clover yields more forage per acre than blue grass, and, as shown by these experiments, has a much higher feeding value. It is of the utmost importance, therefore, to provide this sort of pasture for hogs, rather than to require them to graze on blue-grass pasture, or, even worse than this, a timothy pasture, or, even far worse than this, to confine them in a dry lot in the summer-time.

This bulletin recommends a succession of crops for profitable hog pasture.

OUR SCOTTISH LETTER.

Stock have been our chief concern since I last wrote, and we have had it in various phases. The spring bull sales are over. At all centers there was depression, as compared with the experience of recent years. The outbreak of foot-and-mouth disease in Edinburgh, in the beginning of February, was followed up, on the very eve of the first great bull sale, by a second outbreak in the same city, and in a dairy herd founded by the owner in whose herd the former outbreak appeared. No sooner was this second outbreak supposed to be stamped out, than a third appeared in a neighboring byre. Apparently, the disease has been got the better of at last, but the depression at the bull sales could not be shaken off. Ireland and the Argentine, on the first report, promptly closed their ports. England followed suit on report of the second outbreak, and we were therefore left to do our own business pretty well among ourselves.

The Aberdeen-Angus sales came first, and, as usual, Ballindalloch headed the list of averages, a very good second being made by the rising herd of Mr. J. Ernest Kerr, of Harviestown, Dollar. The Ballindalloch average for eight young bulls was £106 11s. 6d., and Harviestown average for seven, £43 4s. The average price of 253 bulls was £24 11s. 6d., as against £25 14s. 1d. for 298 bulls in 1907. The Shorthorn sale was held in the week after, and Mr. A. Robertson, Mains of Ballechin, Ballinburg, Perthshire, had the honor of making the highest price for a bull in Scotland this year. He got 500 gs. for the young dark-roan "Jim Sidey," a typical Scots Short-horn, short in the leg, thick, well-ribbed, and



Jim Sidey.

Shorthorn yearling bull. Third in his class at Perth Show and Sale, Feb., 1908. Sold for \$2,625 to Mr. Harcourt, Cumberland. Bred and exhibited by Mr. Robertson, Ballechin.

full of flesh. The most successful exhibitor was Mr. Jas. Durno, Jackstown, Rothie Norman, whose stock bull, Baron Fyvie, bred splendid stock. Mr. Durno won both first prizes for older and younger bulls, as well as first for group of three, all got by this sire. These are red, heavily-fleshed cattle, of the Lovat type. They may be a shade strong in the bone, and coarse, but they carry great wealth of flesh, and are the kind in demand. A very stylish young bull, named Count Fascinator, was greatly fancied by expert judges. He is owned by Mr. A. T. Gordon, Combscausway, Insch, Aberdeen. Mr. Durno's average for three young bulls by Baron Fyvie was £147. The next best average was £131 5s., made by the Earl of Moray, Downe Lodge, for two, and the third best £121 10s. 9d., made by Mr. Murray, of Polmaise, for four. The average price of 274 Shorthorn bulls was £36 19s. 3d., as against £63 17s. 5d. for 310 bulls in 1907. These figures tell their own story, and the slump is undoubtedly due to the "scare" consequent on the foot-and-mouth outbreak. No doubt the Argentine trade is rather quiet, even without the scare, but the slump would not have taken place but for the outbreak.

Prices at the Highland sale, at Oban, and at the Galloway sale at Castle-Douglas, were in sympathy. In neither case was bidding brisk. The Highlanders made a top price of £66, secured by the Countess Dowager of Seafield with a two-year-old bull from her Castle-Grant fold. The Galloways made a top price of £63, secured by Col. Kennedy, of Knockwalling, for a young bull stirk named Sweepstakes. He was purchased by Mr. Walter Biggar, Chapelton, Dalbeattie, whose father was well known in Canada. The Gallo-

ways were sold in a blizzard, of which this country has occasional experience.

Some interesting things were said by Mr. John Clay, Sunlaw, Roxburgh, to a gathering of students. Mr. Clay is best known as the main-spring of the business of Clay, Robinson & Co., Chicago. He is a Border callant, who went out to the United States to push his fortune in 1878, and did that to good purpose. Few men have seen more of the American cattle trade, and when he told the students that cattle on the Western ranges become small, we naturally listened. Both Shorthorns and Herefords he praised as the best range cattle, but still admitted that they became stunted in growth after long exposure. The moral of this tale was that the American breeder must always repair to the home herds for cattle to recuperate and build up his stock. Mr. Clay gave the Aberdeen-Angus cattle the first place for the farm, but they are not to be compared with Shorthorns or Herefords on the ranges. He did not say anything about the Galloways or Highlanders.

Here we are much interested in an attempt to establish a national milk-record scheme for our Ayrshire breed, and we are going to succeed. Scotsmen are proverbially slow to move, but once an idea gets hold of them, they prosecute it to the end. The milk-record scheme is a case in hand. It has fought its own way against strong opposition. Mistakes were made at first. In particular, the competitive element was allowed to enter, and those who were not overcareful found it convenient to drop some of their worst cows out of the totals, which, of course, did not insure an accurate representation of the condition of the

herd. Others fed for the tests, and so got results which were not a fair average of the herds. However, all these errors have been left behind, and we are in a fair way to establishing milk-record tests in the west and south-west of Scotland on a national basis. The great fostering mother in this movement has been the Highland and Agricultural Society. This institution has led in many useful enterprises, and its milk-record scheme will not be the least creditable of its many good works. The work has now been taken over by a Record Committee on which the National Society is strongly represented. The funds so far are mainly provided out of the National Society's exchequer, and we are all getting along very nicely.

The horse shows are over for another spring. The great London three-weeks' carnival is almost at an end, and soon the Government will be

called on to declare what is to be the national policy in view of the decreasing interest in horse-breeding. Draft horses seem likely to hold their own for many a day to come. Clydesdales and Shires are both doing well. Prices for both breeds are remunerative, and there is quite a healthy demand for representatives of both breeds. Clydesdales may not have so many wealthy patrons as the Shires, but they are in quite as healthy state as a breed. The Shires have wealthy patrons, and great prices are paid by those who are in the ring, and nobody grudges that to them. The Clydesdale could do with a few more wealthy patrons than it has.

The trouble is not with the draft breeds, but with the light-legged varieties. Motor cars have done much to weaken the demand for high-class driving horses, and motor 'buses and vans almost threaten the extinction of the horses for commercial purposes. The probability is that the very best class of harness horses will always find a market, but the outlook for the misfits is not bright. Two of the London Carrying Companies are going to combine. The London General Omnibus Company, which once a day had almost the monopoly of the London street traffic, is to join forces with the Vanguard Motor 'Bus Company, one of the first, and, for a time, apparently a successful caterer for the same traffic. The London "tubes" have played havoc with much of the traffic which formerly crowded the 'buses, and the motor 'buses which for a time menaced the horse 'buses, are now themselves menaced by the "tubes." The motor cars are not popular because of their unearthly noises and their "stinks," and they are proving a hard burden for their shareholders. At present, in this coun-

try, we are having a slump in motor-car builders and motor-car traffic caterers. The buses put upon routes have been crude and cumbersome, and some bad accidents have taken place. The net result of the whole thing would seem to be in favor of a lengthening of the horse's lease, and no doubt there will be some extension of his time. But there can be little doubt that time is on the side of motor cars. If the horse be extinguished, what about national defence and the horsing of our cavalry regiments? It is becoming increasingly evident that the Government must intervene. If farmers are to keep on breeding horses, there must be a market for them. The War Office will need to buy at remunerative prices to the breeder, otherwise the farmer will need to turn to something else.

Reverting to the recent London Hackney Show, there were some splendid harness horses on show. The old London champion mare, Ophelia, bred many foals, all of them well above the average. She, however, produced two stallions, Polonius and Mathias, which, as sires of harness horses, are simply invincible. Mathias is in Scotland, and a large number of his stock will be sold at Thornhome, Carlisle, on Friday, May 1st. This week, at London, he was sire of the champion of the breeding classes, Copper King; of the champion of the harness classes, Radiant, and of the best group of three harness horses not over six years old, which excluded Radiant. At least six of the finest harness horses ever seen in any show were exhibited after him last week. Several of them will be unrivalled, and, as a group of six, I do not think they could be rivalled by any similar group in the world the produce of one sire. Polonius also breeds a very fine class of harness horses. They are mostly to be found in Yorkshire, where he is owned by Mr. Robert Whitworth. Lovers of harness horses should come to Scotland during the last fortnight of April and beginning of May. They will see what will please them. "SCOTLAND YET."

CARE OF MOTHERLESS LAMBS.

Motherless lambs are not an infrequent occurrence in every flock. Sometimes the ewe refuses to care for her own progeny; sometimes accident or mismanagement produces the death of the mother; but whatever the agency, the circumstance arises, and the shepherd finds himself in that situation where he must find a new mother for his lambs, raise them by hand, or have that discouraging misfortune of losing several of his lambs. No shepherd nor farmer can afford to lose even a few of the lambs, and he must exercise all his patience, energy and ingenuity to avert such a catastrophe.

When a ewe gives birth to triplets, usually some shift has to be made for the third one. Frequently the circumstance arises that another ewe on the same night, or at about the same time, has produced but one lamb, or has produced a pair, of which one was dead. Often for the third lamb one may find in this way a foster mother. It is often difficult, however, to get the ewe to take kindly to this changeling. If the lamb is being put in place of a dead one, skin the dead one and place its still warm hide over the supplanter, and put it to suck its new mother. This method has often proved successful in inducing the adoption. A more common method is that of daubing the rump of the lamb and the nose of the intended mother with some strong-smelling substance, such as pine tar. Any other harmless and odoriferous substance may be used. In this way the only odor which the ewe gets from the lamb is that of the tar, which is so strong as to nullify all other odors. She is thus deceived, and takes kindly to the orphan.

But more commonly the shepherd has to raise his motherless lambs by hand. To do this successfully he must approximate as closely as possible in the composition of the feed used the composition of the milk of the ewe. For the first few weeks, especially, before the little things can make use of any solid food, cow's milk is the only food available, but it must be altered considerably before it can be successfully used. Comparing cow's milk with ewe's milk, one finds that the ewe's milk contains practically twice as much fat, about the same amount of sugar, more ash, and nearly twice as much proteid matter as that of the cow. It is plain, then, that cow's milk must be altered before feeding it to lambs.

If twice the quantity required each day is skimmed in the morning, one-half of it taken, and the total amount of cream obtained placed in this, the content of fat will be correct. Rather than do this, many men have added one-twentieth as much sugar by weight, with good results, but this is not as desirable a ration as the former, nor does it approximate the composition of ewe's milk. The proteid content cannot be easily remedied during the first three weeks, until the lambs begin to eat grain, when by feeding oats and bran they obtain the desired nitrogenous matter.

In feeding lambs milk, no other appliance has been found so satisfactory as an ordinary nursing bottle, or an ordinary bottle fitted with a rubber nipple. The lambs readily feed from it at a time in their career when if we attempted to teach them to drink they would die before learning, or at best be dwarfed most seriously. The bottle should be boiled frequently to prevent infection and the evils following the use of dirty food. The milk can be easily warmed to blood heat before feeding, by which practice scouring is pre-

vented largely. The lambs for the first ten days should be fed every two hours in the daytime and every three hours at night. As they become older they can go longer periods without feeding, and after they are three months old they will begin to eat ground grain, so that they become less dependent upon the bottle.

J. A. M.

THE LIVE-STOCK INDUSTRY IN THE MARITIME PROVINCES.

By Prof. M. Cumming, Principal N. S. Agricultural College, and Secretary for Agriculture in Nova Scotia, before the National Live-stock Convention in February, 1908.

Those of you who visit the Maritime Provinces, and who go there with a purely agricultural ideal in mind, often misjudge the conditions and the people. We are peculiarly situated, owing to the fact that many of our men are not only farmers in season, but turn their attention also to the woods, the sea and the mines. This means that there are many people living on lands who are called in the census farmers, but who are not farmers in the strictest sense; and when you judge our agriculture by statistics, or by some of these people, you are doing our Provinces a very sad injustice. I am prepared to say, without fear of contradiction, that where our men farm their lands as well as they do in the better parts of Ontario, the results are equally as good, and in some cases better. And although, however, our Provinces have been, and are still, Provinces of varied industries, yet there is a growing feeling that the agricultural industry must be developed. Lumbering is becoming less remunerative, the sea more uncertain, and mining more specialized.

In order that agriculture should flourish in the Maritime Provinces, I can say that we should keep three or four times as many head of live stock as we do now. In the second place, I can say that we have already given ample demonstration that our Provinces are well adapted for the successful raising of live stock. We are considerably removed from the large shows, but when on occasional times our exhibitors have come to Toronto, or Ottawa, or elsewhere, they have done particularly well, as the records of the past few seasons show. In fact, owing to our moist, cool climate, it is possible to keep cattle up to a higher state of fitness, and to push dairy cows to a higher yield with impunity, than can be done in inland countries. As an evidence of what is being done, I would like to call to your attention the fact that the herd of Holstein cows at our Agricultural College produced last year an average of 13,500 pounds of milk per cow.

We are coming more and more to feel the need of improving our stock through breeding, selecting and feeding. Our people are somewhat remiss on these points. Our conditions are particularly adapted for the raising of high-class hay and for the raising of as good roots as can be raised anywhere in America, and for the raising of splendid forage crops. We cannot, however, buy grain as cheaply as you in the West.

Now, as to breeding, our pure-bred breeders are in a peculiar position. We have not an outlet for the highest class of pure-bred bulls and stock. Our breeders do well if they sell first-class bulls at prices ranging from \$50 to \$150. Those of you catering to a commercial and not a fancy trade must agree that these are good prices. However, they are not the prices that will support reckless expenditure for stock.

Although they would like to buy the best stock that you have in Ontario and in the Old Country, our breeders are somewhat restricted. But conditions must be borne in mind. I have occasionally heard a little unjust criticism of the judgment of some of our people in selecting animals, those who criticise forgetting that the man's purchases are quite often tempered by his purse. We frequently have to buy by mail or indirect means, and are frequently disappointed. The blame, however, does not rest wholly on your shoulders. A good many of our own people have not got a good idea of the value of an animal, and I have known cases where they have written to say that they want a bull at \$75 or \$85 or \$100. They expect that they are going to get stock of the highest degree of perfection, and when you have sent down cattle actually worth the money they were naturally disappointed. From that standpoint, I can sympathize with Ontario and Quebec men who are honestly striving to give value for the money when they sell stock to our buyers. On the other hand, there are some men who are not treating our men fairly. You would often do our men, who are proposing to buy, a good turn if you honestly told them all the details as to what they might expect for a certain amount of money. I have sometimes wondered if there could not be means of making more use of the various societies and associations in the way of having more personal selection of stock. You, in this part of the country, sometimes say, "Why don't you send your buyers up here?" Well, let me ask you if you would be willing to pay expenses of \$50 or \$60 to travel a long way to buy a bull to cost, say, \$125. There are

difficulties in the way, but I think that perhaps this Association could devise some scheme that would overcome them.

In order to help conditions in Nova Scotia, we have indulged a little in what you might call paternalism. For years there was not a pure-bred heavy-draft mare in the Province. We felt the need of assisting in the raising of that class of stock, and therefore our Government has on several occasions sent parties to the Old Country, and sometimes to Ontario, where they have bought outright large consignments of fillies and stallions, and other stock, and these we have resold. Last year I bought some twenty Clydesdales in the Old Country, and some 100 rams in various parts of Canada. We bought them at a fair market price, and allowed our people to buy them at public auction at their own price. On the Clydesdale stock we lost about \$100 a head, and we lost about the same proportion on our sheep. That is a loss so far as the Government is directly concerned, but I know that it has done the live-stock industry in the Province a great amount of good. Some call this paternalism. We think that it was just enough to give the Province a little taste of the benefits of raising good stock, and that it will ultimately lead to a splendid development right in our own Province.

We, perhaps as much as any people, have profited by fairs and exhibitions held in our Province, and I wish to take occasion to thank the Hon. Minister of Agriculture through the Commissioner of Live Stock for the co-operation he has undertaken with the local departments in helping us to carry on our shows. In my capacity as Secretary for Agriculture for Nova Scotia, I have nothing whatever to do with the Winter Fair at Amherst, Nova Scotia, and yet I know that that fair, fostered by this Department, has done an incalculable amount of good.

The Maritime Provinces are first and foremost suited for dairying, and if our men have the proper means we can compete with any of you. We have splendid markets for dairy products, and easy access to the export markets. We also excel as a sheep-raising country, and I, for one, am trying to do all that I can to encourage this industry, and I am glad to say that the industry is going ahead.

We are also well situated for the raising of all classes of stock. Beef cattle do well near the large marsh areas, of which some of you may have heard, if you have not seen them. There is splendid room for the development of the beef industry. However, I cannot see the same future for this as for the dairying industry.

We have our local problems. For example: There is a splendid business supplying milk and butter to the towns. This has had a tendency to warrant those catering to this trade to buy the best of the cows from the back parts of the country. The result is that the best cows are being used almost entirely for the milk and butter trade, and the stock in the interior parts of the country is being bred from inferior animals. This means that our dairying stock is not improving to the extent it should.

Then, we have great difficulty in getting our people to follow systematic lines of breeding. I think, however, that I can say that there is beginning to be noticed a more permanent trend in the sticking to one breed of stock, or at least one special class of stock.

In the solution, or attempt at solution of these, as well as other problems, legislative measures cannot accomplish much. We have to depend upon educative measures, upon our agricultural press, which in the Maritime Provinces has of late years accomplished wonders; upon our exhibitions, and upon our agricultural college. This latter agency has only begun to make itself felt to an appreciable extent within the past years. Nevertheless, I consider it one of the best indications of future development that the Agricultural College at Truro is being attended this year by upwards of 200 sons of the farms of the Maritime Provinces.

EARLY SHEARING.

To many it may appear unseasonable to write about sheep shearing, while chilly winds are blowing and heaps of snow are yet in sight, but there are generally some balmy days in April, when the rams, the last year's lambs, if in good condition, and ewes that are not due to lamb till on in May, may be safely shorn and will be the better for it. Nearly all the most successful breeders of sheep now make it a rule to shear at least a part of the flock in March or April. Some of the advantages are that sheep that are in good flesh thrive better in the warm days of spring relieved of their winter coats, while the new wool grows rapidly, ensuring a heavier fleece for next year. Ticks and lice, if present, are more readily got rid of, and the work is done at a time when other farm work is not pressing.

The objection may be raised that the difference in the market price of washed and unwashed wool is so great that there may be a considerable loss from shearing unwashed. In answer to this, it may be said that if the difference is not more than one-third there

is little if any loss, as the greater weight of the unwashed nearly makes up for the difference in price. And we claim that buyers, as a rule, take an unfair advantage in making the discount greater than one-third, though the thrifty flockmaster will not hesitate on that account to shear early and unwashed, knowing from experience that the comfort and thrift of his sheep, and the increased growth of new wool, will more than make up for the apparent loss in the sale of the fleece, and his flock will make a much better showing with their fuller fleeces in the fall when sales are principally made. There is always some risk to the health of the men and the sheep in river washing, and some risk of loss from the sheep being cast on their backs in the warm spring days while reaching to bite at tormenting ticks, though with proper treatment, dipping in spring and fall, there should be practically no ticks. While we strongly advocate early shearing of young sheep in really good condition, we would just as strongly advise against shearing thin young sheep or breeding ewes early in April, unless they are either blanketed or kept in a warm place for a week or two after, but those in good condition will not suffer if kept within closed doors and free from drafts for two or three days. We have seen sheep shorn in January in Ontario, and with no ill effect, but of course they were kept for a while in warm basement stables after being stripped of their fleeces. As a rule, where the sheep are kept in good condition the entire flock may be shorn before going to grass. A rainy day may be utilized for the purpose of shearing, and the flock, lambs and all, dipped for the destruction of ticks on a day when the land is too wet for seeding operations, or other work on the farm.

THE FARM.

SHALL WE SUMMER-FALLOW?

Editor "The Farmer's Advocate":

We should like to see the above subject discussed through the columns of "The Farmer's Advocate," for we consider it of great importance, on account of the alarming increase of noxious weeds. We do not know the conditions all over the Province, but as far as we have travelled it is a discouraging sight to see so many fields completely overrun by weeds. It has been late the custom of agricultural speakers and writers to depreciate the summer-fallow as wasteful and unnecessary. We are afraid the advice given has been all too readily accepted. It is no complement to our agricultural progress to state, what we believe to be true, that our

farms are not as clean as they were forty years ago. Then the summer-fallow was considered essential to successful farming. The tendency now is to seed down land that has become foul with weeds, to smother them out and so save work. How successful this plan has been is self-evident to all. We cannot see our way clear to abandon the summer-fallow, for we are satisfied that the returns are as great in the course of our rotation as they would be if it was left out and any other system followed.

Up-to-date farming calls for a three or four years' rotation: 1, hoe crop; 2, grain; 3 and 4, grass. This rotation may suit a few who are favorably situated for obtaining help when needed, but to the mass of Canadian farmers it is entirely outside of practical farming. The only way to make it so is to summer-fallow one-half of the area for hoe crops; the other half could be thoroughly worked and manured as for roots, then as much of it planted to roots and corn as could be conveniently handled, and the remainder sown with peas or buckwheat, or oats for hay, or soiling. These crops would pay both rent and labor of both fallow and hoe crop, and leave a nice profit besides. By adopting this course one-quarter of the farm is cleaned and put in first-class shape for seeding down. In five years the farm will have been gone over, whereas without the fallow it would take ten years—a period altogether too long to successfully cope with weeds. Our practice is to seed to clover the preceding spring the field intended for fallow. If we get a catch we have a lot of fine fall pasture, besides adding fertility to the soil. In the spring, after root ground is prepared, we plow it. Our reason for this is our soil is mostly heavy clay, and, as a general thing, cannot be properly plowed after the first week in June, or before the fall rains come. This debars us cutting a crop of clover, as we fallow to grow fall wheat. We leave the land for a couple of weeks to aerate, and sweeten the soil. This we have proven to be very beneficial. We then work it down fine, manure, then plow again in 14-ft. lands. This is all the plowing it receives. We cultivate during the rest of the season, up to the time of sowing. This plan, we have proven, is better than ridging with the plow, as is usually done, because it leaves a firmer, moister, finer seed-bed, which, especially in a dry season, shows its superiority in a more vigorous growth.

Now, Mr. Editor, these are our views and our plans. If there are better ones we shall be pleased to hear of them, and to adopt them. We know that "The Farmer's Advocate" goes into the homes of the best farmers in the Province. If some of these will publish their methods, such letters would have a money value to many who weekly turn to its pages for information.

Simcoe Co., Ont. FRED FOYSTON.

A YEAR OF JUDGMENT ON IMPROVIDENCE.

Editor "The Farmer's Advocate":

The long hard winter is now drawing to a close, and no doubt spring will be, chiefly on account of the great shortage of fodder, as many farmers have been buying since shortly after the new year, and there are others who in the early fall thought they had sufficient to carry them through, but have to strike out for either hay or straw, and, as a rule, fodder is demanding a high price. Oat straw is selling from \$7.50 to \$10.00 per ton, according to quality; No. 2 hay, \$16.00 and \$17.00, and as for No. 1 hay it is almost out of the question. It appears there is no No. 1 hay, as there is no set market price, but as a rule it sells for \$18.00 and \$20.00 per ton. For this great shortage of fodder the farmer can blame only himself in a great many cases. In this part of Ontario there has been abundance of both hay and straw and all other kinds of fodder for at least eight years in succession, and it appeared to many that hard times would come again no more, and those who could have easily stored away at least half a winter's feed ahead, only forked it under their horses and cattle, and what was left in the mow or stack was scattered in the yard to rot; and now it is surprising to hear the gossip wherever a number of farmers chance to meet what they are going to do next time they have a big crop, and it will be well for them if they only keep their word. They are going to sow more corn and to save all the old straw—they are never going to be caught like this again. The writer has heard this expression time and again in the past few months, but, strange to say, if 1908 and 1909 are good prosperous summers, seventy-five per cent. of the farmers will forget this present hard time and will be going in for more stock than their farms will carry safely. How quickly people do forget! Last spring prices for milch cows were from \$35 to \$40, and there was not an auction sale where less than these figures were paid; but, alas, the tide was turned by the early fall, when many farmers who paid \$35 and \$40 were forced to sell for \$10 and \$12 a head. They thought it cheaper to sell than to tide them over winter with fodder at famine prices. It was a mad rush at every auction sale here in Eastern Ontario last spring, whenever the auctioneer shouted, "Now for the cattle." One was carried with the crowd, there seemed to be an excitement about milch cows and young stock. This season it is as far the other way. We hardly hear of an auction sale, and the attendance, as a rule, is smaller, and the excitement does not run so high. It would be much better for the average farmer to keep less stock, and of a better quality, rather than go into it stronger than his farm can afford.

SUBSCRIBER.

What the Competitors Thought of the Split-log Drag.

"The Farmer's Advocate" about a year ago instituted a "Split-log-drag" Competition. The objects were (1) to bring about a thorough testing of the King split-log drag in Canada; (2) to demonstrate, if the tests were successful, as "The Farmer's Advocate" had reason to believe they would be, a method at once easy and inexpensive of improving earth roads and maintaining them in the best possible condition.

After the entries had closed, the following questions were addressed to those who had signified their intention of entering the competition:

1. Is the split-log drag a successful means of keeping earth roads in condition?
2. So far as you have observed, what are the benefits of its use?
3. How did you make your drag? Can you suggest any changes that you think would improve it?
4. When is the most important time or times to use the drag? How often should it be used on an ordinary road in the average season?
5. What did it cost you in cash to make, and how much time did it take?
6. How does the split-log drag compare with the old-fashioned road leveller?
7. What, in your opinion, would be the best course township councils could take in order to insure the dragging of their roads in the most economical and advantageous manner?

The answers to these questions amply justified our confidence in introducing the experiment to the public; hence, as another season for road-work is upon us, we choose this month for presenting to our readers, in the present issue, and those which will follow it, epitomes of what our experimenters have said on the subject. Only one man who reported failed to obtain satisfactory results, and he made the mistake of using the drag when the roads were sticky, whereas, for best results, it should be employed at a somewhat later stage, when the roads are moist, but not wet. In all other cases reported, a great improvement was effected with the drag, which proved decidedly more effective and useful than the old familiar, single-blade, iron-shod leveller, according to the experience of those who have used both. A light drag, used often, gives the best results. Cedar is the ideal material, and six to seven feet the most approved length. A cedar log, ten to twelve inches in diameter, is about the

right size, but where a split-log is not available, a couple of plank will answer nicely instead.

Mr. John Young, Wentworth Co., Ont., writes: I feel that I must compliment you on your public-spiritedness. No doubt it will be gratifying to you to know that your efforts along this line are bearing much fruit. I am putting it mild when I tell you that there has been a keen interest, and more work and improvement in our clay roads in this municipality this season than in the last ten years.

His answers to the questions are as follows: The split-log drag certainly is a successful means of keeping earth roads in condition, and I know of no equal. By it you get rid of all stones, which is very desirable. The drag packs and smooths the surface. Another very noticeable feature is the freedom from dust; consequently, the road is hard, and dries up more rapidly after a rain. In making the drag, I cut a log about 5½ feet long, 9 inches in diameter; bored two 2-inch holes 12 inches from each end, and in center of log; then split in center, fitted in two rungs, and hitched a chain to rungs. The most important time or times to use the drag is in early spring, or as soon as frost is out. Going over the road when it is wet has a tendency to harden the road, but, wet or dry, drag until the surface is smooth; I would say not less than six times in a season. However, this depends largely on weather and traffic. But drag; we can't get too much of a good thing. It didn't cost me one cent to make the drag, and only about two hours' time. For wet and dry, there is simply no comparison between the split-log drag and the old-fashioned, single-blade leveller. Our split-log drag is four in one. By putting rings in center, we can go forwards and backwards, and upside down, so evening it down to range. I think the best course township councils could take in order to insure the dragging of their roads in the most economical and advantageous manner, would be to make road divisions, and appoint an overseer to each division. By having one drag on each, the dragging could all be done in, say, three or four days, at most. We have never used more than two horses, and twice only one, when floating. We consider the short drag preferable, as it is adjustable to ditches and crown, and is an economy in horsefeeb.

The split-log drag is a successful means of keeping earth roads in condition; used early in the season, and at frequent intervals, especially after every rain, as soon as a little dry. By its early use, when the roads are quite soft, and continued use as they are drying, it makes a hard roadbed; later, when dry, it gradually carries some earth towards center of road, making a uniform grade, filling up all the ruts, and making a good roadway. I took an elm log about 9 in. in diameter and seven feet long to the mill, and had it cut octagonal, and then cut through center. These I joined together, about 30 inches apart. After using some time, I concluded that two handles would be an improvement, and added them, which I found a great advantage at times in moving it about and keeping it at the desired place. After using my drag for some time, I had the irons that had been used on a road machine or grader put on, which made it much better for hard, dry roads; and, when the roads are soft, I turn the other side down that has no irons on. When the roads are quite soft, and the earth or mud has a tendency to shove or push in front of the drag, I then run the drag, as it were, backward, and the mud, instead of pushing ahead of the drag, passes under, the drag slicking it down, filling up all the ruts, and soon the roads get dry and hard, making an ideal mud road. The change I would make now, if I made another drag, would be to make it wider; that is, I would use a log 12 inches in diameter, instead of 9 inches; or I would make it of two plank, say 3 or 4 in. thick, cutting the back edges off on an angle, so that you get the same or every advantage in the other drag. The advantage of having it wider or higher is that it would not clog up so readily between the two sections of the drag. This would be especially an advantage where the drag is used in grading, as I have made roads—that is, graded them entirely by using the drag, and, when the earth is quite dry, by plowing and cutting it up well. The drag is not a very slow or poor tool to make a good road, and, in ordinary roads, one can do with one team nearly, or quite half, as much grading as two teams will do on the road machine. For general use, I think 6 feet long enough. I have two drags; the second one I made of 2-in plank, and use mostly on soft mud to slick the roads. I would think that, in ordinary seasons, about six draggings would do very well, but more would be better. The cost of saw-

ing the log was 50 cents; the time spent in taking log to mill was about four hours; in making, about four hours. The drag is an improvement on the old-fashioned road leveller, doing twice the work, and doing it better, but it is harder work for the team. Probably the best way for municipal councils to adopt to insure the dragging of the roads would be to appoint one man in, say, every school section, or perhaps, better, in every polling subdivision, and have him see to it that the roads were dragged as often as required, and at the proper time. The work, too, might be let by contract for the season, and an inspector appointed to see that it was done. The system of offering prizes, too, for those who kept best-dragged roads in their divisions, might also work satisfactorily. The difficulty in letting the work by contract for the season would be the difficulty in estimating the amount of work that might be required, as the seasons vary so much. The past season required, on account of the frequent rains during the early part of the season, dragging every week. A few years' experience would enable one to know just what the work would be done for, and the number of miles that one man could advantageously care for. I might say the mile of road I had charge of was closely watched during the season by some critics who had no faith in the simple split-log-drag device; but the results of the season's work have shown for themselves, and the would-be fault-finders have been silenced, and many split-log-drag converts have been made. Another year you may expect the drags will be very much more extensively used all over the Province, with the result that greatly-improved roads will be had during a large portion of the year. "The Farmer's Advocate" should be entitled to the lion's share of the praises resounding from every quarter. I would advise every farmer to make a drag, as they cost so little. Then I would allot a portion of road near or adjoining his farm that should be his special portion to look after and care for, so far as the dragging is concerned, and see that it is dragged as often as necessary, and at just the right time. No man knows better than he who is on the ground just when the work should be done. Sometimes only a portion of the road may be ready, and a man living some distance away knows nothing of the condition of the road, besides the time spent in getting there to do only a little work. Every farmer ought to take enough interest in the roads to at least see that the roads adjoining his farm are kept dragged. If everyone did that, which would require very little time, we would all have very much better roads to travel the greater part of the year.

Lincoln Co., Ont. W. B. RITTENHOUSE.

The split-log drag is a successful means of keeping earth roads in condition, if used at the proper time. It levels and hardens the road better than anything we have ever tried. It does not cut or lift as easily as when dragged with the heavy machine. I made my drag from a 2 x 9-inch elm plank, 8 feet long, two pieces, 2½ feet apart. We thought this the better plan, as most farmers could get plank, and if ours worked well, they might be induced to construct one. The most important time to use the drag is when the roads are quite soft. The number of times would depend on the number of times it rained during the season, and the amount of heavy teaming done in your beat when wet. It cost us in cash 45 cents; time, one-half day. Later in season had steel put on both halves, which cost one dollar. There is no comparison at all between the split-log drag and the old-fashioned road leveller; it simply outclasses the old-style road leveller in making the road smooth and hard. It is my firm belief this simple machine can be made to revolutionize common earth-road maintenance, if the interest of farmers can be aroused. But the thing seems so simple that it is a matter of conjecture just how best this can be done. We think perhaps the better way to introduce the drag would be for the Government to procure the services of one of the present split-log-drag competitors to lecture at Institute meetings, or at meetings for the special purpose of exciting or arousing the interest of the farming community in this matter—a man who, in the opinion of your commissioners is possessed of the ability to demonstrate the working and benefits to be derived from the use of this simple machine. Then the councils might act at their discretion.

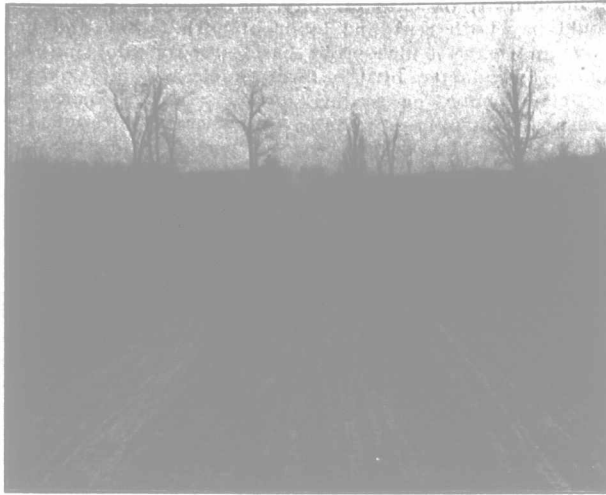
Essex Co., Ont. SYLVESTER STUART.

The split-log drag is a successful means of keeping earth roads in condition, but it does not work well among stones; also, is no good where there are high sod shoulders on road. It keeps the ruts out of the earth road, and keeps the road grading up, instead of hollowing out, as it does where not dragged. The most important time to use the drag is after rain, when the surface of the road becomes broken with heavy traffic. It should be used about twelve times in a season. My only cash outlay was 25 cents for sheath for front piece of drag. It took about two hours to make the drag. The split-log drag

is away ahead of the old-fashioned road leveller. I think township councils, in order to insure the dragging of their roads in the most economical and advantageous manner, should give each man a certain amount of road to drag, an amount such that the time spent on it shall about equal the amount of statute labor.

Lanark Co., Ont. W. S. McILQUHAM.

Is the split-log drag a successful means of keeping earth roads in condition? Yes. It is the cheapest arrangement to keep earth roads in good condition that I know of. My drag is made of two pieces of pine timber, 8 inches square by 8½ feet long, and each piece 3½ feet apart; the back corner of each stick is taken off, and 4-in.-wide steel shoeing put in front. I find the best time to use the drag is when it is thoroughly dry on top and a little soft under, so



Effect of the Split-log Drag.

Clay road dragged during 1907, by W. S. Chisholm, Halton Co., Ont.; one of the split-log-drag brigade. Photo taken Nov. 20th, 1907.

that the drag will cut off corners, but not soft enough to clog. My objection to dragging roads when wet is that too many people drive when wet, and spoil them after being levelled. To keep in good repair, roads should be dragged 8 or 10 times. The drag cost me about \$3.00 in cash, and two hours' work of one man. If the councils would supply each beat with a drag, and employ a man to use it for the season, the roads would be kept in good repair, and cost less money than by the present system.

Renfrew Co., Ont. A. W. ROSS.

Is the split-log drag a successful means of keeping earth roads in condition? Yes, first-class; it keeps the road smooth and free from holes. Our drag was made from an oak log,

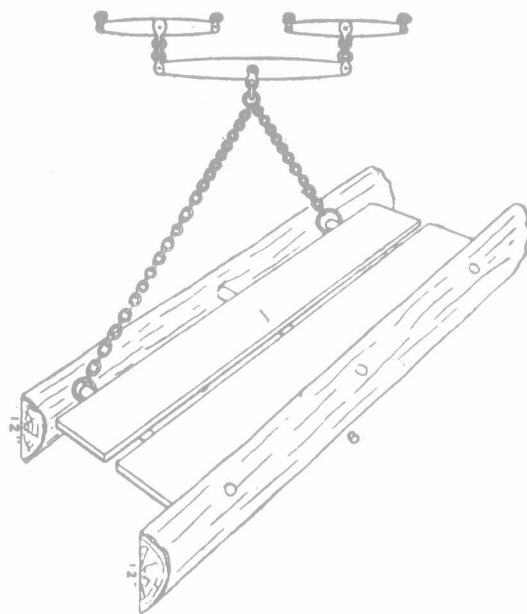


Fig. 1.—The Drag as Commonly Made.

sawed in center, with three rungs in it. A smaller log would make it lighter, and, I think, just as good. Use the drag when the road is rough or bad with holes, and after each shower of rain, when it is a little dry, and before it gets hard. It makes a splendid road. In dry weather, it should be used about every week, if the road is much used. My drag cost about \$1.25, including grab-ring for chain. Two men cut down the tree, and made it in about three-quarters of a day. I think township councils might insure the dragging of their roads by giving parties a short piece to keep smooth, and allow statute labor, according to time occupied on road. A record of time should be kept to show pathmaster, in sec-

tions where road work was performed by farmers. Glengarry Co., Ont. A. A. McLENNAN.

The split-log drag is one of the simplest and best means of keeping a road in good condition. It keeps the road smooth and hard. I made my drag out of a beach log 11 inches in diameter, and 8 feet long. Had to put mortise through front log to put chain through to fasten on cross-piece. I find the best time to use the drag in summer is after a rain, as soon as the top of ground is dry enough so it will not ball. It should be used as often as the road gets rough. It cost 35 cents in cash, and about one and a half days' labor. I think it is ahead of leveller, because one man with one team can use it when he sees fit. I think it would be best if the councils would hire a man for every three or four miles to use the drag whenever required.

Haldimand Co., Ont. LEVI DREHMER.

Is the split-log drag a successful means of keeping earth roads in condition? Yes. It is also a successful machine to grade the most desperately flat road. The chief benefit I have derived so far is that I have made an almost perfect crown from a flat condition. It also makes the road very firm, especially when used after a great rainfall in late autumn or early spring. The drag is made as described in "The Farmer's Advocate." I made another one of three pieces of 3-inch plank, 5 feet long, set parallel, and built on the angle, which is held in place by two rods 5 feet long, and shod with wide waggon-tire half way across the drag. This is a very necessary article when grading the road dry. The most important time to use the drag, to obtain a firm surface, is in early spring, or after a heavy rainfall in summer; but unless the road is very, very wet, I find it impossible to make the mud slide from the drag. The cost of my drag was practically nothing, though I would not have it exceed \$1.00, and it only required one-half day to construct it. The split-log is not to be compared with the old-fashioned leveller, under any consideration. I think that if the introduction of the split-log through the famous journal, "The Farmer's Advocate," and the successful and proper use of the drag, are not enough to convince every ratepayer of the benefits derived, that any course a township council might take would, in my opinion, be utterly fruitless. I have in mind several who have already resolved to build and use the drag on the strength of the results of my drag.

Wentworth Co., Ont. H. W. PARK.

The benefits of the drag are that by it we can keep the road well crowned in the center and smooth on the sides to shed the water, so that it becomes hard in the center. In making the drag, we followed directions given in "The Farmer's Advocate," made it 6 feet long, placing the two halves about three feet apart, and held in place with three cross-pieces driven into holes made with two-inch auger; think 6 feet the best length. The most important time or times to use the drag is as soon after rain as the drag will clean. Our clay is very sticky; it does not clean when it is wet. The number of times will depend on the nature of the soil and amount of travel. We went over our mile fifteen times. It was in good order most of the time, as it had been graded only one and two years ago, and was from 27 to 30 ft. wide, and had more heavy travel on it than any other clay road in the township. Many roads could be kept good with half the work. Our drag was made of a cedar log, 30 cents; three cross-pieces, 5c. each; board, 18c.; five hours' work for one man, 65c.; total \$1.28. I think a light drag the best, as one team can work it, and it can be weighted to suit circumstances. I think the split-log better than the leveller, as one team can do the work when it would not be convenient to get two or three teams to go at the same time. The drag will fill the ruts as well, and perhaps better. I think township councils should have a standard width for all the roads, according to travel and local circumstances, and have them built on the center of the road allowance with the grader; then it would be easy to keep them in repair with the drag. The roads in our township are all widths, from 20 to 30 feet. I think from 20 to 24 for the widest would be about right.

I am sending you by mail a photo which I have had taken of the mile of road on which I have been using the split-log drag for 7 months. You can see by the picture, taken on November 20th, what they are like, and the amount of travel this piece of road gets. This mile of road has been kept in this shape for seven months, with the exception of the last week in October and the first week in November. It was very wet at that time, and got cut up, and froze so that the split-log drag would not work. But there came a soft day, which drew out the frost, and the split-log drag worked fine. I think the split-log drag is the best thing we have used on our clay roads yet. Farmers around here tell me

that the mile of road was never in such good shape.
W. S. CHISHOLM.
Halton Co., Ont.

HOW TO MAKE THE DRAG.

Following is an illustrated description of the drag, as recommended for use last spring: The two halves of a split log, ten to twelve inches thick, are set on edge 30 inches apart, both flat sides to the front. The cross-pieces are wedged in two-inch auger holes bored through the slabs. In other respects, the cut is self-explanatory. If working a clay or gumbo road, it is advised to put iron (old wagon tire, or something of that sort) on lower edge of drag at end of six months; for softer soil, at end of twelve months.

AN IMPROVEMENT IN THE DESIGN.

Years of experience have suggested to Mr. King, the inventor, a couple of modifications which greatly strengthen the drag and facilitate its operation. These will be clear from the following brief article prepared for "The Farmer's Advocate" by Mr. King himself:

"The only real improvement in the construction of the King drag was made originally with a saw. As I used the square-ended drag I first built, the ditch end of the rear slab stuck out past the end of the front slab (the drag working at an angle), and, by crowding over into the bank, interfered with the working of the front slab. The trouble was remedied by removing the offending member with a saw. Profiting by the knowledge thus gained, I saved labor and lumber in building all other drags by giving the rear slab sixteen or eighteen inches set-back; that is, instead of building the drag square, and sawing off the end of the slab to get it out of the way, I got it out of the way by giving it a set-back before the holes were bored. The cuts make this quite clear.

"The brace running to the projecting end of the front slab, was an after thought; it is of great value in strengthening and stiffening this end, which is exposed to more stress and rough usage than other parts of the drag. It is well to put the drag together and wedge the cross-stakes into the front slab. Be certain everything comes together nicely, then measure for brace; cut it neatly half an inch longer than the measured length. Now drive back the rear slab until the brace drops in easily, then drive front again until the brace is caught snug and tight, when you may wedge the stakes into the rear slab, knowing the brace will stay where it was put.

"The accompanying cuts were designed for the United States authorities, and, in my opinion, after twelve years' experience, are exactly right."

HOW TO USE THE DRAG.

The inventor has prepared the following road-dragging "catechism," telling how to make and work the drag. This was published by us a year ago, but is reproduced for the benefit of new subscribers:

Would it not be better to plow the road before dragging?

No. Plowing gives a soft foundation. Plowing the middle of the road is a relic of the old dump-scraper days.

What do you do when there are deep ruts in the road?

Drag them. If you drag when the surface is quite loose and soft, you will be surprised how soon the ruts will disappear.

How do you get the dirt to the middle of the road?

By hauling the drag slantwise, with the end that is toward the center of the road a little to the rear of the other end.

But suppose the road is too narrow?

First drag the wheel tracks. After three or four rains or wet spells, plow a shallow furrow just outside the dragged part. Spread this over the road with a drag. Only plow one furrow. You may plow another furrow after the next rain. At each plowing you widen the roadbed two feet.

How many horses do you use?

Two, generally; three if it is just as handy; four when breaking colts—a good solid team in the center, and a colt on each side; two men on the drag, one to drive, the other to control the colts.

How do you drain the road?

If the earth is pushed in the middle of the road continually, the road will drain itself.

Why not make the drag out of plank?

You can, and do good work, but the split log is the best. The plank drag is not so stiff.

Why not make the drag of heavy, sawed timber?

Because drags so made have a tendency to slip over the bumps.

Don't you grade up the road first?

No. The grading is done with the drag, gradually. By so doing, the road is solid all the time, and is built on a solid foundation.

What does it cost to drag a mile of road a year?

The cost is variously estimated at from one to three dollars.

How do you keep the drag from dodging around sidewise?

By not loading it too heavily. If a drag dodges around the earth you are moving, it is because it is overloaded.

Will the dragged road stand heavy hauling?

Yes and no. A dragged road will stand more heavy hauling than an undragged road, but not so much as a macadamized or well-kept gravel road.

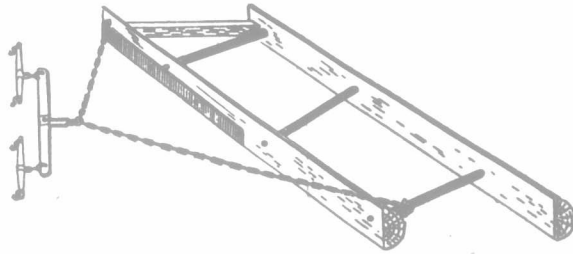


Fig. 2.—The Improved Split-log Drag.

Designed by D. Ward King, for the United States Department of Roads, Washington, D. C.

Don't drive too fast. Don't walk; get on the drag and ride. Don't be particular about material; almost any log will do. Don't try to drag with only one piece; use two.

AND THE FARMER WALKS.

Editor "The Farmer's Advocate":

Numerous articles have appeared in your columns regarding automobiles on country roads, and I agree with the writers that, since the farmer makes the roads, he should have the use of them, without being in constant danger of life and property. Automobiles are not common enough here for most horses ever to get accustomed to them.

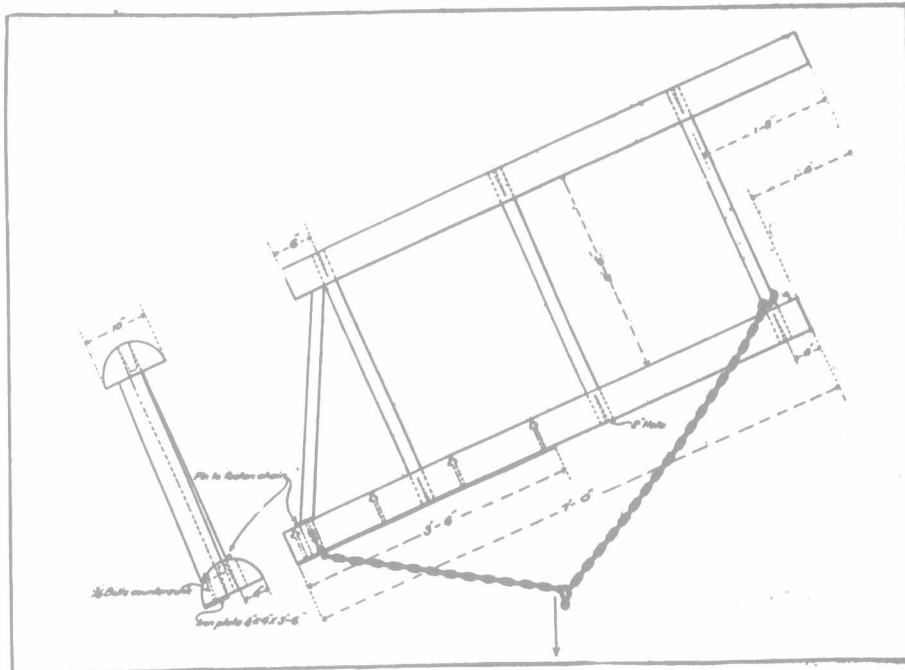


Fig. 3.—Plan and Elevation of Split-log Drag.

Designed by D. Ward King, for United States Department of Roads, Washington, D. C.

A neighboring well-to-do farmer, on a main road, wished to have a horse with which he could feel quite safe, so he went to London and saw a suitable driver standing unattended on the market, and automobiles shying in close vicinity, so he purchased it at a high figure and brought it home, satisfied that now he could drive in comfort. It saw no automobiles for a few weeks, and when at last it met one on the country road it ditched him, so now his family either walk to town or take a man from the field to attend them, restricting all driving to business, pleasure driving being eliminated.

It is a well-known fact that, on roads where there are no police to interfere, motor cars run at or near the machine's limit of speed, numbers obscure in dust, and, in some instances, removed.

Now, Mr. Editor, would you kindly inform your readers who has the authority to restrict automobile traffic to certain roads and to certain days? This idea of restriction is not new, for, as we all know, in our larger cities there are certain streets (where many of the more dangerous of these automobiles have their homes) which are always closed to certain kinds of traffic, including the farmer's load of produce for the market.

I would suggest that you inform us to whom we are to look for a law regarding this nuisance. Then let the farmers organize and pledge the would-be members for the township or county council, or the Provincial Legislature, as the case

may be, and let us support that member who, regardless of party, will attend to our interests in this particular.
OBSERVER.
Perth Co., Ont.

HOW TO GROW AND SELECT ONE'S OWN SEED CORN.

It is not too early for the corn-grower to give some thought to the corn he will use for seed to plant his 1908 crop. All up-to-date farmers, in fact, will have made provision for this several months ago by selecting desirable ears from vigorous, productive plants from last year's crop, and storing the same in some dry, open place beyond the reach of mice and other vermin. The more progressive of this class will have gone a step further, by providing a special seed-corn plot of about one-quarter acre last spring, isolating this, as far as possible (at least 40 rods, unless otherwise protected) from fields of other varieties, to keep the strain pure, planting each row of the same with corn from a single ear, removing the tassels from all undesirable plants in the plot as they appear during the growing season, and selecting with care a number of ears, first from the best plants in the best rows in the plot. A sufficient quantity will have been selected in this way to plant another plot of this sort during the coming season, the best of the remaining ears being used to plant the general field crop.

Those who have not followed this system will do well to begin this year. The mere selection of good-looking ears, irrespective of the character of the plant which produced them, is a haphazard practice, since the ability to produce good yields cannot be determined simply by the appearance of the ear. The points which are taken into consideration by our corn judges, when judging at shows, it is true, are undoubtedly correlated to some extent at least with productiveness and quality, although we have little data to prove this definitely.

The corn-grower's chief concern is to secure seed capable of producing the largest yield per plant, and therefore per acre. To get such seed, the system adopted by the Canadian Seed-growers' Association, which is partly explained above, seems to be the simplest and most effective for the majority of farmers. This system makes provision for a small plot of at least twenty rows, with 50 hills in each row, to be located beyond the reach of danger from crossing with corn of other varieties which may be growing near. Each of the rows on this plot is planted with corn from a single ear. This is the crucial point of the whole system, since such an arrangement enables each ear to show exactly what it is capable of producing.

Past experience with this system has shown that there is a remarkable variation in the productive capacity of individual ears, the determining factors being first, general vigor of growth; secondly, the percentage of barren plants produced by each ear or row; and thirdly, the percentage of plants in each row producing only nubbins. Where special selections are made year after year from those rows which excel in these points, the general average of the special plot from which the selection is made will rapidly rise until it is almost, if not quite, equal to the best row. Such a plot, therefore, serves two distinct functions, viz.: First, it enables the grower to isolate and perpetuate the most productive ears year after year; and secondly, it provides an annual supply of high-class seed for the main crop.

The advantages of securing seed for a special plot in this way contrast most favorably with the ordinary "chance" methods, and should appeal to every grower. It is to be hoped that many growers, especially throughout Ontario, will try this plan this year. While a very simple process, it is nevertheless based on scientific principles, and has proven in actual practice to be most commendable.

Those desiring special assistance and guidance in undertaking to carry out the system, and who may wish to be kept abreast of the times in all matters pertaining to the successful growing of

high-class seed corn, are advised to join the Canadian Seed-growers' Association, which has its headquarters at the Canadian Building, Ottawa, Ont.

By way of special encouragement, the Association offers two valuable trophies, one for the Flint varieties, and one for the Dents, for special selections of ears taken from the corn breeding-plot each year. These selections are sent to Guelph and exhibited in the Seed Department of the Provincial Winter Fair, where they are judged, and the score combined with that made previously by the Inspector of the growing plot, in determining the final award. By this plan, all prize corn must represent strains which have creditable performance records behind them.

L. N.

SALT FOR MANGEL CROP.

The value of salt for the mangel crop has often been demonstrated, and it was emphatically shown in experiments carried out by the Irish Department of Agriculture on eleven farms in eight counties, as shown in a report issued a year ago. The average results were only 3 tons 14 cwt. per acre without manure. Fifteen tons of farm manure gave an increase of 12 tons 19 cwt. The addition of 4 cwt. of superphosphate made the crop 2½ tons more; the further addition of 2 cwt. of sulphate of ammonia made it 1½ tons more still; and where kainit, at the rate of 2 cwt. per acre was added to the other three artificials and the farmyard manure, another 2½ tons brought the yield up to 23 tons 18 cwt. But 4 cwt. of salt, instead of the kainit, gave an increase of 3 tons 7 cwt., the total yield being 24½ tons, or 20 tons 16 cwt. more than where no manure was used. The farm manure is valued at 4s. per ton, which is enough, perhaps, considering that a single crop would not exhaust it; and the whole of the manures cost £5 2s., while the increase due to them, at 10s. per ton, was worth £10 8s., showing a profit of £5 6s. per acre. What is most remarkable, however, is that 4 cwt. of salt, costing only 4s., when added to the farm manure, superphosphate, and sulphate of ammonia, gave an increase of 3 tons 7 cwt. of mangels, worth £1 13s. 6d.—[English Agricultural Gazette.]

SEEDING PRACTICE IN RENFREW CO., ONT.

For seeding down, I find about 8 lbs. red clover seed, 2 lbs. alsike and 2 lbs. timothy per acre a good mixture for hay, and for pasture I prefer same, only add 2 lbs. white clover seed per acre.

For green feed for summer, I prefer peas and oats mixed for early green feed, and corn for later feeding.

I find the most improved method of preparing soil for seeding to be: First, plow land with two-furrow riding plow, with a three to five horse team, according to soil; next I use a large 18-disk harrow, drawn by two team; and next I harrow with two common iron harrows joined together, drawn by a four-horse team; then I use a common seed drill drawn by two horses. I find it a good plan to go over the places that are liable to bake with a cultivator as soon as dry enough to work.

Quite a number of farmers in this section are adopting the plan of the three-horse and four-horse teams.
A RENFREW CO. SUBSCRIBER.

CO-OPERATIVE SHREDDING OF CORN FODDER.

Editor "The Farmer's Advocate":

I noticed enquiries about shredded corn fodder some time ago, and whether it would set fire to a barn. I will not try to answer the latter question, but will tell how to prevent shredded corn fodder from heating or becoming musty. As soon as the shredder starts, commence mixing oat straw with it, about equal parts of each; or more straw can be mixed if you want to feed more of it than of the fodder. The straw absorbs the surplus moisture from the fodder, becomes moist, and acquires the flavor of the corn, so that stock will eat it apparently with as much relish as the fodder.

It is best to plan for the shredding at threshing time, by filling half the mow with straw, leaving the other half empty to shred into, thus saving labor in mixing. Should the mow be full of straw, one may shred on the barn floor, mixing from mow alongside. This makes it convenient for feeding. In a basement barn it is well to leave feed chutes open, as a few days feeding will clear them all right. I have treated shredded-corn fodder in this way for several years, and never had it heat or get musty. It is also more easily handled when mixed with straw.

I might further add that six of us farmers united and bought a corn harvester for \$150, and a good second-hand corn shredder for \$150. We have found this plan to work satisfactorily, as we can cut or shred when we find weather and corn suitable, and we don't have to wait very long for machine.
Lambton Co., Ont. WILLIAM EDWARD.

SHORT SLINGS AND STEEL TRACK.

Editor "The Farmer's Advocate":

I saw the question asked by L. W., in "The Farmer's Advocate," What is best sling to use in 35-foot high barn? I might say that, after having used both long and short ones, I very much prefer the short ones, as they are very much lighter and easier to use; also steel track.

D. W.

MONEY IN CULTIVATING THE SOIL.

Editor "The Farmer's Advocate":

It is to be regretted that more downright interest is not taken in maintaining and increasing the productiveness of our soil. One often feels that our Farmers' Institutes would be a great deal more valuable were a considerable section of each meeting devoted to soil problems. This is a matter in which all are interested, for upon the soil is built the whole superstructure of agricultural activity. Unless the soil yields the nourishment, truck-gardening, root-growing, corn cultivation, fruit, the live-stock industry, and vineyard activity, are all of no account. Further, the science of pest-fighting is at best but in its infancy. The problems of fruit transportation are far from a complete solution. Tariffs are ever changing. But the one fact that the farmer may tie to is that, if he sows good seed in soil in a good state of strength and cultivation, he may be reasonably certain of at least a fair crop. Some men who have studied this problem both theoretically and practically declare that we could easily double the productivity of our fields. It is not an overestimate to say that the average farmer may, if he puts "a stout heart to a steely brae," grow three bushels of grain or roots where he is now growing but two. The yield of grain in many of the Old Country fields would be a surprise to the average Canadian farmer. Skinning a farm is not only a sin against posterity, but it is a short-sighted business policy for the present-day farmer. Freeholder, landlord and tenant are all concerned in this problem of soil fertility and productiveness. Just now the farmer will need to consider this problem. In a few weeks he will have done his year's portion of laying the foundation for this year's harvest. When the seed is once in the ground, as far as that field is concerned, his opportunity is gone. He can but wait for harvest. Of all the forces that go for harvest-making, the farmer controls only the seed and the cultivation and the fertility. So important are these forces, however, that he cannot afford to neglect a single furrow, for profit in crop-growing depends not upon the number of acres of grain sown, but upon rational treatment. There is more money in the cultivation of the soil than some of us dream.

J. K.

Wentworth Co., Ont.

IMPROVED METHODS OF POTATO-GROWING.

Editor "The Farmer's Advocate":

In potato-growing, as in every other branch of agriculture, up-to-date potato machinery must be used. By using good machinery, the work is done better, and in less time.

Having had considerable experience in growing potatoes, I prefer a sandy-loam soil, which is well drained either naturally or by tile. An ideal place for potatoes is on a clover sod, but any of above kind of land in good condition, with a liberal application of rotten manure, or twelve to fifteen hundred pounds of high-grade complete fertilizer per acre will grow a good crop of potatoes. In preparing the soil, I plow the land in the fall. In the spring I spread from fifteen to thirty loads of manure to the acre, and then plow, harrow well, and roll. If commercial fertilizer is used, I do not plow again in the spring, but thoroughly cultivate the land, using the fertilizer at time of planting.

It is very important to have good seed. I select from the desired variety potatoes of medium size, and cut them to two eyes. I do not let cut seed stand any longer than I can avoid before planting.

In planting, I have used a potato planter for several years, which has given excellent satisfaction. It marks, opens the furrow, distributes the fertilizer, plants and covers the seed all in one operation. It requires a team, man and boy to operate it, and will plant from five to seven acres a day.

A week after planting I use a weeder, which kills all small weeds and levels the light ridge left by the planter. I continue using weeder every few days until potatoes are a couple of inches high, then I begin to use a two-horse riding cultivator. At first I cultivate deeply, and as close as possible to the plants; but as they grow, I cultivate shallower and farther from the plants, so as not to disturb the roots.

As soon as bugs appear, I spray vines with mixture of two pounds of good Paris green and fifty gallons of water. This will be sufficient for two acres. In some seasons the potatoes are not affected by blight. I believe it pays to spray several times for blight every year. I use Bordeaux mixture. There are a few good sprayers on the market. The tank of the power-sprayer which I use is made of heavily-galvanized iron, and holds about fifty-five gallons. It has a powerful pump, driven by a horse or team, that can be set to produce any desired pressure.

I do not hill up my potatoes to any extent, only enough to keep them from sunburning. After cultivation, comes harvesting. For dig-

ging the potatoes, there are a number of different potato-digging machines in operation which give good satisfaction. W. A. BROUGHTON.
Lambton Co., Ont.

ROUND CEMENT SILOS IN PERTH COUNTY.

Editor "The Farmer's Advocate":

Answering your inquiries relating to the construction of round cement siloes, I give you the following points as a result of experience, observation and inquiry, and think they are substantially correct:

1. There are thirty siloes within a radius of two miles of Avonbank cheese and butter factory, with material laid down for four more round cement siloes. Of the number named, eleven are round cement structures. The first silo was built here fifteen years ago, and the first wooden ones are being succeeded in every case by round cement ones, all built with the same steel casing. The siloes are twelve and fourteen feet in diameter, and generally thirty-five feet high.

2. There is no doubt in my mind that the casing in use here is equal if not superior to any in use anywhere. It is composed of sections of steel band iron, with proper couplings. There are three entire rings outside and in, so that there are always two rings filled, allowing speedier work and more security from accident. There is no scaffolding; just two poles to attach the lifting chains for hoisting cement. The platform and mortar boards, etc., merely rise, and are attached to the casing; and if the first ring is properly set, it rises, by taking off lower ring and putting on top, and so on, until all is complete. The concrete is hoisted in buckets to the man on top. These rings were designed by a practical cement man, of Stratford, and were built under his instruction. They have been in use now four years, and they have been used for perhaps thirty or forty siloes, and I have not heard of a defect in any of them. The party who is using them now has more contracts on hand for next summer than he can do.

3. The best foundation is heavy footing stone from the quarries, good and wide. The walls are of uniform thickness from bottom to top, being six inches, beginning at bottom with 6 of gravel to 1 of cement, and ending at top with 10 or 11 gravel to 1 cement. There is no stone used—all best gravel. Each course is 2 ft. 5 in., and in this is bedded three or four strands of twisted wire. The doors, which are about 2 x 2½ ft., are reinforced top and bottom by iron, such as old wagon tires, etc. These siloes are better drained to save foundation. The roof is put on in many different ways, the octagon roof, with ventilator, being no doubt the best, but it is expensive, costing in the neighborhood of \$50. A good roof is put on some of the later siloes, almost flat, consisting of cross-pieces 3 x 10 for rafters, tapered to 4 in. at ends, covered with matched lumber, and covered with galvanized iron, soldered. It is also octagonal; has a manhole in top; can be put on for \$15 or \$20. It does not look so well, but is just as serviceable. The siloes are coated, with a brush, with pure cement, both outside and inside, to keep out, as well as in, the moisture.

4. For a 12-foot silo, it is estimated that one yard of gravel and two-thirds of a barrel of cement is required per foot of wall, and about 150 pounds of wire for the whole silo. These siloes are built by contract, the price being \$3.50 for a 12-foot, and \$4.00 for a 14-foot silo. The farmer furnishes the gravel and boards the men. Three men do the building, and in good weather erect a silo every week. It is recognized that a good practical man is required, as the structure is intended to be permanent, and the builder must have not only ability to pack the material properly, but also judge of the quality of it. Farmers do not attempt building cement siloes themselves. The steel casing of which I speak will, barring accidents, last for ten years to come, and, although costly in the beginning, will be cheaper in the end, and much safer, no accidents having happened so far, while a short distance from here a man was killed last year when working with wood casing. In the course of a week or two I may be able to write you more of this casing, and will be glad to answer interested inquirers who will furnish stamped envelope.

Perth Co., Ont.

JOS. MOUNTAIN.

BOTH PLEASED.

I hereby acknowledge receipt of the premium hand-bag for one new subscription. The premium is a beauty, and your new subscriber is delighted with "The Farmer's Advocate." With best wishes to your excellent paper.

Carleton Co., Ont.

G. H. FENTON.

SEEDING PRACTICE IN NOVA SCOTIA.

Editor "The Farmer's Advocate":

In replying to your request for a letter of information on seeding and tilling in this section, my first advice is to get good seed, the best obtainable; the best is the cheapest. Farmers who sow cheap and dirty seed must not complain if they have poor crops and weedy fields. By good seed is not necessarily meant going to the seed merchants and buying grain grown in some other Province. Many Nova Scotian farmers have better seed grain in their granaries than can be bought, would they only properly screen out the light grain and weed seeds.

Wheat is the first grain sown; in an average year, from the last of April to May 10th; if drilled, 1½ bushels per acre; if sown by hand, nearly two bushels is used. Oats is the next crop sown, usually from 5th to 12th May; 2½ to 3 bushels per acre, according to the richness of soil. Barley is sown from May 25th to 1st June; even later, it will ripen nicely. Mixtures, such as oats, peas and barley, are sown in proportion of about 1½ bushels oats, ½ bushel barley, and ½ bushel peas, per acre, sown about same as oats. Duck-bill barley and Banner oats will ripen about the same time as the peas. The writer has had excellent results the past two seasons from a mixture of Mandscheuri barley and Daubeney oats, half and half, from 2½ to 3 bushels per acre.

Mangels are not grown as extensively as formerly, principally on account of scarcity of labor; they require one or more hoeings, and more cultivating. They are sown about the same time as carrots and parsnips, from 20th to 25th May.

Potatoes are usually all planted by 24th of May, 8 to 12 bushels per acre being amount usually planted.

Turnips are sown here from May 24th to June 1st. Some years ago it was thought wrong to sow before June 8th to 15th, but experience has proven that the earlier they are sown, the larger the crop. Improved varieties may have something to do with increased yield, without turnips becoming stringy or woody, as it was formerly claimed they would if sown early. I would advise anyone to try the Kangaroo turnip, especially if he has a good soil of a sandy-loam nature. It is no trouble to get from 900 to 1,400 bushels per acre in a good season. This is where the Maritime Provinces excel in root-growing. We do not and can not grow corn for husking or silage; it is too great a risk, but we can beat any place on the continent, I think, in root culture; and, while large quantities are grown, there is not enough, even yet. In a dry season, such as we had three years ago, roots were a good crop with those who kept the cultivators going, and these were the people who did not have to buy as much Quebec hay as they otherwise would. Siloes are not, so far as the writer knows, increasing in Nova Scotia, nor the area likely to. If I am wrong on this question, I will be glad if some reader will put me right.

Common red is the variety of clover mostly sown. It is ready to cut when farmers are through cultivating their root crops. The usual mixture is 6 to 9 pounds red clover, 2 pounds alsike (where sown), and 1 peck timothy. This should be reversed; not enough clover is sown; pastures are not seeded out as in Ontario, but are cropped a few years, then, if needed, are pastured.

Alfalfa-growing, so far, has not been a success in these parts. While it might be made to grow if kept persistently, I do not think it will ever be a staple crop in the Maritime Provinces. Our winters and excessive rainfalls are against it. The soil best suited for the growth of alfalfa is that which is deep and sandy. It should never be grown on stiff soils, for, unless the roots can penetrate deeply, good results cannot be obtained. Three years ago I succeeded in getting a stand of alfalfa 18 inches high, with rootlets 10 to 12 in. long, but could find no sign of nodules. I used nitro-culture according to directions on part of plot; no difference could be seen where used. Only one solitary plant could be found alive in the spring.

[Note.—It is curious how this fallacy that alfalfa will not thrive on clay has become broad-casted. As a matter of fact, we known by experience that in Ontario alfalfa is the best and surest success on the very stiffest clay hillsides, land the like of which is unknown in the Maritime Provinces, unless it be on the heaviest marsh lands. Subsoil and surface drainage, with abundance of potash, lime and phosphoric acid, are the essentials for alfalfa. Alfalfa roots will go through the hardest clay subsoil our correspondent ever saw, if the other conditions are right.—Editor.]

If I am not digressing too much, I would like to point out the importance of the clover crop to the succeeding crops. One half of a field or plot was sown with red clover and timothy, the

other half with alfalfa and timothy. Spring wheat, as cover crop, was sown at the rate of five pecks to the acre. The land was heavily manured the year before. In the following season, where the red clover was sown, I had a heavy burden of clover; on the part where the alfalfa had died out was a small crop of timothy and ox-eye daisy. Last year, double the crop was cut where the clover had grown, thus showing the benefit derived from one crop of clover, from the nitrogen gathered, as well as the extra humus resulting from the decayed roots.

Many different kinds of soiling crops are grown. A good one, used quite extensively, is, White Marrow peas and oats, half and half. The hairy vetch is grown somewhat; not in any great quantity, though, as it is difficult to cut, and the seed is expensive. One of the best soiling crops, and one that is largely grown, is the Purple-top White Milan turnip, sown in the drill about the first of July, and every succeeding week, as long as it is thought advisable. It furnishes succulent food for cows all through the dry season. It is easily grown, grows a heavy crop, easily pulled, and, if fed immediately after milking, no bad results are obtained.

While rape is not considered safe food for cows, because of bad flavor, I believe quite a bit can be fed, if done so intelligently. I have fed it without any bad effects whatever.

As regards implements used here, hand-sowing of grain has to a large extent been superseded by the ten-hoe drill, and here is where the mistake is made. It is too slow work; 14, 16 or 18 should be used. One man with a basket can sow as much grain in a day as two men, four horses and two ten-hoe drills, and, unless the season is a very dry one, the results are just as good where sown by hand as sown by drill. The only benefit derived from a seeder is in a dry season or a dry climate. Drilled grain is sown at a uniform depth, and will grow better, but in our moist climate it will all grow, no matter how sown.

Here the land is all ridged up for root crops (no advantage can be derived in Nova Scotia by level cultivation). For this purpose, double-mouldboard plows are used. Various kinds of cultivators are in use. A new machine was introduced here last season from Scotland by one of our large Scotch farmers; it consists of four disks fitted to a frame. It cultivates two rows at a time; one horse does the work; the disks can be moved in or out to fit different width of rows; it will cut within an inch of the plant. The writer used it last year on turnips, carrots, parsnips, beets and cabbage (that is, cabbage sown in the drill for thinning).

The general practice of preparing land for grain is fall plowing, and using spring-tooth harrows or disking in the spring. Personally, we do not plow our root or potato ground at all, but disk it crosswise, then lengthwise, sow, and then roll the land well, thus helping to conserve the moisture and pulverize the small lumps.

Have not had any experience in harrowing the early-drying parts you speak of, nor have I seen it done here. Our own soil is all sandy loam, with subsoil of the same nature, and have never experienced any trouble in land baking, if left until it is in good shape for seeding.

Quite a number of farmers use three horses on double-mouldboard plows and spring-tooth harrows, but have never seen four used here. The farms in Nova Scotia are large enough to warrant the use of machinery of that class.

A. HECTOR CUTTEN.

Colchester Co., N. S.

SILAGE VS. SHREDDED CORN FODDER.

Editor "The Farmer's Advocate":

Having noticed in "The Farmer's Advocate" inquiries regarding shredding corn, I will try to give my five-years' experience with siloes. I would not be without one. As to handling the corn, we start the corn harvester one day, and the next day we fill the silo, and so we keep going through the neighborhood until their siloes are all filled, just as with threshing. Siloes are common in our part of the country. I would like to have reply to my letter as to how shredded corn would answer to help out pasture in July and August, and the fore part of September, when we find grass very scarce, especially as we did last year. I think it would be as dry as powder, whereas ensilage takes the place of pasture. I have fed ensilage when my cows were in good clover, and they would not refuse it. As to handling the corn, the blower will handle it as fast as four or five teams, and men enough to handle, will gather it up. My silo is 32 x 12 feet, and has been filled in seven hours. I think that is "going some." I have an 84-acre farm, 80 acres under cultivation, and 4 acres of bush. I keep 18 head of cows, and some young cattle—22 in all; always about 40 hogs, and 6 horses, and could not think of keeping so much stock if I had not a silo; and I am going to build another next summer.

Waterloo Co., Ont.

OWEN OTTO.

THE DAIRY.

THE CREAMERY OUTLOOK.

Address by J. Stonehouse before the Eastern Dairymen's Convention at Picton, January, 1908.

If the past season was a disappointing one to the cheesemakers, it has been none the less so to the creamery men. Expenses are growing heavier year by year, and the output is not keeping pace with the expenses. In fact, there was a heavy falling off in production during the past year, and I might mention two or three factors which tended largely to bring about this result.

We had a cold, backward spring, and feed was very scarce till about the middle of June. Consequently, there was not the usual amount of cream available, even had farmers been disposed to send it, but the cool weather and high prices for butter induced them to churn their own cream.

The weather continued very cool all summer, and where the farmer's wife was disposed to market her own butter, there was no extreme heat to prevent her from doing so.

The scarcity, and consequent high prices offered for dairy butter caused a great many to make their own butter. There is a somewhat curious fact in connection with this last statement. When butter is selling high, more women are anxious to make their own butter than when it is selling low. My creamery is always better patronized when butter is low in price than when the price is high. The reverse should be the case, for the patrons are less able to afford the price charged for making when the selling price is low than when it is high.

HOME DEMAND GOVERNED PRICES.

The market conditions varied considerably from those of the previous year. In 1906 the demand from Great Britain was good, and prices were satisfactory. The price of creamery ruled the market for dairy butter, but during the past year the price of dairy seemed to have ruled the price of creamery butter, and I have never seen the price of the two grades of butter so near together as they were during the past season.

The explanation, to my mind, is this: All grades of butter were too high for profitable export. Creamery butter more than supplied the home demand, and, in the absence of a foreign market, there was never a brisk demand for creamery. On the other hand, dairy butter was always in strong demand, and that part of the consuming public which prefers dairy butter seemed to be able to keep the supply exhausted, and consequently the demand was strong all through the season, thus bringing the price of dairy to within a cent or two of the creamery for the greater part of last season.

Our large increase in population during the past two years has undoubtedly been a strong factor in keeping up prices, and it looks as if the same agencies will cause prices to maintain a high level for some time to come.

QUALITY OF CREAM THE FOUNDATION OF SUCCESS.

The question of moisture in butter has been agitating the minds of a good many buttermakers in Canada during the past year or two, and the quality of the butter from some creameries has not been improved by the overweening desire to incorporate a large amount of moisture and have a large overrun. The conditions necessary to incorporate an excess of moisture are usually detrimental to the quality of the butter, and should be discouraged. The quality of the cream, as it comes from the patrons, is a matter of far greater importance than the incorporation of an excess of moisture, and it is the rock upon which our butter industry must be built if we are to take our proper and possible place among the dairy countries of the world. I am finding out that intelligent and courteous cream-haulers can do an immense amount of good along this line, and I am also finding out that the richer the cream, the better the quality.

RICH CREAM THE BEST.

My routes vary from 25 to 32 per cent., and I invariably find the richer cream the best in quality. It is difficult to get many farmers to believe that, with a rich cream, clean skimming can be done with a separator. This brings me to speak of a large number of experiments along this line which were conducted at the Kingston Dairy School during the past two winters, and also experiments along another line which are of interest to users of cream separators.

EFFECT OF SEPARATOR SPEED ON RICHNESS OF CREAM AND CLOSENESS OF SKIMMING.

Two years ago we took six different makes of separators, and put each machine through nine different experiments to determine the effect of speed on the richness of cream and the skimming efficiency of the different machines, and we almost invariably found that an increase of speed, from five turns of the handle lower than the indicated

proper speed, to five or even ten above the indicated speed, gave us a much richer cream and a cleaner skimming. In some cases we had a difference of over 20 per cent. in the richness of the cream in the same run, just by increasing the speed of the machine by ten revolutions of the crank; yet some patrons wonder why their cream test varies from time to time, when they never change their cream screw.

COLD MILK: POORER CREAM AND HEAVY LOSS OF FAT.

We also put through a large number of experiments last year to determine the effect on the richness of cream and the efficiency of skimming by allowing the milk to cool before separating. These experiments were suggested to me by the invariable lowering of the tests in my creamery when the cold weather comes on in the fall. We took milk at 80 degrees, and would run a portion through three machines, then raise the temperature to 95 degrees, and put through the balance. In just 50 per cent. of our experiments we had an average decrease in the per cent. of fat of 4 per cent. at the lower temperature (80 degrees), and a heavy loss in the skim milk. The cream appeared thicker and richer as it came from the machines, but the fat was not there. Our widest range was 9 per cent. lower at 80 degrees than at 95 degrees. We all know that a great deal of milk is allowed to cool down before separating in cold weather. A large loss of fat is the result, and often a lower per cent. of fat in the cream. Some agents claim that they have the only machine that will skim milk clean at a low temperature, but that machine is not made yet, and we don't need it.

COST OF SEPARATING FAT FROM WHEY.

In connection with our creamery-butter business, I have little to say about this much-talked-of whey butter. Mr. Mitchell has been conducting some experiments this past fall to ascertain the cost of separating a given amount of whey, and thus finding the cost of producing a pound of butter. He ran two power separators three hours each on two different occasions, and ran through 36,600 pounds of water, consuming 900 pounds of soft coal screenings, at \$4. per ton, or a cost of \$1.80 for coal. Taking three pounds of butter per 1,000 pounds of whey, the cost for separating, for fuel alone, would be about 1½ cents per pound of butter recovered. This work has been supplemented since the opening of the school and starting of the cheesemaking, by obtaining whey, and from which several lots of butter have been made, which, on the whole, was excellent in quality. It is the intention of our superintendent to have considerable experiment work done along this line during the present term.

The dairy industry, and more especially the butter part of it, is indebted to Mr. Mitchell for doing away with some of the difficulties in testing cream.

THE IMPROVED BOTTLE FOR CREAM-TESTING.

It is well known among creamerymen that it is difficult to get a clear reading of cream without the addition of water, and where the 18.0-c.c. pipette is used the cream bottles are not large enough to hold the proper amount of water, acid and cream without great difficulty in mixing. Mr. Mitchell conceived the idea of a 9-c.c. pipette, and then doubling the reading. This worked well, but if there was an error made in the reading, the error was also doubled. To overcome this objection, Mr. Mitchell has had cream bottles made with their graduation half the size of the old style, but the size of the bulb remains the same. These work to perfection, as there is plenty of room for the contents to mix, and the reading is taken without any doubling. The same amount of acid is used (17.6 c.c.) as a pipette of water is added to the cream. Furthermore, where this amount of water is used, it not only washes all the cream out of the pipette, but also prevents charring of the sample.

I have used these bottles, and I am of the opinion that creamerymen will be well pleased if they discard the old-style bottles and ask for the 9-c.c. pipette, and bottles to correspond. They should not cost any more than the old style; in fact, the cost of the first order of six dozen bottles from the Wagner Glass Works was only \$2.50 per dozen, which is the regular selling price of the ordinary bottles; and as these bottles will not cost any more to make, the selling price will undoubtedly be about the same.

A LOVELY HAND-BAG.

I beg to acknowledge receipt of premium lady's hand-bag, for securing one new subscriber to your valuable paper. It is a lovely hand-bag, and I feel that I am well repaid for my trouble. The Farmer's Advocate is a welcome visitor to our home, and everyone enjoys reading it very much indeed. SAMUEL ELDER, Halton Co., Ont.

WE NEED PURE, NOT RICH MILK.

Milk is in such general use as a food that the question of its purity is always an important one. Milk is one of the most healthful and economical articles of diet, and contains much nourishment. It is a real necessity, and therefore every means ought to be taken to guard against adulteration. Let milk be pure and clean, from healthy cows; do not allow anything to be taken from the milk, nor anything to be added, and you have an ideal food of much value. But why should a standard be fixed—a standard higher in fat contents than much pure milk contains? Why should milk that contains the most fat be accounted the best? A milk rich in fat is less easily digested and absorbed than a milk in which the fat percentage is low. The other constituents in milk—those valuable proteid ingredients which go to the building up of the tissues, the prime property of any food—are the most important. Milk with low fat content agrees best with infants, children and invalids. The human milk is the ideal milk for the young; it is a perfect food; and the milk that is nearest in composition to this is the one best suited for use in all families where there are children. Now, this milk has a low percentage of fat, and if the standard that is proposed for Ontario by the Provincial Board of Health, viz., 3½ per cent. fat, were applied to the mother's milk, it would have to be rejected. Rich milk often causes more or less disturbance in children, and, if fed in excess, often ends seriously.

Experiments have conclusively demonstrated the fact that the young of all animals do better on milk of low fat content than on rich milk. All farmers know they can raise calves—and good calves, too—upon milk with little fat in it, and even upon skim milk. It is a well-known fact that some cows give such rich milk that they can-

not suckle their calves; the calves will sicken and die unless given milk of less richness.

A CLEAN FACTORY AND HOW TO KEEP IT CLEAN.

From an address by Jas. R. Burgess, before the Western Dairy-men's Convention, January, 1908.

It is impossible to get the best results, either in the quality of the cheese or the amount made, unless the milk is kept clean, sweet and cool; and, in order that a cheesemaker can expect and demand milk delivered at his factory in sweet, clean condition, it is essential that the factory be kept clean and tidy, not only for this reason, but because he will have more influence with his patrons; it sets them a good example; it makes his work easier; it is necessary in order to manufacture the finest quality of cheese, and finish with the clean, tidy appearance it should have.

What constitutes a clean factory is not only the make-room, walls, floors, vats and larger utensils, but it is everything, from the largest to the smallest, in and about the boiler-house, make-room, press-room, curing-room, and surroundings of the factory, including the manager and the employees.

The boiler, engine and boiler-house should be kept clean and neat as any other room. It can be done if the boiler, engine and piping is blackened with lampblack, lined oil and turpentine, or painted; the walls and ceilings whitewashed or painted; some shelves or nails put up to keep the tools on, and kept there when not in use. The valves and unions should be kept packed to prevent waste of fuel, wet floors, and the room from being full of steam. The floor should be swept or scrubbed daily; the wood or coal neatly piled; where coal is used, the dust can be kept down by keeping it damp.

The make-room walls and ceilings should be whitewashed, or painted; the sinks, press, vats, pan-bottoms, should be painted, and all piping should be painted with aluminum, which tends to brighten the room.

The windows should be thoroughly and regularly washed, also the weigh cans, scales, porch, conductors, strainers, and every utensil, as soon as possible after being used, should be thoroughly washed and scalded, and put in its place. In a cheese factory there should be a place for everything, and everything kept in its place when not in use. A room does not look clean and tidy if the floors are wet. Keep the floors dry, and do not try to change a strainer from one vat to another when half-full of milk. If a vat made of perforated tin or fine wire, fastened on a rack, is used, and a piece of cheese-cloth laid over it, the cloth can be lifted off and put into a pail, and rinsed out in a very short time, and then changed without spilling any milk. Do not allow the whey to run over the floor when running down a vat or after dipping. By the use of whey boxes, made of tin or wood, this can be prevented. At dipping, use a conductor or whey box to carry the whey from the end of the sink to the gutter, and the use of a dipping board to rest on the end of the vat and side of the sink to prevent the curd from being spilt on the floor, is preferable to a cloth. The vats, after dipping, when washed or scalded, should be wiped around the outside with a damp cloth every day.

The press and hoops should be washed and scalded every day, also the sinks; the sink cloths wrung out and shaken; should not be left to soak in whey every night, unless there are two sets of cloths; when there is only one set, and put in whey every night, they do not get a chance to be properly aired, and they get a heavy whey smell, which sometimes develops in the cheese.

The gutters should be scrubbed down every day. The bandagers or fillers should be as thoroughly washed as any other utensil.

Flowers in the windows of the make-room give the factory a more attractive appearance.

Have a system of doing your work, and your factory will look tidy, and your work be easier.

Keep out the flies by the use of screen doors and windows, and cleanliness.

The cleaner the factory and surroundings are kept, the fewer flies there will be around.

The curing-room walls and ceiling should be painted or whitewashed, the window-shelves and floor clean, and the room well aired. There should be nothing but cheese kept in the curing-room. If there are cap cloths or bandage cotton, it should be kept tidy and neat. Do not use the curing-room to keep empty boxes in, or for a pantry or truck room.

After every shipment of cheese, the shelves should be wiped with a damp cloth, or scrubbed, depending on the length of time the cheese have been in, and the condition of the shelves. The floor, also, should be scrubbed and kept clean.



A French-Canadian Octogenarian.

With an extra year to the good. Oliver Blais, Russell County, Ontario.

not suckle their calves; the calves will sicken and die unless given milk of less richness.

Experiments with young pigs have been conducted by Mr. C. L. Beach. He fed separate lots of pigs with skim milk, milk poor in fat, and milk rich in fat, respectively. During the first 40 days, the skim-milk pair gained 62 pounds, the poor-in-fat pair 54.8 pounds, and the rich-in-fat pair 42.2 pounds. The next ten days, the gain for each was 22 pounds, 20½ pounds, and 3½ pounds, respectively. The next ten days' results were, 20 pounds gain, 21 pounds gain, and 6 pounds loss, respectively. After slaughter, the pigs fed skim milk and low-fat milk gave better meat and bone than those fed rich milk.

The same results he demonstrated on other animals. Calves fed on low-fat milk gained more and grew faster, and were healthier, than those fed on richer milk. There are, of course, cases of illness, and some other exceptions, where fat is needed in the system, and in such cases the fat is better taken in milk, and then milk rich in fat is the best.

But is it reasonable, is it wise, is it necessary, for the protection of the public health, to place a bar on pure milk with low fat content, when all experience proves that such milk is a well-balanced ration; that it is easy of digestion and assimilation; that its tissue-building and growth-producing qualities are ahead of milk richer in fat?

Take every precaution to have the cows strong, vigorous and healthy; keep the milk clean and

Cheese, clean and neat, placed evenly on the shelves, give the room a nice appearance.

The factory should have a neat, tidy appearance from the outside. This cannot be done without the surroundings being tidy and clean, the wood neatly piled, chips raked up, and all rubbish, such as boxes, barrels, hoops, etc., out of sight. The whey tanks should be kept clean and sweet, both inside and out, and free from that strong, sour-whey smell that they acquire from not being cleaned and from allowing the whey to be spilled or leak out and putrefy. The tanks should be thoroughly cleaned at least once a week.

The cheesemaker and men should wear aprons, and keep them clean. If the factory and utensils are kept clean and tidy, the men's clothes do not get dirty so quickly, and there is more pleasure and comfort in doing the work.

A man who does not keep himself clean does not keep a clean factory; neither does a man who does not keep a clean factory keep himself clean. The best results are not obtainable without clean and sanitary conditions at the farm, and also at the factory.

GARDEN ORCHARD.

TREATING GIRDLED AND PARTLY-GIRDLED FRUIT TREES.

During winters of severe cold and deep snow, mice and rabbits, on account of a lack of other food, are quite likely to gnaw the bark of the fruit trees. One winter, six of our thrifty-growing young fruit trees were badly girdled in this way. It seemed too bad to pull up such nice trees, that would bear well in one or two years more. I saved all of them by a simple and effective remedy, which is within the reach of everyone. Within four years, the wounds have healed so nicely that it hardly shows the trees once were girdled. As soon in spring as the ground is dry enough, the wounds should be treated; the sooner, the better, so the wounded parts will not be dried out by the constantly increasing warmth of the sun. Fill an old pail about three-fourths full of fresh cattle droppings. With a wooden paddle, mix the dung in the pail, adding water as needed until it is of the consistency of mortar. This "paste" or "mortar" is to be put onto the wounded parts as thick as it will stick, not less than an inch thick. Really, the thicker, the better are the chances of a good and speedy healing. The parts must be wrapped with old cloths and tied with string. There is no danger of putting on too many cloths, for they help retain the moisture around the wounded parts during the growing season, which is just the object sought.

When the trunks are entirely girdled, the flow of sap is checked, so that the trees will die, no matter how thick the paste may be applied. If such trees are two inches or more in diameter, it is best to remove them and plant others. Smaller trees, however, can be saved by "bridging" over the wounded parts, and thus restoring the circulation of sap. Cut scions of last year's growth of wood long enough so they can be entered about one inch under the bark at the upper and lower extremities of the wounded part. Shave the ends of the scions down so they will wedge in well under the bark. According to the size of the tree, fit in from two to four such bridges, on opposite sides of the trunk. The entire work must then be covered with the cow-dung paste, the same as slightly-girdled trees.

If this work has been properly done, the sap can circulate through the "bridges," and the tree's life will be saved. It is claimed that this "bridging" is not very often successful with plum and cherry trees, so it is best to pull up trees of this sort if they are completely girdled. The method will save many apple and pear trees that otherwise would dry up.

Though mice do not gnaw as deep as rabbits, usually only the top layers of the bark being wounded, treatment is necessary, anyway. I know, from past experience, that if such wounds are left exposed, they will dry out, and the growth of the trees will be checked.

The cloths should not be removed the first season. I leave them on for two years, but take them off the second season, so the wood may not commence to rot. All trees that I have treated in this way have shown, by their luxuriant growth, that they were doing as well as other young trees of the same age, but which had not been girdled.

Trees that have been entirely girdled will send up shoots or sprouts, and, the whole root system passing its nourishment into a single sprout, it will make an astonishing growth the first season. I have let them grow, thinking that, as there was a well-developed root system, the sprout would develop into a bearing tree sooner than a young tree. However, after the first season the sprouts do not make a healthful growth, and it

is better to pull up the old tree the first season and plant a young tree.

Some may object to using the dung paste because it is not very neat. Let them try this: Take five parts resin and two parts of paraffine and melt together. While still hot, add one part tallow. First, try a coat of this on a green stick, exposing it a few minutes to cold air. If it is too hard, and cracks easily, add a little more tallow. With a swab, apply a coat of this wax over the wounded parts. While applying, the wax should be kept warm, but not too hot, or it may burn the wood or bark.

Wisconsin. F. A. STROHSCHNEIN.

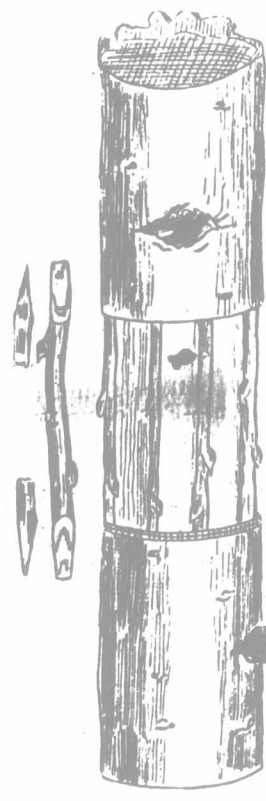


Applying the Paste.

[Note by Prof. H. L. Hutt.—This article is thoroughly practical and timely, for, no doubt, when the snow goes off in the spring, it will be found that there are many trees which have been girdled by mice. The plan suggested is one of the most practical, and we have adopted it many times in saving trees so injured. I cannot, however, agree with the writer that, "where trees are two inches or more in diameter it is best to remove them and plant others, while smaller trees may be saved by bridge-grafting." I think he must have meant this to be taken the other way, for we have found that, where young trees



A Tree Nearly Healed.



Bridge Grafting.

are entirely girdled, they may be taken out and replaced by new trees without much loss, whereas, if the trees are over two inches in diameter, these are the ones which are of most value, and can best be saved by bridging.

It might here be explained that the bridges are not for the purpose of conducting the sap from the roots to the top, as the sap naturally passes up the sap-wood of the tree, and is not thus checked in its flow by the girdling; but the downward flow of cambium or sap which has been elaborated in the leaves takes place just beneath the inner bark, forming what is known as the cambium layer between the inner bark and the

sap-wood. When the girdling cuts through to the wood, the downward flow of cambium is thus checked, and the tree starves through the cutting off from the roots of the supply of cambium which has been elaborated in the leaves.

Reference is made to the difficulty of bridging plum and cherry trees. These do not graft quite so readily as apples or pears, but, nevertheless, they may be bridged the same as other trees, if the work is carefully done. We have cherry trees here which were entirely girdled a foot or more up the trunk, and have been saved by bridging.]

ASPARAGUS, AND HOW TO GROW IT.

Editor "The Farmer's Advocate":

Asparagus being a hardy perennial plant, may be grown on the same ground for 40 years without renewal; and, being the earliest vegetable we have in the spring, making its appearance a few days after the frost is well out of the ground, it is a vegetable sought after by rich and poor. No wonder the demand for the crop is steadily increasing, and it is likely to be a paying one for years to come. Asparagus will grow on almost any kind of soil, from blow-sand to heavy clay. In the bush, we notice it growing wherever a bird happens to drop a seed, although the soil best suited for asparagus is a deep and rather sandy loam (if it had been in sod for a few years, all the better). If 50 loads of manure to the acre may be applied before planting, all the better, but if the soil is good enough to grow corn or root crop that will do, as the asparagus is not hard on the land the first year, and is a crop that is easy to manure from year to year. The soil must be plowed from 10 to 12 inches deep, and if the subsoil is anyway hard, the subsoil plow must follow the plow in each furrow. Then work well with disk and levelling harrow. There are many methods of planting asparagus, as will be noticed before I am through. When the land has been prepared as above, mark out rows at three feet apart with plow just as deep as plow will go, not less than 10 inches; if 12 inches, all the better. Then, with the plants either one or two years old (if well grown, I prefer one-year-olds), which, I suppose, have been bought from a market gardener at not more than \$6.00 per thousand plants, start to plant at 18 inches apart in rows. Be sure to spread root each way from the crown of the plant, and keep the crown on the land or straight side of the furrow. Cover the plants about two inches deep at the time of planting; then, if weather is warm, in two weeks the asparagus will be up 8 or 10 inches high. Then run the harrow-tooth cultivator through two or three times, and the land will be level, and plants covered 5 or 6 inches deep, and the crop growing nicely. There will be nothing more to do but clean until fall or spring. Now, some will say, Why plant so deep? There is more than one reason. If you have an acre or two planted this way, in the fall, after the tops are well ripened—not before, for thereon depends the life of the asparagus—take the mowing machine, and cut the tops fairly close to the ground, and rake together and burn. Then run the disk harrow crosswise of the rows, which will cut all the dry stalks two or three inches below the surface. Now, with the manure spreader, apply, say, 30 good loads of barnyard manure per acre, and plow under 4 or 5 inches deep. Now you see the reason for deep planting. Leave rough until spring; then, as soon as the land is dry, put the harrow on and work down nice and fine, and all will be ready for the crop to make its appearance. This way of planting will take about 10,000 plants per acre. Always plant in the spring, not too early, say, in Ontario, the month of May. I like to see some growth in the plant before planting. Now, another style of planting asparagus, and the most approved by large growers: Mark out rows, 3 x 3 feet each way; plant in the squares; then it is cultivated each way, after the order and way of working in the spring. About the middle of May (choose a dry time) apply one ton of salt per acre, or a good handful to each plant or hill. Repeat the same dose two weeks after, and you will have no hand-weeding, as the salt works both ways. It makes the asparagus grow, and kills weeds and insects. Do not cut on any account until two years after planting; then you will start cutting in the spring, when the sprouts are 6 or 8 inches high. If there is any sign of frost when cutting, cut every sprout that is above ground, or the frost will do it for you. You can safely cut all the asparagus that shows up for six weeks, no matter in what part of Canada you may be. To make it plain, if you start cutting, say, first of May, stop cutting 15th of June. If you take care of the asparagus, it will stand for a lifetime—unless you live too long. If you have handy men, they can cut it and bunch at the same time. It is put up in bunches that weigh one pound; tie nice and tight, keeping tops even. Cut the bottom ends so they will stand on any smooth surface. There is always a good sale for asparagus put up in this way, about 75 cents to one dollar per dozen bunches, or from 6 to 8

cents per pound. When packing for shipping, washing should be done by dropping in clean water and taking out again. Have light-made boxes, about 14 in. wide, 24 in. long, and 9 in. deep. Pack the asparagus upright and tight together; put a little excelsior on top, tack lid on box, and ship anywhere you have a sale. This sized box will hold about 75 pounds of asparagus.

ASPARAGUS ON A SAND BANK.

I just want to tell you of the first asparagus bed I put out forty years ago. I can see the bed from my window as I am writing. On this place was a bank of drifted sand. At that time the field to the north was loose sand, and the windstorms used to blow the sand, so that it had quite a bank, about 300 feet long and 50 feet wide. Nothing had grown on it for years, not even weeds. We just covered this sand bank lightly with fresh, long manure, plowed in very shallow, and not more than half covering the manure, which was abundance to keep the sand in place. Then, without harrow, I marked rows out 36 inches apart across the sand bank with a hand hoe, three inches deep. We had 25 pounds of asparagus seed that we had picked from an

old bed we had on the place. We soaked the seed for three days, then mixed a little sand with it and sowed it by hand, putting all the 25 pounds of seed on. I had a novel way of covering the seed. On account of the long manure that was in the way, I ran the wheelbarrow, with three large stones, up and down the rows, which covered and pressed the seed nicely. When I got to the other end, I had only one stone on the barrow. The seed was sown the last week of May, 1868. Some of our readers will remember that wet spring, right on until July; then a very hot summer. That seed grew very fast; every seed seemed to grow. We left the tops on the bed until spring, so that held the sand that blew and helped to cover deeper. We sold plants from that bed for three years (30,000 or more) before it was thin enough—about 12 inches apart. Now, that sand bank was just the home for asparagus; lots of plant food in it, the surface soil, about 20 acres, gathering there for years. The fourth year, from seeding we had the first cutting, and the 17th of April we cut 60 dozen, which sold for \$56. That was the best and earliest crop around Toronto for about twenty-five years. After that it began to decline, although it is there yet, after

40 years of hard usage. So, you see, asparagus will make its home anywhere.

For the home garden—and no farmer should be without from 100 to 200 asparagus plants, which will be sufficient for most farm homes—the best way to plant is about three rows, so as not to have too far to walk in cutting, and not too far from the house. Everything seems lovely, but now comes the asparagus beetle. You must look out for them. The sure cure is to press them between thumb and finger. Next, put hen-coop over the bed, or, better, fence and keep enough chickens to eat all the bugs. They will do no harm to the asparagus, if well fed.

The varieties of asparagus are Conover's Colossal, Palmetto, Columbian, Giant, Mammoth. The only distinct variety is the Palmetto; that is light green; the others have purple tops. The last cutting is like the first. We cut all we can see, then we plow the whole bed and harrow the same day, so that it is left nice and clean, and in two weeks the asparagus will be 4 or 5 feet high. Run the cultivator through twice, and the work is through for the season.

York Co., Ont.

J. W. RUSH.

Varieties of Vegetables to Plant.

At this season many of our readers are interested in the question of what varieties of garden crops to select from among the many offered and recommended. With a view to furnishing reliable information that will enable them to make wise choice, we have requested expert authorities to recommend lists of varieties adapted to various parts of the country. Read what they have to say, and if the varieties you have commonly grown have not given the best of satisfaction, or, if disposed to try others in the hope of finding something still better, inquire at the seed store, and, if necessary, write to the seedsmen advertising in our columns. Do not accept substitutes. Unless the genuine article can be obtained, stick to the old and well-proven kind.

THE BEST VEGETABLES FOR HOME AND MARKET.

RECOMMENDED ESPECIALLY FOR EASTERN ONTARIO AND QUEBEC.

Good vegetables are more necessary than good fruit, for, while fruit is rapidly taking a more prominent place as an article of diet, vegetables have always formed a substantial part of our daily fare. But, unfortunately, the merits of different varieties of vegetables have not been given sufficient notice, and too often we find that varieties of poor quality are being grown, when those of good quality might just as well have been planted. Moreover, too few kinds of vegetables are grown by the average farmer. If a farmer's vegetable garden were laid out and planted, as it could be, for the most part, in a few hours before starting work in the fields in the spring, an excellent assortment of vegetables would be assured for himself and family. The following list of vegetables, recommended after twenty years' experiments with varieties at the Central Experimental Farm, at Ottawa, will give the farmers the varieties of best quality, and the market gardeners the ones most profitable:

Asparagus.—The varieties of asparagus differ less from one another than most kinds of vegetables. Conover's Colossal has been a very satisfactory variety, but the varieties Palmetto and Argenteuil have proved less subject to rust; hence, where this disease is prevalent, it would be well to plant either of them.

Beans.—There are many varieties of beans from which to select enough to cover the season well. For earliest, the Kenney's Rustless Wax and Wardell Golden Wax are two of the best. These are yellow-podded or wax bush varieties. The Keeney's Rustless Wax is less susceptible to the anthracnose or rust than other early sorts. Among the earlier green-podded varieties, the Stringless Green Pod is very good, being better in quality than the wax varieties, as is also the Valentine. For midseason, the Early Refugee is one of the best. This is a green-podded variety, of good quality, and very productive. To lengthen the season of the bush beans, another, but later Refugee should be planted. It is known as Refugee or One-Thousand-to-One. The pole beans furnish delicious beans when the bush varieties are past their best. Two of the best in order of ripening, are the Old Homestead and Lazy Wife. The Lima beans are used shelled when green. They require more heat than the others, and are only satisfactory in the warmest parts of Canada. The dwarf varieties are the earliest. Among the best of these are Henderson's Bush Lima and Burpee's Bush Lima.

Beets.—The Egyptian Turnip and Eclipse are two sorts most used commercially, as they are very early; but of better color and shape are the Meteor, Ruby Dulcet, and Black Red Ball. They are dark-fleshed, and attractive for home use.

Boroscote, or Kale.—This is a vegetable little

used in Canada. The Dwarf Green Curled Scotch has been found the most satisfactory.

Brussels Sprouts.—The tall varieties of Brussels Sprouts are not so satisfactory in our short season as the dwarf kinds. The variety known as the Improved Dwarf has given the best results.

Cauliflower.—Several varieties of cauliflower are advertised, some early and some later, but the most satisfactory results are obtained from successive sowings of the Early Dwarf Erfurt. The best seed should be used, as quality in cauliflower seed is more important than in almost any other vegetable.

Cabbage.—The cabbage has long been an important vegetable. To have a satisfactory succession of good varieties, the following should be planted: Early, Early Jersey Wakefield; medium, Succession; late, Late Flat Dutch. For extra early use, the Paris Market has been found very satisfactory, coming in a few days before Early Jersey Wakefield. A late variety which has proved freer from disease than others is the Houser. It is a little coarse, but should prove a good market sort for late use. Of the Savoy cabbage, the Drumhead has been found the most satisfactory, and of the red cabbage, the Red Dutch.

Carrots.—After testing many varieties of carrots, we have come to the conclusion that the Chantenay is the best for market and for home use. The Danvers is almost as good.

Celery.—The commercial growers of celery find the White Plume a profitable variety on account of its extreme earliness. For home use, however, the season may be started with the Golden Self-blanching or Paris Golden Yellow, which is a little later than the White Plume, but much better in quality. For those who are anxious for celery early, regardless of quality, a little White Plume might be planted for use until the other is ready. For winter, there are a number of good kinds, differing very little in merit. Among the best are Evan's Triumph, Winter Queen, French's Success, Noll's Magnificent, and Perfection Heartwell. If the newer kinds cannot be obtained, the Giant Pascal will be found an excellent late sort.

Corn.—For commercial purposes, the following varieties are among the best: Early Fordhook, Early Cory (early); Crosby's Early, Metropolitan, and Golden Bantam, where it is known, (second early); Stabler's Early, Early Evergreen (medium); Stowell's Evergreen and Country Gentleman (late). Domestic varieties—For domestic purposes, the following are the best: Peep o' Day, Early Fordhook and Malakhov (early); Golden Bantam (second early); Black Mexican and Early Evergreen (medium); Country Gentleman (late).

Cucumbers.—Cucumbers of the White Spine type are the best, both for commercial purposes and domestic use. The strain known as Peerless White Spine has proved one of the best. Davis' Perfect is also an excellent cucumber. Giant Pera is another variety, not of the White Spine type, which is very fleshy, and of good flavor. Chicago Pickling is one of the best pickling sorts.

Eggplant.—Two of the best eggplants are the New York Improved and the Long Purple.

Lettuce.—For forcing, the Grand Rapids is best both for commercial and domestic purposes. Two other good curled or loose-headed varieties for early use are the Black-seeded Simpson and the Morse. The varieties which have stood the heat best in summer, and are the tenderest and best cabbage lettuce are New York, Giant Crystal Head, Crisp as Ice, Improved Hanson, and Improved Salamander.

Melons, Musk.—Where the larger-sized melons are desired for commercial purposes, the Hackensack is one of the best for early use, and the

Montreal Market for main crop. Where small melons are asked for, the Nettle Green or Rocky Ford, of the green-fleshed type, and Emerald Gem, of the yellow-fleshed, are two of the most profitable. These same varieties, including the Surprise, Christiana and Paul Rose, yellow-fleshed sorts, are among the best for home use. All of the foregoing are good in quality.

Melons, Water.—Three of the most satisfactory watermelons in Canada are Cole's Early, Ice Cream, and Phinney's Early. Of these, Cole's Early is the earliest, and Ice Cream the best in quality.

Onions.—The two most reliable onions, both for commercial and domestic purposes, are the Yellow Globe Danvers and the large Red Wethersfield. Where transplanting is practiced, Prize-taker should be added.

Parsnips.—A number of varieties of parsnips have been tried, but none have been found superior to the best strains of the Hollow Crown.

Parsley.—Parsley is a very useful vegetable for garnishing or flavoring. Plants may be taken up in the autumn, and kept in the house during the winter, where they grow, and furnish a good supply of leaves.

Peppers.—The most satisfactory peppers for most parts of Ontario and for Quebec are the smaller-fruited kinds, which ripen comparatively early, and are very productive. Two of the best are Cayenne and Chili. Of the large-fruited varieties, the Early Neapolitan, a new kind, is one of the earliest and most satisfactory.

Peas.—Most of the earliest varieties of peas are the smooth, round-seeded sorts, which are productive, but inferior in quality. The Gregory's Surprise is a wrinkled sort of very good quality, quite as early as any of the smooth peas, and productive. It is the best extra-early variety tested here. Next follows the Gradus, a large-podded early pea, of excellent quality, good both for market and home use. American Wonder and Nott's Excelsior, two dwarf varieties, very much alike in appearance, and about the same season as Gradus, are both profitable market varieties, and two of the best for home use, as is also the Premium Gem, another early variety. For medium crop, two of the best for home and market are McLean's Advancer and Heroine; and for late, Stratagem. All of the varieties mentioned may be grown without staking, as none of them are tall. One of the best late tall sorts is the Telephone. If preferred, successive planting may be made of some of the varieties to extend the season, instead of using all the kinds mentioned.

Potatoes.—It is important to plant the earliest varieties of potatoes. In a test for earliness at the Experimental Farm, Ottawa, the Eureka Extra Early has been found to be about the earliest. This is not a large cropper, but it produces a large proportion of its crop early, and the new potatoes are good in quality. It is a roundish white variety. The Early Ohio, a well-known pink-skinned sort, is very early also, and the new potatoes are dry and good. It is not a large cropper. The early varieties producing the largest total crop are the Rochester Rose, of the Early Rose type, and the Irish Cobbler, a roundish, white potato. For main crop, Carman No. 1 and Moneymaker are two of the best, both in yield and quality. Vermont Gold Coin and Uncle Sam resemble Carman No. 1 somewhat, and are good varieties, but have not been found so productive at Ottawa. Dooley is also a productive variety of the Carman type. The Carman No. 1 has been found more productive than either Empire State or American Wonder, two kinds which are much planted.

Radishes.—Two of the best early radishes are

Scarlet White-tipped Turnip and Rosy Gem. The Icicle, a white variety, is very tender, crisp and mild, and should be grown for home use. The winter radishes are desirable, and two of the best are Long Black Spanish and Chinese Rose.

Rhubarb.—Two of the best varieties are Victoria and Linnaeus, being vigorous-growing sorts, of good color.

Salsify or Vegetable Oyster.—The varieties of this vegetable do not differ much. Two of the best are Long White and Sandwich Island.

Spinach.—The Victoria and Thickleaved are two of the best.

Squash.—For early use, the White-bushed Scalloped and Summer Crookneck are two of the best sorts, and a variety of especially good quality is the Delicata. The Hubbard is the best late squash.

Tomatoes.—There are many varieties of tomatoes claimed to be the earliest and best. Since the advent of the Spark's Earliana, other kinds have taken second place, as it is as early as any and smoother. A good early Canadian variety is the Dominion Day. Wealthy is thought by some to be superior to Earliana. All the extra-early tomatoes are more or less rough. The Chalk's Early Jewel, which ripens soon after the Earliana, is very smooth and regular, and, being quite productive, is proving one of the best, both for early use and main crop. Some of the best of the later varieties are, (scarlet) Brinton's Best, Trophy, Matchless; (purplish pink) Burpee's Climax, Autocrat, Livingston's Globe.

Turnips.—The early turnips are not very satisfactory in this country, being usually more or less bitter. The best of them are the Extra Early Milan and Red-top Strap Leaf. Of Swede turnips, Champion Purple Top and Skirving's Swede are two good ones.

W. T. MACOUN,
Horticulturist.

Central Experimental Farm, Ottawa.

VARIETIES OF VEGETABLES FOR A HOME GARDEN.

RECOMMENDED ESPECIALLY FOR WESTERN AND CENTRAL ONTARIO.

At this season wide-awake gardeners are getting in their supply of garden seeds, and making plans for work on the land as soon as the ground is ready. To have the work well planned and seeds all on hand when wanted is a good start, which counts for success throughout the season. The intelligent selection of varieties from the lengthy lists given in seedsmen's catalogues is often a difficult task, even to experienced gardeners. As a guide in such selection, we give below a few of those which have proved best in our trial plots at the Ontario Agricultural College. A few brief notes, with regard to the time of seeding, etc., are added, which may be helpful to beginners:

Asparagus.—Conover's Colossal and Palmetto. Plant in rows four feet apart, and two feet apart in the rows; apply manure liberally, and cultivate thoroughly.

Beans.—Summer: Keeney's Rustless Golden Wax, Wardwell's Kidney Wax, Stringless Green Pod, and Valentine. Autumn: Burpee's Bush Lima matures well in southern sections, but too late for northern parts of Ontario. Winter: Navy. Sow when danger of spring frost is past.

Beets.—Globe, Egyptian Turnip, for extra early. Eclipse, Black Red Ball (the darkest of the Globe varieties), Long, Long Smooth Blood. For early use, sow as soon as ground is fit to work; for winter use, sow about first of June. Thin when small to three inches apart, and take out every other one as soon as they are large enough to use.

Carrots.—Chantenay, Danvers and Rubicon. Sow early for early use, and about first of June for winter use. Thin first to two, then to four inches.

Cabbage.—Early: Jersey Wakefield and Winningstadt. Late: Danish Round Head and Savoy. The Houser is a rough, late cabbage, the least subject to rot of any we have tried. Red: Mammoth Rock. Seed of early varieties should be sown in hotbed about middle of March, and transplant to open ground about end of April. Sow seed of the late varieties in the open ground about the end of May, and transplant about first of July.

Cauliflower.—Extra Early Erfurt, and Early Snowball. Treat the same as cabbage.

Celery.—Early: White Plume. Medium: Paris Golden Yellow. Late: Giant Pascal, and Evan's Triumph. Sow seed in seed box or hotbed about May 1st. Prick out into flats or cold-frame when about an inch high, and transplant into trenches four or five feet apart about first of July.

Corn.—Early: Golden Bantam, and White Cory. Medium: Metropolitan. Late: Country Gentleman and Stowell's Evergreen. Sow about first of May, and if plants are injured by cold or frost, sow again about 24th of May. Some prefer Golden Bantam to all others, and plant at intervals of two weeks for succession.

Citron.—Colorado Preserving. Sow in hills

about 8 feet apart when danger of frost is over. Thin to three plants in hill.

Cucumber.—White Spine, for slicing; Westfield Chicago Pickling, for pickling. Sow in hills about 4 feet apart when danger of frost is over; thin to three or four plants.

Eggplant.—New York Improved, and Black Beauty. Sow seed in seed box or hotbed about middle of April, and transplant in the open when danger of frost is past.

Kohl-rabi.—Early White or Purple Vienna. Sow seed early for summer use, and again about middle of June for winter use.

Lettuce.—Black-seeded Simpson, and Hanson. Sow seed as early as possible, and at intervals of a month for succession. Thin plants at first to three inches, then to six and twelve inches apart to secure good heads.

Musk Melon.—Rocky Ford or Emerald Gem, Hackensack, and Montreal Market. Sow seed in enriched and well-prepared soil when danger of frost is past. Hills should be five or six feet apart. Thin to three plants in hill.

Onions.—Yellow Danvers, Prizetaker, and Red Wethersfield. Sow seed as early as possible. The thinnings may be used as green onions. Thin to three inches apart for big onions, but allow to crowd for big crop.

Parsnips.—Hollow Crown. Sow as early as possible, and thin to six inches apart in row. Leave part of the crop in the ground over winter for spring use.

Peas.—Early: Alaska, and Nott's Excelsior. Medium: Gradus. Late: Champion of England, and Stratagem. Sow early kinds as early as possible, and others a couple of weeks later for succession.

Potatoes.—Early: Early Ohio, and Early Fortune. Late: Empire State. Keep potatoes for early planting in a warm room, in the light, for three weeks before planting. Plant a few for early use as soon as ground is fit to work, and follow with others when danger of frost is past. Plant late varieties about 24th of May.

Pumpkin.—Sugar, best for pies. Plant when danger of frost is past. Hills should be eight or ten feet apart.

Radishes.—Early: Rosy Gem, Scarlet Turnip, White Tip, and French Breakfast. Winter: Scarlet China, and Osake. Sow early varieties as early as possible, and at intervals of two weeks for succession. Sow winter varieties in summer, after crop of early peas.

Rhubarb.—Victoria, or any carefully-selected, pink-stalked variety. Plant four feet apart, manure liberally, cultivate thoroughly, and break out seed stalks as they appear. Grow a few extra plants to force in the cellar for winter use.

Salsify.—Long White and Sandwich Island. Sow as early as possible, and thin to four inches apart in the row. Part of the crop may be left in the ground over winter for spring use.

Spinach.—Victoria. Sow as early as possible, and at intervals of a month, if succession is desired.

Squash.—Summer: Crookneck and White Bush Scalloped. Winter: Hubbard. Do not plant until danger of spring frost is over. Bush varieties require about four feet of space between hills. Hubbard should have at least eight feet.

Tomatoes.—Early: Earliana, and Wealthy. Medium: Chalk's Jewel. Late: Stone and Success. Sow seed in seed box or hotbed about the middle of April. Transplant in the open when danger of frost is past. In northern sections, the early varieties only are likely to ripen.

Turnips.—Early: Extra Early Purple-top Milan, Golden Ball. Late: Hartley's Bronze Top. Sow early for summer use, and about June 20th for winter use.

Vegetable Marrow.—Long White Bush. Plant when danger of frost is past in hills four feet apart.

Watermelon.—Hungarian Honey, and Cole's Early. These are the earliest varieties most likely to ripen in northern sections. Plant when danger of frost is past in well-prepared hills 8 feet apart.

H. L. HUTT,
Professor of Horticulture.

VARIETIES FOR THE NORTH.

In preparing a list of vegetables for domestic or commercial purposes, suitable for the north, after avoiding any of the late-maturing varieties, pretty much the same selection may be made as for the more southern parts of the Province. The following may be relied upon as well tried and satisfactory:

Asparagus.—Conover's Colossal; somewhat subject to rust, perhaps the best.

Beans.—Golden Wax, early; Refugee, late.

Beets.—Bastian, Blood Turnip, Long Dark Red.

Cabbage.—Jersey Wakefield, early; late, Flat Dutch, or, if perfection in cabbage is wanted, Drumhead Savoy; Red Dutch for pickling.

Cauliflower.—Early Snowball.

Carrots.—Scarlet Horn for domestic purposes; Oxheart for commercial use.

Celery.—Golden Self-blanching, Improved White Plume.

Corn.—Golden Bantam, the very best for domestic use, but too small to be profitable for market until it is better known; Improved White Cob Corey. Some of the yellow, such as Long-fellow, will come in after the early corn is done, and will keep fit for eating for two weeks when grown in the north.

Cucumbers.—Boston Pickling; cool and crisp; slicing.

Lettuce.—Black-seeded Simpson, Hanson, and Paris Cos.

Melons may be tried, but with doubtful success. The following are early: Musk, Emerald Green and Christiana. Watermelon, Phinney Early.

Onions.—Red Wethersfield and Yellow Danvers are two of the best.

Parsnip.—Hollow Crown.

Parsley.—Moss Curled.

Peas.—Alaska, best hardy for first planting; American Wonder, dwarf, requires rich ground; Nott's Excelsior, Stratagem and Champion of England, for domestic use.

Potatoes.—Early, Ohio, Burpee's Early; late, American Wonder, White Elephant, are among the best of the hundreds of varieties which differ only in name.

Radish.—French Breakfast and Rosy Gem for early; for late, Chinese Rose-colored, and Long Black Spanish.

Rhubarb.—Linnaeus, and Turkey.

Salsify.—Sandwich Island.

Squash.—Early, Crookneck; for late, Hubbard.

Tomatoes.—Earliana has so far proved the earliest tomato in the north. There are others larger and more productive, but cannot be depended on except under favorable circumstances.

Turnips.—Yellow Aberdeen for early winter; Swedes, late winter and spring.

The farmer's vegetable garden should be located as near the house as possible, with vegetables sown or planted in long rows, leaving space at each end to turn a horse and cultivator. This will reduce the hand labor to a minimum. All garden vegetables may be grown on the same plot for several years if kept clean of weed seeds, and the ground kept rich enough.

CHAS. YOUNG.

VARIETIES FOR THE MARITIME PROVINCES.

Below is a list of varieties of vegetables which present experience leads us to recommend for the home garden for this part of Nova Scotia. On account of the shortness of the season here, the earlier varieties of some vegetables are the only ones recommended:

Asparagus.—Conover's Colossal.

Bean.—Detroit Wax, Wardwell's Kidney Wax, Indian Chief (pole).

Beet.—Eclipse, Crosby's Egyptian.

Cabbage.—Early, Jersey Wakefield, All Seasons, Flat Dutch.

Carrot.—Chantenay.

Celery.—Golden Self-blanching, Improved White Plume.

Corn.—Early Cory, First of All.

Cucumber.—Improved White Spine.

Lettuce.—Grand Rapids, Nonpareil.

Onion.—Yellow Danvers, Red Wethersfield, Prizetaker.

Parsnip.—Hollow Crown.

Peas.—Nott's Excelsior, American Wonder, Telephone (tall).

Potatoes.—Early Ohio, Burpee's Extra Early.

Squash.—Boston Marrow, Hubbard.

Tomato.—Early Ruby, Earliana.

We are making tests of a large number of varieties here this year.

PERCY J. SHAW,
Horticulturist.

Agricultural College, Truro, N. S.

HOW TO GROW SALSIFY.

A vegetable which is at once a luxury and an economy is that peculiarly-flavored plant called salsify, or vegetable oyster, the roots of which make a soup with the delicious flavor of oyster soup, yet free from the danger of germ infection characteristic of the well-known bivalve, beds of which are often deliberately planted in harbors at the mouths of sewers, because here they fatten more readily.

In a bulletin issued by the Pennsylvania Department of Agriculture, the following directions for the growing of salsify are given:

Salsify is one of the most delicious of vegetables, and it is not grown as largely as its merits demand, either in the home garden or for commercial purposes. The seed should be sown as early in the spring as the ground can be prepared, making drills one foot apart, and covering the seed with about one inch of soil. When the plants are large enough to facilitate rapid and careful handling, thin, leaving a plant every five or six inches. Salsify does best in a deep, rich, sandy soil, although it may be grown successfully in any kind of a deep, fertile garden loam. Fresh manure should not be used for this vegetable, as it induces the formation of too many fibrous, lateral roots. Bone meal and the mineral elements can be used with good effect. Favorable

conditions for the growth of salsify are furnished by liberal manuring the previous season for cabbage and other vegetables requiring high feeding.

The crop may be dug in the fall and stored in the cellar and covered with sand, or the roots may be left in the ground until spring. Market gardeners usually store the bulk of the crop, so sales can be made during the winter. The roots are entirely hardy, however, and there will be no loss if left in the ground. Sandwich Island is the leading variety.

GROWING A SPY ORCHARD.

What is the best method to get an orchard of Northern Spies? Is it a good plan to plant Talman's and top-graft? How soon should the grafting be done after planting? Will they do as well all one kind as if mixed with other varieties, when there are other orchards near-by? Will they bear earlier if top-grafted? If so, how much? What is the best fertilizer for young trees, and the best crop to grow? T. H. W.

I would recommend the following plan to get a good orchard of Northern Spy apples:

In the first place, I would get from a nurseryman some good thrifty, hardy stocks upon which to top-work the Spies. For this purpose, Talman's would be as good as any for your district. I would prefer getting one-year-old trees, and either bud or graft them within a foot or so of the ground, with the intention of growing low-headed trees, which are far more convenient than the ordinary high-trunked trees for all such operations as pruning, spraying, thinning and picking fruit.

In the selection of scions for top-grafting, I would take these from the best-bearing Spy trees I could find in the neighborhood. I believe that much would be done to hasten the bearing, increase the productiveness, and improve the quality of the fruit by careful selection of scions in this way. Just how much earlier the Spy can be brought into bearing by top-working in this way I cannot say definitely, but I am quite certain that the usual method of propagating trees in the nursery, from scions taken from other growing trees which have never yet fruited, has a tendency to perpetuate the tendency to vegetative growth, rather than productiveness in the young tree.

It is well known that Northern Spies are self-sterile; that is, they will not fertilize their own blossoms when grown alone, and should have some other variety grown near them to furnish pollen for fertilization. There are many varieties which could be used for this purpose. The Talman blooms late with the Spy, and a few trees of this variety left here and there in the orchard should furnish the pollen necessary.

As to the best method of maintaining soil fertility in the orchard, I would make use of leguminous crops, such as red clover or hairy vetch, and apply wood ashes from time to time as liberally as possible. For further information on this subject, send to the Department of Agriculture for our bulletin on apple culture, in which you will find all these points discussed at length. O. A. C. H. L. HUTT.

AN UP-TO-DATE FARMER'S GARDEN.

It would be a surprise to the public, and even to the men themselves, if a census of the number of farmers who do not have a garden was taken.

Why there is such a general neglect of the garden, which supplies some of the cheapest and most healthful food that can be procured, is more than a good many people can understand.

The argument that some farmers put forth, that it is cheaper to buy what they want than it is to raise it, is simply a lame excuse for not having a garden. In the first place, they are not likely to have it when they want it; they do not use it as freely as if they grew it themselves, and it is not by any means as cheap.

One reason why so many farmers fight shy of a garden is that they think the only way of making a garden is on the old plan of putting everything in beds or plots, and working it solely with a hoe, as their fathers or grandfathers did. Now, the average farmer is not so short of land but that he can spare five or six rows of drill across a field, which will supply the average family with all the vegetables they want to use during the summer, as well as enough to store away for the winter. These rows can be cultivated out with the cultivator, and with very little hoeing, compared with the "old bed-plan of garden," can be kept nice and clean.

Having done a good deal of experimenting the last six or seven years in my own garden, trying the different varieties of the leading vegetables, I have at last gotten a list that will, I think, be found to be suitable for the most of the country. It is a mistake for the novice to try any of the novelties, not but what there are good things being brought out from time to time by the different seedsmen. Better leave the novelties alone till you gain a little experience, and you will then be more likely to have success with them. I will now give my list, in alphabetical order: In beans, Wax Dwarf and Stringless Wax are the

best; in green-podded pole beans, the Lazy Wife is as good as any; I have experience with the pole Wax or Lima beans. In beets, Edmand's Early Turnip and Crosby's Egyptian are the best. In cabbage, Early Jersey Wakefield for early, and Surehead for late, fill the bill. In carrots, Half-long or Intermediate are as good as any. I have not enough experience in cauliflower or celery to recommend any one variety. In sweet corn, Premo for early, and Evergreen for late, are the best. In cucumbers, the White Spine still has the lead. The Nonpareil lettuce is the best. In musk melons, the Strawberry is the best. In watermelon, Cole's Early Ice-cream, and Hungarian Honey. In onions, the Yellow Globe Danvers and Red Weathersfield lead; these may be grown from seed, but, for the busy farmer, I think it pays best to buy what is catalogued as Yellow Dutch Onion Sets. They grow nice large onions, and are easier and cheaper to raise. For garden peas, the Alaska for early, and Stratagem for late, are as good as any ones. Now, in radishes, the White-tipped and Roy Gemare are among the best early sorts, while, for winter use, the long Black Spanish is about the best. In squashes, the Crookneck is the best for summer, and the Green Hubbard is as good as any for winter use. In tomatoes, nothing beats the Earliana for early, while the Stone is a good main-crop variety. I have now reached the end of my list, and it is open to criticism from those who know of better varieties. In conclusion, I would urge every farmer to try the experiment of having a garden, and see what a source of pleasure it will be to have vegetables of his own just when he wants them, and I am sure he will also find it profitable. A. S. W.

Prince Edward Co., Ont.

APIARY.

KEEP THE BEES WARM.

A great deal of harm can be done by inconsiderate "tinkering" at the bees during the month of April, when it is of vital importance that everything possible be done to conserve the natural heat of the hive, and that the brood-nest be not opened or interfered with. After the bees have had their first flight in the spring, it is necessary only to ascertain that they have sufficient honey to carry them through the uncertain weather, until about the first of June, and to know that they have a good laying queen. It is not always necessary to open the hive to find out these things, either. If bees are wintered in the cellar, it is easy to tell by the weight, when carrying them out, which ones are short of supplies, and to mark these particular ones, either by setting them in a certain part of the yard, a little apart from the main apiary, or placing a stone or some such thing upon the top of the hive. It can then be seen at a glance, when the work of carrying out is done, which hives need attention, and only these should be opened. This work of giving combs of honey to colonies that have not sufficient in their hives should be done as soon as possible after carrying out of cellar, for the longer it is delayed, the more brood there will be in the hive to become chilled when the hive is opened. Colonies which have wintered well in the cellar will have little or no brood when placed on their summer stands, but after they have had a flight or two the queen commences laying rapidly, and soon there is a large amount of perishable brood in the hive. A hive that has been wintered outdoors, packed in chaff, will, of course, have to be opened, as it cannot very well be lifted to see how much it weighs; but the examination should be as brief as possible. It is generally necessary only to raise the cover, and, if there is plenty of honey, it can be seen by looking down between the frames. If no sealed honey can be seen, a further examination is necessary.

With regard to finding out whether a colony has a laying queen in the early spring, an "indoor" examination is seldom necessary, as it is nearly always possible to tell by the way the bees work whether everything inside is as it should be. A queenless colony is nearly always listless, and not inclined to get out and hustle, and especially it will be observed that the bees of such a colony carry in very little pollen, or none at all, whereas a colony that is "queen-right" will be found stocking up with pollen at a great rate about the time that willow and other "cat-tail" flowers are in bloom. If a colony strong in bees is found queenless at this time, the bees in it can usually be made useful by uniting them with a colony having a good queen. This uniting can usually be done successfully by smoking the bees in each colony until they are thoroughly demoralized, and then placing a comb from each hive alternately in one of the hives, and placing it on the stand of the one which had the good queen. The combs containing brood should, however, be placed as near the center of hive, and as near each other, as possible, or, if they become scattered through the hive, or placed near the sides of the hive, there will be danger of the brood becoming chilled.

Don't unite colonies in this way, however, if you only suspect one to be queenless. Make sure, first, by a thorough examination of the combs. If no brood is found at a time when other colonies have it in abundance, and if the symptoms above described are observed, it can be pretty safely concluded that no queen is there. But there may be one, all the same, that is played out, and no good. Have a look to make sure. A queenless colony—one hopelessly queenless, with nothing it can imagine or pretend ever was or ever will be a queen—is generally in a pretty disorganized condition, with the bees scattered all over the combs, and not clustered compactly, as a normal colony is at this season, and very much inclined to run out of the hive in a panic when smoked. By these symptoms, queenlessness can generally be ascertained easily by anyone who has had any experience with bees.

Let all your energies during the early part of the season be devoted to keeping the bees warm, for on warmth their very life depends. Bees can no more raise brood in a hive that the wind blows through than a hen could hatch chicks under the same conditions. Keep the cover snug, keep the entrance small, and keep the wind off as much as possible. The temperature of the brood-nest has to be kept at about 80 degrees, or higher, night and day. The snugger the hive is, the larger surface of comb the bees can keep at this temperature, and the consequent larger family they can raise. On large families in the hives depends the honey crop. E. G. H.

POULTRY.

SELECTING EGGS FOR INCUBATION.

Editor "The Farmer's Advocate":

Many failures in incubation are attributed to the fault of the incubator, when, as a matter of fact, the cause can be traced to the indiscriminate selection of the eggs. Many operators secure chicks from 50 to 60 per cent. of the eggs set, and attribute to the incubator loss caused by the infertility of eggs and the chicks being dead in the shell. The very fact of securing a fair hatch is a reasonable indication that the fault is in the egg, rather than the incubator. As the egg is the product of the hen and the food she eats, it becomes apparent at once that the difficulty lies in the breeding stock.

One cannot lay too much emphasis on the housing, care and feed at all times, but particularly during the breeding season. The breeding stock should be carefully selected, as it is simply a waste of time and money to incubate eggs gathered from the average flock. Every bird that has recently recovered from roup or other such disease, should be discarded, as her condition is such that she will in all probability produce eggs containing weak germs that will not hatch. If I were to name any one particular reason for failures in incubation, I would say that that particular reason was from selecting eggs from immature birds; that is, birds that were late-hatched, or for other reasons failed to mature before the cold weather in the fall, and, not having been supplied with the necessary foods to complete development, never became fully developed in the strict sense of the word, the result in such cases being that the internal organs were also undeveloped, making it impossible for them to produce eggs suitable for hatching purposes.

There are many who claim that pullets' eggs are unsatisfactory for hatching purposes. With this statement, however, I fail to agree, as my experience with such, by the use of the trap nest, has proved the reverse to be the case. I found that the pullets that commenced to lay the earliest, and were the most prolific layers throughout the winter, produced the larger number of strong, healthy chicks. This statement is particularly true of pullets, coming under my observation, that commenced to lay the earliest, and laid the largest number of eggs during the winter months, as every egg produced a strong, healthy chick.

It is but reasonable to expect that pullets that have the strain, with constitution and vitality, to produce eggs throughout the winter months, would be capable of producing the desired eggs for hatching purposes.

We observe in our wild fowl a mating season, which will also apply to our domestic fowl. It has been found advisable to keep the male birds from the flock at other than the breeding season, and to hatch chickens only during the months of April and May, unless for market purposes.

Eggs selected for incubation should be average-sized, and of color representative of the breed. Discard small, very large or unshapely eggs, as they are usually the result of some organic trouble.

Eggs for incubating purposes should be gathered from the nest while warm, to insure them from being chilled or frosted in the earlier part of the season, and kept in a room of from 45 to 60 degrees of temperature, as 70 degrees or over

will start germination. It is also advisable to set the eggs as soon as possible after being laid, and, when set in an incubator, eggs not over five days old secure a much more even hatch.

A. W. FOLEY.

Poultry Superintendent, Alberta.

THE FARM BULLETIN.

FOR THE PROTECTION OF SHEEP.

Following are the salient features of a proposed Act, introduced in the Ontario Legislature in the present session, by Mr. Brower, member for East Elgin, to amend the Act for protection of sheep and to impose a tax on dogs:

1. Upon petition to add to section 2 of the Act the words "or may increase the amount of tax to a sum not exceeding \$2 for a dog, or \$5 for a bitch."
2. Section 17 is amended by striking out the words "two-thirds," in the third line of the section.
3. Section 18 to be repealed, and the following substituted therefor: 18.—(1) The council of every local municipality shall by by-law appoint an officer to be known as the Inspector of Sheep, whose duty it shall be to make enquiry into the killing or injuring of sheep by dogs and report thereon to the council.
(2) The owner of any sheep or lamb killed or injured by a dog, the owner or keeper of which is not known, shall, as soon as may be after becoming aware of the killing or injury, apply to the Inspector of Sheep to assess the damages.
(3) The Inspector shall, with as little delay as possible, enquire into the matter and may examine the owner of a sheep or lamb so killed or injured and such other persons as he may deem necessary on oath, and if the Inspector is satisfied that the owner of the sheep or lamb has made diligent search and enquiry to ascertain the owner or keeper of the dog and that such owner or keeper cannot be found, he shall certify the facts to the treasurer of the municipality with his finding as to the value of the sheep or lamb so killed or injured, and the treasurer of the municipality upon the presentation of the certificate shall pay over to the owner of the sheep or lamb the amount so awarded.
(4) In estimating such damage, the Inspector shall value any thoroughbred sheep or lamb at its market value.
(5) In case the owner of a sheep or lamb so killed or injured is dissatisfied with the findings of the Inspector, or with his refusal to issue such certificate, the owner may appeal therefrom to the council of the municipality at its next meeting, and the decision of the council shall be final.
(6) Notice of such appeal shall be given to such Inspector at least two days before the meeting of the council at which the same is to be heard.

A RECORD OF PROGRESS.

One of the latest evidences of the large advantages which the Province of Ontario is deriving from the annual expenditure on behalf of agriculture is the 280-page annual report for 1907 of the Ontario Agricultural College. This volume in itself containing chiefly, as it does, a digest of investigative work accomplished during the year, with but a minimum of space devoted to proceedings and routine work, is a creditable monument to the energies of the staff, and yet it is only one of several publications prepared by them that have been issued during the year. It is a matter for regret that a much larger number of farmers do not avail themselves of the College bulletins and reports as well as the other records issued each year by the Provincial Department of Agriculture, and the same applies to those sent out by the Agricultural Departments of other provinces and, also, the Federal Department at Ottawa. While much of this information is disseminated through the agricultural press, the matter thus retailed is more or less scraggy and incomplete. Every farmer owes it as a duty to himself to keep a close individual touch with the fountains of agricultural knowledge, and should see to it that through the Farmers' Institutes, or otherwise, his name is kept upon the mailing lists of his own Provincial and also the Dominion Department. In the report under question, while it seems invidious to particularize, the mass of information adduced in the report of the experimentalist is particularly helpful at this season, comprising, as it does, a good part of the gleanings of many years' thorough experimental study. Much of the value will also be found relating to all the other branches of the institution. For a copy of the report, address the Department of Agriculture, Toronto, Ont., or "The President's Office," O. A. C., Guelph, Ont.

TO PROHIBIT AUTOS ON P. E. ISLAND.

A resolution calling for legislation to prohibit the running of automobiles in the Province of Prince Edward Island was unanimously passed in the Provincial Legislature on March 26th. Members on both sides spoke on the question, the majority favoring absolute prohibition, others suggesting prohibition for a limited period or running under restrictions. The resolution was moved by John Agnew, seconded by D. P. Irving. The Premier and the Opposition leader spoke in favor of the measure. The action of the Legislature is in response to public opinion expressed by resolutions passed at many meetings in different parts of the Island.

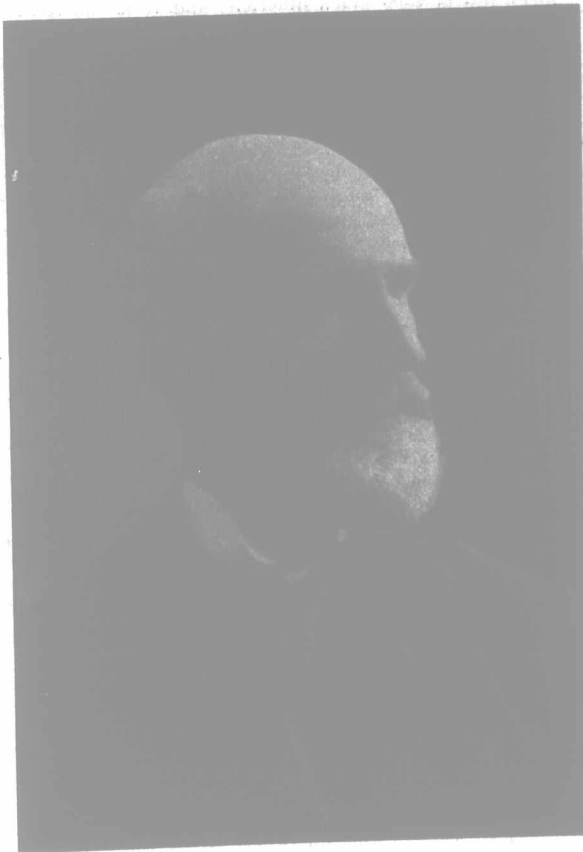
FOREST RESERVES.

If intentions are carried out, history will record as one of the wisest administrative acts of the present Dominion Government, the decision announced by Hon. Sydney Fisher, Minister of Agriculture, at the ninth annual meeting of the Canadian Forestry Association, to set aside as a forest reserve the whole Eastern slope of the Rocky Mountains, extending from the International Boundary northwards as far as the timber goes. Pertinent in this connection is a resolution passed by the convention expressing appreciation of the action of the Ontario and Quebec Governments in the announcement of a progressive forest policy, involving an increase of efficiency in the fire-ranger service, the extension of forest reservation policy and the marketing of timber under forestry rules and technical supervision.

Also another to this effect: Whereas it has become apparent that in parts of Ontario and Quebec the bush has been cleared away to such an extent as seriously and adversely to affect agricultural conditions, and it is becoming more and more evident that the individual land owner cannot be depended upon to restore the proportion between wooded and cleared land so necessary for our agricultural interests: Resolved, that this Association urges upon the Legislatures of Ontario and Quebec the advisability of reacquiring from the private owners, either for the Province or for the various municipalities, areas of broken or waste land to form forest reserves, and to provide measures for their management, with the added object of furnishing local supplies for timber and fuel purposes.

DEATH OF ALLAN BOGUE.

Mr. Allan Bogue, widely known as a successful farmer and expert poultryman, died at his home in London, Ontario, on March 23rd, after a long illness from cancer, in the 76th year of his age. Mr. Bogue had lived all his life in Westminster Township, where



The late Allan Bogue.

he was highly esteemed as an enterprising citizen, a true friend and an obliging neighbor. Ever since the inception of the Western Fair, he had taken a deep interest in its welfare, and at the time of his death, was its 2nd Vice-President, and no more practical or useful member than he ever served on the board. Mr. Bogue was recognized as an expert judge of poultry, and had officiated in that capacity at many of the leading shows in Canada and the United States. Besides his wife, he is survived by four brothers, all residing in Middlesex County.

JUDGES FOR THE CANADIAN NATIONAL HORSE SHOW.

Judges for the Canadian National Horse Show, to be held at Toronto, April 29th and 30th and May 1st and 2nd, have been appointed as follows: Harness classes, Col. Pratt, Little Rock, Ark.; Orson Moulton, Batavia, N. Y.; G. B. Hulme, New York. Saddle horses and hunters, Julian Keith, Warrenton, Va.; W. Staley Spark, London, Eng.; Col. Victor Williams, Toronto, Ont. Heavy-draft horses, Hon. Senator Beith, Bowmanville, Ont. Several American exhibitors are expected to enter; one notable horse from across the line, which, it is expected, will be shown in the saddle class, is May Morning, which won the premier honors in New York two years ago. A leading amateur Toronto exhibitor is said to be looking to New York for candidates, claiming he can buy them cheaper there than in Canada.

MUNICIPAL REGULATION OF LOCAL MEAT SUPPLY.

Editor "The Farmer's Advocate":

I beg to acknowledge receipt of your letter of March 24th, calling attention to interviews published in the Toronto Globe of that date, in which several meat packers state that the Meat and Canned Foods Act inflicts unintentional injustice on the establishments engaged in interprovincial and export trade, by imposing on them conditions not applying to those engaged in purely local or provincial business, and asking if there is any adequate reason, except the expense of administration, why the Dominion Act should not apply universally.

This matter was fully threshed out in the House of Commons last session, when the bill was under discussion. The position in this country is practically the same as in the United States, the powers of the Federal Government extending only to trade with foreign countries, or between one Province and another; while trade which is confined within the boundaries of any Province is held to be entirely under the control of the Provincial authorities. This is especially true as regards meat inspection, a subject intimately associated with public health, one of the matters which, since 1872, has been dealt with altogether by the Provincial authorities. Provision is made, either by the Municipal Act or the Public Health Act of each Province, and in some cases by both, for the establishment and carrying on of Municipal Meat Inspection, and that this legislation has up till now, in too many cases, remained a dead letter, or, at best, been very ineffectively enforced, is no fault of the Federal authorities. Further, a little consideration will, I think, demonstrate the utter impossibility of this or any other Federal department undertaking the supervision, in all its ramifications, of the local meat trade in every town and village throughout the Dominion. On the other hand, under the Provincial laws above mentioned, it is quite possible for municipalities to organize, at but little cost, a thoroughly effective system of local Meat Inspection, the machinery being in many cases already provided, and the additional expenditure required, therefore, comparatively small.

Present-day sentiment in Europe and elsewhere, especially since the recent revelations in Chicago, is very strongly in favor of the exclusion of all foreign meats, save those properly inspected and certified by the authorities of the country whence they came; and it was to meet this condition with a view to preserving our valuable export trade in bacon and similar products that the Meat and Canned Foods Act was passed and put into operation. In urging this measure upon the authorities here, I foresaw clearly the effect it would have on the public mind, with reference to the necessity for the inspection of meats for home consumption, and the agitation now making itself felt in many of the larger centers of population throughout the country does not, therefore, afford me any surprise. I am satisfied that once the Canadian public has become seized of the situation, they will insist upon the adoption by the various municipal authorities, throughout the country of a much more thorough system of dealing with butchers and the meat trade generally than has hitherto been tolerated. It does not appear to me that there is any need for or likelihood of conflict. We are setting a fairly high standard, and all that is required is for the municipal authorities to adopt, under the legislation now existing, regulations somewhat similar to ours or otherwise unsound meats, which, under present conditions, cannot enter establishments engaged in export or interprovincial trade. The first and most important step in this direction will, it is needless to say, be the providing of public municipal abattoirs, to be conducted under inspection methods similar to those required by the Meat and Canned Foods Act, especially as regards the admission either of live animals or their carcasses. The sooner the private slaughter house is abolished altogether, the better for all parties concerned, as most of the objectionable meat placed on the market emanates from these undesirable and unsanitary places. The trade in home-killed, dressed carcasses will, also, for similar reasons, gradually be wiped out of existence, and although the abolition of this form of meat disposal will probably cause some temporary dissatisfaction among farmers, matters will soon adjust themselves, and the profits to the producer will be in no way lessened, although the visceral perquisites hitherto utilized in the household will cease to be a factor. The municipal abattoir is a modern necessity, and must come. I am not yet suffering from senile decay, but I can recollect when the number of hospitals in Canada could be counted on the fingers, and when a proposal to erect an institution of this kind in a small town was looked upon as indicating a mild form of insanity. How many of the communities now possessing modern and up-to-date hospitals would be satisfied to do without them? The same will be found true of the abattoir, and if no other argument could be advanced in favor of the Meat and Canned Foods Act than the fact that it has aroused and is arousing public opinion on the great and important question of the sanitary-meat supply, this would, in my opinion fully justify its being placed on the statute books. J. C. RUTHERFORD, Veterinary Director General and Live-stock Commissioner.

Iowa raises on an average 29.5 bushels of oats per acre. Her highest average yield in five years has been 34 bushels.

THE ONTARIO GOOD ROADS ASSOCIATION.

The annual meeting of the Western Ontario Good Roads Association was held in Toronto on March 24th and 25th. The meeting was opened by Lieut.-Gov. Sir Mortimer Clark, who emphasized the importance to the country of good roads. In Canada, attention had hitherto been chiefly paid to the construction of railways, but these would be of little benefit to the farmers unless there were good roads to connect the farm with the railway. In his professional practice, connected with loan companies, he knew that the value of a farm depended largely upon its situation in relation to the roads. Bad roads blocked the transport of goods to the market, causing both loss and injury, as well as wear and tear on the horses, harness and wagons. A. W. Campbell, Provincial Deputy Minister of Public Works, stated that during the last ten years the municipalities of the Province had spent \$10,000,000 cash on roads, and if this had been handled efficiently it would have sufficed for good roadbeds for ten years. The great thing was to have a competent road engineer, and a proper inspection of the construction work. Three or four miles of road well done would be the best means of converting the ratepayers to the cause of good roads. He also advocated strongly the building of bridges in the most substantial manner, by means of cement or concrete. W. J. Gage said that Wentworth County had 150 miles of improved roads, and the county system had proved generally satisfactory to the ratepayers. They had built 25 or 30 miles of road a year. John Coffy said that Simcoe County had planned a system of nearly 500 miles of road, to cost from \$300 to \$500 per mile, and it was expected that this would be practically completed this summer. Thos. Anson, of Waterloo Co., did not believe in the debenture system of paying for road improvement. They should go slowly, and pay for the work by annual levies. The committee appointed to report on the best means to be taken to make the work of the Association more beneficial, recommended a change of name, from the Western Ontario Good Roads Association to the Ontario Good Roads Association, which recommendation was adopted, it being hoped that the change will tend to increase the membership, and interest all the county councils of the Province in the cause of good roads. The committee also reported that every county council be requested to make a grant of \$10 annually to defray expenses, and that a deputation be appointed to ask for a Government grant to defray the expenses of competent speakers and the publication of the proceedings of future meetings. The deputation will be composed of W. H. Pugsley, of Richmond Hill; Col. Farwell, of Whitby, and ex-Warden Joseph, of Simcoe. The treasurer's report showed that the receipts for the year were \$119, and the expenditure \$93. The officers elected were: President, W. H. Pugsley, Richmond Hill; Vice-Presidents, wardens of various counties; Secretary-Treasurer, Col. Farwell, of Whitby. The Counties represented at the meeting were, Ontario, York, Essex, Wentworth, Peel, Simcoe, Halton, Wellington, Elgin, Waterloo, and Bruce.

INCREASED GRANT FOR A FIELD-CROP COMPETITION.

Editor "The Farmer's Advocate":

The crop competition in standing fields of grain, which was inaugurated in 1907, in the Province of Ontario, by Hon. Mr. Monteith, proved so beneficial to all concerned that the Minister has, this year, secured a largely-increased appropriation for this purpose.

The objects aimed at are to encourage the growing of grain of the best quality, free from other varieties of grain and weeds, and also from diseases such as rust, smut, and insects.

The competitions excited much interest last year in the districts where they were held, and the results were decidedly profitable to those who were prizewinners, inasmuch as, without leaving home, they sold their grain from the fields which were in the competition to leading seedsmen at prices from 25 per cent. to 50 per cent. above market quotations.

This year, owing to the larger sum available, entries will be received from 100 Agricultural Societies, or ten times as many as in 1907. Rules and regulations governing the competition will be mailed in the course of a week or so, and I trust you will bring this important work as fully as possible before your readers.

J. LOCKIE WILSON,
Superintendent Fairs and Exhibitions Branch,
Department of Agriculture, Toronto.

AGRICULTURAL PROGRESS IN NOVA SCOTIA.

Probably the most live and vitally interesting agricultural report that has ever come to this office from the Maritime Provinces is the 1907 annual report of the Secretary for Agriculture of Nova Scotia, including the report of the N. S. College of Agriculture at Truro, presided over by Principal Cumming, who also fills the secretariate above referred to. While the Provincial Department of Agriculture is for Nova Scotia expressly, the Agricultural College aims to serve the three Maritime Provinces, and it is encouraging to note that, not only are many short-course students attracted from New Brunswick and Prince Edward Island, but of the thirty-five students enrolled in the regular course, two are from each of the neighboring Provinces.

The 1907 report, while reviewing succinctly the past year's work and prospects, detailing the steps taken by the Department to combat the brown-tail moth, outlining

the experimental work accomplished, noting the progress in the live-stock and other equipment at the College, and, in fact, covering appropriately all the multifarious phases of the work, affords space for a splendid series of specially-prepared articles on the sheep industry, made as practical as possible to the Maritime agriculturist. This series will be issued in bulletin form, and may be had on application to Principal Cumming at Truro. It is proposed to introduce in next year's report a similar symposium on the dairy industry, and, in following years, the horse industry, fruit industry, etc. Following out this plan, the Principal has in mind a series of reports which will serve almost as text-books of authority, and constitute in themselves a fairly satisfactory library shelf in the farm homes of the Province.

ALL IS NOT GOLD THAT GLITTERS.

Editor "The Farmer's Advocate":

I am writing this letter in the hope that, if published, it may prove of some help to some of your readers who may perhaps be undecided on the question, Shall I go West or not?

Persons who are perhaps dissatisfied with conditions in the East, and whose intentions are to go West, will, no doubt, have read some of the pamphlets issued by the Canadian Pacific Railway and the various land companies who have land for sale in the West. It is in the interest of these land companies to make things look as rosy as possible. They have land for sale, and usually give the bright side of the question, leaving the other side to be discovered upon the settler's arrival.

That a person can make money in the West, I will not attempt to deny, but is it not also true that lots of people make money in the East. And, then, money is not the only thing in this world. Of what use is it to go through this world hoarding up the dollars and enjoying no comforts, then, when you die, leaving it all for somebody to spend?

In the West, while conditions in the towns are very much the same as in towns in the East, still, the country life is very much different, and it is the country life that I wish to speak of: A person who has been used to living in a neighborhood where the average farm contains 50 or 100 acres, will find a vast difference when he arrives in the West, and finds farms consisting of from 160 to 2,000 and 3,000 acres. It is not quite so handy when you wish to borrow your neighbor's tools, for, instead of going forty or eighty rods, you have to go one or two miles.

It is worse still when you live on a homestead, should you be lucky enough to secure one, which it is almost impossible to do within 30 or 40 miles of railroad; in fact, I know fellows who, last summer, located on homesteads 120 miles from the nearest railroad. Think what it means to take a wife and family such a distance from civilization—no neighbors, unless it be Galicians or Doukhobors, who do not make the best of neighbors; shut off, as it were, from the world; no churches and no schools at which to educate your children. To the married man with a family, who does come West, I would say, do not homestead, unless you can cancel one within a reasonable distance of a railroad. To a young man, who has no person but himself to think of, it would not be so bad. A man with a family would be far better either to rent a farm on shares, or buy one close to the railroad. He would be nearly as far ahead in the end, for the man who has a homestead, and has to draw his grain 30 or 40 miles to a railroad, will find that he is not making much of a fortune; that expenses are about equal to the receipts. Of course, some are lucky enough to have a railroad run close to their homesteads within a year or so after locating. It is pretty much a chance game.

One great drawback in some parts of the West is the lack of water, and, in other parts, where they have a good supply, it is often very strong with alkali. A man was one day driving over the prairie, when he met a homesteader who was drawing water to his home. Upon inquiry, he found the homesteader was drawing the water a distance of seventy miles, and he asked the man if he did not think it would be handier to dig for water. The homesteader replied that he could not see where the advantage would be, as he would have to go just as far for it.

This is not true of every part, for some localities are fairly well supplied, although not so well as Ontario.

Something that will be greatly missed by those who go West is fruit. Practically speaking, there are no wild fruits, although, in certain years, in certain parts, they have good crops of saskatoons and wild plums. Wild fruits are not to be relied on, therefore the settler must depend upon imported fruits, which are usually very dear. Fruits, however, can be substituted to a great extent with vegetables, which do well in most parts.

To a person who is fairly well-to-do in the East, has a nice farm and a good comfortable home, I would say, stay where you are. If you are on a rented farm, and do not seem to be getting ahead very fast, I would say, try the West, but do not expect to come out here and make a pile of money in a short time, and go home and be the envy of your old neighbors, for I am afraid, if you do, you will be sadly disappointed. To read some of the literature on the West, one would perhaps be led to think that; but remember, such gives only the account of those who have been successful; it tells nothing of those who have failed. You may be a lucky one, but it remains to be proven.

I know of a man who has been in the West for twenty-two years, and has 320 acres of land, but it is mortgaged for all it is worth. He does not drink, nor spend his money very foolishly, but is exceedingly shiftless. He would never succeed anywhere, East or West. You will not see his name mentioned in any books on Western Canada. He is one who has never won a fortune in the Golden West. There are others.

The laboring man who has notions for the West, if he is coming with the intention of working on a farm for a year or so, and then starting in for himself, would be all right. The man who intends to remain a laboring man would be about as far ahead if he would remain in the East. Wages are slightly higher, but so is everything else—rent, fuel and food. In Calgary, which is a fair sample of the Western town, house rent runs from \$20 to \$45 a month; coal, the kind they use in the East for firing engines, costs \$6.50 a ton; flour, \$3.50 for a 98-pound sack; potatoes, \$1.10 a bushel; apples, \$1.50 to \$2.00 for a 40-pound box. Wages for a teamster run from \$45 to \$55 a month; labor from 25 to 30 cents an hour; carpenters, 30 to 35 cents an hour, and bricklayers 35 to 40 cents an hour, being very little more than in the East. The people who seem to be making the most money are the real-estate men, and even they have not done much business this winter, this being a very dull winter.

Any who read this letter, and who should come West and take up a homestead, I would advise to be very careful to select a good one, or none at all, and then stick to it. Don't be like the man who took up a poor homestead, and, after living on it some time, left it, and posted the following notice on the door: "Ten miles from water and twenty miles from wood, I've packed my grip and left this homestead for good."

ONE WHO HAS GONE WEST.

WOULD PROHIBIT AUTOMOBILING ON SATURDAY AND PART OF SUNDAY.

Among the half-dozen or more bills introduced into the Ontario Legislature this session to amend the "Act to Regulate the Speed and Operation of Motor Vehicles on Highways" is one fathered by C. M. Bowman, M. P. P. for North Bruce, which, if enacted, would oblige motorists approaching horse-drawn vehicles to "operate, manage and control such motor vehicle in such a manner as to exercise every reasonable precaution" to prevent the frightening of the horse or horses, and ensure the safety and protection of the rider or driver. Moreover, it stipulates that outside the limits of a city or town, the motorist shall stop his vehicle, including the motor, at a distance of at least 100 yards, until the horse or horses have safely passed, and shall, in addition, if deemed necessary, assist the rider or driver to safely pass; also that in case the automobile is going in the same direction, the chauffeur shall signal his desire to pass, giving the rider or driver an opportunity to turn out so that he may be passed with safety, and if the horses appear frightened he shall stop his vehicle and not proceed towards the horse or horses unless necessary to avoid accident or injury, or until the horse or horses are under control. The same bill provides for the prohibition of automobile traffic on public highways in any municipalities, except cities, between 7 a. m. and 9 p. m. on Saturdays and 7 a. m. to 3 p. m. on Sundays.

NOXIOUS WEED SEEDS IN WESTERN SCREENINGS.

During the past year or so considerable attention has been drawn in Ontario to the matter of seed impurity in Western grain. As these impurities are offered for sale for rough feed, a danger of wide infection arises through the Province. In order to have some definite information on the subject, the Botanical Department of the Ontario Agricultural College procured samples of screenings from representative districts throughout the West, and from Ontario millers who ship in Western grain. In each case twenty grams of the screenings were analyzed, and the alarm sounded turned out to have been justified, as the seeds proved almost invariably to be those of noxious weeds.

APPLE EXPORTERS' GRIEVANCES.

At a largely-attended meeting of the Ontario Apple Exporters' Association, held at the Brunswick House, Colborne, Ont., discussions took place relative to the unsatisfactory conditions met with in the shipping of apples, such as delays in securing cars, delays in transit, rough handling at the seaboard, overloading steamships, slow service, etc. A committee was appointed to confer with the traffic managers and recommend such changes as would materially improve these conditions. A motion to abolish the Fruit Marks Act was defeated by a large majority.

Following are the officers of the Canadian Forestry Association as elected at the recent meeting in Montreal: Patron, His Excellency Earl Grey, Governor-General of Canada; Honorary President, Rt. Hon. Sir Wilfrid Laurier; President, Mr. W. B. Snowball; Vice-President, Mr. Thos. Southworth; Secretary, Mr. A. H. D. Ross, Faculty of Forestry, University of Toronto, Toronto, Ont.; Assistant Secretary, Mr. F. W. H. Jacombe; Treasurer, Miss M. Robinson. The name of Mr. R. H. Campbell, who insisted on resigning as Secretary, was added to the Board of Directors. This Association has now 1,282 members, an increase of 60 during the past year.

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A Savings Account in the Bank of Toronto in which to keep your spare money, will prove to be both profitable and convenient to you.

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MARKETS.

TORONTO.

LIVE STOCK.

Receipts of live stock at the City and Junction markets last week were moderate. The total for the week was 167 carloads, consisting of 2,533 cattle, 3,258 hogs, 381 sheep, 269 calves, and 195 horses.

On Monday, March 30th, at Toronto Junction, receipts numbered 1,000 cattle; quality much better; trade brisk; prices 25c. to 40c. per cwt. better. Export steers, \$5 to \$5.60; picked butchers', \$5 to \$5.25; loads of good, \$4.75 to \$5; medium, \$4.40 to \$4.65; common, \$3.90 to \$4.30; cows, \$3.50 to \$4.25; export bulls, \$4 to \$4.75. Sheep, \$5.25; lambs, \$7.50 to \$7.75. Calves, \$5.50 to \$7.60 per cwt. Hogs, \$5.75, fed and watered, and \$5.50, f. o. b. cars at country points.

Exporters.—Last week export steers sold at \$4.85 to \$5.25; export bulls, \$3.75 to \$4.50 per cwt.

Butchers'.—Selected lots of steers and heifers, 1,100 to 1,250 lbs. each, sold at \$4.75 to \$5; loads of good, \$4.50 to \$4.70; medium, \$4.25 to \$4.40; common, rough cattle, \$3.90 to \$4.25; cows, \$3 to \$4.25; and canners, \$2 to \$2.50.

Milkers and Springers.—There was not much change in the market for milkers and springers last week. There was a satisfactory outlet for the good to choice cows, which sold steady at \$40 to \$50, with an odd extra-quality cow at \$55. Most of the medium cows sold at \$30 to \$35, and the common grades sold at \$20 to \$30 each.

Veal Calves.—There was not much change in the calf market last week. A fairly good demand prevailed for the good to choice-quality kinds. The bulk of the best sold at \$6 to \$7, and a few of extra quality, \$7.25 to \$7.50. Some inferior sold at \$4 to \$4.50 per cwt.

Sheep and Lambs.—Deliveries of sheep and lambs were light. The market was strong, with prices firm. Ewes sold at \$1.75 to \$5.25; light ewes, for local butcher purposes, \$5.50 to \$5.75; lambs of good to choice quality sold at \$7 to \$7.50 per cwt. Spring lambs sold from \$4 to \$10 each, with few being offered.

Hogs.—Receipts of hogs were moderate, with prices quoted at \$5.50, fed and watered at the market, and \$5.25, f. o. b. cars at country points, at which prices the packers failed to get anything near the number they wanted, up to the middle of last week. At the close of the week, prices were quoted at \$5.75, fed and watered, and \$5.50 at country points, f. o. b. cars.

Horses.—About 150 horses changed hands during last week at the Junction Horse Exchange. The number of buyers, which were principally farmers, was not as large as the week previous. The general quality of the horses offered was good, many excellent specimens in their

different classes were admired by all the dealers. The average of the prices was not quite as good as usual. Drafters sold from \$160 to \$195, with one of extra quality at \$245; expressers sold at \$130 to \$180; farm horses, \$125 to \$165, and serviceably-sound, \$70 to \$130. Not many drivers were sold, the prices for which ranged from \$125 to \$175.

BREADSTUFFS.

Wheat.—No. 2 white winter, 90c. to 91c.; No. 2 red, 91c.; No. 2, mixed, 90c., for May delivery; spring, No. 2, no quotations, Manitoba, No. 1, Northern, \$1.21; No. 2, Northern, \$1.18; feed wheat, 68c.; No. 2 feed wheat, 62c.; Goose wheat, 87c.

Barley.—No. 2, sellers, at 68c. Buckwheat.—No. 2, 67c.

Oats.—No. 2 white, sellers, at 47c.; No. 2, mixed, 46c., outside.

Corn.—Market firm, No. 3 American yellow, 73c., Toronto freights. Peas.—No. 2, 87c., outside.

Bran.—Scarce, full cars, at North Bay, \$24 to \$25. Shorts.—\$26.

COUNTRY PRODUCE.

Butter.—Market firm at unchanged quotations. Creamery, pound rolls, 32c. to 33c.; separator, dairy, 30c. to 31c.; store lots, 26c. to 27c.

Cheese.—Market firm. Large, 14c.; twigs, 14c.

Eggs.—It is a long time since eggs were as plentiful and cheap at this season of the year. New-laid are quoted at 17c. to 19c.

Honey.—Market firm. Prices steady. Extracted, 11c. to 12c.; combs, per dozen, \$2.75 to \$3 for choice clover honey.

Potatoes.—Market easier. Ontarios, 85c. to 90c.; Delawares, 95c., in car lots, at Toronto.

Beans.—Market firm. Primes, \$1.70 to \$1.75; hand-picked, \$1.80 to \$1.85.

Straw.—Baled, in car lots, \$9 to \$10, on track, at Toronto.

Hay.—Market dull. Timothy, baled, in car lots, \$16, at Toronto.

Poultry.—Receipts light. Prices higher, as follows: Turkeys, 20c. to 23c.; geese and ducks, out of season; chickens, 16c. to 17c.; old fowl, 12c. to 14c.; squabs, per dozen, \$2 to \$3.

TORONTO FRUIT MARKET.

Owing to country roads being bad, receipts of apples were not as large last week. Prices unchanged. No. 1 Splens, and Baldwins, \$2.50 to \$3.50 per bbl.; Talmans, \$1.50 to \$1.75; Greenings, \$2 to \$2.50; dried apples, 5c. to 5c.; evaporated apples, 7c. to 7c.

HIDES AND SKINS.

E. T. Carter & Co., 85 East Front Street, wholesale dealers in wool and hides, report prices as follows: Inspected hides, No. 1, cows and steers, 5c.; inspected hides, No. 2, cows and steers, 4c.; country hides, 3c. to 4c.; calf skins, 8c. to 9c.; kips, 6c. to 7c.; horse hides, \$2.50; horse hair, per lb., 25c.; tallow, per lb., 4c. to 5c.; lamb skins, 90c. to \$1 each.

TORONTO SEED MARKET.

The Wm. Rennie Company quote the following as their selling prices for seeds: Red clover, No. 1, per bushel, \$14.40; red clover, No. 2, per bushel, \$12.80; alsike clover, No. 1, per bushel, \$12.80; alsike clover, No. 2, per bushel, \$11.10; alfalfa, No. 1, per bushel, \$13.80; timothy, No. 1, per cwt., \$7.75; timothy, No. 2, per cwt., \$7.25.

CHICAGO.

Cattle.—Steers, \$5.50 to \$7.35; cows, \$3.60 to \$5.50; heifers, \$3.40 to \$6.25; bulls, \$3.50 to \$5.10; calves, \$5 to \$6.75; stockers and feeders, \$3.75 to \$5.30.

Hogs.—Choice heavy shipping, \$5.70 to \$5.75; butchers', \$5.70 to \$5.75; light, \$5.60 to \$5.65; choice light, \$5.65 to \$5.75; packing, \$5 to \$5.65; pigs, \$4.50 to \$5.60; bulk of sales, \$5.60 to \$5.70.

Sheep and Lambs.—Sheep, \$4.50 to \$7; lambs, \$6.50 to \$8.25; yearlings, \$7 to \$7.60.

BUFFALO.

Cattle.—Prime steers, \$6 to \$6.75. Hogs.—Heavy, \$5.75 to \$5.95; mixed and Yorkers, \$5.95 to \$6; pigs, \$4.75 to \$5.50; roughs, \$5.20 to \$5.50; dairies, \$5.75 to \$5.95.

Sheep and Lambs.—Lambs, \$5 to \$8.80, a few \$9.90; yearlings, \$7.50 to \$7.75.

MONTREAL.

Live Stock.—The run of cattle on the local markets was lighter last week than the previous week, and, as a result, prices were a fraction higher. There was but a light local demand, and hardly any from out of town, the Lenten season having a marked effect on consumption. Choice cattle sold at 5c. to 5c. per lb.; fine at 5c. to 5c.; good at 4c. to 5c.; medium at 4c. to 4c., and common at 3c. to 3c., some inferior stock being lower. The supply of yearling lambs showed a marked reduction, and, as the demand for these was good, prices advanced to 7c. and 7c. for really choice, 6c. to 6c. for good. Spring lambs were still very scarce, though becoming more plentiful all the time. Prices ranged from \$7 to \$10 each. Old sheep, 5c. to 5c. per lb. Calves becoming more plentiful; quality often very poor. In fact, over 200 of them were consigned here the other day as being unfit for human food. Calves of this nature are sold at any figure obtainable; low-grades bringing \$2 to \$4 each, and best stock, \$5 to \$6 each. The market for hogs was strong, and prices fully c. higher, owing to light offerings, and an active demand from packers. Prices, 6c. for selects.

Horses.—Last week a few good horses were sold to local cartage companies, and several buyers appeared for horses for shipment to the Northwest. In the latter case the buyers wanted to pay only \$50 or \$60, and, of course, could only get broken-down animals at that figure. They were wanted for farming operations. Heavy-draft horses, weighing 1,500 to 1,700 lbs., \$250 to \$300 each; light-draft, 1,400 to 1,500 lbs., \$225 to \$275 each; good blocks, 1,300 to 1,400 lbs., \$200 to \$225; express, \$150 to \$225; common plugs, \$50 to \$75, and choice saddle or carriage animals, \$300 to \$350 each.

Dressed Hogs.—A very good demand for dressed hogs. Sales of abattoir-killed, fresh hogs were made at 8c. per lb. Pure lard, 11c. to 12c. per lb., and compound, 9c. to 9c.

Potatoes.—The easiness which existed in the market two weeks ago has given way before the effect of light supplies. Dealers last week were not able to make purchases of really good white stock at less than 85c. to 90c. per 90 lbs., on track, and sometimes 95c., for specially fine stock. This was being sold at \$1, on track, in carloads, to the trade, and at \$1.10 to \$1.15 to grocers, bagged and delivered into store.

Eggs.—Supplies have been coming forward freely; producers shipping up closely in order to get advantage of the recent high prices, though everything arriving has been going into consumption immediately. Prices last week, however, were lower than the week before, purchases being made at 19c. for new-laid. Heavier receipts brought them down to 17c. and 18c. on Monday, 30th.

Butter.—Stocks have been running quite low, particularly of fine butter. The most of the really choice Octobers has been sold, and that remaining sold at 28c. to 29c., wholesale, and a cent to 2c. more in small lots. Current receipts brought 30c. to 31c. per lb. The quality of these is none too fine. Some of it is partly new-milk.

Cheese.—Stocks very light, there being very little demand from the other side of the Atlantic. Quotations are more or less nominal, but holders were demanding around 13c. for white cheese, and from 13c. to 13c. for colored.

Gain.—The feature of last week was the decline in the price of oats, which were in very poor demand. Prices have been on the down grade, and purchases could be made as follows: Eastern Canada No. 2 white oats, of which the market is almost bare, 50c. per bush, store, for car lots; No. 3, 48c.; No. 4, 47c., and rejected, 45c.; Manitoba rejected, 48c. to 48c.

Flour.—Demand continued on the light side, but prices were unaffected, apparently. Spring-wheat flour seemed to be more in request than winter. Manitoba patents, \$6.10 per bbl., in bags, and \$5.50 for seconds; Ontario patents, \$5.30, and straight rollers, \$4.75 to \$5.

Feed.—Bran was in excellent demand, and shorts selling fairly well. Manitoba bran, in bags, \$23 to \$24.50; shorts, \$25; Ontarios being about the same, or 50c. more, in the case of shorts; ground

oil cake, \$33 per ton, and gluten meal, \$1.50 per 100 lbs.

Seed.—Prices were a shade higher last week, red clover selling at \$23 to \$24.50 per 100 lbs.; \$17 to \$20 for alsike; \$21 to \$22 for alfalfa, and \$6.25 to \$7.50 for timothy.

Hay.—An oversupply on the spot depressed prices. Demand on the dull side, locally, and little going for export. No. 1 timothy, \$15 to \$15.50; No. 2, \$13 to \$13.50; clover mixture, \$12 to \$12.50, and clover, \$11 to \$11.50.

Hides.—Calf skins were a cent higher, dealers paying 9c. per lb. for No. 2, and 11c. for No. 1; beef hides steady, 5c., 6c. and 7c., respectively, for Nos. 3, 2 and 1, and selling to tanners at c. advance. Sheep skins, 75c. to 80c. each, and horse hides, \$1.25 for No. 2, and \$1.75 for No. 1. Tallow, 1c. to 8c. per lb. for rough, and 5c. to 5c. for rendered.

BRITISH CATTLE MARKET.

London.—London cables, 10c. to 12c. per lb., dressed weight; refrigerator beef, 9c. to 9c. per lb.

Meeting of Holstein Breeders.

At the St. Lawrence Hall, St. James St., Montreal, on March 24th, was held the annual meeting of the Quebec Branch of the Holstein-Friesian Association of Canada, President J. E. K. Herrick, presiding. The meeting was most enthusiastic. Members were present from all over the Province, reporting in their districts great advances in the use of Holsteins as dairy cows.

Mr. Herrick, in his opening address, reviewed the doings of the past year, showing the creditable increase in members of the General Society, especially in Quebec. The General Society, notwithstanding large prizes paid at the different exhibitions, and a general broad method of encouraging the breed, trying to have its merits become better known, has \$5,000 in the treasury.

A departure of the Society was dwelt on to the effect that cups would be presented at each of the prominent exhibitions to the champion grade dairy cow, providing she was a Holstein, sired by a pure-bred Holstein bull. It was realized that the way for the dairy interest to improve was for the farmer to breed up his present herds.

The Record of Performance, inaugurated by the Government, was approved, and members requested to avail themselves generally of its advantages.

Members were urged to help along the local exhibits of Holsteins. Dr. Harwood, the Medical Director of Notre Dame Hospital, advocated the advantages of Holstein milk as a diet; its vitality, low percentage of fat and quantity of solid not fat, making it the ideal milk for children, invalids and others, it being a perfectly-balanced milk. Prof. H. S. Arkell, of Macdonald College, this year would install a herd of 20 of the best Holsteins it was possible to purchase. The burning of the barns at the farms had delayed them in this a year.

It was pointed out that during the past year a cow of the breed had become the champion cow of the world, with a record of 1,247 lbs. of butter for the year, being 20 per cent. more than the best of any other breed.

Mr. F. E. Came, of Canaan Farm, announced that he was giving a silver cup for the best pure-bred Holstein bull, any age, to be competed for at the coming fair of the Jacques Cartier Co. Agricultural Association, and advised members to do the same in their different counties.

Officers were elected as follows: Hon. Jules Allard, Minister of Agriculture, Honorary President; J. E. K. Herrick, Abbotsford, President; L. de L. Harwood, M. D., 1st Vice-President; Antoine Ashby, 2nd Vice-President; P. J. Salley, 3rd Vice-President; Neil Sangster, 4th Vice-President. Directors—Ogden Sweet, N. Sutton; H. Beaugard, St. Damasc; Dr. Godreau, St. Sebastian; J. C. Pettes, West Brome; Capt. J. J. Reily, Jr., Graham; A. Fourmier, Propolis; Pierre Piscet, Contrecoeur. Secretary—Treasurer, F. E. Came, Canaan Farm, Sault Au Recollet; A. N. Delard, N. P., St. Johns, Asst. Secretary.

After the business meeting, the members adjourned to the banquet hall, where a sumptuous repast was provided by the St. Lawrence Hall.



Life, Literature and Education.

[Contributions on all subjects of popular interest are always welcome in this Department.]

PEOPLE, BOOKS, AND DOINGS.

Lady Ruby Elliot, second daughter of the Earl of Minto, and niece of Earl Grey, is to be married to Viscount Errington, son of the Earl of Cromer.

The famous Sheffield Choir, of Sheffield, Eng., composed of two hundred voices, will visit Canada next October.

Madame Alla Nazimova, the wonderful young Russian actress, who has fascinated New York for the last few years, states that she studied the part of Ibsen's "Hedda Gabler" for four years incessantly. Concerning this drama, she says: "Ibsen seems to have gathered all he had observed and known of all kinds of women, and combined them in 'Hedda Gabler.'"

An interesting point in regard to Professor Elie Metchnikoff, the famous scientist, of Paris, whose experiments are being directed towards the prolongation of human life, is that he is the brother of the original of Tolstoi's Ivan Ilyitch. "There is probably no more mercilessly real study of death in any language," says a writer in T. P.'s Weekly, "than the death of Ivan Ilyitch," and the sub-director of the Pasteur Institute, as well as the great novelist, studied it minutely. "Knowing that he was going to die," he writes, "from pyemia, at the age of forty-five, my brother preserved his great intelligence in all its clearness. As I sat by his bedside he told me his reflections in the most objective fashion possible. The idea of death was for long very terrible to him, but 'as we all die' he came to 're-sign himself,' saying that, 'after all there was only a quantitative difference between death at the age of forty-five and later on.'"

King Edward has had the famous Cullinan Diamond cut into three parts at the Asscher Diamond Works, Amsterdam. This diamond, which was presented to the King by the South African Colonies, was the largest ever known, being larger than an ordinary duck egg.

A book-dealer named Thorpe, while examining a newly-acquired first edition of Erasmus' work on marriage, "The Christian Matrimonial Institution," found evidence that it had been bound especially for the library of King Henry VIII. Underlinings and numerous marginal notes, Thorpe is convinced, were made by the royal polygamist. The book was published in 1526, the year King Henry applied to the Pope for a divorce from Katherine of Aragon. Hand-written interpolations draw attention to passages bolstering the king's contentions against Katherine. The writing, however, differs from the authenticated examples of King Henry. It may be, perhaps, the writing of a royal librarian or other employee directed to examine the

authorities to find support for the king's contention.

Edouard Belin, of Lyons, France, was the first who was able to transmit a landscape telegraphically, the first picture thus "wired" being a little church surrounded by trees. Professor Korn, of Munich, and others have been quite successful in transmitting portraits.

The Prince of Wales, at the time of his coming visit to Canada, during the celebration of the Champlain tercentenary at Quebec, will be accompanied by the Atlantic fleet, consisting of six battleships and ten cruisers. The only pageant as yet settled upon for the celebration will be the landing of Champlain. For obvious reasons, there will be no pageant of the taking of Quebec, but a monster military review of Canadian troops will be held on the Plains of Abraham.

China is an empire of dialects. It possesses, in fact, no general language that all Chinamen can speak, for the official language, or Pekin Mandarin, is scarcely heard outside of Pekin and the adjoining provinces, while the "book" languages, used for all the higher class-books and imperial edicts, is only known to educated Chinese. That the number of the latter is small, may be judged from the fact that it is necessary to learn from two thousand to four thousand characters before being able to write or read Chinese with any facility. Of late, however, a strenuous effort is being made to introduce English into the schools, and it is not improbable that it may yet be the language of China.

The Acousticon, the new development of telephony, which does away with the necessity of using either the receiver or transmitter, as at present, has been introduced into one hundred and seventy churches in the United States, and into all the offices of the new Congress buildings. By its use, it is possible to listen to sermons, addresses or musical entertainments which are being given hundreds of miles away.

In China, where the drama is held in little esteem, actors and barbers are considered too low to be admitted into the colleges.

Tokio is to have a World's Fair in 1912. It will be known as the Grand Exposition of Japan.

SELECTIONS FROM THE POETS.

The Little Sister of the Prophet.

[By Marjorie C. Pickthall. Miss Pickthall was born in England, but came to Canada at such an early age that she may be legitimately claimed as a Canadian writer.]

"If there arise among you a prophet or a dreamer,"—Deut. xiii: 1.

I have left a basket of dates
In the cool, dark room that is under
the vine,
Some curds set out in two little crimson
plates,
And a flash of the amber wine,
And cakes most cunningly beaten
Of savory herbs and spices, and the delicate
wheaten
Flour that is best:
And all to lighten his spirit and sweeten
his rest.

This morning he cried, "Awake,
And see what the wonderful grace of the
Lord hath revealed!"
And we ran for his sake,
But 'twas only the dawn outspread o'er
our father's field,
And the house of the potter white in the
valley below.
But his hands were upraised to the east
and he cried to us, "So
Ye may ponder and read
The strength and the beauty of God un-
rolled in a fiery screed."

Then the little brown mother smiled,
As one does on the words of a well-
loved child;
And "Son," she replied, "have the oxen
been watered and fed?
For work is to do, though the skies be
never so red,
And already the first sweet hours of the
day are spent."
And he sighed and went.

Will he come from the byre,
With his head all misty with dreams and
his eyes on fire,
Shaking us all with the weight of the
words of his passion?
I will give him raisins instead of dates,
And wreath the young leaves on the little
red plates;
I will put on my new head-tyre,
And braid my hair in a comelier fashion.
Will he note? Will he mind?
Will he touch my cheek as he used to,
and laugh and be kind?
—The Century.

A VICTORY FOR POSTERITY.

Without sound of drums or roar of cannon, a victory was won recently that promises great good for posterity. This victory is nothing less than the decision rendered by the Supreme Court of the United States that women may be protected by law against commercial greed. It seems that an Oregon laundryman denied, on constitutional grounds, the right of that State to put limits upon the hours of labor for women that were not put upon the hours of labor for men. The Supreme Court of the United States now declares that the State has that right. The significance of this decision no one can foretell. Fundamentally, all civilized nations think alike and legislate alike upon all questions that really affect the moral and general welfare of the people; and now that the people of the United States, through the lips of their highest legal tribunal, have declared that their women must be protected by law from influences and agencies that mean harm to woman in her matronly and motherly capacity, the day is near when the judicial verdict rendered by Chief Justice Brewer will be not only the law but the practice of every civilized nation the wide world over. Business is important. The right to sell one's labor or one's skill must be safeguarded. But more important still, and still more in need of safeguarding, is the right of every child to be well born. Healthy mothers are one of the conditions of vigorous offspring. The physical well-being of woman is, therefore, a matter of public interest that the State neglects at its peril. Heretofore, special safeguards have been thrown around women's moral well-being. A growing intelligence shows that the demand for her physical welfare is no less imperious. Wo-

man must be protected against, not only the passion of man, but against his greed as well. The matter cannot be more concisely or aptly expressed than it is in the words of Chief Justice Brewer:

"Many words cannot make this matter plainer. The two sexes differ in structure of body, in the functions to be performed by each, in the amount of physical strength, in the capacity for long-continued physical labor, particularly when done standing; the influence of vigorous health upon the future well-being of the race; the self-reliance which enables one to assert full rights, and in the capacity to maintain the struggle for subsistence. This difference justifies a difference in legislation and upholds that which is designed to compensate for some of the burdens which rest upon her." O. C.

OUR LITERARY SOCIETY.

SELECTIONS FROM THE ESSAYS ON "WHAT CONSTITUTES SUCCESS?"

It is not alone the child who is impressed by appearances. We are all more or less disposed to think that correct dress and imposing carriage indicate "somebody in particular"; in other words, a successful man. If he smokes half a dozen or more hand-filled Havanas daily, signs his name with an unintelligible flourish, and pays monthly tribute to a chauffeur, we are apt to behold him as having grasped the top rung of the ladder. Accounts of his philanthropic deeds, also of his wife's social functions, constitute part of our daily reading, and it is the man and woman upon whom the god Lucre has stamped his glittering seal that the modern world looks upon as being symbols of success. However, accumulated wealth does not necessarily imply success. It implies vastly more than this, for the measure of a man is not what he has, but what he is. Nevertheless, there is often injustice in the tirade against wealth. The man who has diligently studied business methods, and who has, with unremitting effort, reached the zenith of his business, well merits the harvest, and he has every claim to the legitimate enjoyment thereof. Yet no man has a right to tread upon foot, as stepping-stones to fortune, the meanest of God's creatures. The capitalist who thinks no more of the souls of his men than the motor-power that propels his machinery, may be a man of wealth and "standing." Also, the speculator, who frets in his office—not because of the sufferings of the starved cattle upon the frozen plains, but because he is losing money on them—may show outward and visible signs of success; but these men lack the inward and spiritual grace, without which no man may hope to succeed.

If this were the only life, and attainment were measured by dollars and cents, it might be different, but "too low they build who build beneath the stars." We are taught that this world is but a preparatory school for a higher form of existence, and if, in our endeavor for wealth and fame, it becomes necessary that "man's inhumanity to man makes countless thousands mourn," our so-called success is but a miserable

makeshift. Paradoxical as the statement may seem, true success wins in spite of failure, for honest endeavor can never be complete failure. Turning our faces with determination toward our Mecca, we must press on, hoping all things, and yet patiently enduring all things. How many of us have firmly resolved to reach some particular goal, but circumstances, over which we had no control, have prevented us. Does this mean that we necessarily fail? Not unless we permit despair to paralyze the soul. We are bound to win in a measure, though we may not attain to the height for which we have been striving. Few of us, in fact, ever do, as our infinite conceptions are often higher than our finite grasp. But we are never vanquished unless we lose heart, for we are better and broader for our ideals; we are mentally and spiritually stronger for our endeavors, and we are more patient and Christ-like in our failures. Thus, each noble effort is bound to triumph.—[Miss Jane McFaden.]

Success is making the utmost of opportunity. One man thinks money constitutes success, another fame, another power, and so on. And each of these accomplishments is a great and noble factor when rightly applied. The acquirement of wealth may be a noble career, not for the mere sake of possession, but for helping the young to higher opportunities, giving freedom from care and anxieties, procuring for us the many blessings which we love, such as books, magazines, and daily mail. It also builds our universities, libraries, railroads, steamships, and everything that we have. Wealth is the foundation of every career. Power and fame, too, are highly advantageous when used with a high and lofty end in view.

But the standard of value is not the one that has appealed to the highest consciousness of the race, as shown in the position accorded to the names of outstanding greatness. Croesus has been forgotten; Socrates is remembered with high admiration. The material accomplishments do not take in the broader horizon of the soul.

"That low man seeks a little thing to do.
Sees it and does it;
This high man, with a great thing to pursue,
Dies ere he knows it.
That low man goes on adding one to one,
His hundreds soon hit;
This high man aiming at a million,
Misses a unit.
That, has the world here—should he need the next!
Let the world mind him!
This, throws himself on God, and unperplexed
Seeking shall find him."

The nature of success is the fundamental thing. The world's standard is coarse, but the finely-made man has an altogether different measure. The world misses a man's high resolves, his noble purposes; it cannot see into his soul. Browning has expressed this thought very beautifully in Rabbi Ben Ezra:

"Not on the vulgar mass
Called 'work' must sentence pass,
Things done that took the eye and had the price,
O'er which from level stand
The low world laid its hand,
Found straight way to its mind, could value in a trice:
But all, the world's coarse thumb
And finger failed to plumb
So passed in making up the main account:
All instincts immature
All purposes unsure
That weighed not as his work, yet swelled the man's amount:
Thoughts hardly to be packed
Into a narrow act,
Fancies that broke through language and escaped:
All, I could never be
All, men ignored in me
This I was worth to God whose wheel the pitcher shaped."

The world often fails to rightly value the higher type of men. It applauds the man of money or fame, who perhaps is born to it, and with no inherent worth. But it crucifies Christ; it burns its Savonarola and Bruno; it ignores its Shakespeare; it cast Bunyan into prison, and drives William Booth out of the church. But truth is never finally crushed; so, after long years, these men of noble breed come to their own. Thus, success in the higher, the enduring sense is to be found in the evolution of the character in which the whole man is informed with all the higher attributes of human nature, which the common judgment of mankind has sifted from all others in the upward reach of the race.

Thus, success is often found in the garb of butward failure. Samuel Johnson and Goldsmith, starving for years in Grubstreet, yet each attaining an immortal name; Christ dying upon the cross, with only a mere handful of followers, and even betrayed and forsaken by those; Paul leaving family, home, wealth and luxury to follow a despised wanderer preaching a religion held in contempt.

But outward failure is not necessary; that man is successful who lives in accord with the higher laws of his being, as approved by the race; who has the classic virtues of fidelity, and courage, etc., tempered with justice and love. The man who is in his field, however narrow, however unimportant, finds room for the expansion of his soul in the cultivation of beauty.

"The clouds that gather round the setting sun
Do take a sober coloring, from an eye
That hath kept watch o'er man's immortality."

"To me the meaneft flower that blows
Can give thoughts too deep for tears."
DONALD MACCALLUM.
Frontenac Co., Ont.

THE DAUGHTER'S SHARE.

Have been a silent reader of "The Farmer's Advocate" for years, and discussions all down the years, on

the many different subjects, have struck me forcibly. One, especially, "The Daughter's Portion." God has left in the home sons and daughters. The sons work year after year. When they feel inclined to settle down they get a farm or perhaps money, and marry some good daughter of the neighborhood. The son always gets his portion. What of the daughter? She may have been clever at public school, and, through some sorrow in the home, or an older sister marrying, has had to give up her bright future and go home to work for those brothers, and all she gets for her trouble and work of years are good clothing and her board. She gets not an oversupply of spending money.

Then, the brothers get the farms, and the daughter, to make a shift, must either go and work as servant girl, or perhaps marry some man she does not love for the sake of a home. There are girls who get their share, but they are few in my district. When so much is expected of our Canadian girls, why do they not get a better chance? When a girl once feels she is out of a home, she is desperate. She is the only one who knows the depth of her position. She has no choice left, and gladly accepts, for the sake of a home, some man's offer of his hand.

Give the daughter a chance to do for herself, and in the end she will better know the value of money and what her place is in the world; and she will be more lovable and a better home-maker, better prepared in every way to take up woman's work, and minister to all the wants of those she truly and earnestly loves.

A READER.

Waterloo Co., Ont.

[Are there other opinions on this important matter?—Ed.]

"Beg pardon, sir," began the beggar, stopping a suburbanite at the ferry. "Can you spare a few cents to help me across the river?" "Haven't you any money at all?" inquired the pedestrian. "Not a cent," replied the beggar. "Umph," grunted the pedestrian. "What difference does it make which side of the river you're on?"—[Lippincott's Magazine.]

The Quiet Hour.

THE FIRST HALF-WAY.

I will very gladly spend and be spent for you, though the more abundantly I love you, the less I be loved.—2 Cor. xii.: 15.

"Come, my beloved! we will haste and go
To those pale faces of our fellow men!
Our loving hearts, burning with summer fire,
Will cast a glow upon their pallidness;
Our hands will help them, far as servants may;
Hands are Apostles still to saviour-hearts.
So we may share their blessedness with them!"

I have just come in from a meeting where several people spoke about the best way of getting into touch with the young men and women who live in lodging-houses. One speaker remarked that they were generally willing to meet a visitor half-way, if the visitor took "the first half-way." I could not help thinking that we might all do more good in the world if we were ready, not only to go half-way in making advances to others, but, also, ready to take the initiative—taking the "first" half-way. Since I began settlement work, it has often been my duty to try to perform the thankless office of a peacemaker. Two girls, who were inseparables a week ago, may refuse to speak to each other, though they belong to the same club. Once in my experience this was because one girl went to the night school one evening without calling for her friend. The "friendship"—so-called—was tossed aside as if it were of no value, and the comfort of the whole club was destroyed. What was to be done? I had a serious talk with both girls, and they were as anxious as anybody to have the breach healed, but neither was willing to take the first step. "I will speak to her if she will speak to me," said one. The other declared with equal positiveness, "I haven't done anything to make her angry; it isn't my fault, but I am not going to speak first." Do you see the difficulty? Each was perfectly willing to go half-way in a reconciliation, but it



A Perennial Border.

Golden glow, oriental poppies, iris, perennial phlox, aquilegia, hollyhocks, perennial larkspur, perennial gaillardia, peonies, foxglove, bleeding-heart, lilies, and anemones, are a few of the perennials which may be used for a border such as this.

was not the "first" half-way, and, therefore, this readiness to end the quarrel did not help matters in the least. Neither of the girls realized that, by hanging back she missed a great opportunity. There is something grand in going out of one's way to help an opponent, but anyone is willing to accept advances when properly offered—at least, anyone with any kindness of heart. If anyone who reads these words is living an uncharitable life, cherishing a grudge against another of God's children, or saying he is willing to meet any advance half-way if the person who has injured him will take the first step; then, I solemnly plead with you to let pride sink before love, and step into the honorable position of the one who makes the first advances. Love is indeed "the greatest thing in the world," and therefore an unloving spirit is the smallest and most contemptible thing to cherish. What has anyone done to us, compared with the insults heaped on our Leader? and yet He was great enough to plead for God's forgiveness on His bitter enemies. We can admire St. Stephen's noble "Lord, lay not this sin to their charge!" as the stones, hurled by deadly enemies, crushed out his fair young life; but when we are called upon to meet with a generous, outstretched hand one who has said some little, cutting thing about us, we forget that this is an opportunity to be generous ourselves. If you have such an opportunity within reach, don't let it slip away. We shall not be ready to follow St. Stephen's grand example unless we are generous in little things now, and so keep in good practice and ready for the great occasion.

Then there was another thing said at the meeting this morning that I felt was worth passing on to you. One of the speakers said that one who would do effective work in the way of "reaching" people must be willing to devote enormous time to it. She must understand the true art of gossip, and must be willing to "sit down hard in her chair," instead of looking as though she hardly had time for a call, and was not particularly interested in the matter in hand. Surely that is a very important thing for us to remember wherever we live. In city or in country, human nature is much the same. If we wish to "get at" anybody, we must be fully interested, and must show by word and action that we are interested. It is not much use to cultivate the habit of shaking hands with people when we meet them, unless the handshake has something sacramental about it, unless real cordiality is expressed by it. If someone shows plainly that he does not care about you, if he treats you with cool indifference, then don't be ruled by pride and make the breach wider. If you say, "I am going to be as cool and indifferent to him as he is to me," the consequence will be that he will at once become still cooler—trying to emulate your coldness—then you will freeze up still more, until you are both far below zero. If, on the contrary, you insist on taking the "first half-way" in the matter of friendliness, he will soon find out that warmth is far pleasanter than coldness, he will thaw, and life will be brighter and happier for you both.

Last evening I had the great privilege of hearing Archdeacon Stuck tell about the work done by missionaries in Alaska. Evidently the people who live in that country of snow and ice are very willing to meet advances half-way, but the missionary must go the "first" half-way; and he can only do that by sacrifices which show that the inspiration of the Cross of Christ has lost none of its power, but still constrains men to suffer and to die, if need be, in order to carry the good news of God's wonderful love to the ends of the earth. Think of women—tenderly nurtured ladies—going to live in a country where the thermometer drops continually to 40 or 50 below zero, often going down to 60 below, and sometimes registering 70 below! Think of such heroic souls leaving friends and equals behind, and devoting year after year in patient unselfishness to a handful of ignorant children and natives, content to be 40 miles from any white person, willing to live in close, cramped quarters with children who "always smell fishy," owing to the fact that they live on fish all the year round. One of them wrote in a letter a short time ago: "I would rather be here than any place in the world." The love of Christ must, in-

deed, fill the soul with joy when such constant sacrifices of luxury, comfort, and even the ordinary necessities of life, are not considered sacrifices at all. Some of you may know the difficulty of washing when the cold is so intense. What must it be to have almost continuous zero weather! Even the summers are not much improvement, for the mosquitoes are a perfect plague. The missionary remarked that they had "boiled mosquitoes," fried mosquitoes and stewed mosquitoes," for they would persist in committing suicide in every article of food that was cooked. The people were, as I said, willing to meet advances half-way. There was no question asked: "Why don't the men come to church?" for everyone in every village comes to church when the occasional privilege of a service is offered. But think of the toil of the one who takes the "first" half-way. Think of the tramp beside the dog-sleigh, day after day, through snow and cold. Sometimes the wind sweeps the ice perfectly bare, and the dogs have no foothold. Then the missionary has to put ice-creepers on his feet and drag the whole load—dogs, sleigh, tent and stores. Even then, the wind sometimes sweeps them all away across the ice. The mid-day rest is sometimes out of the question, because it is too cold to remain in one place without setting up the tent and cutting down wood for a fire, as is done at night. The ordinary necessities of life are not easy to obtain where everything has to be hauled by dog-team, where flour costs \$22 a hundred pounds; butter is more than a dollar, and salt and sugar are 25 cents a pound, other things in proportion. One day the archdeacon was hurrying on to keep Christmas at a fort, when he was stopped at a little village and asked to bury a child. He soon found that the child had died of diphtheria, and there were many other cases in the village. He sent on his dogs to the fort—two days' journey away, with a request for Miss Wood to come to his assistance. He at once went to work, swabbed throats, isolated patients as well as he could, gave condensed milk and soft foods out of his stores, instead of the endless fish diet, which was all the poor things had, and which would have infallibly killed the sick children. He worked on for five days until he heard the tinkle of bells in the distance, the sign of Miss Wood's approach. "And," he said, "I don't think I was ever so glad to see anybody. Miss Wood had dropped the long-planned Christmas preparations, left her school, and gone off into the freezing wilderness as soon as the call arrived. She went to work with the cheery confidence of a well-trained nurse, stamped out the plague almost single-handed, then returned to her little school without any fuss, and with no apparent knowledge that she had done anything heroic.

The archdeacon himself almost fell a martyr in the cause. On one occasion he fell through thin ice into the Yukon River. The water was up to his waist, and it was 60 degrees below zero! He had on waterproof boots so his feet did not get wet, otherwise, as he gravely remarked, he would have had "no feet" now. His great joy was when he built a church farther north than anyone had ever planted the Gospel before, raising the Cross over it—the sign of love and sacrifice in the desolate wilderness—and extending the borders of God's Kingdom on earth. He declared that he felt as Columbus must have felt when he planted his banner in a new world.

Such a lecture, with its wonderful views of that land of winter, makes one feel ashamed of the petty sacrifices which are all we are offering to our Lord and Master. We must stand ashamed and humbled before these modern saints and martyrs, who are giving up their lives in glad eagerness in order to reach hearts that are almost out of reach of Christianity. Think of it! and perhaps we, who claim to serve the same Master, are unwilling to give up for Him an hour or two a week in easy service. We don't take a class in Sunday-school, perhaps, or can't visit a sick person, because "it is such a bother." Or, like Moses, we plead that we have no talent for doing such work as lies before our eyes.

Then there is the "first half-way" in doing unto others as we should like them to do to us. We don't like people to drive hard bargains at our expense, we don't approve of those who, when working for us or dealing with us in any

way, try to get much and gain little. Well, let us go half-way, and see to it that we are generous and just in dealing with others. It is far better to be cheated sometimes than to cheat anyone else out of even a cent or two, deliberately and intentionally. Then there is the question of courtesy in the home circle. Go the first half-way in treating each member of the family with pleasant courtesy, and see how the custom will spread. Rudeness is very catching and so is politeness. It is the same with untidiness.

But, most of all, should we take care to put God first in our thoughts if we wish to help others to serve Him. There is nothing more contagious than a religious spirit, if it does not express itself in "cant" or high-flown language. It is a truism that there is nothing else in which men and women are so generally interested as in religion. But it must be real and true, the individual's personal hold on a personal God, if it is to interest other people. Let all your world know that God is the first thought in your lives, from early morning to late at night—there is no need to talk much about Him—and you will find that others will be ready to follow your example. Don't let family prayer be crowded out by pressing daily duties. If you really recognize the duty as well as the privilege of gathering the household together each day before the Throne of God, you will not treat it as too small a matter to hold its place against lesser duties. There is nothing which binds family life together so much as family prayer. Then there is the matter of grace at meals. We never read of our Lord tasting food without first thanking His Father for His good gifts. St. Paul did not omit a blessing even in the excitement and fear of his famous shipwreck. It is the "first half-way" that is difficult in these things and in the matter of kneeling down to pray, in private or in public. When the ice is once broken, the habit once established, the continuance is easy.

"Thou must be true thyself.

If thou the truth wouldst teach.

Thy soul must overflow, if thou

Another's soul wouldst reach.

It needs the overflow of heart

To give the lips true speech.

Think truly, and thy thoughts

Shall the world's famine feed.

Speak truly, and each word of thine

Shall be a fruitful seed.

Live truly, and thy life shall be

A great and noble deed."

HOPE.

CANADA BEAUTIFUL.

HOW TO MAKE WALKS.

Put the garden walk where a walk is needed. Convenience should be the first thing considered. It need not be straight, but if it be curved let the curve not involve too much of a detour. It is always well to avoid, if possible, having the walk bisect a lawn, as that makes two lawns where there was but one, and the larger a greensward can be made to look the more parklike and natural is the landscape. Avoid taking the walks circuitously around the borders, unless they are laid simply to permit of a ramble to inspect the grounds. All walks which are designed for serious use should be direct and convenient.

Some soils which contain much loam and sand will pack with tramping, and will make good walks without further preparation. But usually it is necessary to lay some material on the soil. Gravel, cinders and the like may be better than the soil, but in some cases they are worse, since the surface is loose and unpleasant to walk upon. In walks which are on decided slopes and down which the water is likely to run, any loose material is objectionable, since it slides to the low places.

All things considered, the best thing for a walk which is intended to be permanent is cement. A cement walk will last indefinitely, and while there are difficulties in laying it, they are easily overcome. There should be at least a foot or two of loose material, as brick-bats, cinders or the like, below the cement cover. If the place is low and likely to hold water, there should be even more drainage. Pound the material down, or let it stand until it becomes well settled. Then lay the cement in two courses. The first course may be

three or four inches thick, and made of well-mixed mortar, composed of one part Portland cement to ten or twelve of gravel. Before this is set, apply a finishing coat of one inch, mixed one to three. For this finishing coat, fine gravel or a mixture of gravel and sharp sand should be used.—Sel.

The Ingle Nook.

I wish you Chatterers could have been with me to-day, those of you, at least, who are frivolous enough to thoroughly enjoy visiting the millinery openings. I must confess that I do look forward to going to them every March, and that I do enjoy them, almost as much as fairs and operas and such things. Now, is that an awful confession for a staid Dame Durden to make, who is supposed to give advice and solve difficulties? Nevertheless, if you love pretty things, are interested in queer things, and have enough Irish in you to be amused at ludicrous things, how can you miss liking the millinery openings?

Besides, about this time there is such a genuine air of spring in the big show-rooms—in the tulles and laces, the chiffons and malines, the brightly-colored ribbons and flowers piled in such extravagant profusion. And, too, is there not the power of association working away down somewhere in your own consciousness? Can't you just see the trig ready-to-wears against a background, hazy though it may be, of all sorts of outings, picnics by the lakeside, drives between green fields, jolly little unceremonious visits to friends, gay evenings spent by the cricket or football field, if you are sporty enough to attend such matches? Or, can you look at the more beautiful "dress" creations (why on earth must a hat be a creation more than anything else?) without picturing yourself at "something," sitting serene in the consciousness of being prettily and appropriately "topped" . . . We used to have a young man about the office who persisted in calling the girls' hair their "crown of glory." He was mistaken, notwithstanding his authority, or perhaps he was merely juggling with transferred epithet. Assuredly to the greater number of womankind the crown of glory is not the hair, but the hat.

I mean that. Beautiful hair, the kind that counts, is a rare enough article, but who, with the necessary taste, cannot find a beautiful hat? And is it not true that the hat means more to the appearance of the ordinary woman than any other single article of apparel? Put plain, well-made clothes on a woman, give her fine shoes and gloves, and a becoming hat in harmony with the rest of her clothes, and she is bound to look well. Clothe her as magnificently as you will, on the other hand, and top her off with an unbecoming thing on her head, and you may wish not to be responsible for the consequences.

There is another element which, perhaps, enters into the enjoyment of the millinery-opening tour—the spice of adventure in it, the wondering whether you will find just what suits you. . . . If you search long enough, and visit enough stores, you will probably be successful. If, on the contrary, you buy in a hurry, and without being absolutely certain as to liking your purchase, the chances are that you may have an excellent opportunity to repent at leisure. I learned this from bitter experience last fall, when I managed to buy an abominable thing, with wings (black hen wings), that I hated on the third wearing. That hat taught me various things—one of them to avoid wings forever and ever more, that is, for ordinary, knockabout wear. They blow about, and stand straight up, and twist around at every angle, and lose their feathers, and spoil your temper. That, at least, was my experience of them.

And, now, to come down to the millinery of 1908. I noticed several somewhat new features this year, among them, the facings on some of the prettiest hats, and the pretty fashion of edging heavy insertion on both sides with velvet ribbon, the whole being formed into large, soft bows. I also noticed insertion stitched along the center of broad, soft silk ribbon, as in a large and very handsome hat of Copenhagen blue, upon which the bows were thus trimmed, the

insertion (cream) being caught down here and there with small medallions made of jet beads. Ornaments resembling hat pins, with long jet heads, and a black facing, completed the trimming. Copenhagen blue, by the way, is very fashionable this season, and very pretty and cool and spring-like it looks on those who are fair enough to wear it.

A leading feature of the millinery this year is height. When the crowns are not raised, the newest shapes have the trimming piled up much higher than for several seasons, the fabrication being made of soft ribbon bows, loops and rosettes, large flowers, such as roses and chrysanthemums, tufts of "straight" ostrich feathers, etc.

The discreet woman will, however, keep clear of too much exaggeration in any of the new modes. We saw, this afternoon, two or three towers of Babel about a foot high, under which any woman could look about as grotesque as she chose. These were "turbans," save the mark! The sailors, too, to be strictly new, this season, may be flat, but must be large, especially if of the "Merry Widow" variety,—as large as a daisy-churn top, or larger, if you choose. We saw one of such dimensions, that looked like a military review, all spread over, as it was, with scarlet ribbons and things that looked like bayonets. Another had a scarlet band around the crown, and a round pile of scarlet velvet flowers, as large as a cabbage, at one side. I put it on my head to see how beautiful I would look under it, and it immediately fell down over one ear—on the cabbage side.

But even this structure was mild and modest compared with a drooping thing in another store, a cerise (ugh!) affair, upon which a good pallful of cerise and magenta wistaria blossoms had been dumped. Miss D. (an "Advocate" spirit, who resides in the next room) declares this invention only suitable to a Central African complexion. She also gives notice of a hat she saw with a high crown surrounded by wings "turned inside out." I didn't see that. Miss D. and I, by the way, are having a grand time talking millinery these times.

Now, then, I must tell you about some of the really pretty ones. First of all, there was that Copenhagen one of which I have told you. Then there was another, quite as pretty, in the same shade, a Copenhagen chip sailor, with Copenhagen bows centered with black insertion, and black wings. We agreed with the milliner that it was a "dream."

Another very pretty hat, of a champagne shade, of moderate size, but depended chiefly on the graceful curves of the brim, which was slightly shorter in front and drooped somewhat at the back, for its effect. The sole trimming of this hat consisted of a black velvet band about the crown, a couple of big brown and champagne roses, with some foliage, and a mass of straight, black ostrich feathers drooping over one side.

A very handsome, heavy, brown net sailor, with a velvet edge, was simply trimmed with brown roses and foliage, and yet another of a champagne shade, with masses of "old rose" roses and foliage. A serviceable rough straw sailor, in tan, had high ribbon loops towards one side of the front, and a wreath of copper-and-brown chrysanthemums running round the crown.

There were also some lovely hats in cream, cream with a touch of black, and all black, the latter being chiefly in heavy net to appear as summery as possible. I noticed very few gray or green hats, but saw several in old rose. One very handsome navy blue one was made of blue net, with velvet-edged brim, and trimming of velvet ribbon appliqued with silver lace.

The most satisfactory feature about the millinery this year is, perhaps, its variety. The "mushroom" seems decidedly out, but you can buy almost any other shape and look up to the times, provided, of course, that the trimming is put on with that indescribable touch which can be felt rather than explained, and which makes the difference between stylish and dowdy millinery.

Just one more word—in choosing a hat do not fail to look to its serviceability. A tulle or malines construction may be both pretty and becoming, but, before buying, think what it may look like before half of the summer has gone, when damp winds, and dust, and the bleaching

power of the sun have done their work. We can give this advice with authority—for, alas! in this also we have been stung. D. D.

Tea Stains, etc.

Dear Dame Durden,—As my last request was answered so promptly, I am encouraged to come again. Can you tell me what will remove tea stains from linen? I have tried so many things—milk, glycerine, salts of lemon, etc.—but still the stains remain. As they are on one of my best tablecloths, they are a great grievance to me.

I thought one of our "hospital wrinkles" might be of help to someone: To remove blood stains (and what is more unsightly) from mattresses, blankets, clothing, etc., apply a thick paste made of common starch and water. When dry, brush off, and if stain has not entirely disappeared, apply again. Repeated applications may be necessary if the stain is of long standing, but, if patience is used, it will be successful. Thanking you in anticipation.

BABY BETTY'S MOTHER.

Durham Co., Ont.
On receiving your letter, I searched through and through my books to see if I could find some enlightenment as to how the obstinate stains in your table linen might be removed. By far the greater number of articles on the subject recommend treating the stains before they have time to dry by stretching the linen over a basin and pouring boiling water from a considerable height. For stains that have become "set" I found the following methods recommended:

1. To spread with a mixture of egg yolk and glycerine, and expose to bright sunlight.
2. To soak in cold water, spread with glycerine and leave all night, then launder.
3. To use Javelle water when boiling.
4. To use chloride of lime. This last method will, as a rule, remove the most obstinate stains, but it must be very carefully used, as, if not, it is destructive to the linen. To prepare it, put 4 pound chloride of lime into a pail with 3 pints cold water. Stir well, and let stand, covered, for a day or two, then strain through two or three thicknesses of muslin to remove every particle of solid matter that may remain, and cork in a bottle. When needed, apply a little to the stain (try it considerably diluted first), then rinse immediately through several waters, and launder afterwards. Be sure to keep the chloride-of-lime bot-

tle out of the reach of children. It is, perhaps, better to try this method only after every other has failed.

A Budget of Questions.

Dear Dame Durden,—Although I have never written to the Ingle Nook, I have been an interested reader for some time, and have received many helpful hints thereby. Now, I am going to drop in and make a few enquiries:

1. How can organ keys that have turned red be restored to their normal color?
 2. What will keep little green lice off a Calla lily?
 3. What will brighten the nickle trimmings on a heating stove when it has turned brown with the heat?
- I wonder if any of the Chatterers ever tried soaking bacon in buttermilk instead of parboiling. The meat browns much nicer without being overdone, and it makes such nice brown gravy. If wanted in a hurry, simply dip it in buttermilk after parboiling, it will do almost as well; but soaking gives a nicer flavor.
- We live back in the bush, six miles from the post office. My husband works at lumbering, so we are pretty well shut in in the winter. I have five children, and do all the work myself, sewing and all. Have not very much time for visiting or reading, but always manage to read "The Farmer's Advocate." I really do not know how we should get along without it. Well, I must not make my call too long, or you may not want me to come again, and I might want to.

MARGARET.
Simcoe Co., Ont.

Be sure to come again, Margaret. I hope you love the woods as much as I do. Now, for your questions:

1. To whiten the keys, lay a cotton-flannel cloth, saturated with oxalic acid, upon them, repeating the treatment, if necessary, until the keys, when rubbed, become white. Be sure to take great care that the acid does not touch any other part of the organ except the ivory.
2. Spray with tobacco water, or with sulpho-tobacco soap solution, to remove plant lice.
3. Scientific American says that ordinary rouge is used by nickel-platers to clean nickel. Mix with a little fresh lard, and apply with chamois, using as little of the mixture as possible. Wipe off with a clean rag, slightly oiled. Repeat the wiping every day, and polish as often as necessary. The following is also recommended: Take equal parts precipitated-iron carbonate and prepared chalk. When using, add a small quantity of alcohol, and rub with chamois.

Some Hints for Dapple Gray and Other Busy Women.

Dear Dame Durden,—I am one of the silent ones stepping nearer the front. I want to make a raid on Dapple Gray, and see if there are a couple of good rounds of beef and a few tongues deep down in the brine, when the building begins and the busy spring days with garden and chickens that can't be neglected. Now is the time to get ready. Nothing can take the place of a well-cured, well-cooked and, not least, well-carved round of beef. I do not think one can get more cutting out of any piece of meat for the same money as a tongue. If it is well pressed in a round shape, just large enough to hold it, and all the small bones are taken out of the root, there is no waste for serving cold. Of course, there will be plenty of nice bacon and hams on hand. Have you lots of currants well cleaned and dried, and set aside in sealers? There are plenty of empty sealers now, and currants so prepared keep well, and are always ready to use. I would have lots of apple sauce ready in sealers; it is such a help when the rush comes.

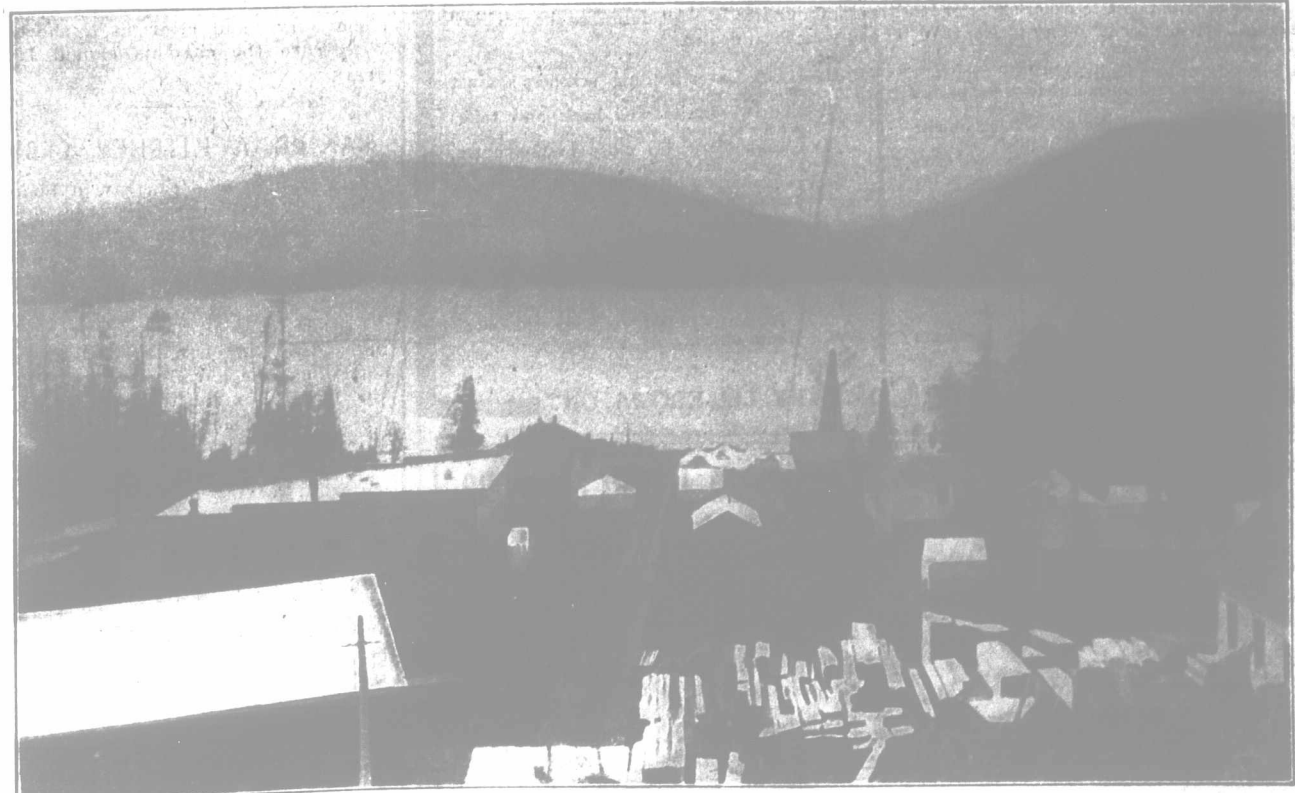
I am busy every day looking over the summer clothes. The warm days will soon be here, and it is nice to have a few shirtwaists, dark ones, with a strip of embroidery or insertion, or strip of any white shirtwaist material round the neck and cuffs, and down the front. There is no washing collars, or waiting to fix them then. If getting help is a difficulty, you will find a nice white oil-cloth for the dining-room table will be a boon where there are a lot of boys or men. I have six to send out to school, with their lunch, every morning, so I have to economize time. Hope the building will be successful—a home as well as a house. Middlesex Co., Ont. SCOTTIE.

HELD-OVER LETTERS.

We regret that several letters and inquiries re house-furnishing, etc., arrived too late for insertion in the present issue. These will be dealt with, if possible, next time. May I urge upon my Chatterers again the necessity of asking questions fully a month before it may be necessary to use such hints as may be given? We often have to search for information, visit stores, consult with experts, etc., and all this cannot be done on too short notice.

NOTICE RE HAND-BAGS.

So great has been the demand for our hand-bags, as subscription premiums, that the supply has been exhausted. Until further notice, no more can be supplied.



The Beginning of a City.

Prince Rupert in her initial stage. Surveyors are now at work laying out the site. It is expected that when this is completed, the rush will be great, and that Prince Rupert will start with a population of 20,000.



Just try a blended flour once and see for yourself that it *does* make **WHITER** and tastier **Bread and Biscuits—LIGHTER** Pastry—**MORE DELICIOUS** Cake.

And there's good reason for it, too.

Blended Flours

combine the rich nutriment, the whiteness, lightness and delicate flavor of Ontario wheat with the strong qualities of Manitoba wheat.

For all home baking—no flour, milled only from spring wheat, can compare with a **BLENDED FLOUR**.

Look for this trademark on every bag or barrel of flour you buy.

Take no other.

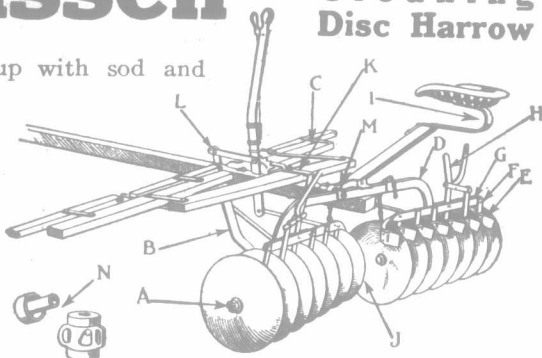
"Made in Ontario"



The "Bissell" Is a Self-Cleaning Disc Harrow

It does not get choked up with sod and fibre like many other machines you know of. Why? Because on the "Bissell" the scraper blades are adjusted so that they draw to the plates and meet them chisel fashion. This means that they cannot be forced apart from the discs but will cut right through the dirt, fibre and grass, and automatically clean themselves.

The arrows point to other superior features, and our free booklet describes the machine in detail. Write for it to-day to Dept. W or ask your local dealer.



- A.—Prong nut of Malleable Iron securely threaded and pinned; keeps the plates tight.
- B.—Heavy Steel Braces $1\frac{1}{2} \times \frac{1}{2}$: make the frame strong and rigid.
- C.—A good three-horse equalizer draws the Harrow straight: ample room for all the horses.
- D.—Solid Steel Beam forged at the ends: all in one piece.
- E.—Scraper Knives peel off sticky soil endwise like a chisel.
- F.—Clod Irons extend down below the axle and keep the spaces free and open.
- G.—Scraper Beams trussed with two bars of steel.

- H.—Lock Lever holding scrapers against the plates.
- I.—The Driver sits well back and takes away all neck weight.
- J.—Gangs work up close in the centre, and cut all the ground.
- K.—The horses hitch close to the work making light draught.
- L.—Lever Strap is adjustable for change of cut on gangs.
- M.—The Chains regulate the Harrow and furnish control of its tremendous capacity.
- N.—Improved Ball Bearings throughout—40 anti-friction balls do the work like a charm.

T. E. BISSELL COMPANY, Ltd., ELORA, ONT.



Women Cured at Home!

Women's disorders always yield, from the very beginning of the treatment, to the mild but effective action of **Orange Lily**. Within two or three days after commencing its use the improvement becomes noticeable, and this improvement continues until the patient is completely cured. **Orange Lily** is an applied or local treatment, and acts directly on the womanly organs, removing the congestion, toning and strengthening

the nerves, and restoring perfect circulation in the diseased parts. In order to convince all suffering women of the value of this remedy, I will send a 35-cent box, enough for ten days' treatment, absolutely **FREE** to each lady sending me her address. **MRS. F. V. CURRAH, Windsor, Ont.**

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

About the House.

HOUSECLEANING HINTS.

A Furniture Polish.—Take crude linseed oil, two parts; spirits of turpentine, one part; adding a tablespoonful of salt to each gallon of the mixture. Shake very thoroughly, and apply with a soft flannel cloth. Let stand an hour, then polish with chamois. The disagreeable odor will leave in a few hours.

To Clean Gilt Frames.—Brush all the dust off the frames, then clean with a mixture of white of egg and common soda. Use one ounce soda to the whites of three eggs.

Laundrying Lace Curtains.—Shake and brush the curtains free of dust. Dissolve a little washing soda in some warm soft water, and clean the curtains by rinsing them about in it; do not rub them on a board. If they are cream-colored, they will need no bluing. Put through a thin starch in which a tablespoonful of powdered borax has been dissolved, stretch, and dry quickly in the bright sunlight, if it is desired to bleach them. Be sure to have starch exceedingly thin. Curtains should hang in graceful folds, and this cannot be brought about if they are too stiffly starched.

To Wash Blankets.—Use plenty of soft water. Dissolve Pearline in the wash water, and wash well, then rinse through several waters, having each hotter than the one preceding it. Shake out well, pull straight, and dry quickly in an airy place, where drafts of air have free circulation. When dry, leave the blankets exposed to the bright sunlight for a while before putting them away for the summer.

To Clean Wall Paper (A New Way).—Fill small cheesecloth bags with corn meal, and brush as with an ordinary cloth. To remove grease spots from the paper, put a sheet of blotting paper over the spot, then apply a hot iron. Afterwards rub the place with Fuller's earth.

To Clean Soiled Photographs.—Rub with Fuller's earth.

To Clean Spots from Japanese Matting.—Cover the spot thickly with chalk and moisten with benzine. When the benzine has evaporated, brush off the chalk and the spot will have disappeared. Straw matting may be cleaned by washing with warm water in which a little oxalic acid has been dissolved. Apply with a scrubbing brush, then rinse very carefully with clean water, using a soft cloth, and wipe dry. Clean but a small space at a time.

To Clean Windows.—Try washing windows with a piece of chamois, using tepid water in which a little soap has been dissolved. Wring the chamois out of the suds as dry as possible, and wipe the window over carefully, washing the chamois out according as it is soiled. By this method the windows are said to become dry and clear in a short time. With care the chamois should last for years.

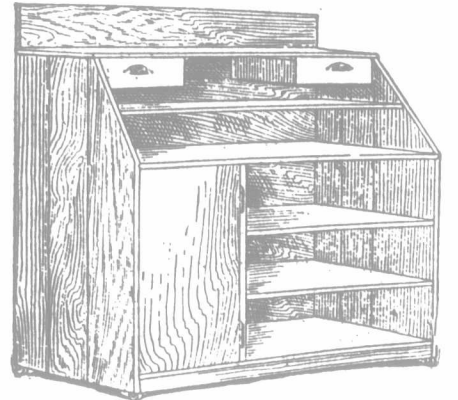
MAKING A KITCHEN CABINET.

Any woman who can saw a board and drive a nail straight (and there are many such, time-worn jokes to the contrary), can make for herself a roomy and satisfactory kitchen cabinet, and at little expense.

Procure a small-sized organ box, costing \$1.50 or less, these being shaped something like a roll-top desk, with one side of the box shorter from the base up, and having a slope toward the back. Remove the boards from the shorter side of the box, and lay aside to use for shelf material, leaving only one board on top of the slope, to serve as a shelf when done. Nail a strong strip on each end of the box, inside, at about ordinary table height, and choosing the strongest of the boards, lay these on the cleats, and nail to position. This is the table bed of the cabinet. The space below this may be divided into two sections, if liked, one to be filled in with shelves, the other fitted with drawers in which to keep flour, sugar, etc. If the skill of the worker is sufficient to make and hang doors, these will add to the appearance of the cabinet, as well as protect the contents; otherwise curtains may be hung on rods or wires across the front. In the space above the table bed (which should be covered with oilcloth, or zinc, if obtainable) set shelves, not so wide as to

interfere with the use of the table portion, screwing hooks on the under sides, on which to hang small articles.

There is no hard and fast rule as to the fitting up of the inside of such a cabinet, this should be gauged entirely



by individual needs, and possibly by the ability of the worker. Add casters to facilitate moving, and paint any color to match or harmonize with the kitchen furnishings; and you will have a cabinet you need not be ashamed of.—A U. S. writer.

HOW TO DISPOSE OF DUST IN FURNACE-WARMED HOUSE.

After much study I had the registers, which bring in warm air, and the outlets for foul air into the chimney, placed on the same side of the room, an inside wall, and on a side opposite an outside wall. Be sure you understand this. For example, in my room, where I am now sitting, the north wall is an inside one. A side-wall register in this brings in warm air. On the same side, at the floor, is a 6 x 8-inch register into a chimney flue to take out air from the floor. The opposite wall, to the south, is an outside one. Our three living-rooms below open together with wide double doors, so they are practically one room. A grate is situated about in the center of the three rooms, which makes a good outlet for air from the floor of each room. The warm-air registers are located by an inside wall in each case, and opposite an outside one. Two rooms have bay windows in them. The registers in each case are opposite these windows, and so is the grate. Now for the working of the plan, which is very simple. When warm air comes from a register it rises. When this warm air, gradually spreading across, reaches the opposite outside cold wall, it slowly cools and sinks. Warmer air naturally rises, and cooler air settles. The outlet register, or grate, is drawing air out of the room steadily. It is the coldest air, which is along on the floor. It will never draw down the warmer air from above. Thus there is a steady, never-ending, but imperceptible and somewhat circular movement of air in our rooms, first up and over, then down outside wall and along floor, lastly, back to outlet up chimney. Much of the dust goes with it. If the outlet was in outside wall, opposite inlet, you can see we would lose the movement along floor partly. The complete circular movement is best.—T. B. Terry, in *Practical Farmer*.

A LESSON IN IMPUDENCE.

"Hello, Turnips!" said an arrogant young man to a farmer driving along a country road. "Give a fellow a lift to Newton?" Without waiting for a reply he jumped into the cart: "I might as well ride with you as walk."

After two or three miles had been covered, the young man paused for a moment in his chatter, and remarked: "It's more of a distance to Newton than I supposed."

"It is a good distance," answered the farmer.

Another twenty minutes passed, and then the young man inquired:

"About how far is it to Newton?"

"Well," replied the farmer, "keepin' straight on the way we're going now I sh'd say 'twould be a matter o' twenty-five thousand miles or so; but if you was favorably t' gettin' out o' my cart and walkin' it back, it isn't very much above eight miles."

The Young People's Department.

[All letters intended for the "Young People's Department" must be addressed: "Cousin Dorothy," 52 Victor Ave., Toronto.]

CORRESPONDENCE.

Dear Cousin Dorothy,—I have been reading the "Young People's Department" ever since you started it last summer, and have always found it interesting. The older "children" do not seem to like writing as well as the little ones, do they? I wonder how many of the readers are like myself—the oldest child of the family. Are you expected to know where the most of their stray belongings are? I am, pretty often, especially by my baby brother, who is quite insulted when I call him that, for he has reached the mature age of five years. I wonder how many are trying to master the great science of cooking. My greatest trouble is making pie crust. It is always tough as a board. One time, father asked what was the matter with it; it was too hard to swallow, and wouldn't melt in his mouth. That settled me for a while, and I have not tried for over a month. Mother had me watch her for a while the other day to see if that would help me any, but I think I will wait till some day when they are all away before I try again.

Isn't this an awful stormy winter? Don't have to look far for snow for taffy this winter. Well, this is long enough for a first letter. May be Cousin Dorothy will think it is not interesting enough, and put it in the W. P. B. Well, I will say good-bye for this time, wishing the Y. P. D. every success.

FAY.

I am pleased to hear that you have found the Y. P. D. interesting. If more of the young people would write nice, chatty letters like yours, I should feel as if I knew them better, and find out what they like to talk about.

Now, as I see you are interested in pie-crust, let us have a little talk about that. Pie-crust is a very serious thing, but it should not be weighty! I think you are right in putting off your next attempt till there is no one about. Everything about pie-crust should be cool, and nothing makes one so hot and nervous, as the feeling that someone is looking on. I have made a few discoveries myself, which I will pass on to you, as I have now made four pies in succession which my father highly approved. To cover one deep pie, you should have a cup of sifted flour, a third of a cup of shortening, a little salt, and a quarter of a teaspoon of baking powder. But the main thing that I have discovered lately is that if the shortening happens to have been left out of doors in freezing weather, and if you chop it into the flour, without putting your hands into it at all (mix really cold water into it with your knife), you never have any trouble about rolling it out. If the shortening melts a little bit, your troubles begin. Fold the dough up, and roll it out three times, with flour on the board and roller, of course. This is just ordinary family pie-crust, and, in the city, we don't even put any butter in it; but it tastes all right. The only way to learn cooking is to practice it; but experienced cooks are not always the best teachers, as I found out when I used to entreat my mother to tell me the exact quantities. "Why, I don't measure anything like that," she would say. "Just put in what seems the right amount." Write again, and tell us how you are succeeding. C. D.

THE TIMES OF ELIZABETH AS COMPARED WITH OUR OWN.

In reading of the condition of the country and people during the reign of Queen Elizabeth, perhaps the first fact which strikes us at this particular time is the financial condition. Very early in her reign, Elizabeth showed her wisdom by endeavoring to build up her country. Although she encouraged the people in strengthening the defences, she used her influence in the cause of peace, knowing that war would drain the country of both men and money. As a result the

people were more comfortable, and money was more plentiful than ever before.

At that time, all large towns had their weekly markets, much as we have to-day; and, in them, the conditions were much more favorable to the seller than the buyer. When the time for paying their rent came, poor men had to sell their grain; but the rich farmers, instead of selling, bought up what was on the market, through a "hodger," or, what we would call a broker, so the poor laborer, coming to buy a bushel or two, found that the farmer would not sell in small quantities. The rich man kept it stored until the price went up, or even shipped it out of the country. This scheme was practiced in other things besides grain, thus causing high prices and some suffering among the very poor. I think that in this respect things are not so very much changed even now.

In spite of high prices, never before had the tables been so lavishly provided, or with such a variety of eatables. In the houses of the nobility, all kinds of meat, venison, fowl and fish, besides many kinds of sweets, appeared on the table at once. But it is said that they did not overeat. Of course, it was impossible to taste everything, so each took what he liked best, and the rest was passed on to the servants, then to the poor, of whom there were always some at hand. The same variety was seen in the beverages. As for silverware, it was so common as to be little thought of, and fine Venetian glass was used in many of the houses of the rich. Much time was wasted in eating; the table being spread five or six times in the day.

Perhaps the most notable feature of the period was the manner of dress. The English were very fickle in this respect, and followed the fashion of one country, and then another, and sometimes a mixture of several; so that William Harrison, in his "Elizabethan England," says: "Except it be a dog in a doublet, you shall not see any so disguised as my countrymen of England"; and "How hardly can the tailor please them in making it fit for their bodies! How many times must it be sent back again to him that made it! What chafing, what fretting, what reproachful language, doth the poor workman bear away! And many times when he doth nothing to it at all, yet when it is brought home again it is very fit and handsome." That part sounds rather familiar, but, still, I think that in spite of the talk about present-day fashions, we have certainly advanced. Men's hair and beards were equally changeable. Their hair was sometimes curled, left to grow long, cut short, or cut round below the ears. "If a man have a lean and straight face, a Marquess Otton's cut will make it broad and large. If it be platter-like, a long, slender beard will make it seem narrower; if he be weascheeked, then much hair left on the cheeks will make the owner look big, like a bowled hen, and as grim as a goose." But enough of the fashion; it still takes up too much time and thought.

The law was very severe regarding punishments; and rather too impartial. Robbery, manslaughter and murder were all punished by death. Although the rack and many instruments of torture used in other countries were not used in England, still offenders were tortured in other ways, as being burned to death, or having ears or hands cut off. Our laws have been much changed since then, and very much improved in the cause of humanity.

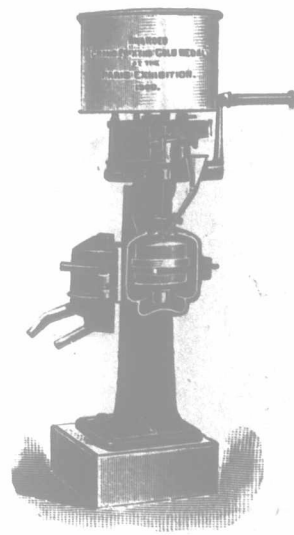
The Reformation and the spread of printing roused the minds of the people to high thoughts, which were expressed in some of the finest literature of the world. Although there were many novels and short-lived works written then, I think that there are a great deal more, in comparison with better literature, written now. Then, men wrote in a florid style, using many words; now they use a plainer, more concise form, being more anxious to be well understood by the public than early writers, who wrote more for men of learning.

When we think of the ignorance of the lower classes at that time, and then of the great educational advantages open even to the very poorest now, and the wonderful mechanical and scientific inventions, we cannot help but wonder what the world will be like in another three hundred years.

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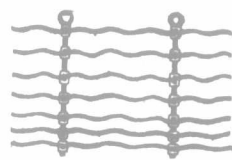
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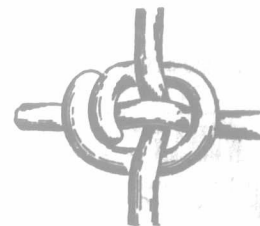
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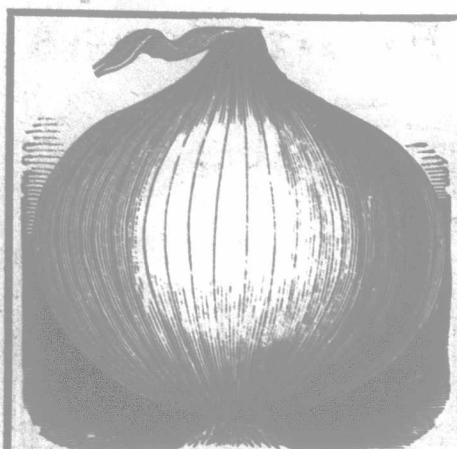
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POWER LOT:

A Story of "Down East."

BY SARAH McLEAN GREENE.

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CHAPTER II.

Without His Latchkey.

Some time later it was my business to sail a person by the name of Mr. Robert Hilton over from Waldeck to Power Lot.

He was big, tall, handsome, stylish fellow, and he recognized me as the person who had come to meet him with a grin that sort of mellowed my heart toward him, in spite of all I had heard about him.

"Cap'n Turbine, ain't it?" he inquired politely and solicitously—"Cap'n Jim Turbine?"

"Sure."
I got him and his luggage aboard. The boat lay over to a stiff wind and pelted along on her side. My passenger hunched up his richly fur-coated frame as a shield against the wind, and attempted to light a cigarette. Any number of times he was baffled by the rude force of the elements, but he showed a hopeful persistence. Patience, too, and a gentlemanly and modified use of cuss words. "Holy thunder!" he exclaimed once, as a blast tipped his hat aside and whistled in his ears. But he only grinned appreciatively at me as the bit of paper clinched between his lips went out in blackness again. He fumbled meditatively in his vest pocket in a vague searching for something that was not there.

"Gad! they've cribbed my latchkey too, blame take 'em!" he said with reproachful sorrow.

He could talk pretty straight, though there was an atmosphere about him as of one pickled, and quite long pickled, with grog, and as if he had, moreover, taken a fresh exhaustive turn at the fountain just before embarking.

"What is there in it, up here on this blame Peary expedition, huntin' up 'xplorers' remains 'round the north pole, to reform me, eh?" he inquired confidentially.

"Say, you better ask me something easier," said I.

"So I will," he responded obediently. "I'm from New York, Cap'n Turbine—been four days an' nights by rail gettin' to that little station back there—didn't know there was such a place as this within four days o' New York—never dreamed o' such a thing—very fine country, Cap'n—very fine sea-view scenery—hic—" said he, humping himself down in complete oblivion of the ocean sublimities spread wide before him—"but New York's a great place too, Cap'n Turbine—great place, New York."

"You wish you were back there right now, don't you?" I called to him cheerfully, for after all there was something pretty brave about him.

"I do," said he, solemnly and confidently, reaching out his hand to me. "I do, Cap'n."

He seemed to be thinking of laying himself by for a prolonged nap, so I tried a bracer of a question on him. "I didn't want, just for his own sake, to bring him into port like so much sack-goods."

"Say, are you a specimen of New York young men generally?" I shouted at him through the wind.

"Hear what I say?" His eyes glistened, like the eyes of a gentleman who condones ill-behavior from one naturally boorish and benighted.

"I am not," he said.
"Still," said I, shouting another bracer at him, "I guess you had company enough so as you didn't get lonesome, eh?"

He ignored me for the thoughts of the past that swept over him. They

were plain to see on his face, and brought a pang that righted him a bit. His face was sadder to see in that haggard despair because its natural expression was as sunny as any ever I've seen in this vale of tears. So I watched that suddenly old, sad face, wishing that I had a morsel by way of comfort for him, and knowing all the time that what he needed, if he was going to come into port on his legs, was a bracer, and still a bracer, and again a bracer.

"Wake up!" I called. "Can't you answer a man's question?"

Deliberately he lifted his head that had been bowed on his hands, and his blue eyes still condoned me and my ignorant offenses of speech and manner. He smiled at me kindly, pathetically.

"Jim—Cap'n Turbine," said he, "I've had too much latchkey, fir's an' las', un'stan'? I say," he repeated impressively, pointing his finger at me—"do you un'erstan' that remark?"

He had taken command of the whole situation with his fixed gaze and uplifted finger, and I thought it best to let him stay on top and get interested if he could.

"Yes, sir," I replied meekly, "I understand."

"I had two frien's—always with me—us three—always together—we three—same size as me—same age as I—fine boys—great boys, Dick an' Charlie—an' they're dead, Jim. So young, both of 'em, all of us—an' they're gone, Jim—Too much latchkey."

"Swallow 'em?" I asked, looking at him eagerly, with open mouth.

He shook his head, smiling sickly, but the necessity of superintending my ignorance on toward some light kept him awake, and he straightened himself with a desperate effort.

"Let me 'xplain to you, Jim," said he, renewing his solemn gaze. "When I was a little shaver, my father said to me, 'Rob, when you're sixteen years old you shall have latchkey too,' he said. Latchkey—son of millionaire—New York City—means—hic—pretty good time. Not swallowin' latchkey, no, Jim—but havin' pretty good time."

"Couldn't you 'a' used it decent?" "I could, Jim," said my informer, still in his superior monitory fashion, "but I didn't."

I knew his story already. I was not taking him off his guard, but I'd got to keep him awake telling it, himself.

Tears had come to his eyes at the thought of "Dick and Charlie," and in speaking his father's name. Above all just now, he felt that he had to overcome my ignorance and stupidity, and he nerved himself heroically for the task.

"Lis'n, Jim! Latchkey—New York feller like me—father, mother, dead—big house—all your own way—nice fellers for your frien's—means—hic—means—two o'clock in the mornin', Jim."

He smiled indulgently, and gave evidence of sinking off into repose.

"Now, you listen," I cried, "you listen to me!"

His look of supreme forbearance changed to an ugly darkening of the eyes as I went on; but he grew alert. "One fine day," I shouted at him from the helm, through the roar of wind and wave—"one fine day, about noon, as usual, you were stretching and yawning on your soft bed preliminary to getting up, but when you tried to get up you found you couldn't. You found your legs wouldn't hold you. That was a

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beautiful room where you lay staring for a minute straight at the ceiling, with your heart broken, and no wonder, poor lad; but you're all right again now, and as fine built a fellow as ever sat slobbering tipsy as a fool in an honest man's boat. But say, that was a beautiful room you had back there in your brown-stone house; you had that room frescoed to suit yourself, peaches and grapevines and bunches o' grapes and baskets o' grapes an' bacchanalian figgers flyin' all around the walls an' ceilings—

"How in thunder, you clodhopper," he bawled back at me, in any scorn, "do you know anything about frescoes an' bacchanalian figures?" "I got an example right before me," I call.

"Call this bacchanalian 'round here?" he snorted. "I call it wild and cold as hell." "Call it what you like," I challenged him. "I'm going on with my story. I'm a wizard. You didn't know that? Well, you listen. This fine fellow in this beautiful room, he touches a button at the head of his bed, and a man-servant comes in, and he send him for the family doctor. That doctor, that cared for his father and mother, has grown to be one of the most famous medical men in that big city, in the world for that matter, and he takes a special interest in this young fellow, by reason of having known and loved his father; and he works over him and stands by him, giving him the most patient, skillful medical aid in the land for weeks together, until this young fellow can walk again. Is there anything familiar in this narration?"

"If you weren't such a boor, I'd knock you down," said he, nostrils quivering and eyes aglowing black by this time. "People that know anything—don't deal in personalities."

"I'm nothin' but a fly-away wizard of the north," I responded. "Just hear me. This young fellow could walk again. But this good doctor says to him, 'Rob—whisky and brandy and rum and champagne and cigarettes have got to be dropped,' says he, 'and you're young, only twenty-five, your constitution 'll bring you out of this for good and all. But, go back to whisky and brandy and rum and champagne and cigarettes, the way you been a-doin'," says he, 'and you'll get foundered again, and next time, neither I nor any other doctor 'll be able to bring you out of it,' says he. Now, Mr. Hilton, did I hear that doctor's warnin' arid as I went flyin' past on my broomstick?"

"D-n you!" says Rob, gritting his teeth, "if you weren't a hairy wild man that never smelled civilization—"

"You pause on interruptin' me," I roared, "or I'll wipe the deck with ye. Now I got a question to ask ye. Did that young man quit, the way the doctor told him? Did he? Anybody but a lunatic or a coward would 'a' quit. Now, did he quit?" I had my man on his feet at last. The boat leaped to another wave, and he staggered and lunged over, and sat, sick and quiet, huddled in a heap again.

"You listenin' to the magician?" I called. He roused himself, and his angry eyes met mine with sullen hate and contempt. "If I could keep him interested a while longer I believed that I could bring him into port on his legs."

"No, no, he didn't quit," says I, loud. There was nobody but Rob and the sea to hear. "Oh, no, he didn't quit. He sat on the fence for a day or two, then he went at it again—whisky and brandy and rum and champagne and cigarettes—and all his other nice habits. He went into 'em again as hearty and devoted as a hog to its trough. Lord, I couldn't help cryin' myself as I sweep' past on my broomstick. He was such a handsome fellow. In shape and feature the Lord had made him for the heavenly hosts—and all

he wanted was a pig sty! Such a generous, patient, fine fellow—a gentleman. What wouldn't I give if I could 'a' had his training? Lord, it doesn't seem to me I'd 'a' thrown it all away."

I was feeling what I said pretty deep, and I set my face to the helm. Rob was silent for some minutes. I did not look his way, but I knew he was awake and studying me.

"Cap'n—" he cleared his throat at last—"Cap'n Turbine?" "Well?"

"Any fellow that says you're not a gentleman 'll get the size o' my fist. But look here, Cap'n."

"Well?" "Who told you all that?" "I guess a gentleman wouldn't tell, would he?"

"No! Fact! He wouldn't tell. Don't you think, though, it was a dirty trick, when I was packed off here to get me away from the past, to go and send all the details of a fellow's record on ahead of him?"

"Nobody knows it, and nobody's going to know it, but Mary and me. You can trust Mary and you can trust me."

"Your wife, Jim?" "Lord!" said I, and I felt my face burning summer, though it was March out there on the bay.

"Beg your pardon, Jim." "She's not my wife, and she's not my sweetheart. She's a top-notch—way beyond me. She's one o' your sort, by education and by nature, though she was born up to Power Lot, God Help Us."

"I haven't any education, Jim. I shirked all that. I've been at the pig-trough, as you say. Haven't even gone in for athletics. Travel—New York—wherever I was—I was mostly with my nose in the trough all the time, Jim. So, 'ceptin' you—and 'Mary—they won't know about it there where I'm goin'?"

"No." "When you were flyin' along on your broomstick—he smiled appreciatively; he seemed to have a mortal weakness for relapsing into good nature—"did they tell you how they worked it to get me off here, this—hic—hic—unseasonable time o' year?"

"Something. Yes." "Said my money—said my fortune was in temp'rary—anyway—'clipse—hic—eclipse, and I got to go to work to earn my bread. You believe that d-n rot?"

"I believe you've got to work if you have anything to eat. Yes."

"Do—you—believe"—said he transfixing me with his solemn look and monitory finger again—"that my fortune's gone into 'clipse?"

"It looks to me as though you were in as desperate a fix as I ever saw a fellow," said I.

He regarded me mournfully, like a child unconvinced, but despairing of candor in his subjects.

"It looks t' me," said he, "as though they took 'vantage of a fellow's c'ndition to play nasty joke on 'im—doctor—lawyer—business man'ger—all. But I ain't dead yet, Jim. I'll put 'em where they b'long."

It was running in my head what I had heard—the doctor said that it was a case for surgery, of cutting Rob off from his income, his associates, and his latchkey; that decrepitude and death lay quickly waiting for him along the old lines, premature paralysis and untimely death; that his one and only chance for manhood and life itself lay in the application of heroic treatment; lay, in fact, in poverty, deprivation, hardship, work. I understood that, when—and if—he got the fiber of a man again physically and morally, his worldly fortune would be waiting for him, only augmented by this interregnum in his spendthrift pleasures. Still he kept awake. He was studying me narrowly.

"You seem to know everything. Why didn't they send me 'broad again like a Christian, 'stead o' up here to the end o' Nowhere?"

More bracing for labor here." "How'd they come to know o' this glash—glashial resort?"

"Well, you see, Mary Stingaree

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Guaranteed true to name, healthy, thrifty, clean. Plants, Bulbs, Shrubs. Roses Guaranteed to Bloom First Season. Large stock Strawberry, Raspberry, Currant plants.

HERBERT RASPBERRY yielded Dom. Gov. Farm, Ottawa, 10,250 quarts per acre; 12 plants, 50 boxes; double cropper any other. Don't take our word, see Gov. Bulletin 56. We own introducer's whole stock, best, purest; 75c. a dozen, \$5.00 a 100.

It's mighty poor business to buy a thing anywhere before seeing our list; saves you half. Tells you how to grow blight-resistant potatoes. Method endorsed by experts. Worth \$1.00, but it's free. Send for it now.

RIVERVIEW NURSERY CO. Box F.A. Woodstock, Ont.

POULTRY AND EGGS

Condensed advertisements will be inserted under this heading at two cents per word each insertion. Each initial counts for one word, and figures for two words. Names and addresses are counted. Cash must always accompany the order for any advertisement under this heading. Parties having good pure-bred poultry and eggs for sale will find plenty of customers by using our advertising columns. No advertisement inserted for less than 50 cents.

BUFF ORPINGTONS—Choice quality. Eggs \$1 per 15. John Taylor, Jr., Galt.

BARRED ROCK eggs from elegant matings. Eight-page catalog free. W. W. Dods, Alton, Ont.

BUFF ORPINGTONS—Splendid cockerels for safe. Also few pullets. Prices right. James McGressor, Caledonia.

BUFF LEGHORNS; ninety on laid forty-one doses. December-January. One dollar setting; four dollars hundred. F. Nurse, Alton, Ont.

BUFF ORPINGTONS—Pure-bred—Eggs, \$1 per 15. 9 chicks guaranteed \$5 per 100. Extra heavy layers. Hugh A. Scott, Caledonia, Ont.

CANADA'S BEST—White Wyandottes. Won every 1st prize, Great Dominion Exhibition. Eggs, two dollars setting. Handsome illustrated catalogue free. Wright Brothers, Box F, Brockville Canada.

DUCKS—Indian Runners—Ducks, twenty-five Indian Runners for sale. Eggs now ready for shipment. Also Black Orpington eggs from choice stock. Some Indian Game Hens. S. D. Furringer, St. Catharines, Ont.

EGGS for hatching—Bred to lay, Buff Orpingtons; one dollar setting, four dollars hundred. F. Nurse, Alton, Ont.

EGGS from pure-bred Banded Rocks, White Wyandottes, one dollar per setting. John R. Morgan, Wales.

EGGS for hatching. Choice White Wyandottes and Banded Rocks, \$1 per two settings. W. A. Bryant Cairnroam, Ont.

EGGS—White Wyandottes, dollar. \$95 champion heads pen, Cockerels. H. O. Haimbecker Hanover.

EGGS FOR HATCHING—From a pen of Banded Rocks, selected for their persistent laying of large, rich-colored eggs. Having the run of the orchard and mated with three AI cocks—large, strong-boned, healthy birds. Price, \$1 per 15, or \$4 per 40. W. C. Shearer, Bright, Ont.

FOR SALE: Pure-bred Pekin ducks, \$4 per trio. Banded Rock eggs for hatching \$4 per hundred. J. L. Howard, "St. Julian's," Saiton West, Ont.

FOR SALE—One Faverolle cock, three hens, six pullets, and one Houdan cockerel. Win. E. Michener, Dunnville, Ont.

GREEN FARM White Plymouth Rocks. Canada's leading strain of utility fowl. Bred for meat and winter egg production by use of trap nests. Winners at the "Ontario" for three successive years. Eggs \$2 per 15. G. A. Robertson, St. Catharines.

LOCHABER Poultry Yards offers eggs from the following breeds: Banded Rocks, White and Partridge Wyandottes, \$1.50 per 15; Pekin Duck eggs, \$1.50 per 11; M. Bronze Turkey, \$3 per 11. Book AI. D. A. Graham, Wainstead, Ont.

MOTTLED Ancona eggs, \$1.50 per 15; single-comb White Leghorn eggs, \$1.00 per 15. \$4.50 per 100, Winter layers. Money makers both. Circulars free. E. C. Apps, Box 234, Brantford.

PEACHGROVE FARM—Eggs from Buff Orpingtons and Brown Leghorns (grand layers), dollar per fifteen. Indian Runner duck eggs, 10c. each. Frank Balcard, Glanworth, Ont.

RHODE Island Reds, rose-comb Bred nine years from carefully selected heavy winter layers. Large brown eggs. Dollar-half per fifteen. Good hatch guaranteed. Jno. Luscombe, Merton, Ont.

WHITE Wyandotte eggs. One dollar per fifteen. Choice stock. W. D. Monkman, Bond Head, Ont.

WHITE Wyandottes only—Two grand pens. Bred for size and winter egg production. None better. Eggs \$1.50 per 15. Mrs. James Smith Pine Grove Rockland, Ont.

WHITE Wyandotte White Leghorn eggs. Grand stock. Prolific layers. Dollar a setting. E. W. Burr, Pa'l.

Houdans and White Wyandottes We won more prizes at the leading Canadian shows than any other exhibitor on Houdans. Houdan eggs, \$3 per 15; Wyandotte eggs, \$2 per 15, or \$8 per 100. Write for circular. Charlton Bros., Box 1, Hlarton, Ont.

**A NEW
WHITE
OAT**

**RENNIE'S
"BUMPER KING" WHITE
OATS**

We have just imported this new oat from the North of Ireland. It is of surprising weight, extremely early, and highly productive. Change your seed this year; the older varieties at best can only yield light, "chaffy" oats, poor and unprofitable—Rennie's "Bumper King" is new, extra heavy, and will yield twenty bushels more per acre than the older sorts.

Field report: Medium length straw, stands up well; large, full, compact head; large plump grain; early.

Send Your Order in Early.
Stock is Limited.

PRICE

Ex. warehouse, Toronto.....	Peck, 50c.; Bush., \$1.75
Ex. warehouse, Montreal.....	Peck, 50c.; Bush., 1.85
Ex. warehouse, Winnipeg.....	Peck, 60c.; Bush., 2.00
Ex. warehouse, Vancouver.....	10 lbs. 80c.; 100 lbs., 7.00

Bags extra—1st quality, 28c.; 2nd quality, 23c.; 3rd quality, 20c.
Order from nearest point to your Station.

WM. RENNIE CO., Ltd. TORONTO, MONTREAL,
WINNIPEG & VANCOUVER

GREAT AUCTION SALE!

THIRD ANNUAL SALE OF PURE-BRED STOCK, under the auspices of the Myrtle Sales Association, to be held on **FRIDAY, APRIL 17, 1908**, at Myrtle Station, on C. P. E. and G. T. R., about thirty five miles east of Toronto. **20 Head of Shorthorn Cattle** (males and females, from 8 months to 9 years old). **A number of Yorkshire Hogs, 6 months to 1 year** (male and female). **A number of Clydesdale fillies and stallions.**

The contributors to this sale include many of the most prominent importers and breeders of pure-bred stock in Canada. The Shorthorns advertised belong to some of the best Scotch and English families, viz.: The Duchesses of Glaston, Miss Ramsdens, Wedding Gifts, Crimson Flowers, Stanfords, Symes, Lavinias, Princesses, Beauties, Meadow Flowers, etc. All animals are inspected before being accepted.

This sale will be conducted on the same lines as the Provincial Sale, and will be held under cover. No catalogue furnished. Half fare on all railroads. Purchasers at this sale will be entitled to convey their cattle by train at half rates. Sale at 1 o'clock sharp. Terms: Cash, or six months' credit on approved notes, with interest at 7% per annum.

WM. SMITH,
President.

A. QUINN, Secretary,
Myrtle Station, Ont.

Jas. Bishop, Auctioneer.

GOSSIP.

A HEREFORD AND SHORTHORN SALE.

Mr. J. A. Govenlock, Forest, Ont., announces in our advertising columns this week that he will sell, at auction, on May 13th, his entire herd of 40 head of high-class Hereford cattle, including the animals composing his champion show herd, winners of the first sweepstakes herd prizes at the Canadian National, Toronto, and the Western Fair, London, in 1907. Six young bulls, from five to sixteen months, are included, and 34 females, cows in calf and with calves at foot, several imported, and heifers of show-yard calibre. Ten head of Shorthorns of a useful sort are also in the sale. See the advertisement.

Attention is called to the change in the place of holding the dispersion sale of the Shorthorn herd of Mr. F. A. Gardner, Britannia, and 20 head from the herd of S. J. Pearson, Son & Co., Meadowvale, Ont., on April 8th. Owing to the snow blockade this sale was postponed from March 3rd, nothing being sold on that day. All the animals in the catalogue will be sold on April 8th; and this time the sale will be held at the Pleasant View Stock Farm of Mr. Wm. B. Gardner, one mile east of Meadowvale Station (C. P. R.), three miles from Streetsville Junction (C. P. R.), and four miles south of Brampton (G. T. R.), at which stations conveyances will meet the morning trains. An excellent lot of young bulls, cows and heifers of richest breeding and usefulness are included in this sale.

FOR SALE

By Public Auction

**Franklin House,
MARKHAM VILLAGE,**

**Thursday, APRIL 9th,
1908**

AT 2 O'CLOCK P.M.

Fashionably-bred Imported Stallion, Hopewell (11375) [3377].

Full brother to Hiawatha, champion horse of Scotland. Hopewell stock has taken prizes at Toronto Spring Stallion Show, also at East York Agricultural Exhibition, Bowmanville, and Scarborough Fairs. He has proved a sure stock getter. Must be sold. No reserve. Terms cash.

**East York Clydesdale Ass'n,
MARKHAM, ONT.**

R. C. TEFFT, Sec.-Treas. **JAMES TORRANCE,** Manager.
J. J. Lunau, Auctioneer.

had a classmate that was the daughter of this doctor o' yours. She set the world and all by Mary, got her to go home with her vacations. So the doctor got acquainted with her, too; and that's how he arranged for you to rent some o' the Stingaree farm so as you could earn your living."

Rob leaned over and laughed feebly. "Jim," said he, "how c'n you keep your ol' hearse of a face straight? That's what s'prises me. 'The worl' 's a stage, an' all the men an' women merely players. They have their ex-hic-exi's an' their—' Blame 'em!' he suddenly cried out—"they might t' least 'a' sent my man along with me."

"Your man?"
"My valet, d-n it!"
"Oh, it'll be all you can do to feed one. You'll have to scratch like the devil to do that. You won't be able to support any encumbrances up here. But you'll like it. Say, I'll bet a million you'll like it, when you get your sea legs on and get things humming. Why, you're a regular picture o' them old Norsemen I've read about, come down in a straight line—Olaf—Segul—T'or—"

"T'or be d-d!" said Rob, exceeding bitterly, his head in his hands.

"Why don't ye look about ye?" I cried. "It's great. It's tremendous. It's worth all the rotten cities in the universe. It's God A'mighty. Just look!"

"I c'n hear 'nough of it," he moaned, "without lookin'."

"Oh, come Rob," said I, "come on, shipmate. Get up on your feet and hold your head in the air. Livin' or dyin', fear nothin' nor nobody, by Casar! Say, don't turn ship about now, and run before the gale, like you was afraid. No, sir, you won't do that; you're too big, you're a long sight too brave. Drive her on. Meet the swell, meet the breakers.—Drive her on, to port!"

"Jim," said he, courteously, with a confiding air of bravado, "give 's your hand on it."

To be continued.)

Current Events.

A resolution has been passed by citizens of Montreal asking for direct connection of that city with the Transcontinental Railway.

The first legislation relating to old-age pensions in America has been introduced into the Nova Scotia Legislature. The bill aims primarily at the benefit of colliery workers.

The American Canning Company, known as the "Tin Can Trust," will in the early future establish an extensive factory, beginning with 500 hands, at some point in Canada.

Hindus in Vancouver have cabled a protest to Mr. John Morley, Secretary for India, as follows: "India protests against deportation and exclusion from Canada. Are British subjects, and claim protection throughout the Empire. If our interest is overlooked, others in India must necessarily resent your Government's neglect." The Imperial Government will send a special commissioner to British Columbia to inquire into the question.

The Duke of Devonshire, formerly one of the most prominent British statesmen, and owner of vast estates, including the famous Chatsworth, died recently at Cannes, France, aged 75 years. His dukedom will go to his nephew, V. C. Cavendish, who is married to a daughter of Lord Lansdowne. The Duke was president of the Free Trade League, and led the Liberals during Gladstone's temporary retirement in 1875. He twice declined to accept the premiership of Great Britain.

"THE FARMER'S ADVOCATE" FASHIONS.



5943 Loose Fitting Coat, 34 to 42 bust.

Suitable for pongee, braided with soutache. May also be made up in linen or silk.



5939 Girl's Gumpie Dress, 8 to 14 years.

5920 Fancy Tucked Waist, 32 to 40 bust.

The above patterns will be sent to any subscriber at the very low price of ten cents per pattern. Order by number, and be sure to give waist and bust measurement. Allow from one to two weeks in which to fill order.

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

[Note.—Where two numbers appear, ten cents must be sent for each number.]

Attention is called to the advertisement in this issue, of the third annual sale of Shorthorns, Clydesdales, and Yorkshires, to take place at Myrtle, Ont. (C. P. R. and G. T. R.), on April 17th, when 20 Shorthorn bulls, cows and heifers, and a number of Clydesdale mares and fillies and Yorkshire swine will be sold under the auspices of the Myrtle Sales Association and the Provincial sales arrangement: pure-bred stock being shipped at reduced rates.

The auction sale, on March 26th, of Shorthorn cattle, horses and Cotswold sheep, belonging to Mr. W. A. Bagshaw, Uxbridge, Ont., attracted a large attendance. Though the cattle were in only moderate condition, and no high prices were realized, yet the result was, on the whole, quite satisfactory, the sale figuring up to more than \$4,000, the sheep selling for about \$1,000. The highest price for Shorthorns was \$100, and for an imported Clydesdale filly, \$300, while a young Hackney sold for \$210.

SALE DATES CLAIMED

April 2nd—Oak Park Stock Farm Co., Brantford, Ont., Hackneys, Shropshires, Berkshires, and seed grain.
April 8th—F. A. Gardner, Britannia, and S. J. Pearson, Son & Co., Meadowvale, Ont., joint sale, Shorthorns.
April 17th—Myrtle Sales Association, at Myrtle, Ont., Shorthorns, Clydesdales, Yorkshires.
April 23rd—Rathlan Company, Deseronto, Ont., registered Holstein and high-grade dairy cattle, Shropshire sheep, Yorkshire and Berkshire swine.
May 13th—John A. Govenlock, Forest, Ont., Herefords and Shorthorns.
June 4th—John Bryden & Son, Brooklin, Ont., Shorthorns.

QUESTIONS AND ANSWERS.
Veterinary.

DEAD FETUSES.

Sow farrowed eleven pigs at full term. Two were alive, and nine dead. Some were black and decayed, and they were of different sizes. What caused this? Was it the food? R. F.

Ans.—The death of the fetuses was not caused by the food. She doubtless received an injury in some way, which caused the death of some, and the others died at different ages, due to contact with the dead ones. V.

INDOLENT SORE—VETERINARY WORKS.

1. There is a large sore that will not heal on my horse.
2. Where can I get a good doctor book? O. B.

Ans.—1. Dress, once daily, for three or four days, with butter of antimony, applied with a feather. Then keep clean, and dress, three times daily, with carbolic acid, 1 part; water, 20 parts.

2. You do not mention the class of stock you require a work on. Write J. A. Carveth & Co., 413 Parliament St., Toronto, Ont., and they will send you a catalogue of the different works on veterinary science, with prices, and you can select those you want. V.

LAME HORSE.

Gelding that will be three years old soon, and that has been working all winter; went lame in right hind leg two weeks ago, but was better next morning. Four days ago he went very lame again. I gave him two days' rest, and he was considerably better. I worked him again, and he got worse. I can find no swelling or soreness. When standing over in the stall to the right, he is not very lame; but when standing over to the left, he limps very much. J. R.

Ans.—I would advise you to send for your veterinarian to locate the lameness, as my diagnosis may not be correct. I am of the opinion he is lame in the hock, and would recommend a blister and rest. Make a blister of 2 drams each biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off the front of the hock. Tie so that he cannot bite the parts. Rub well with the blister daily for two days, and, on the third day, wash off and apply sweet oil. Turn loose in a box stall now, and oil every day. When the scale come off, if necessary, blister again. V.

VACCINATION FOR BLACK-LEG—COLIC.

1. Can I vaccinate some heifers as a preventive for black-leg? If so, how and where can I procure the vaccine?

2. Horse, now eighteen months old, has always been subject to colic. Lately, he does not recover as quickly as he used to, and it is impossible to keep his bowels moving freely. How can I prevent the attacks, and how shall I treat him when he is attacked, and how can I keep the bowels open? B. M. C.

Ans.—1. A careful man, who understands how to use a hypodermic syringe, can inoculate. Write Dr. Rutherford, Veterinary Director-General, Department of Agriculture, Ottawa, for the serum, necessary instrument and directions. Different preparations for this purpose are used in different ways. Some are liquid, and some in tablet form. The latter is injected with an instrument especially designed for the purpose.

2. The horse has weak digestive organs, and it is not probable the attacks can be prevented. Careful feeding on easily-digested food, as good clover hay, bran, linseed meal and crushed oats, and raw roots, and not working for a couple of hours after a meal, tend to prevent and, also, keep the bowels normal. Give him a tablespoonful of ginger every night in damp food. This stimulates the digestive glands and aids digestion. If feeding as above does not prevent constipation, give half a pint raw linseed oil on food, once daily. Experience will tell you whether this dose is too much or too little, and you can regulate the dose as indicated. V.

An athlete, says Friend Dooley, is a man that is not strong enough for curruk.



The Social Side of the Telephone

Is well worth considering.

The roads may be too bad to take out the horses—or you may not feel like going for a long drive. Yet you want to know how sick friends are getting along—what the news of the neighborhood is—or perhaps arrange about planting, harvesting, marketing or any other of the dozens of duties that busy the farmer.

That's where the telephone comes in.

Canadian Independent Telephones

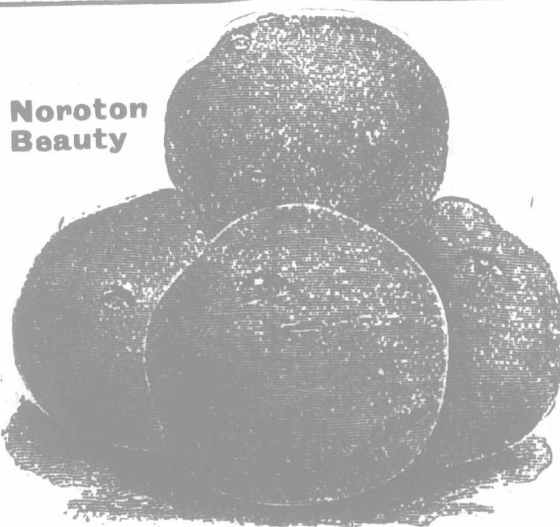
owned and operated by you and your friends, bring the entire neighborhood within easy talking distance.

Especially in the evenings—when the day's work is done—the social side of the telephone is one of its greatest attractions.

Just think, too, of the driving it saves—what a help in case of accidents and serious illness—how quickly you can call for assistance in every emergency.

Our booklets explain about Canadian Independent Telephones and show how a neighborhood telephone system may be installed so as to give the best service at a fair price, independently of the trust. Write for full information.

Canadian Independent Telephone Co. LIMITED
26 DUNCAN ST., TORONTO, ONT.



Noroton Beauty

Selected Seed Potatoes

WE OFFER THE FOLLOWING VARIETIES:

- New Noroton Beauty—Extra early; the best all-round variety in existence. 1 lb., 20c.; 5 lbs., 85c., postpaid; by freight, 1 peck, 40c.; peck, 65c.; 1/2 bush., \$1.10; bush., \$2; bag, \$2.80, here.
- Early Monarch—Splendid new second 1 lb., 20c.; 5 lbs., 75c., postpaid; by freight, peck, 50c.; 1/2 bush., 85c.; bush., \$1.50.
- The Planet—White, grand main crop.
- Ohio—Rose, standard extra early.
- Six Weeks—Rose, fine extra early.
- Bovee—White, splendid extra early.
- Bruce's White Beauty—Early, fine quality. 1 lb., 15c.; 5 lbs., 65c., postpaid; by freight, peck, 40c.; 1/2 bush., 70c.; bush., \$1.35; bag, \$1.85, here.
- Pride of Aroostook—White, early, splendid.
- Gold Coin—White, main crop, very fine.
- Sir W. Raleigh—White, main crop, excellent.

FREE Our illustrated 100-page Catalogue of Vegetable, Farm and Flower Seeds, Bulbs, Plants, Implements, Poultry Supplies, etc. Send for it.

JOHN A. BRUCE & CO.,
Established 1850. HAMILTON, ONT. Seed Merchants.



THE LITTLE FOLKS CAN HELP MOTHER WASH

The best washer is always the easiest to work. A child can run the "1900 GRAVITY" WASHER

wash a tubful of clothes in six minutes and the garments will be cleaned better in that short time than a strong woman could do it by hand in an hour or more.

NO RUBBING, PULLING OR TEARING

the clothes remain stationary, while the tub swings to and fro, up and down, thus swirling the water in every direction and squeezing it through the meshes of the clothes. Won't injure the finest laces and lingerie, yet will wash heavy blankets and rugs with ease and rapidity.

Read This—OUR FREE TRIAL OFFER

We are the only people on this continent that make nothing but washing machines and that are willing to send a washer on ONE MONTH'S TRIAL FREE to any responsible party—WITHOUT ANY ADVANCE PAYMENT OR DEPOSIT WHATSOEVER. We ship it free anywhere and pay all the freight ourselves. You wash with it for a month AS IF YOU OWNED IT. Then if it doesn't do all we claim for it, ship it back AT OUR EXPENSE. This proves our faith in this machine.

IT COSTS YOU NOTHING

to find out how IT PAYS FOR ITSELF. Shall we send you a "1900 Gravity" Washer on a month's free trial? Or, if you want further information about the BEST Washer on the market, write to-day for our handsome booklet with half-tone illustrations showing the methods of washing in different countries of the world and our own machine in natural colors—sent free on request.

Look for This Label on the Tub—None genuine without it.



Address me personally F. A. D. Bach, Manager
THE 1900 WASHER CO., 355 Yonge St., TORONTO, CANADA
790

The above free offer is not good in Toronto and suburbs—Special arrangements are made for this district

NOTICE TO READERS!
When writing advertisers kindly mention "The Farmer's Advocate."

RE ALFALFA ON SOD.

How would alfalfa do on old sod plowed this spring? It is the best drained piece of land I have. J. P.


Ans.—It would very likely soon be choked out by grass. Put the field in corn or other hoe crop, and cultivate so thoroughly until August that not a spear of grass is left. Next spring sow the alfalfa.

The balance of time is maintained by the unerring accuracy of the

ELGIN WATCH

Every Elgin Watch is fully guaranteed. All jewelers have Elgin Watches. An interesting, illustrated booklet about watches, sent free on request to

ELGIN NATIONAL WATCH CO.,
Elgin, Ill.



YOU WANT a hatcher that does not require watching; a hatcher in which the heat is perfectly, automatically regulated.



THE MODEL contains the most perfect heat controller in the world—strong, yet active, sensitive, yet positive—perfect in action.

The Patent Office has decided in my favor in the interference suit on this perfect-acting regulator

The Model Corrugated Leaf Compound Thermostat.



This Thermostat has three corrugations in each leaf, is exceedingly strong and rigid; is not easily damaged, and is so positive in action that the entire movement given off by the different co-efficient of expansion between the two metals of which it is made is transmitted to the controlling device without any loss of movement.

The Model Incubator gives a perfect heat control, which stimulates and holds the germ development uniformly constant and normal, as under a hen. This wonderful hatcher has almost a perfect balance in ventilation and humidity, and supplies all the vitalizing principles found under the incubating hen. The Model Incubators and Brooders are used on the biggest money-making commercial poultry plants in the world. The Model Double Indoor Brooder is just what you want for winter work. Broiler men pronounce it the most successful rearer yet produced. At the Model Farm, where we raised over 80,000 birds the past season, the Model Double Indoor Brooder did the best winter work. Buy your incubators and brooders of the man who knows how to hatch and raise poultry, who is doing it successfully on a commercial basis, and who can help you to be successful. Your success is my success. Write for my printed matter.

Indorsed and used by more Dominion Government Colleges and Stations than the whole of our competitors combined. We make this statement in no boasting spirit, but simply stating facts—a word to the wise is sufficient. The Ontario College, Guelph; The Dominion College, Ottawa; Agricultural College, Truro, N. S.; Macdonald Institute, Ste. Anne de Belleville, Que.; Government Experimental Stations, Bowmanville, Ont.; Bondville, Que.; Andover, N. B.; Chicoutimi, Que.; Union River Bridge, P. E. I.; Experimental Station, Edmonton, Alta.

CHAS. A. CYPHERS,

President Model Incubator Company, Limited,

C. J. DANIELS, Mgr.

River St., Toronto, Ont., Canada.



Baby Rambler.
Ever-blooming Crimson Dwarf. Think of roses every day from June until frost out of doors.

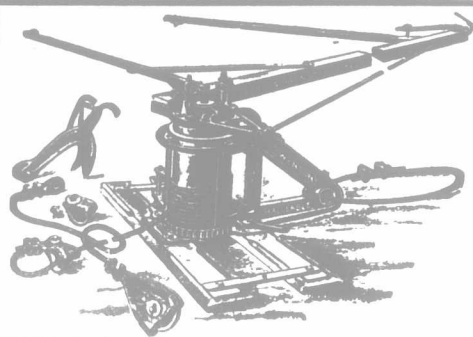
Fruit and Ornamental Trees,

Roses, Shrubs, Evergreens,
Small Fruit Plants, etc.

Thousands of our Free, Priced catalogues are looking for your orders. Have we booked yours yet? We are more than busy. Better hurry up while we are in good assortment. We never were in better position to supply you with apple, pear, plum and cherry trees. We ship direct from the nurseries. Fresh dug and O.K. Choice seed potatoes, etc.

The Central Nurseries. A. G. HULL & SON, St. Catharines, Ontario.

MENTION THIS PAPER.



Stump and Tree Pullers!

Also All Kinds of Land Clearing.

We are the only manufacturer in Canada of up-to-date stump-pulling machinery. It is the only all malleable machine manufactured any place. As malleable iron is four and a-half times as strong as cast iron, that is a good reason why people who investigate buy our machines in preference to all others. If you will write for catalogue "A" you will get full particulars.

Canadian Swensons, Ltd.,
LINDSAY, ONTARIO.

QUESTIONS AND ANSWERS. Miscellaneous.

BREEDING ABORTING MARE— CONCRETE BLOCKS FOR BARN WALL.

1. Will it be of any use breeding a mare that slipped her foal, being her first time?

2. Are cement blocks better for a basement of barn than solid concrete? If so, why?

A SUBSCRIBER.

Ans.—1. It will probably be safe to breed her again, but we would advise delaying breeding her till she has been on grass for some time in order that her blood may be cooled and her system restored to natural conditions. She will be surer to conceive, and more likely to carry to full time for such treatment.

2. Better in some ways, though not quite so strong. The advantage of the blocks consists in the fact that, having dead-air spaces within, the wall is a better non-conductor of heat, i. e., it will not chill through so quickly; hence the heat generated within the stable is not so readily lost through the wall by conduction, and with a given degree of ventilation the stable will be warmer; or, another way of stating the case is that freer ventilation may be allowed without unduly lowering the stable temperature, consequently the air will be purer and the stable drier.

DIVARICATED BUPRESTIS — SALARY OF R. N.-W. M. POLICE — HOMING PIGEONS WANTED.

1. What is the name and the habits of the specimen enclosed?

2. What salary do the Northwest Mounted Police receive?

3. Where can I purchase Homer pigeons?

A READER.

Ans.—1. The insect came badly broken in the mail. Its bronzy color and the shape of an unbroken wing-cover indicate the divaricated buprestis (*Dicerca divaricata*). This is a beetle that deposits its eggs in cultivated and wild cherry, and, more rarely, on peach. The larva is a flat-headed borer, quite similar to the apple-tree borer. It lives under the bark upon the young sap-wood.

2. The Comptroller of the Royal Northwest Mounted Police informs us that the pay of the various ranks, as authorized by the Mounted Police Act, chapter 91, of the Revised Statutes of 1906, is as follows: Commissioner, not exceeding \$3,000 per annum; each assistant commissioner, not exceeding \$2,000 per annum; each superintendent, not exceeding \$1,800 per annum; each inspector, not exceeding \$1,400 per annum; each surgeon or assistant surgeon, not exceeding \$1,800 per annum; each veterinary surgeon, not exceeding \$1,400 per annum; four staff sergeants, not exceeding \$2 per diem; other staff sergeants, not exceeding \$1.75 per diem; other non-commissioned officers, not exceeding \$1.25 per diem; constables, not exceeding \$1 per diem; special constables and scouts, not exceeding \$1.50 per diem; buglers, under eighteen years of age, 50c. per diem.

3. Advertisers take notice.

COLOR OF EGGS—SHEEP RACK

1. Should a pure-bred white Wyandotte lay white eggs or brown eggs?

2. Should a pure-bred White Wyandotte have a rose or single comb?

3. Which is the best of Wyandotte varieties for all-around purposes?

4. Would you name all the fowl that lay white eggs and all the fowl that lay brown eggs?

5. Is there any difference in the price of white and brown eggs?

6. Also, the plan of a single-sheep rack, suitable for feeding hay and grain at the same time, and about the cost of a twelve-foot rack.

M. B. B.

Ans.—1. White Wyandotte eggs are light brown in color.

2. Rose comb.

3. White, Buff and Silver Wyandottes are all good breeds. Perhaps the White Wyandotte has the greatest call on public favor of any variety of this breed.

4. The brown-egg breeds include the Plymouth Rocks, Wyandottes, Rhode Island Reds, Brahmas, Cochins and Langshans. The white-egg breeds number the

Leghorns, Minorcas, Blue Andalusians, Hamburgs and Houdans. Of the English breeds, Dorkings lay eggs of medium color.

5. It depends on the fancy of the particular market catered to; some prefer white and some brown. The main point is to pack only eggs of one color in each case, or if mixing them, to assort them so as to present a tasty appearance in the case.

6. There are various styles of racks in use giving good satisfaction. One is made of two 1 x 6-inch. boards, spaced 24 inches apart, with ends and a bottom of double inch, or matched flooring. This makes a shallow box or feed trough. At the corner are legs, 2 x 4 stuff, 40 inches high. The vertical slats are of 1 x 3-inch. stuff, and are spaced 6 inches apart. The top of the box should be about 12 inches high. In this rack may be fed any sort of grain or fodder. The wide openings between the slats permit the sheep to thrust their heads clear in, and there they will stand quietly until they have consumed the ration, with little waste. This is a cheap form of rack, the cost of which may readily be reckoned when local prices of lumber are known. It is easily made, and is as effective as any.

CANNIBAL SOW—EWE SHEDDING WOOL—SEEDING FOR HAY.

As a much-interested reader and subscriber to your valuable paper, may I ask the following questions, to be answered through your columns?

1. What is the cause and what the remedy for a strong, healthy, well-kept sow eating her young pigs at the time of farrowing?

2. Is there any means to prevent crows from taking away the seed corn just after it is sown? I am told that, on my farm for years back, the crows have destroyed every crop, even when sown twice?

3. A young, healthy, well-kept ewe keeps shedding her wool. What is the cause?

4. I wish to seed down for meadow or hay. Is there any better seeding than a mixture of red clover, alsike and timothy? If this is best, in what proportion and how many pounds of each should I sow per acre?

J. M. M.

Ans.—1. It is supposed, in many cases, to be owing to constipation of the sow, and an abnormal craving of appetite; and the remedy is feeding greasy food, or a pint of raw linseed in the food to relax the bowels. In some cases, it is thought to be owing to the long, sharp teeth of the pigs irritating the sow when nursing, causing her to bite a pig, and, having tasted blood, being led to eat her pigs. In such case, these teeth should be broken off by use of a small pair of pinchers. It is thought by some that feeding the sow a piece of fat, salt pork helps to satisfy her craving.

2. Taint it with a smearing of coal tar. Directions for application have recently been given in reply to other correspondents.

3. It may be caused by ticks, or by small red lice, scarcely discernible, in which case a solution of one of the coal-tar dips poured into openings in the fleece may give relief, or sulphur sifted into openings of the wool may be effectual in ridding of the pest. It is thought by some that sulphur mixed with salt and kept in a box where the sheep can take it at will, rids the animals of ticks and lice. The skin should be carefully examined for indications of scab, which, if present, should be promptly treated with a strong solution of sheep dip, or of creolin.

4. We can recommend nothing better than 8 pounds red clover, 2 pounds alsike, and 4 to 5 pounds of timothy.

GOSSIP.

Mr. Ira L. Howlett, Keldon, Ont., Shelburne Station, Ont., advertises for sale Yorkshire and Berkshire swine, young boars and sows, of breeding age, bred sows and weaning pigs.

Mr. James Sharp, Rockside, Ont., breeder of Aberdeen-Angus cattle, advertises for sale bulls, fifteen to seventeen months old, cows in calf, and heifers, all registered in both the American and Canadian National herds, and of superior breeding and individual merit.

MAGISTRATE PRAISES ZAM-BUK.

Magistrate Rasmussen, of 202 Marquette St., Montreal, writes: "For many years I was troubled with a serious eruption of the skin. This was not only unsightly, but it was at times very painful. I first tried various household remedies, but these proved altogether useless. I then took medical advice. Not one, but several doctors in turn were consulted, but I was unable to get any permanent relief. Some time back I noticed a report from a Justice of the Peace (Magistrate Perry, J. P. for B. C.), who had been cured of a chronic skin disease by Zam-Buk, and I determined to give this balm a trial. After a thoroughly fair test, I can say I am delighted with it. I have the best reasons for this conclusion; because while everything else I tried—salves, embrocations, washes, soaps and doctors' preparations, failed absolutely to relieve my pain and rid me of my trouble, three boxes of Zam-Buk worked a complete cure. In my opinion this balm should be even more widely known than it is, and I hope that my experience will lead other sufferers who are in despair to try this herbal healer, Zam-Buk."

For healing eczema, running sores, cuts, bruises, burns, boils, eruptions, scalp sores, pimples, spring eruptions, itch, chapped hands, and diseases of the skin Zam-Buk is without equal. All druggists and stores sell it; 50c. box, or postpaid from Zam-Buk Co., Toronto.

For Spraying

Fruit Trees, Shrubs, Bushes and Plants, there's nothing to equal

EUREKA COMPRESSED AIR, FOUNTAIN SPRAYER. Requires but one pumping to empty entire contents of tank. Automatic lever valve stops flow of liquid while going from one plant to another. Easy, light compact; tested to stand 5 times the pressure required to expel liquid. Two nozzles, with hose attachment for spraying small trees. Write for catalogue. THE EUREKA PLANTER CO., Limited, Woodstock, Ont.

You cannot possibly have a better Cocoa than

EPPS'S

A delicious drink and a sustaining food. Fragrant, nutritious and economical. This excellent Cocoa maintains the system in robust health, and enables it to resist winter's extreme cold.

COCOA

Sold by Grocers and Storekeepers in 1/2-lb. and 1-lb. Tins.

SOCIALIST MAXIMS.

Let Carrie Nation own the Trusts! Workers of the World: unite! You have nothing to lose but your change. To each according to his ability; from each according to your ability.—[Columbia Spectator.]

Get acquainted with Black Watch the big black plug chewing tobacco. A tremendous favorite everywhere, because of its richness and pleasing flavor.

2268

QUESTIONS AND ANSWERS. Miscellaneous.

PREPARING PASTURE LAND FOR ALFALFA.

I have a large hill of fairly good clay land, that has been pastured for ten years, that I would like to get seeded with alfalfa for hay. I will be unable to plow it until late in the fall of 1908. Would it be possible to get a catch the following spring, or would I have to take a crop off, say peas, the first year, and then try for the alfalfa the next spring? J. H. R.

Ans.—Perhaps the worst enemy of alfalfa is blue grass, hence land intended for it should be so treated as to clean this out thoroughly. Peas would help to subdue it, especially if the stubble were thoroughly cultivated afterwards, but a hoe crop is much better. Corn, planted in hills, and cultivated both ways, is best.

ALFALFA.

1. "The Farmer's Advocate" has encouraged me to try a small piece of alfalfa, and if it proves a success, I am sure I will be well repaid for my money. My field is sod soil and high, broken out of clover sown a year ago last fall, and planted to corn and roots. Now, is this suitable to alfalfa?

2. What is right time to sow? 3. How much seed per acre? 4. Can it be cut for crop first year if sown without nurse crop? 5. Would it be better to sow light nurse crop, and pasture light after harvest? A YOUNG FARMER.

Ans.—1. This is commendable. It costs little to try a new thing on a small scale, and the results often lead to great benefit. The field described should prove quite suitable. A load of unleached wood ashes per acre would almost certainly do much to increase the vigor and yield.

2. About the first of May on a well-prepared seed-bed that has been worked over two or three times with disc.

3. Not less than 20 pounds.

4. Perhaps, though usually it is better to clip the first growth in July, and leave on the ground as a mulch.

5. The best catch is likely to be secured by seeding without a nurse crop, though a bushel of barley per acre will not hurt it much. Do not pasture the first season on any account, and never in the fall.

DRAINAGE WITH SLIGHT FALL—SUMMER PASTURE.

1. Can any of your readers give me any information about draining a piece of land, with poor outlet, only two feet fall in half a mile? I have heard that by drilling a well in the field, and running tile drains to it, it can be done, if you do not get a flowing well.

2. What would you recommend to sow on a field for pasture for cows, to be ready to turn on July 1st? Field is clay, with sand knolls. NORFOLK CO. READER.

Ans.—1. If properly laid, tile drains will work fairly satisfactorily with a fall of 2 feet in half a mile, although twice this is desirable, if it can be secured. Sometimes the fall can be increased by digging a deeper trench toward the outlet end. In any case, the work of surveying and laying the tile should be performed with the utmost care, and pains taken to make the joints even and snug. If there is quicksand, or some straw, or grass, or turfs should be used to protect them. For help and advice in laying out the system of drains, write Prof. W. H. Day, Department of Physics, O. A. C., Guelph. The only expense entailed will be the travelling expenses of himself, or assistant, from Guelph to the address of applicant, and several farmers may club together to bear this. Drilling wells, or the use of windmills to raise the drainage water, are very uncertain means of draining, and only to be attempted as a last resort.

2. We do not know that we can do better than suggest the mixture recommended by Prof. C. A. Zavitz, of the Ontario Agricultural College. Six or seven years' experiments with seventeen different annual crops for summer pasture have indicated the following as the best one tried: 1 1/2 bushels oats, 30 pounds Early Amber sugar cane, 7 pounds common red clover. The oats come on first, later the

sugar cane, and towards the end of the season the clover furnishes a good deal of pasture.

SLINGS.

Noticing a question asked regarding the kind of slings to use; I have had slings up five years, and would have no other if I had to buy again. I think the short slings are the best, and, by all means, get the steel round track. The car cannot get off the track. I know of others who got the long slings and wish they had the short ones instead. The wooden track is a thing of the past. York Co., Ont. W. H. SLOANE.

NITRO-CULTURE FOR RED CLOVER—ARTICHOKES.

1. Kindly inform me if nitro-culture is beneficial in red clover seeding as in that of alfalfa seeding.

2. I have an acre paddock adjoining my hopen that has supplied me for some years with mixed grasses and clovers, but is nearly run out. I have been told to plant it with artichokes. The soil is a deep, rich clay. Please advise, and give directions. SUBSCRIBER.

Ans.—1. It should be clearly understood that the particular nitro-culture used for red clover is an entirely different species from that used for alfalfa. The nitro-culture recommended for red clover is, so far as we are aware, quite as beneficial to this crop as the nitro-culture recommended for alfalfa is beneficial to it, except that as red clover is so commonly grown throughout the country there are few farms not more or less abundantly inoculated with the red clover bacteria, hence artificial inoculation is much less likely to be required. On a farm, and in a vicinity where red clover had never grown, treatment of the seed with nitro-culture might be expected to prove quite as beneficial to it as to alfalfa.

2. Jerusalem artichokes are recommended by many as an excellent feed for hogs, being more especially suitable for rather light, sandy soils. The tubers may be planted in late fall or early spring, in rows, two or three feet apart, spaced a foot or eighteen inches in the rows. In planting, cut the same as potatoes, one eye to a piece. Plant as potatoes, and cover about two inches deep. The crop, if planted early, should be ready to feed by the middle of September, the hogs being turned in to help themselves. Frost does not injure artichokes, and usually enough tubers are left in the ground to insure a crop the following season. To eradicate, turn hogs on in the spring, and plant the plot to turnips, or some other hoe crop. Artichokes have a rather higher feeding value than potatoes, and hogs are very fond of them. While it might be well to plant part of this plot to artichokes, we surmise that some other crop, which would give pasture throughout the summer, is desired. Try alfalfa on half of it, cultivating thoroughly, and sowing at the rate of 25 pounds seed per acre. It would, of course, be a much better preparation for the alfalfa to break the sod this spring, plant to corn, and seed to alfalfa in spring of 1909.

Makes Friends.

Best Stock Food Now Mixed at Home.

When we first printed the formula for mixing a dependable stock food at home, we believed it to be a valuable recipe, and, when every mail brings us some word of appreciation, we know that the farmer and stockman has at last solved the stock-food problem that is costing thousands of dollars annually.

As one stockman writes: "I have been wanting to make my own stock food for some time, and I found Barnes' English Compound just what I wanted. I have used stock food for years, and find I get far better results by mixing it myself."

By request we are reprinting the formula: Six pounds corn meal; three pounds linseed meal; one pound Barnes' English Compound.

In reply to several inquiries, would say that Barnes' English Compound can be purchased in this country from S. G. Amsden, Box 668, Windsor, Ont., who will send a full-sized package, sufficient to make ten pounds of best medicated stock food.

Burdock BLOOD BITTERS CURES Dyspepsia, Bolls, Pimples, Headaches, Constipation, Loss of Appetite, Salt Rheum, Erysipelas, Scrofula, and all troubles arising from the Stomach, Liver, Bowels or Blood.

Burdock BLOOD BITTERS

Burdock BLOOD BITTERS

Mrs. A. Lothar, of Ballyduff, Ont., writes: "I believe I would have been in my grave long ago had it not been for Burdock Blood Bitters. I was run down to such an extent that I could scarcely move about the house. I was subject to severe headaches, backaches and dizziness; my appetite was gone and I was unable to do my household work. After using two bottles of B. B. B. I found my health fully restored. I warmly recommend it to all tired and worn out women."

London Fence

Holds Cattle Prisoners

Your fiercest bull, your most strenuous rooting-sow, your smallest and most cunning little piggy, will "stay put" where you want them when you place the new London Woven Fence on guard.

The strongest woven fence on the market is the London. The same extra high grade of steel, with the same



enormous surplus strength and extraordinary elasticity, as has made London Coiled Wire the talk of the country. Wires and locks all No. 9. Heaviest kind of galvanizing. A vastly improved lock—holds wires as solidly as if in grip of a vise.

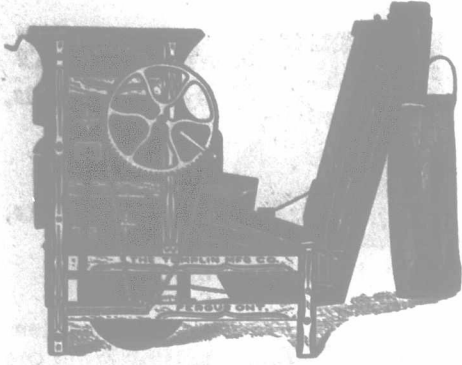
Never has such an absolutely perfect woven fence been offered the farmers of Canada. Never such an opportunity to show you are wide-awake and know best fence value—which is London Woven Fence.

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AGENTS WANTED in unrepresented districts.

Church Chime Bells Memorial Bells a Specialty. Edith Bell Foundry Co., Baltimore, Md., U.S.A.

MORE GOOD CIDER CAN BE MADE from a given amount of apples with one of our presses than with any other, and the juice will be purer, better-keeping, and bring higher prices. HYDRAULIC POWER PRESSES are money-makers. Various sizes. 25 to 400 barrels per day. Also Steam Evaporators, Gasoline Engines, etc. Catalog FREE. THE HYDRAULIC PRESS MFG. CO. Dept. 10 Mt. Glad, Ohio



PERFECTION Seed and Grain Separator

The latest and best device for cleaning and grading all kinds of seed and grain. 50 years ahead of all others. Sieves and vibration do the work, and do it thoroughly. Does not blow out good grain with the chaff. Perfect separation. Easy to turn. Saves its cost in one season. See nearest agent, or write for booklet F.

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A CHILD CAN DO THE FAMILY WASH
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"Puritan" Reacting Washing Machine

The improved Roller Gear — an exclusive feature of the Puritan — extra heavy Balance Wheel, and Roller Bearings, enable a child to do the entire washing. Gear is enclosed in metal cap so there's no chance of children getting fingers injured.



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"Favorite" Churn is worked by hand, or foot, or both. Roller Bearings mean quick, easy churning. Built for strength. 8 sizes to churn from 1/2 to 30 gallons of cream.

Write for booklet of these "Household Necessities" if your dealer does not handle them.

DAVID MAXWELL & SONS
St. Mary's, Ont.



QUESTIONS AND ANSWERS. Miscellaneous.

INDICATION OF APPROACHING PARTURITION—AGE FOR SERVICE.

1. Is there any sure way of determining the time of parturition in the mare within twenty-four hours of foaling?

2. Young boar pig, six months old, retains water in sheath or skin around penis. This water can be squeezed out of the opening through which he urinates, but two or three tablespoonfuls remain in this loose skin bag. Otherwise he is healthy, grows well; good appetite. Will this interfere with service?

3. What is the minimum age for a boar to serve a few sows? R. M.

Ans.—1. The opinion prevails, and it is generally sure, that wax forming on the ends of the teats is a pretty sure indication that the mare will foal within twenty-four hours; but observation has proved that it is not an infallible indication, and we do not know of any surer rule.

2. Yes; we believe, as a rule, it does, though there may be exceptions.

3. We should say six months, though much depends upon the growth and development of the pig. As a rule, it is considered safer not to use the boar till he is seven or eight months old.

POTATO SCAB.

If you know anything more about farming than I do, I will be pleased to hear from you. One-half my ground is poor; the other half is rich; all cultivated the same, and kept clean. Potatoes grow fine, healthy tops, but the tubers are scabby, on poor and rich soil alike. I have used lime and salt. No better, but worse. Beets, cabbage and other vegetables are affected. What is the remedy to allow me to keep on cropping my garden? A SUBSCRIBER.

Ans.—Notwithstanding the little degree of faith our inquirer appears to repose in his counsellors, we can readily tell him the cause of his trouble. It is a familiar fungus disease called potato scab, which also affects beets, mangels, turnips, rutabagas, cabbages, carrots and possibly radishes and salsify. It spreads by means of spores, which are either in the ground, or on the tuber when planted. When the soil is made alkaline, as by the application of fresh manure, lime or ashes, the conditions are more favorable for its development. On the other hand, superphosphate, ammonia sulphate, kainite, sulphate of potash and muriate of potash have the opposite effect. The disease may remain active in the soil for a long time—five or six years, at least—and is very difficult to eradicate. A long rotation of crops is advisable. When the disease is bad, it is recommended to plow under a green crop just before the potato crop. This will tend to make the land slightly sour or acid. Good results have been obtained by the successive plowing under of green crops for a number of years on badly-infested land. We would not advise growing potatoes on this land this year, but, if it must be done, use as a fertilizer: 120 pounds (per acre) sulphate of ammonia, 300 pounds acid phosphate and 150 pounds sulphate of potash. For instructions re use and application of fertilizers, see back numbers of "The Farmer's Advocate," particularly pages 541 and 542, issue of March 26th. It might be well to sow peas at the rate of 2 1/2 bushels per acre, to turn under before the potatoes are planted. Of course, this would not apply to the early potatoes. Plant clean seed, or, if scabby tubers must be used, soak them (whole) for two hours in a solution of formalin, 8 ounces in water, 15 gallons, or 1 ounce in water, 2 gallons. Exercise great care to see that the potatoes, after treatment, do not come in contact with earthy pails or vessels, or any kind of receptacle that has contained scabby potatoes. This treatment of seed potatoes is a wise practice to follow, as very few seed potatoes, nowadays, can be depended on as being entirely free from scab spores.

Unreserved Dispersion Sale

THE RATHBUN COMPANY will offer for sale at public auction at their farms, **DESERONTO, ONT.**, on

THURSDAY, APRIL 23, 1908,

At 12 o'clock noon, their entire live stock, as follows:

100 Head Holstein Cattle

Pure-bred and high-grade. Average yield of herd for 1907 was 8,006 lbs. per cow.

142 Breeding Ewes with Lambs. 4 Pure-bred Berkshire Swine.

14 High-grade York. and Berk. Sows. 5 High-class Young Horses.

All Bay of Quinte trains stop at farm.

Terms: Cash, unless otherwise arranged for before sale.

Auctioneers: GEO. JACKSON, Port Perry; E. S. LAPUM, Napanee; C. GRIER, Napanee.

For catalogues and further information, apply to

A. LEITCH, Farms Supt., Deseronto.

ESTABLISHED 1856

Simmers' Seeds

IF YOU have never planted them, try them this year. They never disappoint; they grow; they yield. You are always sure of freshness, purity and reliability. For this reason thousands of farmers, gardeners and planters in Canada plant **Simmers' Seeds** exclusively.

Our **1908 Catalogue** contains many suggestions and directions, the result of over fifty years' experience in the seed business. Write for it to-day. It is **Free**.

J. A. SIMMERS,
Seeds, Bulbs, Plants. **TORONTO, ONT.**

POTASH SPELLS PROFIT

ALL CROPS require a liberal supply of potash for their successful development. Potash promotes maturity and enables the farmer, fruit-grower or market gardener to get his produce on the market while the high prices are ruling.

The use of potash means larger and earlier crops of the best possible quality.

Potash may now be obtained in the highly-concentrated forms of

MURIATE OF POTASH and SULPHATE OF POTASH

from all leading fertilizer dealers, and ought to be applied along with a phosphatic fertilizer early in spring.

A bulletin, giving the results of a large number of fertilizer experiments conducted throughout the Dominion during 1907, may be obtained gratis on application to

The Dominion Agricultural Offices of the Potash Syndicate
Rooms 1102-1105, Temple Building,
TORONTO, CANADA.

1000 MEN

Wanted as
Brakemen and Firemen Salary
\$75 to \$150.

Study a few hours a day for eight to ten weeks, and we guarantee to assist you in getting a position on any railway in Canada. We teach and qualify you by mail. Write us for booklet and full particulars.

THE DOMINION RAILWAY CORRESPONDENCE SCHOOL
Dept. F Winnipeg, Manitoba.

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Please Mention this Paper.**

WHEN YOU BUY FLOUR

it is just as easy to get the BEST as to get the next best.


The most skilful baking can't make good bread out of poor flour, but any housewife by using

PURITY FLOUR

can bake bread that will come from the oven JUST RIGHT.

If you want "more bread and better bread," bake with Purity Flour. Try it to-day. At all grocers.

THIS IS THE LABEL



See that it is on each bag or barrel you buy

WESTERN CANADA FLOUR MILLS CO. LIMITED
MILLS AT WINNIPEG, GODERICH AND BRANDON

GOSSIP.

Mr. A. W. Smith, Maple Lodge, Ont., writes: "I have made several good sales of Shorthorns recently, but have four handsome young bulls for sale yet. The dams, grandams and great-grandams of two of them have each given over 50 lbs. milk per day. The bulls are short-legged, thick-fleshed fellows, of good beef type, the kind for anyone wishing to improve the milking qualities of their herd, as well as their favor for beef."

LAST CALL FOR GARDNER-PEARSON SALE.

Our readers are again reminded of the postponed auction sale of the entire Shorthorn herd of Mr. F. A. Gardner, Britannia, and 20 head from the herd of Messrs. Pearson & Co., to be held April 8th, at the farm of Mr. W. B. Gardner, near Meadowvale Station (C. P. R.). There are 13 excellent young bulls, of serviceable age, in the sale, also the imported bull, Gold Mine, and 26 females, imported and Canadian-bred, of the favorite Scotch families, with some of excellent milking strains, and all the progeny of imported bulls, or the sons of imported sire and dam. The sale will be absolute and unreserved, and the opportunity to secure good stock, at the buyer's price, is an exceptionally favorable one. See the advertisement in this issue.

Official records of 123 Holstein-Friesian cows were accepted by the American Holstein Association from March 3rd to March 14th, 1908. This herd of 123 animals of all ages, of which over one-half were heifers with first or second calves, produced in seven consecutive days 48,842.1 lbs. of milk, containing 1,686.409 lbs. of butter-fat; thus showing an average of 3.85 per cent. fat. The average yield for each animal was 393.8 lbs. of milk, containing 13.804 lbs. of butter-fat; equivalent to 56.2 lbs. milk, or over 25 quarts per day, and over 15½ lbs. of the best commercial butter per week.

In this issue of the Official Reports another great Holstein-Friesian cow comes to the front with a great record. This is Dichter Calamity, the leader of the full-aged cows, and the record is 25,920 lbs. fat from 681.2 lbs. milk in seven days, and 103,089 lbs. fat from 2,570.9 lbs. milk in 30 days. For a large portion of the test, the production of this cow was reported daily to the superintendent, and the test was twice verified: a second supervisor assisting. It will be noted that this cow reached her maximum the 6th week after calving, and that the production was very even all through the test. The first verification more than sustained the production claimed at that time; and the second showed 3,727 lbs. butter-fat for the 24 hours, or at the rate of 26,089 lbs. butter-fat for one week. By her large production, Dichter Calamity gains 3rd place among H-F. cows in both the seven and thirty-day divisions.

TRADE TOPIC.

The London Old Boys' Reunion to take place August 3rd to 8th, to which reduced rates on all railways will be available, is announced in our advertising columns this week. Those interested, and they are legion, should write the Secretary, Mr. B. C. McCann, London, Ont., for information as to rates, etc.

"It doesn't take these little Russian children long to catch on to things in this country," remarked a teacher of the Educational Alliance. "When one explains a word to them they never forget, and they are always ready with an illustration of its meaning, too. I remember that some time ago I had explained to the class the meaning of the word 'ambiguity,' and then, as the custom is, I turned about and made them explain the word to me.

"Now, is there anyone," I asked, "who can give me an illustration?"

"A grimy little urchin at the back of the room stuck up his hand.

"Here's an 'ambiguity for ye," he cried. "Little Johnnie Rose sat on a tack—little Johnnie Rose, see?"

"Oh, no," concluded the teacher, "you don't have to explain a thing to the east side child twice."

When the Butter is streaked, you may be sure it was not

Windsor Dairy Salt

that was used to salt it —for Windsor Salt gives an even colour.

All grocers sell Windsor Salt. 163

The London Old Boys' Reunion and Summer Carnival.

The Old Boys of London and Middlesex will meet this year in the week of August 3rd to 8th, to hold one of their celebrated reunions and summer carnival.

London was the pioneer of the home-coming movement, and has evidently set a pace that many of the cities have attempted to follow, but have not yet equalled.

The entire week is given up to the entertainment of the visitors. The City will be beautifully illuminated, and every preparation is being made to entertain the visitors. Special rates have been granted on all the railroads, and an enormous crowd is assured.

Mr. E. J. MacRobert, an old Middlesex boy, is the President of the Association.

If the Old Boys scattered throughout the country would communicate with

B. C. McCann, the Secretary, he would send them an invitation, and also give them information as to rates, etc.

MARVELLOUS FOR PIGS

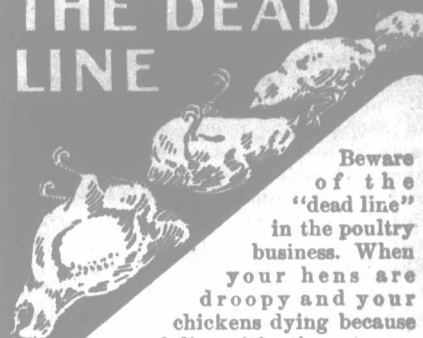
If you want your pigs to grow rapidly, feed them on

Molassine Meal

regularly. You will find that they develop from three weeks to a month earlier than ever before. Particulars and pamphlets from

ANDREW WATSON, 91 Place D'Youville Square, Montreal.

THE DEAD LINE



Beware of the "dead line" in the poultry business. When your hens are droopy and your chickens dying because of lice, it's time to reorganize and take a fresh start. Lice cost poultry-men thousands of dollars a year—dollars that might easily be saved by a simple resort to a sure remedy.

Instant Louse Killer

Kills lice so thoroughly and effectually that one application will most likely end your trouble. Instant Louse Killer is the formula of Dr. Hess (M.D., D.V.S.), and destroys lice on horses and cattle, ticks on sheep, cabbage worms, rose slugs and bugs on melon, squash and cucumber vines. It is also an excellent disinfectant and deodorizer. Comes in shaker-top cans, hence easy to apply, because you can dust it over roosts, nests and platforms in a few moments' time. See that the word "Instant" is on the can—none other is genuine.

Sold on a written guarantee.
1 lb. 35c. 3 lbs. 85c.

If your dealer cannot supply you, send your order to us.

Manufactured by
DR. HESS & CLARK,
Ashland, Ohio, U. S. A.

EWING'S SEEDS

SEEDS OF SUCCESS

Some Seed Facts.

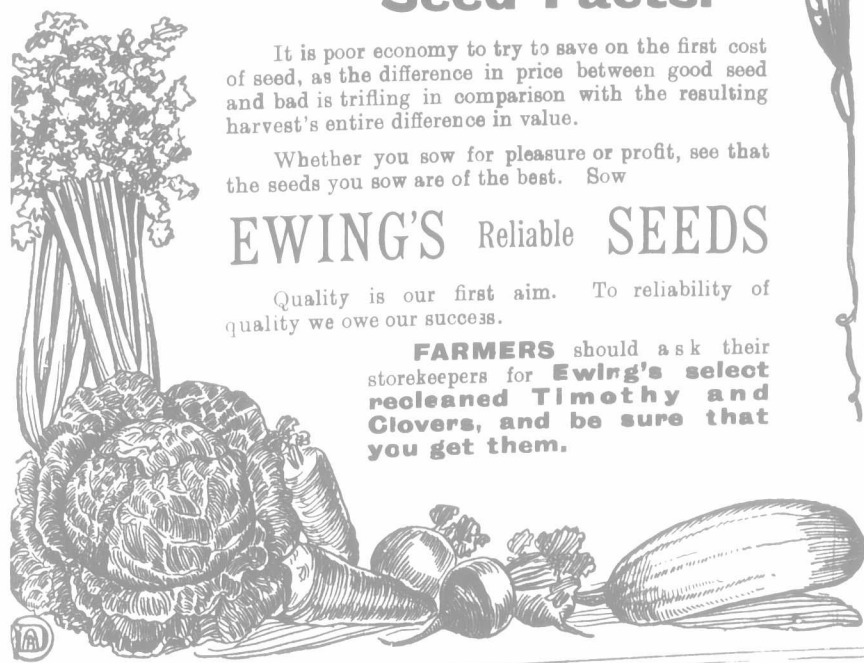
It is poor economy to try to save on the first cost of seed, as the difference in price between good seed and bad is trifling in comparison with the resulting harvest's entire difference in value.

Whether you sow for pleasure or profit, see that the seeds you sow are of the best. Sow

EWING'S Reliable SEEDS

Quality is our first aim. To reliability of quality we owe our success.

FARMERS should ask their storekeepers for Ewing's select re-cleaned Timothy and Clovers, and be sure that you get them.



DON'T STOP to ask your neighbors. Lift the load yourself with THE BURR SELF-LOCKING TACKLE BLOCK.

Can be used in any position and lock securely. The heavier the load, the tighter it locks. Never destroys the rope in locking. For hitching, stretching wire fences, lifting wagon-boxes, sick or injured animals, etc., it is indispensable to farmers. Saves labor of two or three men. 600 to 5000 pounds capacity. LEWIS BROS., Ltd., Montreal, Can. Ask dealers or write





Clip Your Horses this Spring

Don't put your horses at the hard spring work before clipping off the long, thick winter coat. Unclipped horses sweat much, dry out slowly and are liable to all kinds of cold, pneumonia, etc., from standing in a long, wet coat during chilly spring nights. Clipped horses dry out quickly, rest well and their food does them good. They can be cleaned in a quarter of the time. *They look better, feel better and do better work.*

Progressive Farmers and Horseowners Everywhere all Clip in the Spring

This Splendid Stewart No. 1 Clipping Machine

is unquestionably the most perfect clipping machine ever made at any price. The gears are all cut from the solid steel bar, are file hard and completely enclosed. They run in an oil bath and will practically never wear out. So well is this machine made, and of such high grade materials, that WE GUARANTEE IT FOR 25 YEARS against all defects of workmanship or materials.

To Canadian Customers:—\$6.75 is the price of this machine, boxed, f. o. b. Chicago. You will be required to pay transportation and duty from here. The price of this machine at your dealers in Canada is only \$8.75. The best way is to get it from your dealer. Have him get it for you, as practically all jobbers in Canada carry it in stock.

Our Special Offer! Get one of these machines from your dealer. If he hasn't it, send direct to us. When you get it clip your horses with it and clip the hair of all the boys and men about your place; compare it in every way with all other clipping machines you ever heard of, and if it doesn't do better work and prove better in every way for balance. Write for our big new 1908 Catalog of clipping and shearing machines. Write to-day and ask for Catalog No. 24c.

Comes at ONLY **\$6.75**



QUESTIONS AND ANSWERS. Miscellaneous.

MILLET.

Would be pleased to know the value of millet as a forage crop. Will horses do well on it? How many tons to the acre does it yield on an average? I have a couple of acres on which I grew corn last year, having been thoroughly cultivated all season. Soil is sandy loam. Would this be a suitable soil on which to grow millet? Any other information you can give me on millet culture will be cheerfully received?

I. W. N.

Ans.—Millet in all its species and varieties may be made to furnish food for live stock in the form of grain (or seed) fodder, soiling food, or pasture. It is most commonly grown as a fodder crop. Some of the varieties, under favorable conditions, produce enormous yields. In the experimental plots at the Ontario Agricultural College, the larger-growing varieties, such as Golden Wonder, Japanese Panicle and Holy Terror Gold Mine have produced, in six years' tests, an average of fully four tons of hay per acre per annum, the common millet yielding three-fifths of a ton less, and the Hungarian grass four-fifths of a ton less per acre. Of the latter class, an average yield, under ordinary farm conditions, would probably be from one to two tons per acre. Prof. Zavitz reports that the Japanese Panicle is probably the most popular variety amongst the newer ones which have been tested by farmers throughout Ontario. It grows to a good height, stands up remarkably well, has a good leaf development, and is relished by stock. It is a good producer of seed, as well as a heavy yielder of fodder and hay. There has evidently been a great misunderstanding among seedsmen, he adds, as to the different varieties of Japanese millet, for some of them in advertising Japanese millet have illustrated one variety and described another entirely different. The seed of the Japanese Panicle variety is of dark reddish-brown color, and very smooth and shiny, being quite different in appearance from the seed of the Japanese Barnyard. As to date of sowing, two years' experiments at the O. A. C. resulted in the best yields of green crop being obtained from the Japanese Panicle millet when sown the first of June; from the Japanese Barnyard millet when sown about the end of June, and from the Hungarian grass when sown about the middle of July. Crops produced from seed sown in May were light, and from that sown in August very poor. It was found difficult to make hay out of the crop produced from the later sowing, especially in the case of the Japanese Panicle variety. In general, it might be said that June proved the best month for sowing millet. It likes a warm, mellow seed-bed, and revels in soil which has abundance of humus. Sandy soils are ill adapted to it when low in plant food, but a sandy loam, in good heart, should answer fairly well. Broadcast at the rate of two to four pecks per acre. More seed is required on worn land. It makes acceptable horse feed if cut when the heads are "in the dough,"

The Postponed Auction Sale

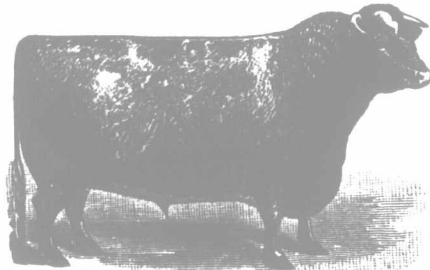
OF 40 HEAD OF

SCOTCH SHORTHORNS

The property of F. A. Gardner and S. J. Pearson, Son & Co., will be held at the farm of W. B. Gardner, one mile east of Meadowvale Sta., on C.P.R., on

Wednesday, April 8th, 1908.

Mr. F. A. Gardner will sell his entire herd of 20 head, including his imp. bull, Gold Mine, and his high-class imp. cows with their produce, and 20 head from the noted herd of Messrs. S. J. Pearson, Son & Co. will

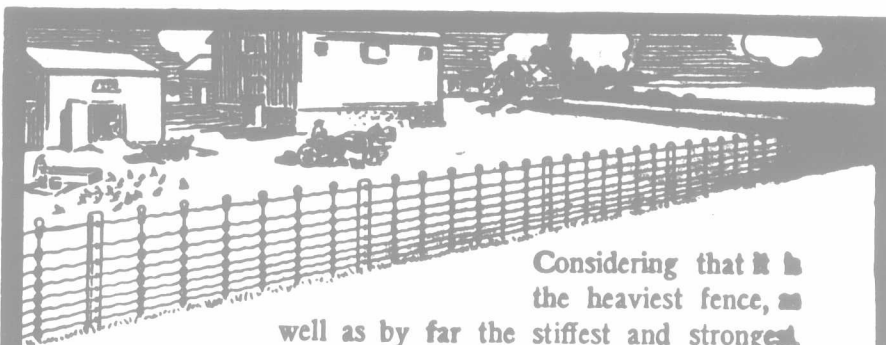


also be included. In all there will be sold 14 bulls—some extra high-class ones among them—and 26 females, imp. and Canadian-bred; there are a number of noted prizewinners in the offering.

TERMS: Cash, or 7 months' on bankable paper, with 5% interest. Lunch at noon. Conveyances will meet all C. P. R. trains from the north and east at Meadowvale Sta., and from the west at Streetsville Jct., and all G. T. R. trains will be met at Brampton.

F. A. Gardner and S. J. Pearson, Son & Co.
Britannia, Ont. Meadowvale Ont.

Auctioneers: John Smith, M. P. P.; Capt. T. E. Robson.



Considering that it is the heaviest fence, as well as by far the stiffest and strongest,

SAMSON-LOCK FENCING is much the cheapest wire fencing on the market at the price it can be erected for.

The Samson Lock has received the greatest praise from those who have experimented with other styles of locks. It is made of the toughest kind of specially selected, heavy Bessemer Steel. Takes but a jiffy to lock on and its shape gives strength where most required. Many times stronger than other locks, and constructed as to give a vise-like, immovable grip without kinking or injuring the wires. More information in our free booklet.

Agents Wanted to sell this easiest selling, most satisfactory fence. Exclusive territory. Write to-day for our good proposition.

LOCKED WIRE FENCE CO., LIMITED,
LONDON, ONTARIO.

**When Writing Advertisers
Please Mention this Paper.**

and cured so as to be fairly free from dust. When the plant is allowed to approach maturity, its fodder becomes woody, and is fed at some hazard to certain classes of stock.

LICENSES FOR STATIONARY ENGINEERS.

I noticed a paragraph in "The Farmer's Advocate" last fall in regard to the new Act coming in force regarding parties running engines over 25 h.-p. having to take out licenses. You directed parties whom to correspond with in order to secure licenses, but the paper has gotten mislaid. W. S. F.
Ans.—Address: "The Secretary," Department of Agriculture, Toronto, Ont.

SALT ON FALL WHEAT.

1. Will sowing salt on fall wheat be of any benefit or not? If so, how much would one require to sow to the acre?
2. Will it do any harm to clover seed sown this spring, as I wish to seed the wheat to clover?

A SUBSCRIBER.

Ans.—1. Salt, at the rate of 200 lbs. per acre, is, in some cases, beneficial to spring grain crops, especially barley, and, in some cases, of no perceptible advantage. Not being in itself a fertilizer, but only a means of liberating that already in the soil, it is ordinarily a poor substance in which to invest, except, perhaps, for mangels, on which it has often a marked effect. For grain crops, better buy wood ashes or muriate of potash and bone meal, both of which will favorably affect the yield of wheat, increase the vigor of the clover, and exert a fairly lasting effect on crop production. We should not expect much, if any, benefit from sowing salt on fall wheat.

2. Applied before the seeds have germinated, we do not think the salt would injure them.

PEARS AND CHERRIES.

1. I intend to plant four or five varieties of pears and cherries, for home use. Would you please give me the names of four or five of the best varieties that will extend over the greatest part of the season?

2. Will sweet chestnut grow here? Will they stand the winter? W. B.

Ans.—I would recommend the following as a few of the best pears and cherries for home use to cover the season as well as possible from early to late: Pears—Giffard, Bartlett, Flemish Beauty, Sheldon, Seckell and Anjou. I recommend the Flemish Beauty, knowing that this variety is very subject to the pear scab, but by thorough spraying this disease can be held in check. Unless you intend to spray thoroughly, I would recommend leaving this variety out. Cherries—Early Richmond, Montmorency, Reine Hortense, and Windsor. Early Richmond and Montmorency are of the sour type, and can be depended upon for hardness and productiveness. The other two are of the sweet type, and are not nearly so hardy nor so productive, but are well worth giving a trial.

2. I cannot say definitely whether sweet chestnuts will stand the winter in your section or not. They are not hardy here, and I doubt whether they would be hardy with you.
H. L. HUTT.
O. A. C.

The "BACON" Seed Drills and Cultivators

The only Rear-Wheel Driven Seed Drill on the market. The feed in the "Bacon" handles seed without bruising or breaking, and seeds evenly to the last seed. Machine instantly converted from a regular seed sower into a hill dropper. Feed cut prevents waste of seed when turning rows.

For sowing Sugar Beets, Parsnips, Radishes, Carrots, Onions, etc., the 1908 model of the "Bacon" is unequalled for strength, lightness, easy running and good work. Write for our complete catalogues.




THE EUREKA PLANTER CO. Limited
Woodstock, Ont. 2

Lame Horses

certainly do need Kendall's Spavin Cure. Whether it's from a Bruise, Cut, Strain, Swelling or Spavin, KENDALL'S will cure the lameness—quickly—completely.

CUPAR, SASK., May 16th '06.
"I have used Kendall's Spavin Cure for 20 years and find it a sure cure."

FRANK E. ADAMS.
Price \$1—6 for \$5. Accept no substitute. The great book—"Treatise on the Horse"—free from dealers or as Dr. R. J. Kendall Co., Essexbury Falls, Vermont, U.S.A.



GALL CURE

Money refunded if Bruises, Cuts, Harness and Saddle Galls, Scratches, Grease Heel, Chafes, Rope Burns and similar affections are not speedily cured with Blackmore's Gall Cure. The old and tried remedy for these troubles. At all Dealers. Be sure you get Blackmore's. Above trade-mark on every box. Sample and Horse Book 10 cents.

WINGATE CHEMICAL CO. LTD., Canadian Dist'rs, 645 NOTRE DAME ST., W. MONTREAL, CANADA



You Can Secure a Self-supporting Home

In the glorious Kootenay fruit district, British Columbia, for \$10 cash and \$10 per month for ten acres. (Discount for larger payments.) Annual profits, \$500 to \$1,000 per acre. Orchard, garden, poultry, grand scenery, hunting, fishing, abundant pure water, healthy climate, warm winters, cool summers; churches, schools, post offices, stores, daily express trains, lake steamboats within five minutes' walk; fine neighbors, comforts of civilization, combined with delightful rural community. Will send maps, photos, plans, proofs free. Refer to banks and commercial bodies, also hundreds of purchasers. Write to-day. Address, **LAND DEPARTMENT, Kootenay Orchard Association, 459 Ward St., Nelson, B. C.**

Blair's Pills

Great English Remedy for Gout & Rheumatism

Safe, Sure, Effective. All Druggists, 50c and \$1.00. LYMAN, BONS & CO. MONTREAL.



CLYDESDALES

One 1750-lb. 8-year-old mare in foal. One 5-year-old mare and one 3-year-old mare.

SHORTHORNS

Two right good yearling bulls left yet, and a lot of heifers cheap. Write, or come and see them.

JAMES McARTHUR, Gobles, Ontario.

Aberdeen-Angus bulls, 15 to 17 months; cows in calf or with calf at foot; heifers all ages. If you want anything in this line, write **JAMES SHARP, Tweedhill, Rockside, Ont.** Cherttenham Sta., C.P.R. and G.T.R.

For Sale—Two good Suffolk Punch Stallions, sired by pure-bred Suffolk Punch stallion Onario. One brown, five years old; one sorrel, three years old.

THOS. KWAGGS, Vandecar, Ont.

For Sale—Several Arab-bred Stallions; one, two, three and four removed upon Clay, Morgan and Hamblonian blood. These represent the only Arab-bred stallions in Canada. For particulars, address **JAMES BARRETT, Manager, 326 Jarvis St., Toronto Ont.**

Clydesdale Stallion (registered) [5433] Highland Pioneer, for sale; rising 4 years old, from imp. stock, with four registered dams; stands 17 hands; weight, 1700 lbs.; co. or, rich dapple bay, white strip on face and three white feet. Apply to **JOHN D. WATSON, Argyle P.O., Ont.**

Canadian-grown Strawberry Plants for Canadian strawberry growers; 55 leading varieties; also seed potatoes, raspberry and blackberry plants. Catalogue and price list free. This adv. will not appear again.

JOHN DOWNHAM, Strathroy, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

SCHOOL MATTERS.

1. Is there a book called "School Law," and where could I get it?
2. Can a junior trustee call a meeting without first notifying the senior trustee?
3. Is it compulsory to have a library in a country school before you can get the Government school grant in Ontario?

YOUNG TRUSTEE.

Ans.—1. Yes, by McMurrich and Roberts, 1894; price \$2; and it may be had through any bookseller.
2. Special meetings of the Board of Trustees are called by the secretary at the request, in writing, of two trustees, or on the petition of ten ratepayers; and the request, or petition, and the notice calling the meeting, must specify the objects for which such special meeting is to be held.
3. As to this, we must refer you to The Public Schools Act (1901) and amending Acts, and also to the Regulations of the Education Department.

PURCHASER IN DEFAULT.

A sold a village lot to B for \$40, including taxes and road work. B was to pay to A, \$9 every three months, until paid for. B has paid taxes, and done road work on said lot, but B has not paid A any money on same yet. A gave B privilege of building on lot under those conditions.

1. What can A do with B if he doesn't pay for the said lot at the end of the term? The agreement was not registered. A holds deed for lot. The agreement was drawn up by B, and there was no magistrate or witness to it. A notified B on the 9th of March to remove the house, if not paid for by the 29th of March, 1908.

2. Can A hold house and lot, or not? Both of our names were signed to the agreement. A. M. Ontario.

Ans.—1. A can sue B.
2. A can retain title to the lot, but, in view of his notice to B to remove, he has probably waived the right he might otherwise have to possess the house.

PURCHASE OF BOAR.

B wrote through the paper advertising pigs for sale. A wrote for prices for boar that would be ready for service at Christmas, as A had seven sows he wanted to breed at that time. B sent list of what they had on the 8th of Nov. A picked one of lot, four months old. B did not say whether he would be ready or not, but have their letters stating that the pig was something to be proud of, and good for 900 or 1,000 lbs. at maturity. A wrote, stating that he would accept their offer, and to ship him c. o. d., or would send an order as soon as the pig arrived, if satisfactory. B, in answer, said they could not ship the pig until they received a cheque or order; satisfaction guaranteed. A sent an order for the pig. B sent card stating they had received order, but could not ship for a few days, as it was holiday season, and could not get crates made, and on the 6th of January shipped a pig, 61 lbs., which was no use to A whatever at any price. A sent card stating that he had received pig; was not satisfied; that B must have made a mistake and shipped a younger pig, but to send pedigrees as soon as possible. No answer came, and, in two weeks, A wrote again, asking B to take the pig back, or refund part of the money, as they had not filled his order according to contract, and they guaranteed satisfaction in every case. It is now the 20th of March, and no answer or pedigree has come yet. Can A sue B for damages, or what steps ought A to take to recover damages, as A had to get another boar to serve his sows, and A's order called for pig not to be less than four months old, and of good type, express paid, satisfaction guaranteed. They did not even pay the express. H. A. C. Ontario.

Ans.—A is entitled to damages from B for breach of contract, and may sue for same.

GOSSIP.

Highland Pioneer [5433], four-year-old registered Clydesdale stallion, bay, white strip and three white feet, 17 hands and 1,700 pounds, with four registered dams, is advertised for sale by John D. Morrison, Argyle P. O., Victoria Co., Ont.

Messrs. John Watt & Son, Salem, Ont., write: "Since writing you last, we sold the show calf mentioned in March 18th issue, to Mr. F. W. Brown, Portage la Prairie, Manitoba. This calf is a good one, and is sure to mature into a high-class bull in Mr. Brown's capable hands. To Mr. A. Edward Meyer, Guelph, Ont., a well-bred pair of English Lady heifers, sired by Heatherman, and out of two of our best breeding cows. The cows and heifers we are offering are an extra good lot, most of which are either sired by an imported bull, or out of an imported cow. We have some high-class show stuff of different ages on hand at reasonable prices."

LUMBER IN THE WEST.

Everyone seems to know that there is timber in British Columbia, but most people think that Alberta, Saskatchewan and Manitoba are treeless plains. The discussions in Parliament recently have tended to correct the public's information or lack of information, says the Saturday Sunset of Vancouver, B. C. The other day Mr. Lake asked how much lumber, on which royalties were paid to the Government, was manufactured in the three prairie provinces in 1906 and 1907. In reply, the Hon. Frank Oliver stated that in 1906, the lumber cut was 132,000,000 feet, in addition to shingles and laths. As this is only the portion which pays royalty to the Government, it may safely be assumed that the total cut was fifty per cent. larger. In regard to 1907, the figures are still incomplete, but the cut is estimated to be about two million feet more than in 1906.—[Canadian Courier.]

PROFIT AND LOSS.

The ledger for last year is balanced and the accounts closed, and the question is how has the year turned out? When you are balancing up the business ledger, old fellow, don't forget the moral as well as the financial loss and gain account. Where are you at as a man? Are you less of a villain and sneak than you were a year ago, or do you think still less of the man who wears your hat than you did twelve months ago? Never mind what other people think of you, or where you stand in the eyes of the community. How much of the respect of the man you live, eat and sleep with, and who knows you as no one else can, have you managed to retain? Are you a better, bigger, broader man than when you first wrote "1908" at the top of your business letters? Don't dodge this issue. If you are worth the powder in this shot, you will sit down and consider the matter, even if the job be not particularly inviting one. After all, it matters much more whether a man's assets in character show an increase than the stuff that is represented by cash. You may not have made a dollar last year, but, if you are more of a man, you can write "success" in big letters across your annual statement. You may have made a pile of money; but if you know that some of it was made by methods that would qualify you for the penitentiary, you had better keep your mouth shut about "results."—A "Stray Shot from Solomon," in the Canadian Shoe and Leather Journal.

TRADE TOPIC.

The use of a reliable artificial mare impregnator may greatly conserve the energies and enhance the usefulness of a stallion largely patronized. This device, which is advertised in this paper, is said to be effectual in the case of barren mares, or those difficult to get in foal.

"You believe, then, that it is right to take human life?"

For an instant the anarchist was thoughtful.

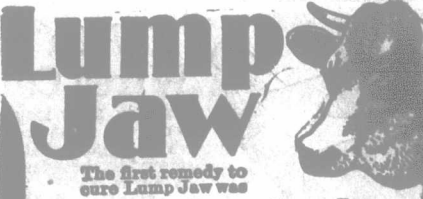
"Not under all circumstances," he replied. "Suppose this monster you call the State should desire to take mine?"

Lump Jaw

The first remedy to cure Lump Jaw was Fleming's Lump Jaw Cure and it remains today the standard treatment, with years of success back of it, known to be a cure and guaranteed to cure. Don't experiment with substitutes or imitations. Use it, no matter how old or bad the case or what else you may have tried—your money back if Fleming's Lump Jaw Cure ever fails. Our fair plan of selling, together with exhaustive information on Lump Jaw and its treatment, is given in Fleming's Vets-Posket Veterinary Adviser.

Most complete veterinary book ever printed to be given away. Durable bound, indexed and illustrated. Write us for a free copy.

FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario.



Every breeder that has a mare in foal should use . . .

Wilhelm's Brood Mare Special

insuring a good strong, healthy foal, requiring no nursing. Send for testimonials. We authorize dealers to refund the price if the result is not as guaranteed. Price, \$1.50 per package. Send either Postal Note or Money Order.

WILHELM & MOORE, Shakespeare, Ont.
J. WILHELM, V. S. G. A. MOORE, Specialist on Generation. Manager.

To Kill Lice or Ticks Use WEST'S Disinfecting Fluid

CURES AND PREVENTS CONTAGIOUS ABORTION.

Write for our special circular by veterinary. Our Offer: 5 Gallons, \$6.50; Freight Prepaid.

The West Chemical Co., 125 Queen St. E., Toronto, Can.

Shetland, Welsh and Iceland Ponies

Present Offering: Piebald gelding, rising 2 years, about 13 hands. Bay stallion, rising 3 years, about 12½ hands. These two are driving nicely now. Welsh filly, rising 1 year, dark grey; should make, when matured, a pony about 11 hands. Pair of Shetland mares, bred, and others.

E. DYMENT, Cepetown, Ont.
Gilead's Spring Farm

ARTIFICIAL MARE IMPREGNATORS

For getting in foal from 1 to 6 mares from one service of a stallion or jack, \$3.50 to \$6.00. Safety Impregnating outfit, especially adapted for getting in foal so-called barren and irregular breeders, \$7.50. All goods prepaid and guaranteed. Write for Stallion Goods Catalog.

CRITTENDEN & CO., Dept. 38, Cleveland, Ohio, U.S.A.

CARRIAGES

Write for catalogue and prices.

R. D. MILNER, Chatham, Ont.
P.O. Box 26.

Cement Silos!

I am the inventor and manufacturer of the only extension steel silo curbs in Canada. They will build any size—from a cistern to a silo—any dimensions required. Any information freely given by writing.

A. E. Hodgert, EXETER, ONT.

For Sale Imported Clyde Stallion, THE NOBLEMAN (12770).

Bright bay; four white feet white stripe in face. Foaled 1903. Sire Hiawatha (10067). This horse has four recorded dams, and is a sure foal-getter. Will be sold worth the money.

Apply: **H. G. SOAG, Barrie, Ont.**
Long-distance photo

Imported Clyde Stallions and Fillies For Sale, sired by Marcellus and Prince Alexander; one home-bred stallion rising two years, black, imported bred.

ALAN McBRIDE, Warkburg, Ont.



With Buckeye Wedge Lock Wires Cannot Slip. With the Wedge you can lock the wires far tighter than any other lock does, and without kinking or denting. Buckeye Locks are galvanized by a "hot process," exactly the same as fence wire. Equally coated inside and out. Used in U. S. for years, and considered the best fence lock. Same locks for No. 7 or No. 9 stays. Price as low as any.

AGENTS WANTED for Buckeye Fences, Stays and Locks, London Coiled Wire, Gates and Ornamental Fencing.

London Fence Machine Co., Ltd., LONDON, ONT.

JOHN CHAMBERS & SONS
Holdenby, Northampton, England.

Shire horses shown or imported by us won at the Ontario Horse Breeders' Show, 1908:

1st, stallion foaled 1905.
2nd, stallion foaled previous to Jan. 1, 1905.
1st, 3rd and 4th, mare foaled subsequent to Jan. 1, 1905.
2nd and 4th, mare foaled previous to Jan. 1, 1905.

We have several extra good fillies coming three years old safe in foal, and some stallions with weight and quality. Guaranteed foal getters. All are priced right.

C.K. Geary, St. Thomas, Ont.

STALLIONS TO RENT

A chance for farmers' clubs or individuals. Hackney, 15.24; over 1,100; chestnut, little white; fine actor; medal Dominion Exhibition; beauty; also imp. Clydesdale, Lord C. heart; black; sire Pride of Blacon, three times first Highland Show. Both rising four; good getters; sound. Rent for season, \$285 each, in secured notes; payable when fees collectable. Rent low to make connections.

MOUNT VICTORIA STOCK FARM, T. B. Macaulay, Prop. Hudson Heights, P. O.

Largest Importation of Clydesdales, Hackneys and Percherons of the Year.

My latest importation has just arrived home. I have now on hand for sale: 30 Clydesdale stallions from 1 to 8 years of age; 25 Clydesdale fillies from 1 to 4 years of age; 12 Hackney stallions from 1 to 8 years of age; 13 Hackney fillies all young; and 4 Percheron stallions 3 and 4 years of age. A total of 73 head with size, quality and action, and bred in the purple. Largest selection in Canada. Will be sold right, and on terms to suit.

T. H. HASSARD, MILLBROOK, ONT.

CLYDESDALES

At Columbus, Ont., the home of the winners, this year's importation just arrived. The pick of Scotland's best. For size, style, conformation, quality and royal breeding, they eclipse any former importation we ever made. Look them up in our barns on Exhibition Grounds. Over 50 head to select from.

SMITH & RICHARDSON, COLUMBUS, ONTARIO

Shires, Shorthorns and Lincolns.

At present we are offering a very choice consignment of imported stallions, mares and fillies received from the great Shire stud of R. Moore & Sons, Beeston Fields, Nottingham, England. They are a grand lot, and will be sold at right prices.

In Shorthorns we have a number of choice young bulls, three of them show animals; also an excellent lot of females—all ages.

John Gardhouse & Sons, Highfield, Ont.

Toronto 14 miles. Weston, 3 1/2 miles.

FOR SALE OR EXCHANGE: IMP. SHORTHORN HERD BULL, British Flag (50016)

Quiet, active and sure. Would take a Clyde, Shire or Percheron mare in exchange. Value for value.

JOHN M. BECKTON, Elm Park Stock Farm, Glencoe, Ont.

IMPORTED CLYDESDALES Up to over a ton in weight, with the very richest of breeding and the best of quality. I think no better shipment of stallions ever left Scotland. I have also nine fillies without doubt the best lot in Canada. All will be sold cheap and on terms to suit. Long-distance 'phone.

GEO. G. STEWART, HOWICK, QUE.

2 IMPORTED CLYDESDALE FILLIES

Sired by Prince Alexander and Macgregor's champion, recorded in Clydesdale Stud-book of Canada. Terms and prices reasonable.

Robt. McEwen, Byron, Ont. London Ry. Station.

Imp. Clydesdales (Stallions and Fillies), Hackneys, Welsh Ponies.

I have now on hand Clydesdale stallions and fillies—Scotland prizewinners and champions; Hackney fillies and Hackney pony; also Welsh ponies. There are no better animals, nor no better bred ones, than I can show. Will be sold cheap and on favorable terms. **A. AITCHISON, GUELPH P. O. AND STATION.**

SIMCOE LODGE CLYDESDALES

Our stable of imported and Canadian-bred Clydesdale stallions and fillies was never so strong in show stuff as now, although we have had some very strong lots. Call and see what we have before buying elsewhere. **HOOBINSON & TISDALE, BEAVERTON, ONT., G. T. & C. N. R. Long-distance 'phone.**

OAK PARK STOCK FARM HACKNEYS!

Four imported and home-bred stallions for sale. Ten imported and home-bred mares for sale. Among these are prizewinners at Toronto, Chicago and New York. Prices reasonable. Visitors always welcome to inspect stock. **JAS. J. BROWN, Manager BRANTFORD, CAN.**

Imported Clydesdales I have on hand for sale 7 choice Imp. Clydesdale mares 3 and 4 years old. All in foal. They have size, quality and grand action. An extra good lot. Also the 6 year old Imp. stallion, Faisal Member (6149), a horse of great size, grand quality, and a sure getter. All these are richly bred. Write for particulars. **R. M. HOLTEY Manchester P. O. and Station. Long distance 'phone.**

QUESTIONS AND ANSWERS.
Miscellaneous.

SCUM COMES OVER EYES.

I have a mare, twelve years old; scum comes over her eyes for some time, and leaves again for a time. Is there any danger of her going blind? What is the cause of it, and what should I do for it?

G. M.

Ans.—There is always a probability in such cases that in time blindness will result, but she may go on for years without becoming blind. Bathe the eyes with warm water two or three times daily, and, after bathing, put a few drops of the following lotion into the eyes: Sulphate of atropia, 15 grains; distilled water, two ounces.

STIFFNESS IN HIND LEGS.

Could you tell me what is good for stiffness in a horse's hind legs?

D. E.

Ans.—The stiffness may be due to rheumatism, or it is probably more likely to be what is called azoturia, due to good feeding and lack of exercise. If a bad case, feed him only bran mashes for twelve hours, then give him a purgative ball composed of 8 drams aloes and 2 drams ginger; follow up with a teaspoonful of saltpetre once a day in feed for three days, giving only gentle exercise. In an ordinary case, a teaspoonful of saltpetre, twice a day in feed, or as a drench in a pint of warm water, may give relief, as the trouble probably comes from the kidneys not working properly.

TEOSINTE—TALL OAT GRASS—COST OF FEEDING COWS.

1. Do you know anything about an annual fodder plant called Teosinte?

2. Did you ever get any report from the experimental farm, Guelph, about a grass called oat grass that they sowed with lucerne? If it was a success, where could the seed be got? I saw it growing in one of the plots last summer.

3. What would it be worth to take in two cows (farrow) and feed them hay for two months?

A YOUNG FARMER.

Ans.—1. Teosinte somewhat resembles Indian corn, and grows to the height of from eight to ten feet in the Southern States. The variety usually grown produces a great many stalks from each root, sometimes as many as forty. The crop produced per acre is said to be very large, and the fodder liked by all kinds of stock. The seed is sown in the spring, and, in climates suitable, the plants will produce several cuttings during the season. As teosinte has given such good results in the Southern States, some Northern seedsmen have, from time to time, been tempted to advertise it extensively. It was tested some years ago on the experimental plots of the Ontario Agricultural College for three years in succession. The germination was slow, and the crop did not, in any year, reach a height of more than three feet. Prof. Zavitz concluded that it was unsuited to Ontario, and not to be recommended to our farmers for any purpose whatever.

2. Tall oat grass and alfalfa grown mixed in plots at the Ontario Agricultural College, produced, in several cuttings, a greater yield than any other mixture of grasses and legumes tried. Both are hardy, both are early, and both come on readily after having been eaten by the stock. In pasture experiments, tall oat grass was one of the first grasses chosen by the animals. It will not do well, however, on a cold, wet soil; the seed is expensive, and for these and other reasons, tall oat grass is not recommended for general use, although it should form part of almost any pasture mixture. The seed may be obtained through leading firms of seedsmen.

3. The manure should pay for the feeding and labor. The cows would consume 25 to 30 pounds of hay each per day; call it 28 pounds. In two months' feeding, they would consume about 12-3 tons of hay. The cost will depend on the value of the hay (in the barn); putting this at \$14, the cost of keep would be \$21.

RINGING A BULL.

I have a valuable bull that has pulled the ring out of his nose. Is it possible to put the ring in so that we can unite the two pieces that are separated and have it a good job and strong?

DAIRYMAN.

Ans.—We have never seen a case of the operation being performed, but think it would be difficult, if not impossible, to effect a natural union of the parts to secure the necessary strength, but think it should be practicable to make a connection by the use of twisted copper wire. If any of our readers have had successful experience in this matter, we shall be pleased to hear from them as to the means used.

FEEDING FLAXSEED AND SALTPETRE.

1. Will saltpetre do any harm to a mare in foal? If not, how often and how much should it be fed?

2. Will flax meal hurt a mare, one month from foaling? If not, how often and how much should be fed? B. L.

Ans.—1. The chief action of saltpetre (nitrate of potash) is upon the kidneys, causing the secretion of an extra amount of urine. It may be given to a mare in foal, but not more than a teaspoonful, and not oftener than once a week, in a bran mash, or as a drench in a pint of water.

2. The best way to feed flax is to soak the whole flax for twelve hours in water, then boil for two or three hours, slowly, till it becomes a jelly. Feed a pint of this twice a day, with bran or oat chop. If ground flax is used, two tablespoonfuls, twice a day, may be safely given in feed. But ground oil cake, half a pint twice a day, in feed, is safer; though, in the quantities named, either is safe to feed to an in-foal mare.

TRADE TOPIC.

TELEPHONES IN RURAL DISTRICTS

It is becoming a recognized fact that there is no greater time-saver in rural districts than a good reliable telephone. Farmers are realizing more every day the value of a telephone service, and reports are constantly coming in from different sections of private telephone systems being installed. The rural telephone is useful in innumerable ways. It is useful for getting into immediate connection with one's neighbors near or at a distance; for speaking with villages, towns and cities several hundred miles away; for summoning a doctor in case of sickness; for calling aid in the event of fire or burglaries; for learning the news of the neighborhood and for other purposes. Wherever reliable telephones have been installed in rural communities they have paid for their cost, and have been found so useful that farmers would not be without them. A rural-telephone service, following the road for twenty miles, was recently installed in the township of Rochester, Essex Co., Ont. On this system, which follows the road for twenty miles, passing the townships of Rochester, Maudstone and Tilbury West, there are already 72 telephones in operation, and the Town Council have received requests for 30 more. In order to find out what make of telephone would give the best and most satisfactory all-round service, the services of an expert were employed, and the contract was finally awarded to the Northern Electric & Mfg. Co., Ltd., of Montreal. From a careful calculation, it was found that the cost of the telephone to each subscriber was slightly under \$40, to be paid in ten years, the interest on the unpaid principal of which would be \$1.20 each year; this with the cost of operating the Exchange (amounting to \$1), making a total yearly outlay of \$6.20 each for ten years. Upon the proper selection of the telephone depends its usefulness and reliability. See, then, that the telephone installed in your community is the best on the market. Even if it costs a trifle more than a cheaper make, the satisfaction experienced from its use will more than compensate for the difference in cost.

'They're nawthin' so hard as mindin' yer own business, an' an' iditor niver has to do that—Mr. Dooley.

THE UNION STOCK-YARDS COMPANY, Ltd.
HORSE EXCHANGE
 KEELE ST., - - TORONTO JUNCTION

Auction Sales of
 Horses, Carriages and
 Harness every
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 Private Sales every
 day.



Come and see this new
 Horse Exchange,
 it will interest you, also
 the Quarter-mile Track
 for showing
 and exercising

The Directors of the above Company have not spared anything in the building of this new Horse Exchange. The stables, which are built of cement and brick, will stall between 900 and 800 head of horses and are considered by judges, who have seen them, to be the most sanitary they have yet seen.

We have sold on an average of 100 horses per week since the opening of this great horse market, and now that the success of the horse business is assured, we are in a position to handle **Breeders' Stock Sales of all kinds, Cattle, Sheep, and Hogs.**

Breeders will find that advertising from a central place like Toronto will be advantageous in many ways, as this is unquestionably the most complete market of its kind in America for both buyer and seller.

We have our own railway chutes, which are the finest, and can load any number of cars at once on both G.T.R. and C.P.R. No charge for loading or unloading stock of any kind.

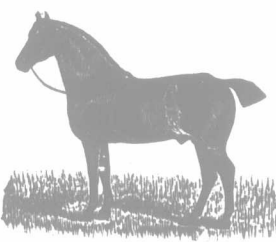
Correspondence solicited as to terms, etc.

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

IMPORTED CLYDESDALES AND HACKNEYS



Stallions and mares, both breeds, representing the best blood of England and Scotland, combining size, quality and faultless action. Stallions are all guaranteed sure foal-getters, or replaced by one of equal value. All will be sold on the long-time payment plan. Stallions insured against risks of all kinds. If in need of something choice of the above breeds, write or wire for full particulars and catalogues.



DUGALD ROSS, Streetsville, Ontario

For Sale: 7 Imp. Clydesdale Stallions

Also One Percheron Stallion. I will sell the above at low-down prices, as they must be sold this spring. Please write me for prices.

O. SORBY, Guelph, Ont.



Graham - Renfrew Co.'s
 CLYDESDALES and HACKNEYS.

Our Clydes now on hand are all prizewinners. Their breeding is gilt-edged. Our Hackneys, both stallions and mares, are an exceedingly high-class lot. We also have a few high-steppers and carriage horses. Yonge street cars pass the door every hour. Phone North 4488.

GRAHAM-RENFREW CO., LTD., Bedford Park, Ont.



CLYDESDALE STALLIONS

Our new importation has just landed. An exceedingly good lot. Some extra big fellows. They may be seen at our stables, Fraser House, London. Call and see them, or write

MESSRS. DALGETY BROS., GLENGOE, ONT.



25 Imported Clydesdale Stallions and Fillies 25
 Two Clyde stallions, 1 Hackney stallion, over 20 Clyde mares and fillies, from 1 to 5 years of age. Many high-class show animals among this lot. Many winners in Scotland among them. They have size, quality, style, action and breeding. Come and see them. **GEO. A. BRODIE, Bethesda P. O., Stouffville and Germist Stations.**



IMPORTED CLYDESDALES! 9 stallions, 1 to 6 years of age; 10 fillies, 1 to 3 years of age, several of them in foal; 1 two-year-old Hackney stallion; 1 two-year-old Shire stallion; 3 Percheron stallions, 3 years old. All are selected animals, bred in the purple. Will be sold cheap and on terms to suit. **T. D. ELLIOTT, BOLTON, ONT.** Phone.

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



QUESTIONS AND ANSWERS.
 Veterinary.

BREEDING STALLION.

Aged stallion had distemper in 1906, and pink eye in 1907. Will this affect his breeding qualities in 1908?

J. B.

Ans.—Not if he thoroughly recovered from said diseases; but if any serious sequelae to the diseases resulted, they may affect his potency.

V.

EPIDEMIC OF ABORTION.

In this section, nearly all pregnant mares have aborted during the 7th to 9th month of gestation.

1. Is this contagious abortion?
2. Was it caused by the stallion at time of service?
3. Will it be likely to occur again next year?
4. What can be done to prevent it?
5. Sow, within two or three days of farrowing, has completely lost her appetite.

R. N.

Ans.—1. It is not contagious abortion, but is due to some local causes. It may be due to the quality of the food. Grain or hay containing ergot will cause it. It would be wise to get your veterinarian to investigate, and, if possible, determine the cause.

2. This is not probable, as, no doubt, several stallions were at stud. In some cases mares that have been bred to a stallion that has suffered from a prolonged attack of influenza will abort at various stages of gestation, but this is not often noticed.

3. If the same conditions exist; hence the cause should be discovered, if possible, and removed.

4. Prevention consists in removing the cause.

5. Give ten drops tincture of nuxvomica, and 1 dram tincture of gentian, in half a pint of water three times daily.

V.

Miscellaneous.

THRUSH.

Please explain the disease of a horse's foot called thrush, and give a cure for the same, also if it is liable to trouble afterwards.

A. D.

Ans.—Thrush is a disease characterized by a discharge of foetid matter from the cleft of the frog, caused by the more or less continued presence of irritant matter, such as urine, in the cleft of the frog. Some horses are so predisposed that slight exciting causes produce the disease. Clean the cleft of the frog out thoroughly, and keep it clean. Keep the stall dry and well bedded. Remove all partially-detached horn, and syringe or douse daily with a solution of one part formalin in five or six parts water. In obstinate cases, a slightly stronger solution may be used. Formalin is coming into wide use as a disinfectant and antiseptic. Every farmer should keep a supply on hand. It may be procured at the local drug store.

FENCE ON ROAD.

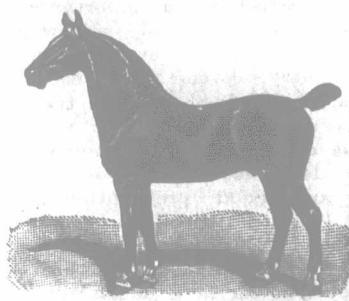
There is an engineer's ditch running along the front of A's farm. The right water course would be across the road into B's farm, then back again and through A's farm. This, along the front of A's farm, is through a hill. The council has thrown the clay against A's fence, and partly covered it. The council says A's fence is set on the road. The fence has been sitting there for thirty or forty years without anyone saying anything.

1. Can A compel the council to remove the clay from his fence, and how should he act?
2. Can the council compel A to move his fence?
3. Who would have to pay the engineer for surveying the line along the road?
4. How is nitro-culture to be used on alfalfa seed?

Ans.—1. We do not think so.
 2. Yes, if it be really upon the road.
 3. Whichever party employs him.
 4. According to directions accompanying.

Warranted to Give Satisfaction.

Gombault's
Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for
 Curb, Splint, Sweeney, Capped Hock,
 Strained Tendons, Founder, Wind
 Puffs, and all lamenesses 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 Co., Toronto, Ont.

THE LAFAYETTE STOCK FARM

J. CROUCH & SON, PROP.
 LaFayette, Ind.



Largest importers in America of Percheron, Belgian and German Coach stallions and mares. The three popular breeds. The States have about discarded all breeds of draft horses except the Percheron and Belgian. They are low down, blocky shaped, clean legs, cuppy foot and tough, and can go over rocky roads without shoes; are close made, long ribbed, and live on half the food that the leggy, shorty ribbed, big Roman nose kind do. They mature at three years old. Long time to responsible buyers. Guarantee the best. Prices from \$700 up to \$3,300.

SHOE BOILS

Are Hard to Cure,
 yet

ABSORBINE

will remove them and leave no
 blemish. Does not blister or re-
 move the hair. Cures any puff or swelling. Horses can
 be worked \$2.00 per bottle, delivered. Book \$-0 Free.
ABSORBINE, JR. for mankin, \$1.00 per
 bottle. Cures Boils, Bruises, Old Sores, Swellings,
 Varicose Veins, Varicocele, Hydrocele. Allays Pain
G. J. JONES, P.O. 73, Hammond St., Springfield, Mass.
 Canadian Agents: **WELCH BROS. & Co., Montreal.**

HORSE ACTION DEVELOPERS



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G. H. GIBSON, OAKHAM, ENGLAND.
MR. A. I. HICKMAN,

Court Lodge, Egerton, Kent, England,
 exports pedigree live stock of every description
 to all parts of the world. Exported during 1907
 more Shetland ponies, more Romney Marsh
 sheep, and more champion Oxford Downs than
 any other breeder or exporter, besides large
 numbers of other breeds of horses, ponies,
 cattle, sheep and pigs. Correspondence invited.
 Highest references given.

FOR SALE: CLYDESDALE STALLION
 rising 3 years this spring. Grandson of Imp.
 Bold Boy. His sire full brother to a world-
 champion show horse at Chicago. A light chest-
 nut. White face. Well feathered. Good make
 and tail. Stands 16 hands. Good block and
 splendid action. Plenty of good fat bone. Was
 bred to 13 mares last season: 9 or 10 have proved
 in foal. The property of the late Henry K
 Schmidt. Must be sold. For further partic-
 ulars apply to **GEO. MOORE or J. H
 ENGLE, V. S., Waterloo, Ont.**

Clydesdales, Shorthorns and Cotswolds.—For
 richest bred and choicest indi-
 viduals of above breeds, write me. My new
 Cotswold and Clydesdale importation will
 arrive early in the season.
J. O. ROSS, Jarvis P. O. and Sta.

FEW HERE KNOW THIS.

When an eminent authority announced in the Scranton (Pa.) Times that he had found a new way to treat that dread American disease, Rheumatism, with just common, every-day drugs found in any drug store, the physicians were slow indeed to attach much importance to his claims. This was only a few months ago. To-day nearly every newspaper in the country, even the metropolitan dailies, is announcing it and the splendid results achieved. It is so simple that anyone can prepare it at home at small cost. It is made up as follows: Get from any good prescription pharmacy Fluid Extract Dandelion, one-half ounce; Compound Kargon, one ounce; Compound Syrup Sarsaparilla, three ounces. Mix by shaking in a bottle, and take in teaspoonful doses after each meal and at bedtime. These are all simple ingredients, making an absolutely harmless home remedy at little cost.

Rheumatism, as everyone knows, is a symptom of deranged kidneys. It is a condition produced by the failure of the kidneys to properly filter or strain from the blood the uric acid and other matter which, if not eradicated, either in the urine or through the skin pores, remains in the blood, decomposes, and forms about the joints and muscles, causing the untold suffering and deformity of rheumatism.

This prescription is said to be a splendid healing, cleansing and invigorating tonic to the kidneys, and gives almost immediate relief in all forms of bladder and urinary troubles and backache. He also warns people in a leading New York paper against the indiscriminate use of many patent medicines.

Senator Hopkins, of Illinois, illustrated a story with a reference to the alertness of an Aurora bridegroom. "You know how bridegrooms, setting off on the honeymoon, forget their brides and buy tickets only for themselves? Well, that is what this bridegroom did in Aurora, and when his wife said to him, 'Why, you only bought one ticket, dear!' he answered, 'By Jove! I never thought of myself.'"

Brown Swiss Cattle

FRENCH-CANADIAN HORSES.

We are offering for sale cattle of both sexes and almost any age; the greatest dual-purpose breed alive. Horses of all ages. Stallions, mares and fillies. The best stud in Quebec. Write us for prices. We represent exactly as the animal is.

C. E. STANDISH, Ayer's Cliff P. O., Trebarthe Farm, Quebec.



Sunnyside Herefords

Present offering: Twenty good breeding cows, yearling heifers good sappy heifer calves; also some very promising bull calves the get of Onward and Protector 2nd. In car lots or singly. Come and see them, or write and state what you want. Satisfaction guaranteed. ARTHUR F. O'NEIL, Maple Grove, Ont., Middlesex Co.

Herefords

We have some choice females for sale—all ages—of the right sort; also a few young bulls fit for service. Correspond with us. We can please you. J. A. LOYERING, Coldwater P. O. and Station.

Hyde Park Herefords

Choice young heifers, and cows with calves at foot and bred again, for sale. Thomas Skippon, Hyde Park, Ont.

Aberdeen-SUFFOLK DOWN

Angus Cattle If you require either of these breeds, write: James Bowman, Elm Park, Guelph

ABERDEEN - ANGUS

For sale. 50 head to pick from, males or females by imported sire. Drambo station.

WALTER HALL, Washington, Ontario.

MAPLE GROVE SHORTHORNS

Scotch and dairy bred; up to date in type; prize-winners at the local shows. A number of 1 and 2 year old heifers, 1 year old bull, and one 5 mos. old—the last will make a show bull. Fairs bred—will be sold easy. L. B. POWELL, Wallenstein P. O. and Stn., C. P. R.

GREENOCK'S SHORTHORNS.

Imp. Protector at head of herd. Imp. and Canadian-bred females, Scotch and Scotch-topped. For sale: 7 bulls from 4 to 12 months of age, two of them out of Imp. dams; also some choice females. Will be sold at easy prices. Write or come and see them. JOHN McFARLANE, Dutton P. O. P. M. and M. C. Railways

YOUNG SHORTHORN BULLS!

Am now offering 2 grand ones from Scottish Peer (imp.). Will make show animals. Also Leicester sheep. A number of young breeding ewes to sell. JAS. SNELL, Clinton, Ont.

QUESTIONS AND ANSWERS. Miscellaneous.

ALFALFA QUERIES.

I have a field on which I had corn last year, and it was a good crop; manured last fall, and plowed. I intend to try some alfalfa on part of field this spring. The rest of the field will be too low. I thought of sowing some red clover. Will both of these crops yield a good-paying crop this year? The land is good, and would yield a good crop of grain.

2. How many pounds to the acre?
3. Will a field that will grow a crop of corn or wheat or red clover grow alfalfa?

SUBSCRIBER.

Ans.—We would not recommend mixing any red clover with the alfalfa seed, as the latter will do better alone, and the two crops do not mature together. The alfalfa stems would be woody before the clover was ready to cut. If sown without any nurse crop, a light yield of hay might be secured this year; but nearly as good a stand would be secured with a nurse crop of a bushel of barley per acre. In the case of alfalfa, which, if successful, will be left for a good many years, sowing without a nurse crop is probably wise. For clover seeding, a bushel and a half of barley had better be sown, so as to derive some use from the land, for a stand of clover is not ordinarily left so long as a stand of alfalfa.

2. Use 20 to 25 pounds of alfalfa per acre, and 10 pounds of red clover; or, better, especially as land is low, 8 pounds red clover with 2 pounds alsike, and 4 pounds timothy.

3. Probably. A field that grows red clover well is likely to be good for alfalfa, although the latter crop is rather more exacting as to drainage, and amount of potash, lime and phosphoric acid in the soil. Clay hillsides are best for alfalfa.

BREEDING EWE LAMBS—SOW THISTLE—ALSIKE CLOVER.

1. I have some well-bred Leicester ewes, and, last fall, bred them to a young Leicester ram, which is well-bred also. Would you advise keeping this ram to breed another year; and would it be advisable to breed his lambs to him?

2. In a field which had oats on last year, and was seeded with clover and timothy, was found a few small patches of perennial sow thistle. Will leaving it under meadow kill the thistle, and, if so, how long will it need to be left in meadow?

3. Last fall I had wheat on alsike stubble, and there was a very thick chance catch of alsike. As it is intended for a crop of alsike this year, would it be advisable to pasture it this spring?

N. S. L.

Ans.—1. If the ram is good enough, and his get good enough to suit you, it will be all right to use him again on your mature ewes; but ewe lambs of this year should not be bred till they are eighteen months old. To breed ewe lambs in their first year seriously checks their growth, and they make poor nurses. We would not advise breeding a ram to his own progeny. The results are seldom satisfactory.

2. If you would clean your farm of this weed, adopt a short rotation, say a three-course one of corn, followed by grain, seeded to clover, left one year only. This, or one substantially the same, has been tried at Ottawa, with splendid results, by Agriculturist Grisdale. Be sure to cultivate the hoe crop thoroughly, and to cut the hay early, as the plant seeds from July to September. Would advise leaving this field for meadow, cutting for hay about the last week in June, then plowing up, cultivating thoroughly till fall, ridging with double moldboard plow, and planting to hoe crop next year.

3. The best yields of alsike clover seed are obtained when the plants cover the ground fairly thickly, are not too long in the straw, and are of even growth. Close pasturing for a week or so in May will often conduce to these ends, and, in the case of a rank-growing stand on a rich field, would be probably advisable. If the stock leave the top uneven, or if any weeds show above it, run the mower over after the grazing is discontinued. Also use the spud or scythe afterwards,

if necessary, to keep the crop clean. Owing to the small size of alsike seed, it is especially important to keep it free of weed seeds. We might add that one great advantage of pasturing in some cases is that it sets blooming period back till after the bulk of the alsike if the neighborhood has blossomed, and thus helps to insure more abundant fertilization by bees, and accordingly much larger crops of seed.

Veterinary.

UNTHRIFTY FILLY.

Two-year-old filly is unthrifty and has been so since last spring. Her hair is dry, and she has passed some long worms. She has had colicky pains once or twice. I feel sure she has bots.

J. W.

Ans.—No doubt she has bots, but they will not injure her, and will pass off in regular time. She is doubtless troubled with worms. Take 2 ounces each of sulphate of iron, sulphate of copper, tartar emetic and calomel. Mix and make into 24 powders. Give a powder night and morning in damp food, and, after the last has been taken, give a purgative of 5 drams aloes and 2 drams ginger.

V.

ECZEMA.

1. Pregnant mare had lymphangitis five weeks ago, and is now covered with pimples about as large as peas. They are itchy.

2. Should purgatives be given to a pregnant mare?

3. Is it wise to feed two quarts raw potatoes to a horse two or three times weekly?

M. B.

Ans.—1. Make a solution of corrosive sublimate, 15 grains to a pint of water, and rub a little of it well into the skin daily. Heat it to about 100 degrees Fahr. before applying. As she is pregnant, it would not be wise to give her drugs internally.

2. No.

3. A few potatoes act well as a laxative and digestive for horses. I would prefer giving 1 quart daily.

V.

UNTHRIFTY MARE—FLAT FEET.

1. Pregnant mare has been failing in flesh for a month. She tires quickly when working, and next morning, after working, is quite stiff in hind parts. Hind legs are all right. The trouble is in hips or loins. Faeces and urine are natural.

2. Heavy horse has flat feet in front. Sole of feet is somewhat broken, and she is tender in feet.

R. M.

Ans.—1. I am of the opinion that the stiffness is simply due to inability to perform work without tiring. Get your veterinarian to dress her teeth. Take equal parts sulphate of iron, gentian, ginger and nux vomica. Mix, and give a tablespoonful three times daily. Feed liberally, and give regular exercise, but not sufficient to tire her.

2. Remove the shoes and poultice the feet, and when he has to go to work, get him shod with bar shoes with good frog pressure.

V.

LAME STALLION.

Stallion, now four years, had dislocation of the patella (stiffed) when a yearling. Last spring he slipped on a loose stone and went lame for a day or two. Six weeks ago I had him in deep snow and noticed him slightly lame. He has been lame twice since that, but soon gets over it. I think it is in the stifle joint. How can I make a permanent cure?

J. B. C.

Ans.—As you give no particular symptoms, it is not possible for me to diagnose the lameness. It is probable you are right in your diagnosis. The stifle joint is weak and should be blistered repeatedly. Make a blister of 2 drams each of biniodide of mercury and cantharides, mixed with 2 ounces vaseline. Clip the hair off the front and inside of the joint. Tie so that he cannot bite the parts. Rub well with blister daily for two days, and on the third day wash off, and apply sweet oil. Let loose in box stall now, and oil every day. As soon as the scale comes off, tie up and blister again, and, after this, blister once monthly for three or four months. I think this will effect a permanent cure.

V.

MILBURN'S

LAXA LIVER PILLS

Are a combination of the active principles of the most valuable vegetable remedies for diseases and disorders of the Liver, Stomach and Bowels.

CURE CONSTIPATION

Stick Headache, Jaundice, Heartburn, Catarrh of the Stomach, Dizziness, Blisters and Pimples.

CURE BILIOUSNESS

Dyspepsia, Sour Stomach, Water Brash, Liver Complaint, Sallow or Muddy Complexion.

CLEAN COATED TONGUE

Sweeten the breath and clear away all waste and poisonous matter from the system. Price 25c. a bottle or 5 for \$1.00. All dealers or THE T. MILBURN CO., Limited, Toronto, Ont.

Hawthorn Herd of Deep-milking SHORTHORNS

6 YOUNG BULLS.

by Aberdeen Hero, Imp., =28840=. Also females all ages.

Wm. Grainger & Son, LONDESBORE P. O.

SHORTHORN BULL OFFERED

Dark roan; real good head and horns; excellent back and quarters; capital legs, properly set; and attractive appearance. Year old April 3rd. He is a Strathallan, by Golden Count =44787=, and we think is good enough to fit for showing in junior yearling class at Toronto, and head any good herd.

J. & D. J. CAMPBELL, Fairview Farm, Woodville, Ont.

Maple Grove SHORTHORNS.

6 bulls and 2 heifers for sale. Bred from imp. and home-bred stock. A number of young cows set in calf. Present stock bull, Starry Morning, C. D. WAGAR, Enterprise, Ont. Sta. & P. O.

Athelstane Shorthorns!

Three choice bulls from 9 to 12 months and heifers from 1 to 3 years; low down, thick fleshed sort, of families: Rosewood, Butterfly, Rosaling, and Countess, and mostly sired by the Bruce Mayflower bull, Star Prince =63900=. Prices very reasonable. WM. WALDIE, Stratford, Ont. Box 324.

R. H. REID,

Glover Lea Stock Farm, PINE RIVER, ONT.,

BREEDER OF SHORTHORN CATTLE

Golden Cross (imp.) at head of herd.

SPRING VALLEY SHORTHORNS

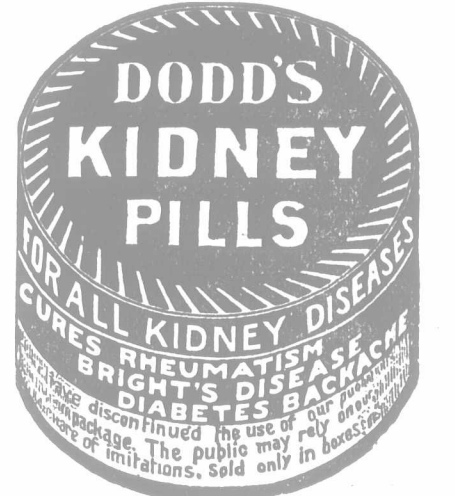
Two young imported bulls of the very best quality and breeding. Six Canadian-bred bulls mostly the get of Bapton Chancellor (imp.) Prices right.

KYLE BROS., AYR, ONTARIO.

"The manager always keeps back a portion of the villain's salary."

"Why does he do that—afraid he'd skip?"

"No; but he always acts his part better when he's mad."



QUESTIONS AND ANSWERS.
Miscellaneous.

PROBABLY DISEASED TOOTH.

Horse runs a yellowish green from both nostrils, and also coughs up great mouthfuls, which has a very bad smell. He is an aged horse, and has heaves. It started last summer.

R. A.

Ans.—The symptoms described appear to be those resulting from a diseased tooth, but it might be something of a contagious nature. In such cases of suspicion, the proper thing to do is to notify, at once, the Veterinary Director-General (Dr. J. G. Rutherford), Department of Agriculture, Ottawa, Ont. As this horse is old and unsound anyway, he should be killed and burned, and no chances taken.

GREASE.

I have a horse, fifteen years old, that has had scratches, or grease, on both fore feet for about a year. It has a very offensive smell, and discharges freely. Can you advise me what will cure it?

F. H.

Ans.—Purge him with a ball made up of 8 drams aloes and 2 drams ginger, feeding only bran mash for twenty-four hours before and after. Poultice for two days and nights with linseed meal and a little powdered charcoal, applied warm, and changed every four or five hours. Then dress, twice a day, with a solution of corrosive sublimate, 15 grains to a pint of water, opening up the hair to get the lotion into the sores.

PLANK-FRAME BARN INQUIRIES.

In your issue of Feb. 20th, Alf. A. Gilmore describes the building of a plank-frame barn, and says he will answer any questions through "The Farmer's Advocate." I intend building a barn 34 x 72, 22-foot side walls, 20 feet for shed, 20 for horse stable, 12 for driveway, and 20 for mow.

1. Would the posts, 2 x 8, require to be all in one length (22 feet), or might they be spliced?
2. How many bents would be required?
3. What size of timber for sills?
4. Length and size of rafters and girths, siding and roof to be corrugated iron?

W. A. A.

Ans.—1. No; not in that part to be used as a shed and stable, where it would be far more economical, and a great deal stronger, to frame a regular plank-frame basement about 8 feet high, thus leaving only 14-foot posts in the superstructure. In the mow and drive floor, it would be better to build up the posts of planks the full 22 feet long, although it is quite practicable to build them of shorter pieces, well spiked and bolted, with joints carefully broken. At the same time, as the length is not very great, it is a question whether it would not be more economical to use long planks.

2. Four over the shed and stable, 14-foot posts, and two in floor and mow space, six in all, last two to be 22-foot posts.

3. Two thicknesses of 2 x 8 planks; hemlock, pine or oak.

4. Length of lower rafters 15 feet, giving 24 inches for projection below plate, size 2 x 6 in., set 30-in. centers. Length of upper rafters 14 feet, giving 12 inches for projection below purline plate, size 2 x 6, set 30 inches on centers; lap spiked to top of lower ones. Girths are all 2 x 6, and are spiked on posts at distances apart to suit sheets of iron used, but on no account over 36 inches. Lengths are as follows, commencing at end over open shed: No. 1 space, 13 feet 6 inches; No. 2, 13 feet 4 inches; No. 3, 13 feet 4 inches; No. 4 (floor), 12 feet, or if 12-foot drive is desired, clear from inside of post to inside of post, then girths will be 12 feet 6 inches; No. 5 (mow) 20 feet 2 inches, or, better still, divide this space by erecting a simple side post in the center of the 20-foot space, thus making two lengths of short girths reach, and adding to the strength. These posts may be built of 2 pieces, 2 inches by 8 inches by 22 feet, and simply spiked to sill and plate.

ALF. A. GILMORE.

Huntingdon Co., Que.

INTERNATIONAL STOCK FOOD COSTS ONLY



This Beautiful Picture in 6 Brilliant Colors Mailed to You FREE

A Marvellous Picture of 2 World Champions Dan Patch, 1.55, The Pacing King Crescus 2.02 1/4, The Trotting King. We have large colored lithographs of our World Famous Champion Stallions, Dan Patch 1.55 and Crescus 2.02 1/4, in an exciting speed contest. It is 16 by 21 in. and shows both horses as life-like as if you saw them racing. You can have one of these Large and Beautiful Colored Pictures of the Two Most Valuable Harness Horse Stallions and Champions of the World, Absolutely Free. We Prepay Postage, 13¢. This cut is a reduced engraving of the large Colored Lithograph we will send you free.

WRITE AT ONCE

1st, Name the Paper in which you saw this offer.

2nd, State how much live stock you own.

International Stock Food Co.

TORONTO, CANADA

3 FEEDS FOR ONE CENT

Glenoro Stock Farm

SIX GRAND YOUNG STOCK BULLS

from 10 to 12 months; reds and dark roans. The best ever bred at Glenoro from Marr Roan Lady, Miss Ramden and Missie dams, and sired by the great breeding and show bull, Nonpareil Count. Will be sold much below their value. Write, or come and see.

A. D. MCGUGAN, RODNEY, ONT.

CEDARDALE SHORTHORNS



Owing to scarcity of feed, am offering at specially low figures for quick sale: 17 heifers, one to three years old, 4 young bulls from six months to one year old, 16 cows, in calf or with calf at foot. Both beef and deep-milking strains.

T. S. SPROULE, M.P., Markdale, Ont.

Maple Home Shorthorns!



Our present offering is several very choice and richly bred one and two year old heifers, and three yearling bulls. A way above the average. Pure Scotch and Scotch topped.

A. M. SCHMIDT & SONS, Elmira, Ont.

LIVINGSTON'S OIL CAKE MEAL.

OLD PROCESS

Nothing is better for fattening steers quickly and putting them on the market in prime condition than Oil Cake Meal. Thousands of Canadian and English stockmen use Livingston's, and would have no other. It is equally good for milk cows. They give more and better milk when fed Livingston's Oil Cake Meal. Also used for horses, sheep and hogs. Write for information regarding prices, etc., etc., to

DOMINION LINSEED OIL CO., LIMITED
Montreal, Que. Baden, Ont.

SHORTHORN BULLS For Sale.

At the dispersion of the "Thistle Ha" herd in Jan., 1905, I purchased a few of the best breeding cows. From these cows I now have 6 extra good young bulls for sale. For pedigrees and other particulars apply to

JOHN MILLER,

Brougham P. O. Claremont Sta., C. P. R.

HERD BULL FOR SALE.

Lord Lieutenant (imported) No. =60050=, five-year-old. All stock bull, quiet and sure. 3 bulls just over 1 year. 3 bulls just under 1 year. Half dozen choice 1 and 2 year old heifers. All from imported sires, and some from imported dams. All are from good milking dams. Visitors always welcome.

SCOTT BROS., Highgate P. O. and Station. M. C. Ry. and P. M. Ry.



We are offering a very superior lot of SHORTHORN

Home-bred Bulls

of the best breeding and quality at attractive prices for the buyer. To see them is all that is necessary. Try to do so if you are in the market. It will pay you.

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

SUNNYSIDE STOCK FARM

J. & W. Russell, Richmond Hill, Ont.



Bulls in service: Queenston Archer =48998=, Trout Creek Stamp =67660=. A number of first-class young bulls, red and roan, and a few cows and heifers, for sale. Prices right.

JAMES GIBB, Brookside, Ont.



are now offering very cheap, for quick sale, 8 yearling bulls, bred from their winning strains of world-renowned Shorthorns. Also about 30 heifers. First come, first choice. Electric Cars from Toronto pass the gate every 2 hours.

M A P L E

Winners at the leading shows have been sired by bulls bred here. We can sell you a good bull to head your herd of SHORTHORNS, or for use on your good grade cows. The bull catalogue explains the breeding. Write for it.

John Dryden & Son, Brooklin, Ont.

Stations: Brooklin, G. T. R.; Myrtle, C. P. R. Long-distance telephone.

S H A D E

T. DOUGLAS & SONS



BRATHROY, ONT. Breeders of Shorthorns and Clydesdales. 15 bulls, 60 cows and heifers, 1 imp. stallion imp. and home-bred fillies. Write us what you want or come and see our stock. Farm 1 mile north of town.

2 Very Fine Young Bulls ONE RED AND ONE ROAN

10 and 16 months old. From imported sires and dams. Both will make winners.

W. J. SHEAN & SON, Box 856, OWEN SOUND.



Herd Bulls for Sale

We now offer our grand show and breeding bull, Ridgewood Marquis =49995=, good disposition and sure breeder, and Good Marquis =69999=, roan, calved Dec. 18th, 1906, a bull good enough to show anywhere. Our prices are reasonable. Write for particulars or, better, come and see.

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

Offers for sale two young Scotch-bred bulls of good colors, both from imported sires: one from imported dam and the other from a Clementine cow; one is 11 months old, the other 8 months. They will be sold well worth the money. Write, or come and see them. Long-distance 'phone.

Salem Shorthorns!

The champion "Jit Victor" already bred. We can suit you in either sex. Write for particulars.

J. A. WATT, SALEM, ONT. Elora Station, G. T. R. and C. P. R. Long-distance 'phone.

TWO IMPORTED BULLS

Direct from Aberdeenshire, Scotland, of excellent quality, color and breeding, two from imp. sire and dam, and others sired by Joy of Morning (Imp.) =33070=. Prices in Shorthorns and Yorkshires will interest intending purchasers.

GEORGE D. FLEISCHER, Bingham P. O., Ont. Erin Sta., C. P. R.

GREENGILL HERD OF HIGH-CLASS SHORTHORNS.

We offer for sale choice young bulls from 6 to 18 months old, sired by imp. Lord Roseberry, also cows and heifers, with calf at foot or bred, either imp. or Canadian-bred.

R. MITCHELL & SONS, Nelson P. O., Ont. Burlington Jct. Sta.

Maitland Bank Shorthorns—Five bulls, 19 to 16 months;

six bulls, 9 to 12 months, got by Broadhocks Prince (Imp.) =55002=, and some of them from imp. cows; also cows and heifers, milking sort and right breeding. Lowest prices for quick sale. Come and see them, or write.

DAVID MILNE, Ethel, Ont.

SCOTCH SHORTHORNS!

We now offer four heifer calves 10 and 11 months old. All reds. Bred from imp. sire and dam. Will be sold right.

C. HANKIN & SONS, Wyebridge P. O., Wyevale Sta.

STONELEIGH E. JEFFS & SONS,

STOCK FARM Breeders of Shorthorns, Leicesters and Berkshires. Young stock of various ages and both sexes for sale. Bend Head P. O., Bradford & Buton stns., G. T. R.

EMPIRE

CREAM SEPARATOR

Easily and Thoroughly Cleaned Skimming Devices

To keep the skimming devices perfectly clean is of first importance, otherwise the quality of the cream suffers—profits diminish.

The majority of skimming devices are hard to clean. Some next to impossible to clean perfectly. But the Empire cones are easier than any others to keep clean and sweet.

They are of sheet steel, six in number, pressed into shape after fourteen distinct operations. They are accurate to a fraction, fit to a nicety—and it's utterly impossible to put them together wrong.

Light and nice to handle. The surfaces are smooth as china, with no crack, joint, seam or rivet to catch the albumen and impurities of the milk which stick like glue if given a chance.

Nothing could be simpler than to take our brush and wash out these cones, as shown in picture. Inside and outside, every part readily accessible—easier to clean the Empire cones thoroughly than



to half-clean other skimming devices.

Yes! we will gladly send you this Frictionless Empire, with its easier cleaned skimming devices, its lighter bowl, its simpler and smoother running mechanism, its frictionless bearings, and guaranteed to skim as close as any other Separator made, for free trial in your own dairy.

Anyway, we ask you as a favor to drop a postal for **FREE DAIRY BOOK** which should be in the hands of everyone interested in dairying.

The Empire Cream Separator Company of Canada, Limited
Toronto, Ont.

Western Office,
Winnipeg.

TRADE TOPICS.

Hydraulic-power presses, steam evaporators, gasoline engines, etc., are advertised by the Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.

BICKMORE'S GALL CURE.—A specific for the cure of scratches, grease, sore shoulders and other ailments of horses is advertised in this paper, together with a sample horse book, by the Wingate Chemical Co., Montreal.

To any of our readers contemplating a trip across the Atlantic, we recommend a perusal of the advertisement of the Dominion Steamship Company, running in these columns. For solid comfort at a moderate rate, the steamers of this line, sailing weekly from Montreal and Quebec for Liverpool, have a first-rate reputation.

The safety tackle block advertised in this paper by the Burr Manufacturing Company, Cleveland, Ohio, is a labor-saving device which should appeal to farmers in these times of scarcity of suitable help. For stretching wire fence, unloading hay and grain, slinging injured animals, raising building frames, and many other purposes on the farm, this safety tackle block answers admirably, being positive in its action and working with safety and satisfaction. See the advertisement, and write the company for their free catalogue, which tells all about the advantages of this device, mentioning "The Farmer's Advocate."

PEERLESS WOVEN-WIRE FENCING.—Throughout Canada, old-fashioned rail and wooden fences are being rapidly displaced by woven wire. There are many makes offered for sale, each with good qualities to recommend it, and high among the list, if not, indeed, on top, is the justly-celebrated Peerless fence, manufactured by the Banwell-Hoxie Wire Fence Co., Hamilton, Ont. One of the strongest points about this fencing is the "Peerless Lock," an ingenious method of so arranging the tie wires that while it admits of the greatest flexibility and elasticity of the fence as a whole, it prevents any slipping or sliding of the stays, or springing out of place of the lateral wires, keeping the fence firm and rigid. The material employed is what is known as all No. 9 hard-drawn steel wire, which is galvanized and so tempered in the process of making as to retain the greatest possible elasticity and tensile strength without brittleness. Practically rustproof and strong; it will stand for years without repairs, resisting, it is claimed, attacks of the most vicious animals. It is neat and attractive when properly erected, enduring extremes of weather, and not sagging or getting "baggy." Peerless fencing is made in a variety of styles to suit different uses, and the purchaser may choose a mesh openly or closely woven, according to his requirements. This season the company are putting out an especially attractive line of woven-wire poultry fencing, built on the same plan as their Peerless field fence, having a closer mesh so as to turn the smallest chick. It requires no top or bottom boards in its construction, and is much stronger than the ordinary poultry netting, as well as being handsome and economical. The manufacturers publish some interesting literature on fence subjects, and will be pleased to furnish, free, further information to anyone who will apply. Address the Banwell-Hoxie Wire Fence Co., Hamilton, Ont., mentioning "The Farmer's Advocate."

QUESTIONS AND ANSWERS. Miscellaneous.

BLACK TEETH IN PIGS.

Editor "The Farmer's Advocate":

We have a brood sow which has raised several litters. She fed her last ones for a week or two quietly, then she became very cross, would not let them suck, and they were likely to starve. We took out all the black teeth. Then let the sow in with her litter, and she lay down quietly, and we had no more trouble. They grew rapidly after. We had several similar cases before, and in every case the pigs improved rapidly after this treatment. I. M. REID.
Victoria Co., Ont.

[Note.—It is not because these black teeth are indicative of a disease of the young pigs as popularly believed, but that the teeth are long and sharp, and that they cause pain to the mother, making her cross and irritable, sometimes to such an extent that she snaps at a pig and kills it, and, having tasted blood, she may take to eating her young, a tragedy which sometimes occurs. It is good practice to break off these sharp teeth with a pair of small pinchers, keeping the sow in another pen during the operation.—Editor.]

DEVOLUTION OF ESTATES.

1. If a husband dies and leaves a wife, but no children, to whom would his property fall? Would his sisters and brothers get any, or his wife? How would it be distributed?

2. If a young lady had money deposited in the bank and should die without a will, to whom would the money fall, or who could collect it?

SUBSCRIBER.

Ans.—1. Assuming that he died without a will, if the net value of his real and personal estate does not exceed \$1,000, it will go to his widow, absolutely and exclusively. If such net value should exceed \$1,000, the widow would take the \$1,000 and interest thereon at 4 per cent. per annum from the date of her husband's death, and one-half of the residue of the estate, and the remainder of such residue would go to his next of kin, including his sisters and brothers.

2. Her next of kin would be beneficially entitled to the money, but it would be collected by the administrator of her estate.

CAMPORATED LINIMENT—SCRATCHES.

Give the recipe for camphorated liniment and a cure for scratches. I have great pleasure in reading your paper. It is a great help in farming and other useful occupations. F. B.

Ans.—1. The following recipe for camphorated liniment is taken from a textbook used by Dr. J. H. Reed, at the Ontario Agricultural College: Alcohol, 3 fluid ounces; oil of turpentine, 2 fluid ounces; spirits of ammonia, 1 fluid ounce; gum camphor, 4 drams; water to make 1 pint.

2. Remove the cause, if possible. Let the patient have a few days' rest. Give a purgative of 6 to 10 drams aloes and 2 drams ginger, according to size. Feed bran only until purgation ceases, and even then feed very little grain until he is put to work again. Follow up with 3 drams nitrate of potash twice daily for a week or ten days. Local treatment consists in keeping the parts as clean as possible, without washing. Many cases of scratches are aggravated by washing with soap and water. Local applications depend, to a considerable extent, upon the weather, especially in cases where the horse has to be worked or driven during treatment. Lotions, oils or ointments are generally used, often alternately. In warm, dusty weather, lotions are best. In cold weather, lotions have such an astringent effect that they dry up and harden the skin, whereas oils or ointments have a more softening and, at the same time, anti-septic effect, and tend to prevent cracking. Apply warm poultices of linseed meal, with a little powdered charcoal, every six or seven hours for a couple of days and nights, and then apply, three times daily, an ointment composed of 2 drams oxide of zinc, mixed with 1½ ounces of lard. In constitutional cases, it is well to give, in addition to the above treatment, 1½ ounces Fowler's solution of arsenic, twice daily, for a week.

SCOTCH SHORTHORNS

My herd is represented by such noted Scotch families as Victoria, Orange Blossom, Duchess of Gloster, Strathallan, Stamford and Lovely. Mostly from imported sire and dams. Write me for prices on what you want.

J. F. MITCHELL,
Burlington Jct. Sta. Burlington P. O. and Telegraph.

SHORTHORNS

AND LINCOLN SHEEP.

Two bulls, 11 and 12 months old—a Miss Ramsden and a Bessie, both by the good breeding bull, Proud Gift—50077—(imp.), also cows and heifers in calf by him. Inspection solicited. Always have some choice Lincoln sheep for sale at reasonable prices.

J. T. GIBSON, DENFIELD, ONTARIO.

Shorthorns!

BELMAR PARC.

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

Calves for sale by our grand quartette of breeding and show bulls:

Nonpareil Archer, imp. Proud GR, imp.
Marigold Saller. Nonpareil Eclipse.

Females. Imported and from imported stock in calf to these bulls.

An unsurpassed lot of yearling heifers.

Queenston Heights Shorthorns

Young bulls from imported and home-bred Scotch cows, and got by such noted bulls as Derby (imp.), Spicy Broadhooks (imp.) and Whitehall Ramsden. Priced for quick sale.

HUDSON USHER, Queenston, Ont.
Farm three miles north of Niagara Falls.

PLEASANT VALLEY SHORTHORNS

For sale: 3 young bulls by Old Lancaster Imp. from imp. dams, including Lancaster Victor, first prize sr. bull calf at Dom at Sherbrooke, second at C. N. E., Toronto. Correspondence solicited. Inspection invited.
Geo. Amos & Son, Moffat Stn. & P. O. C. P. R. Farm 11 miles east of City of Guelph.

10 IMPORTED BULLS 10

Recently arrived from Scotland in good condition. They are a superior lot. Selected for herd-headers. We also have a number of Canadian-bred bulls of excellent quality, and representing the choicest breeding. Females suitable for show or breeding purposes.

W. G. PETTIT & SONS, FREEMAN, ONTARIO.

Burlington Jct. Sta., G. T. R.

Bell telephone at each farm.

1854 Maple Lodge Stock Farm 1907

An exceptionally choice lot of heifers and young bulls for sale now. Best milking strains.

A. W. Smith, Maple Lodge P. O., Ont.

Valley Home Shorthorns AND BERKSHIRES.

Our herd numbers sixty-five head. We are prepared to give bargains to suit all who wish to buy from one animal up to a carload of females, and 12 bulls from 9 to 15 months old. Also 25 Berkshires of prolific strains.

S. J. PEARSON, SON & CO., Meadowvale, Ont.
Stations: Meadowvale, C.P.R.; Brampton, G.T.R.

SCOTCH SHORTHORN BULLS

Woodfield Prince, sire the \$2,100 Goldcup, imported, =50038—(89064), dam Trout Creek Missie 20th, =65987—; red, little white; calved July 25th, 1906; a show bull. Also four extra bull calves, 8 to 10 months, by the Lavender bull, Trout Creek Wonder =56167—(847851), out of Scotch cows; imported by W. D. Flatt; eligible for American Herdbook. Write for pedigrees. Gibbs' Woodfield Stock Farm, St. Catharines, Ontario.

GOSSIP.

Mr. Wm. Meharey, Russell, Ont., has purchased from Messrs. A. & W. Montgomery, Kirkcubright, the well-bred big Clydesdale stallion, The Percy (13226), foaled in 1904. He was bred by Mr. J. P. Rand, near to Alnwick, and was got by the premium horse, Historian (10775), out of Lambton Amy (16314). He was the Alford premium horse in 1907, and has a good record for getting stock. He is a brown horse of big size, with plenty of bone and substance.

GOSSIP.

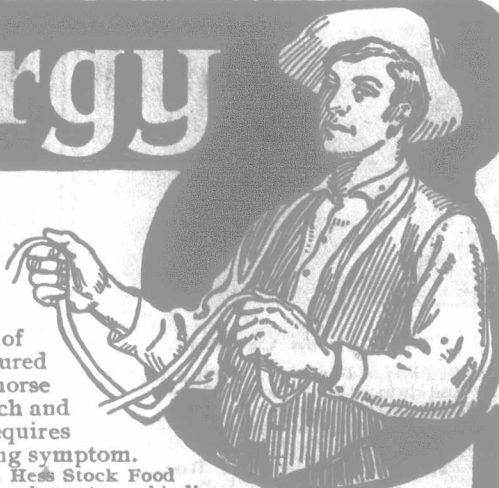
Mr. A. A. Colwill, Newcastle, Ont., writes: "Since I last wrote you, I beg to report the sale of seventeen choice Tamworth sow pigs to Mr. Gordon Latta, of Goshen, Ind., for Mr. Otis, of Chicago, Ill., who is starting a very large farm out at Barrington, 35 miles west of Chicago. One can form some idea as to the immensity of the farm when told that it consists of 2,300 acres, worth \$150 per acre. Seventy pure-bred Holstein cows have been purchased, costing \$17,000. Something like 2,000 hens are kept, and the produce shipped to Chicago daily. The plowing is done by electric power, and when Mr. Otis gets this farm into running order as per plans, it will be perhaps the most up-to-date equipment, and under the most systematic management of any farm on the continent. Mr. Otis sent Mr. Latta to personally select these Tamworths, and he is to be congratulated upon the choice stock he has taken with him. In addition to this sale, I have sold three nice sows to E. G. Carrie, of Scott's Hill, N. Carolina, which makes 20 pigs sold to the United States in two months; also one nice sow, in farrow, to Frank Bradley, of Enfield; a nice boar to Thompson Bros., of Norwich; another to Will. Aldcorn, of Mt. Forest, and two nice breeding sows to Wesley Pollock, of Pine River, near Kincardine; and still have some choice stock left, including a dozen boars from three to five months old, a half dozen sows same age, as well as several of the very best sows I ever owned, safe in pig to my imported boar, which, by the way, I am pleased to say is proving a grand stock hog."

ATHELSTANE SHORTHORNS.

A visit to Athelstane Stock Farm, the property of Mr. Wm. Waldie, about three miles west of Stratford, Ont., was the privilege of a "Farmer's Advocate" representative a few days ago. As on previous occasions, we found the 83 head of Scotch and Scotch-topped Shorthorns in proper good thriving condition, and noted the fact that the late stock bull, Star Prince =53900=, a Sunflower-bred son of the Lavender bull, Imp. Lavender Star, dam Imp. Sunny Princess, left a stamp of decided superiority on the herd, and we think Mr. Waldie almost made a mistake in letting him go to head the Manor herd of J. T. Gibson, Denfield. He was a very thick-fleshed, low-down bull, and is imparting that very desirable quality to his get, as is demonstrated in the young bulls on hand, one of which, a roan yearling, out of a Rosalind-bred dam, Rosalie =65874=, by Vicar =39365=, a Village-bred son of the Augusta bull, Imp. Knuckle Duster, is one of the very best young bulls we have seen for many a day, immensely thick, and even-fleshed, straight, true lines, and extra good back of the shoulder. Another is a red yearling, out of a Countess cow that traces to the Syme tribe; his dam is a very heavy and persistent milker, and anyone wanting a dairy-bred bull should get after this one, as he is a rare nice thick chap, on very short legs. Still another is a red yearling, a Rosalind, very nearly as choice a bull as the other two. The present stock bull is Roan Chief (imp. in dam), sired by the great bull, Villager, dam Butterfly 32nd (imp.), a Cruickshank Butterfly, by the Roan Lady bull, Fortune. Well up in his pedigree is that greatest of all bulls, Champion of England. He is a roan, three years of age, very low-down and thick-fleshed, and, in the hands of Messrs. Blyth, has proven a grand good sire. The female end of the herd represent the Rosalind, Collynie Rosewood, Mayflower and Countess families, among which are such good ones as Trout Creek Rosewood (imp.), by Beaufort Victor; Sappho C. 2nd, by Imp. Merchantman, dam Sappho 2nd (imp.); Rosalie =65874=, by Vicar; Bessie Rosalind, etc. In the herd are 12 heifers, two years old and under, and in the bunch are some very choice ones. Any or all are for sale. We were somewhat amused at the solicitude for the welfare of the herd exercised by a most beautiful collie bitch, one of the best types of collie we have seen. She is now being bred, and the progeny will be for sale, and should be an extra choice lot. Write Mr. Waldie, to Box 324, Stratford P. O., Ont.

Tons Of Energy In Pounds of Feed

Working energy in the horse is much like steam in an engine—both are developed by economical fuel consumption. If then the digestive apparatus of the horse extracts from its food the full amount of nutrition which can be assimilated, he is certainly in the best nurtured and most vigorous condition for hard labor. Now digestion in the horse may be easily deranged because he possesses a small stomach and high-strung nervous system. Hence heavy feeding requires judgment and instant correction of the first wrong symptom.



Horses receiving regular small doses of Dr. Hess Stock Food show best as drivers or workers. It corrects a tendency toward indigestion and strengthens the organs up to a point where the largest amount of ration may be assimilated. It increases appetite so that the horse takes food with a relish. This is especially important in the case of a beef animal, and experience shows that a Hess-fed steer will eat more roughage and fat on less grain than an animal not so handled.

DR HESS STOCK FOOD

makes good digestion and good digestion-saves nutriment which would otherwise go to the manure heap. The ingredients in Dr. Hess Stock food are endorsed by Professors Winslow, Quitman and Finley Dun, our most noted medical writers. It holds iron for the blood and nitrates to cleanse the system. It makes cows give more milk and shortens the time necessary to fatten a market animal. It is the prescription of Dr. Hess (M. D., D. V. S.) and is sold on a written guarantee.

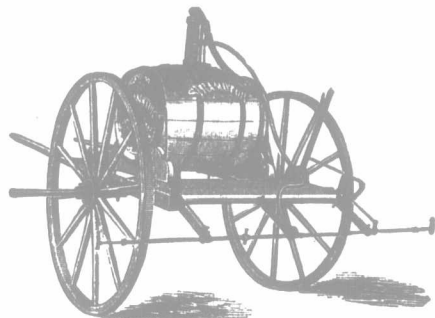
100 lbs. \$7.00; 25 lb. pail \$2.00. Smaller quantities at a slight advance. Duty paid.

Where Dr. Hess Stock Food differs in particular is in the dose—it's small and fed but twice a day, which proves it has the most digestive strength to the pound. Our Government recognizes Dr. Hess Stock Food as a medicinal preparation and this paper is back of the Guarantee.

FREE from the 1st to the 10th of each month—Dr. Hess (M. D., D. V. S.) will prescribe for your ailing animals. You can have his 96-page Veterinary Book any time by asking. Mention this paper.

DR. HESS & CLARK, Ashland, Ohio, U. S. A. Also Manufacturers of Dr. Hess Poultry Pan-a-cos and Instant Louse Killer. INSTANT LOUSE KILLER KILLS LICE.

THIS IS THE HAND SPRAMOTOR.



Mounted on a 2-wheel cart. Has 52-inch wood wheel with iron hub, cold rolled steel axle, hardwood frame. For one horse. Adjustable all-brass 4-row sprayer for one nozzle to a row from 26-inch to 36 inch. Fitted with our patent parallel nozzle controller, holding nozzles in correct position when raised or lowered with rack and pinions all fitted for vineyard and mustard and orchards, and all kinds of hand work. Fully guaranteed. Prices from \$44 to \$50. Send for free treatise, 86 pages. SPRAMOTOR, Ltd., 1057 King Street, London, Ont.

HOLSTEINS

We must sell at least 25 cows and heifers at once in order to make room for the increase of our large herd. This is a chance of a lifetime to buy good cattle at bargain prices. The best way: arrange to come and look the herd over. If you cannot, we will do our best for you by correspondence. Also a few young bulls. 100 head to select from. Imported Pontiac Hermes, son of Hengerveld De Kol, world's greatest sire, head of herd. All leading breeds represented. H. E. GEORGE, Crampton, Ont. Putnam station, near Ingersoll.



HOLSTEINS FOR SALE!

The undersigned are uniting their herds, and to make room must sell a number of cows and heifers, also several young bulls. 75 head to choose from. Come and see them, or write for prices and description.

E. & F. MALLORY, FRANKFORD P. O. Frankford and Belleville Sta.

MAPLE GLEN HOLSTEINS

Herd of 35 head with A. R. O. breeding, backed up by butter tests of over 16 lbs as a two-year old to over 26 lbs. as a cow. A good herd to select from. Two spring bull calves on hand. A R. O. test of one is over 26 lbs. for dam and 2. dam. Come and inspect the herd. Any animal will be offered for sale.

G. A. GILROY, GLEN BUELL, ONT.

RECORD OF MERIT HOLSTEINS

Herd 110 strong. Over 40 head now in the Record of Merit. Two of the richest-bred bulls in Canada at head of the herd. For sale: 18 bulls, from 3 months to 1 year of age, all out of Record of Merit cows and sired by the stock bulls.

P. D. EDM. Oxford Centre P.O. Woodstock Station.

LYNDALE HOLSTEINS!

Bull calves for sale out of cows with records of from 18 to 20 lbs. also 3 heifers coming 2, and a number of young cows in Record of Merit, bred to a grandson of Pieterjie Hengerveld's Count De Kol.

BROWN BROS., LYN, ONTARIO

Only Bull Calves

FOR SALE. HOLSTEIN and AYRSHIRE. Of the best performing strains. GEO. RICE, Annandale Stock Farm, Tillsonburg, Ont.

Maple Hill Holstein-Friesians

Bull calves from No. 1 dams, sired by bulls with great official backing. Write for prices.

G. W. Clemons, St. George, Ont.

HOLSTEINS

Two choice bulls, 10 months. Also calves for April and May delivery, sired by imported Ykama Sir Posch 2nd (Johanna Rue Sarcastic). O. I. C. swine. Largest strain bred in Canada. All ag s. Ex press prepaid. E. D. GEORGE, Putnam, Ont.

FAIRVIEW HOLSTEINS!

For sale: Just now we have about a dozen cows and heifers, some of them in the R. of M., and all with official backing on both sides, in calf to the Toronto 3-times champion. Also a number of bull calves with official backing.

THOS. HARTLEY, DOWNSVIEW P. O. Weston and Downsview stations.

Holsteins and Yorkshires

Choice calves, either sex; also yearling bull. Orders booked for young pigs. Satisfaction guaranteed. W. A. Bryant, Cairnform, Ont.

FAIRVIEW HERD is the place to buy your next bull. I can furnish you with a bull sired by our great herd bull, PONTIAC KOBNDYKE, who has 19 daughters in the last year's report that made official records from 13 pounds at less than two years old to over 314 pounds at four years, and the whole number averaged over 4.1% fat. No other bull in the world has ever made such a showing in one year. I have just tested another of his daughters that made 26.40 pounds butter in seven days with second calf. I have over 50 cows and heifers in calf to him. Come and look my herd over before making your selections elsewhere. E. H. Bellar, Nevelton, St. Law. Co., N. Y., near Prescott.

LOOK HERE

Have on hand bull calves from choice dams, and sired by son of greatest cow in Canada, Bontjie Q. Pieterjie De Kol; 645 lbs. 7 days; 98 lbs. 1 day. His sire's dam and granddam have records averaging over 25 lbs. butter week. Also choice bulls fit for service. Prices right. FRED ABBOTT, Fairview Stock Farm, Harrisville, Ont.

"THE MAPLES" HOLSTEIN HERD

Young bulls fit for service. Bull calves. Also a few choice heifer calves.

Walburn Rivers, FOLDEN'S, ONT.

QUEEN CITY HOLSTEINS.

15 young cows due to calve during next 3 mos.; bred to bulls having high official backing. Orders booked for bull calves at moderate prices. A few bulls ready for service. Farm 7 miles north of Toronto, near the Metropolitan By. Write: R. F. MICKS, Newton Brook, Ont.

Evergreen Farm Holsteins—FOR SALE:

Bull calves 3 months old, from A. B. cows. Dam and sire's dam average from 30.55 lbs. as 3-year olds, to 22.0 lbs. as mature cows in 7 days; also young females bred to Sir Mercena Fawcett. F. C. PETTIT, Burgessville, Ont.

Cloverleaf Holsteins

YOUNG BULLS FOR SALE. Bull sixteen months, R. of M. dam. Bull three. Well-backed sires. A. E. Smith & Son, Millgrove, Ont.

Glenside Stock Farm—Holsteins and Yorkshires.

Holsteins all sold out. Have a few young Yorkshires, about 2 months old, for sale cheap. True to type and first-class. Bred from imported stock. THOS. B. CARLAW & SON, Warkworth P.O. Cambridgeford Sta.

MAPLE GROVE HOLSTEINS.

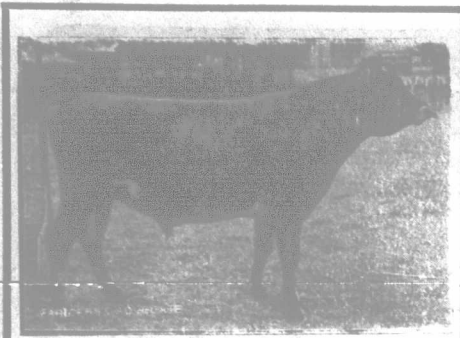
Every female in the herd is in the Record of Merit. My stock bulls are backed up by heavy record dams. For sale: A few choice young bulls bred from Record sires and dams. H. BOLLERT, Cassel P.O., Tavistock Sta.

RIDGE DALE FARM HOLSTEINS—FOR SALE:

4 bull calves from one to ten months old; 2 heifer calves. All bred from choice dams. Also a pair of choice cows supposed to be in calf. R. W. WALKER, Utica P. O., Ont. Port Perry (G.T.R.) and Myrtle (O.P.E.) stations, Ontario Co.

HILTON STOCK FARM—Holsteins

Ootswolds and Tamworths—present offering: Some young cows; a nice lot of young pigs; few boars six months old, and sows in pig. R. O. MORROW & SON, Hilton P.O. Brighton Tel. and Stn.



The Golden Lad Bull.

Golden Fox o' Dentonia. First prize yearling and junior champion at Toronto, 1907, Exhibition. His calves coming from my pure St. Lambert cows proves this cross a wonderful success. Correspondence invited.

T. PORTER, Weston Road, Toronto Junction.

DON JERSEYS

We are now offering a number of heifers of all ages, out of producing show stock and by champion sires, and in calf to Fontaine's Boyle. Also several yearling bulls out of high-record cows, and by same sires as the heifers. The best lot of young things we ever had for sale.

D. DUNCAN & SONS, DON P. O.
Duncan Station, C. N. R.

Jerseys Extra Choice Young Bulls For Sale, 8 and 9 months old, grandsons of the great Financial King, out of large, heavy-milking dams. Inquiries solicited. ARTHUR M. TUFTS, Box 111, Tweed, Ont.

Pine Ridge JERSEYS! Having more bull calves this fall than usual, we will sell them cheap, considering quality. They are bred from our stock bull, Earl Denton, son of the famous Flying Fox. Wm. Willie & Son, Newmarket P. O., & Sta.

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BRAMPTON JERSEYS

CANADA'S PREMIER HERD.—Strengthened regularly by importations from United States, England and the Island of Jersey. We have animals of all ages and both sexes for sale, and the largest herd in Canada to choose from. Write for prices and particulars. Long-distance 'phone at farm.

B. H. BULL & SON, BRAMPTON, ONT.

KELSO S. F. AYRSHIRES

My winnings at Ottawa this year were: Aged cow in milk, 1st and ch.; dry cow, 1st; Canadian bred cow, 4th; Canadian-bred 3-year-old. 3rd. For sale, anything in herd, both sexes Extra choice stuff. D. A. McFARLANE, Kelso, Que., Atholstone Sta., G. T. R.

Sunny Springs Farm.

We are now offering some choice young AYRSHIRE heifer and bull calves from heavy milking James. For further particulars apply to D. A. JAMES, Dorchester P. O.

When Writing Please Mention this Paper

STONEYGROFT STOCK FARM, St. Anne de Bellevue Quebec.

(Adjoining the new Macdonald College.)

Breeders and Importers of High-class

Ayrshire Cattle, Clydesdale Horses, Yorkshire Swine and Collie Dogs

Anything for sale. We offer especially a few select young bulls to clear cheap. Orders booked for spring pigs.

HAROLD M. MORGAN, Prop. E. BJORKELAND, Manager.
Bell 'Phone connection.

STONEHOUSE AYRSHIRES

On hand for sale: A number of imp. cows and heifers, winners of high honors in Scotland & Canada. 4 young bulls bred from champions and winners themselves. Extra choice offering.

HECTOR GORDON, Howick P. O. & Sta., Quebec.

The "STAY THERE"

Aluminum Ear Markers are the best. Being made of aluminum they are brighter, lighter, stronger and more durable than any other. Fit 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. Same size tags, catalogue and prices mailed free. Ask for them. Address WILCOX & HARVEY MFG. CO., 194 Lake St., Chicago, Ill.

Burnside's Champion Ayrshires



My 1907 importation of 75 head being about all disposed of, I am preparing to import again. Mr. And. Mitchell, the world's most extensive dealer and breeder of Ayrshires, is at present securing for me the best young bulls from the best herds in Scotland. Send in your order now for a choice bull and a female or two. Bulls will be out of quarantine in time for spring service. Correspondence solicited. Long-distance 'phone in house.

R. R. NESS, Howick, Que.

AYRSHIRES

Young bulls from producing dams and same sire, from 1 months up to 2 years. Rare good ones and will speak for themselves. H. DYMONT, Hickory Hill Stock Farm, Clappison, Ont. Dundas Station and Telegraph.

Wardend Ayrshires

We have only four spring bull calves on hand for sale. Will sell them at reasonable prices. Sired by White Prince of Me. No 21825, bred by A. Hume, Menie. F. W. TAYLOR, Wellman's Corners, Hoard's Sta., G. T. R.

SPRINGHILL AYRSHIRES!



A better lot of young cows and heifers we never had. They have only to be seen to be appreciated. "Deep milkers" "Good teats." Just the kind for foundation stock. Bull calves from best cows. Will leave for Scotland shortly to import Order a choice yearling or bull calf (r a female or two. They will be out of quarantine for spring service. Write for prices.

ROBERT HUNTER & SONS, Long-distance 'Phone. MAXVILLE, ONT

Spring Brook Ayrshires

Produced 7,000 lbs. of milk each, having an average test of 3.9 per cent. of butter-fat during the years of 1904, '05, '06 and '07. A few young bulls of 1907 for sale. Orders booked for calves of this year. Write for prices. W. F. STEPHEN, Box 163, Huntingdon, Que.

Glenhurst Ayrshires

Oldest-established herd in Ontario. Imp and Canadian-bred. Average B. F. test for the whole herd, 4.2; milk yield, 40 to 60 lbs. a day. For sale: females of all ages, and several young bulls; all by Imp. sire and some out of Imp. dams James Benning, Williamstown P. O., Lancaster Sta.

OAKDALE BERKSHIRES

Largest Berkshire herd in Ontario. Stock boars and several brood sows imported. For sale: Sows bred and ready to breed, boars ready for service, and younger ones, all ages, richly bred on prizewinning lines and true to type. Everything guaranteed as represented. Long distance 'phone. L. E. MORGAN, Milliken P. O., Co. of York.

GOSSIP.

Dr. C. K. Geary, of St. Thomas, Ont., the Canadian representative of the noted Shire horse breeding firm of John Chambers & Sons, Holdenby, England, has lately sold to Mr. Archie Reid, of Jarratt's Corners, Simcoe Co., the high-class quality Shire stallion, Cranmore Girton (imp.), by the renowned show horse, Girton Harold. For right down flashy Shire quality, Cranmore Girton has had few equals ever landed in Canada. At the late Horse-breeders' Show, in Toronto, he was placed second, but considered by many competent judges an easy first. He is the sort badly needed in this country, as he combines size and quality, beautifully moulded, and will certainly prove a boon to the breeders in the vicinity of Jarratt's Corners, and that his services will be appreciated is proven by the fact that one year ago Mr. Reid purchased from the Doctor the right good Shire stallion, Bramhall Zealott (imp.), a son of the renowned Blythewood Spark, and so great has been the demand for the services of this horse that Mr. Reid was compelled to buy Cranmore Girton to help him out. The Doctor reports the demand for Shires as rapidly on the increase, and expects another shipment about April 1st, several of which are already booked.

THE CARGILL SHORTHORNS.

At the present time the great Cargill herd of Shorthorns is over one hundred and fifty strong, nearly a hundred of which are imported from Scotland, the balance being their produce. It is doubtful if there is another herd in America so strong numerically, and, certain it is, there is no other with more high-class animals in it. Originally selected from Scotland and England's best, regardless of cost, imagination can scarcely picture, nor figures reveal, the enormous benefit to Canada's live stock interests, which have accrued from the presence of this great herd, the annual produce of which are scattered throughout the length and breadth of the land, leaving a trail of improvement in our cattle wherever they go. That the people of Canada appreciate the opportunity offered by this great herd for the purchase of high-class Shorthorns is evidenced by the fact that although large the herd, and large the number annually produced, year by year the surplus are all picked up by buyers from both sides of the line, and now there are no bulls and only about half a dozen heifers over a year on hand, and those being daughters of that grand bull, Golden Drop Victor (imp.). Of yearling heifers there are about 28, practically all being daughters of the two Missie-bred bulls, Imp. Lord Mistletoe and Imp. Merchantman, half-brothers, and sons of that great sire, Lovat Champion. This will be the last chance to get daughters of Lord Mistletoe, bred in this herd, as he is now at the head of the Shorthorn herd of the Nova Scotia Government farm. In his place as stock bull is the grand, thick-fleshed, mossy-handling and good-doing, Blood Royal (imp.), bred by Duthie, sired by Pride of Avon, dam Beaufort Beauty 3rd, a Broadhooks, by Royal Star, grandam by Merlin. He is also closely related to the great bulls, Bachelor of Arts and Champion of England. His first crop of calves are now coming, and indicate that Blood Royal will eclipse his great predecessors as a sire of extra good things. In young bulls, out of a total of something like 35, there are only 11 left, all about a year old, eight of which are sired by Imp. Lord Mistletoe, one by Imp. Merchantman, one by Lord Clara =59596=, and one by King Elvira. Nine of them are out of imported dams, and two out of dams by imported sire and out of imported dam. Those left are not the culls by any means, although some may think out of so many that what is left would necessarily be a little plain. Such is not the case, however, and visitors will certainly find something to please among them. Any or all of the 28 yearling heifers are for sale, and certainly a better choice is not available in Canada. The herd is in grand condition, and reflects great credit on the herdsmen and manager, John Clancy.

A Shorthorn cow belonging to Mr. A. Turnbull, Ward, Coldstream, Scotland, has produced twins seven years in succession. This would seem to be a record.

Messrs. John E. Cousins & Sons, Harrison, Ont., breeders of Shropshires, Oxfords, and Yorkshires, write: "Our sheep business was very good in 1907, thanks to 'The Farmer's Advocate' for all outside orders. We sold to Mr. J. E. Carswell, Bond Head, six grand shearlings, by Hampton Hero (imp.), in lamb to Hamptonian 96 (imp.), sweepstake ram of 1906. We also sold some four ewe lambs, by Hamptonian, also rams to W. Kean and R. Wilkie, Harrison; Westney Bros., Pickering; J. A. Somerville and Wm. Maxwell, Wingham; J. Thomson, Mildmay. Lambs are coming good and fast."

THE MANOR SHORTHORNS AND LINCOLNS.

The Manor Stock Farm, the beautiful and well-appointed home of Mr. John T. Gibson, of Denfield, Ont., was visited by a representative of this paper a few days ago, and, although it has been our privilege on several former occasions to visit this noted stock farm, we do not remember ever seeing the large herd of Scotch Shorthorns in better winter condition, nor ever seeing so many high-class heifers in the stables. It was a great day's work for Mr. Gibson when he purchased that grand stock bull, Imp. Proud Gift, the Pride-bred son of the Marr-Goldie bull, Golden Gift. He has certainly sired many high-class heifers for Mr. Gibson, prominent among which was the last fall's Toronto junior champion, and to-day there are some mighty likely candidates in the herd for honors equally as high, to wit, two heifers, a one- and a two-year-old, full sisters, of the noted Cruickshank J., or Julia tribe, and a ten-months-old Cruickshank Clipper, all daughters of Proud Gift. These are only three of a dozen or more, with not a mean one among them. All told, the herd is about 50 strong, bred on tribal lines, as follows: Six Cruickshank Clippers, descended from Clipper 2nd (imp.), by Christmas Cup, two of them by Imp. Golden Drop Victor, two by Imp. Governor General, and two by Imp. Proud Gift; four Miss Ramsdens, the elder one being Duchess (imp.), by Matadore, one by Governor General, and two by Proud Gift; five Cruickshank J., or Julias, the elder being Juno (imp.), by Cornelius, a full brother to Cornerstone, one imported in dam, by Scottish Actor, three by Proud Gift; five Undines, the elder being Imp. Lady Fanny, by Baron Buttercup; three by Proud Gift, one by Imp. Nonpareil Duke; five Minas, the oldest being Mina Lass =25328=, by British Chief, a son of Imp. Indian Chief, one by Imp. Prime Minister, one by Governor General, three by Proud Gift; two Wimples, one by the great show bull, Mildred's Royal, the other by Rosebud Champion; two Matildas, one by The Baron (imp.), the other by Prince Ramsden (imp. in dam); two Bessies, one by Prime Minister, the other by Proud Gift; one Martha, by Nonpareil Archer (imp.); Rosemary 137th (imp.), and heifer calf, by Proud Gift; and three Lavinias, by same sire; an exceedingly richly-bred herd, and a herd strictly up-to-date in type, with a wealth of flesh, evenly distributed. The present stock bull is Star Prince =53900=, by the Lavender bull, Imp. Lavender Star, dam Sunny Princess (imp.), a Sunflower, by Prince of Archers; he is one of the very low-down, very thick-fleshed kind, and is an extra easy feeder, and has in his extended pedigree no less than 27 crosses of Cruickshank breeding. Young bulls for sale there are six, from four to ten months of age, all got by Imp. Proud Gift, and, on the dam's side, one is a Bessie, one a C. Clipper, one a Martha, one a Modesty that will make a show bull sure, and two are Miss Ramsdens. Practically anything in the herd is for sale. The Lincolns need no recommending. For years, they have won the bulk of the best prizes at the leading shows in Canada and the United States. Last December, at Chicago, they won every first but one in the breeding classes, also ewe, ram and wether championships.

Subscribe for the Farmer's Advocate

Bone Spavin

No matter how old the blemish, how lame the horse, or how many doctors have tried and failed, use Fleming's Spavin and Ringbone Paste. Use it under our guarantee—your money refunded if it doesn't make the horse go sound. Most cases cured by a single 5-minute application—occasionally two required. Cures Bone Spavin, Ringbone and Sidebone, new and old cases alike. Write for detailed information and a free copy of Fleming's Vest-Pocket Veterinary Adviser. Ninety-six pages, durably bound, indexed and illustrated. Covers over one hundred veterinary subjects. Read this book before you treat any kind of lameness in horses. FLEMING BROS., Chemists, 75 Church Street, Toronto, Ontario.

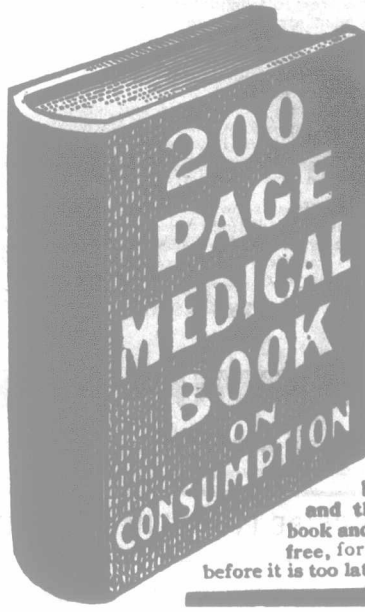
GOSSIP.
H. G. Boag, of Barrie, Ont., advertises for sale the imported Clydesdale stallion, The Nobleman, bay, with white feet and strip, foaled in 1903, and sired by the champion Hiawatha. He is said to be a sure getter, and will be sold worth the money.

GLENORO SHORTHORNS.
Each year brings its quota of dispersion sales in the Shorthorn herds of Ontario, and that these sales always create widespread interest is not to be wondered at. The building up of these herds represents the expenditure of large sums of money and of incessant labor and care, and many of the most successful breeders in the Province owe much of their success to judicious purchases made years ago at the dispersion of some of our well-bred and carefully-managed herds. That the present depression in the Shorthorn trade is certain to be followed by a revival and boom in prices is the opinion of every clear-headed business man having any acquaintance with the cattle trade, and any young man who invests in good Shorthorns at the present low prices need have no fear of not winning out. A sale that should attract more than ordinary attention is the dispersion of the well-known herd of A. D. McGugan, Rodney, Ont. The strictest attention has always been paid to the breeding of Shorthorns at Glenoro Stock Farm. The foundation was laid by the purchase of imported and home-bred cows of the richest breeding, and none but the best sires in the land have been used. Marr Roan Ladys, Missies, Miss Ramsdens and Urys are the families represented in the herd, and with the use of such sires as Scottish Chief, Abbotsford, Aberdeen Hero (imp.), Royal Commander and Nonpareil Comet, one might confidently expect just such grand type and quality as we find in this herd to-day; and that Mr. McGugan has not lost sight of the importance of good-milking qualities in the Shorthorn cow is amply attested by the great development of its matrons. Several cows in this herd have, it is claimed, milked 45 to 50 lbs. per day, and at a time when there is clearly a demand for "pail ability" in the Shorthorn, this should be an important consideration in the purchase of either male or female.

Mr. McGugan has leased his farm for a term of years, and has disposed of his fine flock of 150 head of Lincolns, and will sell by auction his entire herd of Shorthorns (45 head) about the 1st of June. In the meantime, he is offering, at private sale, six very choice young bulls, ten to twelve months of age, and we have not in a long time seen a more attractive bunch of bulls. They are reds and dark roans, not too fat, but in grand growing condition. They are clearly herd-headers, but at the price asked by Mr. McGugan they are easily within the reach of anyone wanting a bull for even a grade herd. Lord Hope is a dark roan, twelve months old, large and very smooth, and of the choicest quality, the making of a grand good one. He is from the great show cow, Lady Hope, a Toronto winner at all ages. Royal Tom is a Roan Lady and a show bull anywhere, a beautiful dark roan, strong and smooth, with exceptional quality, and very attractive in appearance, and one of the best handlers the writer has ever seen.

There are two Miss Ramsden bulls almost as attractive as the two above, grand good ones, and from great milking dams. The most attractive by all means of any of the offerings is the great sire and show bull, Nonpareil Count, the bull now at the head of the herd. Mr. McGugan has, during the past two years, refused very tempting offers for this great bull, and speaks regretfully at having to part with him now, and says that even in this herd, where champions and high-class bulls have been used, he is the best bull and the best sire and the surest getter he has ever owned. The young stock, yearlings and calves, prove him to be a phenomenal sire, and the breeder who secures this bull has a winner in any part of the Province, and a proven sire of exceptional merit. He is a richly-bred Nonpareil, four years old, a dark roan, quiet, active, and right in every way. Write Mr. McGugan for prices on these bulls.

Consumption Book



FREE

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

Write at once to the Yonkerman Consumption Remedy Co., 593 Rose Street, Kalamazoo, Mich., and they will send you from their Canadian Depot the book and a generous supply of the New Treatment, absolutely free, for they want every sufferer to have this wonderful cure before it is too late. Write today. It may mean the saving of your life.

RAW

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E. T. CARTER & CO.

83-85 Front St., E., TORONTO CANADA.

Extra LYNX, SPRING RATS AND FOX.

The Oldest and Most Reliable

Hide, Wool, Skin and Fur House in Canada

FURS

Hampshire Down Sheep

Splendid Mutton, Good Wool, Great Weight.

This highly valuable ENGLISH BREED OF SHEEP is unrivalled in its rapid and WONDERFULLY EARLY MATURITY, hardness of constitution, adapted to all climates, and in quality of MUTTON AND LARGE PROPORTION OF LEAN MEAT IS UNSURPASSED. Full information of

SECRETARY, Hampshire Down Sheep Breeders' Association SALISBURY, ENGLAND.

SOUTHDOWN SHEEP

Unequaled for fine quality of both mutton and wool, hardness of constitution, and earliness of maturity.

STRIDE & SON will sell by auction at Chichester, Sussex, England, on

AUGUST 19th, 1908,

6,000 Southdown ewes, 500 Southdown rams and ram lambs.

ON SEPTEMBER 16th, 1908,

4,000 Southdown ewes, 300 Southdown rams and ram lambs.

Commissions carefully executed.

Telegrams: STRIDE, Chichester, England.

POSTAL ADDRESS: STRIDE & SON, Chichester, Sussex, Eng.

Cattle and Sheep Labels

Size	Price, doz.	50 tags
Cattle	75c.	\$2.00
Light Cattle	60c.	\$1.50
Sheep or Hog	40c.	\$1.00

Cattle size with owner's name and address, and numbers; sheep or hog size with name and numbers. Sample and circular mailed free. Get your neighbors to order with you and get lower price. F. G. JAMES, Bowmanville, Ont.

Oxford Down Sheep, Shorthorn Cattle Yorkshire Hogs.

Present offering: Lambs of either sex. For prices, etc., write to John Cousins & Sons Buena Vista Farm, o Harrierton, Ont.

MOUNT PLEASANT HERD OF TAMWORTHS AND HOLSTEINS.—For sale: Pigs of either sexes from 6 weeks to 3 years; also 12 bull and heifer calves from 1 week to 1 year old. Phone in residence. Bertram Hoskin, The Gully P. O.

Duroc-Jerseys Boars fit for service. Sows ready to breed. Several sows in pig, also younger ones. Imported Canadian Boy 19097 heads our herd. MAC CAMPBELL & SONS, Harwich, Ont.

EAST BANK HERDS

Large English Yorkshire and Berkshire Swine, Shorthorn Cattle, Barred Rock Poultry. Am offering bargains in choice suckers at very moderate prices, bred from choice prize-winning stock. Can book orders for immediate delivery in any of the above, also for succeeding months. Barred Rock eggs 75c. for 15, and \$3 per hundred. Try me for a bargain in choice stock. Satisfaction guaranteed. Phone connection. IRA L. HOWLETT, Keldon.

MONKLAND YORKSHIRES

are the easily fed, quick maturing kind. The sort the farmers want. All ages for sale. 100 sows bred now. JAMES WILSON & SONS, FERGUS, ONTARIO.

Newcastle Tamworths and Shorthorns

For Sale: 100 pigs, both sexes, all ages. Sows from 10 months to 2 years, bred to imp. Chalderton Golden Secret all descendants of Colwill's Choice and Newcastle Warrior, both Toronto champions. Also two choice Shorthorn bulls, ready for service, from choice milking dam, and sired by a son of imp. Joy of Morning A. A. COLWILL, NEWCASTLE, ONT.

Glenburn Herd of Yorkshires

Winner of gold medal three years in succession. 6 young boars from 6 to 9 months; also 16 young sows, from 6 to 12 weeks old. David Barr, Jr., Box 3, Renfrew, Ont.

Elmhurst Berkshires

Yorkshires and Tamworths—Either breed, any age, both sexes; sows bred and ready to breed. Yorkshires bred from imp sire and dam. Tamworths from Toronto winners. Pairs not skin. As good as the breeds produce. CHAS CURRIE, Morrilton P.O. Schaw Sta. C.P.R.

Meadowbrook Yorkshires.

Young stock of both sexes. A number of sows old enough to breed, all sired by imp. Dalmeny Topeman. Everything guaranteed as represented. J. H. SNELL, Hagersville P.O. & Station.

LARGE ENGLISH YORKSHIRES.—We have a limited number of choice young pigs for sale, bred from our choicest sows and got by the imported boars, Dalmeny Joe 18577 and Broomhouse Beau 14514. Pigs from the latter won all the first prizes at the Ottawa Fat Stock Show last March for the best dressed carcasses, and sweepstakes over all breeds or grades. We guarantee satisfaction in all mail orders. JOSEPH FEATHERSTON & SON, STRETSVILLE, ONT.

SUNNYMOUNT BERKSHIRES!

Boar fit for service sows safely in pig, young sows 4 months old, young sows and boars 3 months old. Imported in dam. JOHN McLEOD Importer and breeder, Milton P. O. and Sta., C.P.R. & G.T.R.

Willowdale Berkshires are unsurpassed

For quality and breeding. Young stock, all ages, for sale reasonable. Satisfaction guaranteed. Long distance telephone in residence. J. J. WILSON, Importer and Breeder, Milton P.O. and Station, G.T.R. and C.P.R. When Writing Mention this Paper.

FAIRVIEW BERKSHIRES

Bred from imported and Canadian-bred sires and dams, and bred on prize-winning lines. My brood sows are large, choice animals. Young stock of both sexes. Some sows bred to imp. boars. HENRY MASON, SCARBORO P. O. Street cars pass the door.

Cedar Lodge Yorkshires

100 head brood sows (imp.) and the product of imp. stock, weighing from 500 to 800 lbs. each. Stock hogs by imp. sires and dams, very large and full of quality. Young stock of both sexes constantly on hand for sale. Pairs not skin. Satisfaction guaranteed. P. O. COLLINS, Bowesville P.O., Ont. Manotick Sta., C.P.R.

Large White Yorkshires!

Am offering at the present time a choice lot of boars ready for service, from imported stock; also young pigs of both sexes, not skin. Prices right, and quality of breeding unequalled. Write or call on H. J. DAVIS, WOODSTOCK, ONT.

CHESTER WHITE HOGS

The largest herd of bacon-type Chester White hogs in Canada. Strictly high-class have won highest awards. Young stock of both sexes always on hand. Satisfaction guaranteed. ROBERT CLARKE, 41 Ceaser Street, Ottawa, Ont.

Yorkshires—Boars ready for service; sows ready to breed, and bred; young pigs just weaned and ready to wean. Cotswold and Shropshire rams, yearlings and lambs, registered. GEO. M. SMITH, Haysville, Ont.

Large English Berkshires

for sale from imported stock. Sows with pig and pigs for sale. All ages. At reasonable prices. Guarantee satisfaction. Boars and sows delivered at Woodstock station, C.P.R. or G.T.R. JOSHUA LAWRENCE, OXFORD CENTER, ONT.

BOOK REVIEW.

STEAM ENGINEERING.

In view of the many enquiries received by "The Farmer's Advocate" on the subject of running farm engines, and from farmers' sons and others who desire to take up steam engineering as a profession, we are pleased to be able to commend a volume on this subject sent us for review by the author, W. H. Wakeman, of New Haven, Conn. It is entitled, "Engineering, Practice and Theory for Steam Engineers," and is also designed to assist those who desire to pass examinations on the subject. Mr. Wakeman thoroughly understands what he undertakes to write about, not only theoretically, but by extensive actual practice. Concise and readable, it is a reliable work on the technical points involved, and we heartily commend it to our readers, who may obtain copies through this office at \$1, or by sending the names of two new subscribers to "The Farmer's Advocate."

LONGEST-LASTING NO. 9 STIFF-STAY FENCE

While new to Canadians, the "MONARCH" lock has been for years one of the most popular in the U. S. It is somewhat different and altogether superior to any lock found on any other Canadian Fence. Unlike other locks, the "MONARCH" is applied without a heavy pressure falling on the point where the laterals and stays cross. This heavy pressure weakens the wires greatly, and though the injury is not apparent while the wires are in place, the cause of the weakness is easily seen when the wires are parted or broken later.

Heat, frost, snow, bull and hog proof—the longest-lasting—a distinctly better investment—is the **Monarch Stiff-Stay Fence**. Our booklet gives complete details. And you can make a snug sum this year

ACTING AS OUR AGENT.

"MONARCH" STIFF STAY FENCE

OWEN SOUND WIRE FENCE CO., LTD., Owen Sound, Ont.

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



GOSSIP.

J. & D. J. Campbell, of Fairview Farm, Woodville, Ont., offer, in this issue of "The Farmer's Advocate," a choice Strathallan Shorthorn bull calf, just nearing the yearling mark; he is described as a good one, of the best of breeding, and should make a capital herd-header. Anyone needing a junior yearling for next fall's show-rings should see this promising youngster.

Volume 24 of the Dominion Shorthorn Herdbook, under the auspices of the National Live-stock Record Board, has been issued. It is a volume of 660 pages, edited by R. G. T. Hitchman, Registrar, and contains the pedigrees of 4,950 bulls and 5,444 cows, or a total of 10,394 pedigrees, received in the National Record office from Jan. 1st to Dec. 31st, 1907. The bulls in this volume, which is apparently well compiled, number from 65,530 to 70,480, and the females from 76,763 to 82,207. Included in the book is a list of members of the Association and its officers and directors, with their post-office addresses, also a list of prize awards at leading exhibitions.

MAPLE HOME SHORTHORNS.

In Waterloo County, Ont., 4½ miles north of Elmira Station (C. P. R. and G. T. R.), lies Maple Home Stock Farm, the property of Mr. A. D. Schmidt & Sons, breeders of Shorthorn cattle. Although this is the first time the name of the Messrs. Schmidt has appeared in these columns, it is with a great deal of confidence that we introduce them to the readers of "The Farmer's Advocate," first because they are gentlemen in the fullest sense of the word, and, second, because they have established and are breeding up a herd of really high-class Shorthorn cattle, a herd in the quality of which no visitor will be disappointed, for just now on hand are several heifers that will compare very favorably indeed with a like number found in any other herd in the country. On breeding lines, the herd represents the Juanitas in Juanita 10th (imp.), by Illustrious Pride; the Crimson Flowers in Golden Flower =53335=, by Golden Robe, Flower's Gem =78705= by Sunnyside King, and Fancy Flower, by the same sire; the Mildreds in Pine Grove Mildred 17th, by Imp. Chief Ruler; Mayflowers in Sunset =79573=, by Missie Champion; Minas in Mina Lass 13th, by Imp. Proud Gift; Nonpareils in Broad's Pareil, by Imp. Broadhooks' Golden Fame; Wedding Gifts in Sunnyslope Lass, by Matchless Duke; Minas in Mina Countess, by Imp. Spicy Count. Besides these there are several Fashions and others, bred on milk-producing lines. The stock bull is Imp. Greengill Archer, by the Orange Blossom-bred bull, Archer's Heir, dam Cranberry 4th, by Murchison; he is a grandly-proportioned roan, of the low, thick order, and has proved a sire of thick, early-maturing animals. In young bulls there are a pair, a red eleven-months-old, by Chancellor's Model, a son of Imp. Bapton Chancellor, dam a grand thick Crimson Flower; the other, a roan, same age, by Royal Prince, the sire of Fair Queen and Queen Ideal, the two champions, dam a Maid of the Mist, a great milker. Here are a pair of young bulls considerably above the average, particularly the latter; he is an extra good one, thick-fleshed and very even. Besides these there is one five-months-old, by Rosebud Champion, dam Juanita 10th; he will make a show bull sure, and his half-brother sold at J. I. Davidson's sale for \$375. Parties wanting a choice young bull, or an extra good heifer or two, should visit the herd before buying. Mr. Schmidt is of an up-to-date turn of mind, and in building his new stable last summer concentrated his ideas in the production of a stable entirely different from anything we have ever seen; besides being perfection in arrangement for light, ventilation, ease of feeding and cleaning, and sanitation, it is unique inasmuch as there is scarcely any wood used in its construction, the whole being cement-floor, partitions, mangers, water trough. The plan is entirely his own, which he is getting patented, and we would strongly advise anyone contemplating building to see this stable, and arranging with Mr. Schmidt for the use of his models. Elmira is the P. O.

**"Come, Brace Up! It Cured Me and It Will Cure You"**

Why do you sit there depressed by gloomy thoughts, with that sad, discouraged, haggard face, when there is within your grasp the means by which you can regain your strength, energy, ambition and happiness? It is time for you to brace up, be a man, take an interest in the good things of life. Look at me! Wasn't I in the same condition as you? Now I am happy, full of strength, and ready to tackle any obstacle. Yes, I too tried drugs, but they failed. Electricity will not fail. Dr. McLaughlin's Electric Belt cured me, and it will cure you. No weak man will ever regret a fair trial of this grand Belt—it has brought health and strength to thousands in the past year. Here is one of the many men cured:

Thos. Bridges, Ashdod, Ont., says "I have been greatly benefited by the Belt I purchased from you some time ago. My heart is much better, and the rheumatism in my arm has all left. I feel improved in every respect. It has done all you claim for it. Thanking you for the interest you have taken in my case."

Isn't this alone evidence enough to convince any man that we tell the truth. Here is another:

James Hatt, Beech Hill, N. S., writes:

"I am glad to tell you that your Belt has proven good. I have never felt as strong and well in my life as I do now. The pains in my chest and back are gone, and I have gained fifteen pounds in weight. I can work every day, and do not feel the first symptom of pain in my body. It is a pleasure to say that I have at last found a remedy that would cure me of my aches and pains."

I want to talk with those who have

tried every other known remedy—those who have about given up trying and think that there is no cure for them. Do you think you do justice to yourself to fill your stomach with drugs day after day, when you can't see anything but temporary stimulation in them? (If you want stimulation, take whisky; it is alcohol, like the drugs, and does less harm taken in the same way.) I want to explain how vital power is restored by electricity, and I can prove to you that vital power is nothing but electricity. Then you can see that your trouble can be cured by electricity, and can understand why drugs don't cure you. Come and let us show you the only road to health, strength and happiness. No healthy person was ever unhappy, because a heart full of vitality is light and joyous and quickly shakes off the gloom and depression which is called grief. Some people are unhappy without cause. This is depression, due to weakness.

I have a Special Electric Attachment which I give free to those who wear our Belt. This Attachment carries the current direct to the weak parts and fills them with its warm, vitalizing power; bringing about a sure and lasting cure. Weakness, Rheumatism, Sciatica, Weak Back, Lumbago, Kidney, Liver and Stomach Trouble, Indigestion and Constipation are all quickly cured by this New Method of our applying "Electricity." Don't put it off any longer. Act today. To-morrow may be too late. Here is more proof:

Mr. Gardner Wilcox, Dartmouth, N. S., has this to say:

"I received your letter of enquiry some days since, and I believe beyond a doubt that my cure is permanent,

as I have not felt rheumatism or catarrh, my principal ailments, since I got your Belt nearly three years ago. I recommend it at every opportunity, and will continue to do so as long as I live, for I believe it has saved me a world of suffering. I am now 73 years of age, and hale and hearty, thanks to your Electric Belt."

It's easy to be cured my way. You put my Belt on when you go to bed; you feel a glowing warmth through your body, and the electric power gives you new life. When you wake up in the morning you feel bright, lively and vigorous, and you wonder where your pains and aches have gone. Our Belt has removed them, and they will never return. That's a better way than making a drug store of your stomach. And whoever saw anybody actually cured by drugs? I tell you, drugs don't cure—and if you have tried them, you know it. Nearly all my patients tried drugs first. If you haven't got confidence in my remedy, all I ask is reasonable security, and you can pay me after you are cured.

I have a book which every man should read. It tells facts that are of interest to every man who wants to remain young in vitality at any age. Call, if you can; if you can't, send coupon for beautifully illustrated 50-page Free Book.

DR. M. S. McLAUGHLIN,
112 Yonge St., Toronto, Can.

Please send me your book, free.

Name

Address

Office Hours: 9 a. m. to 6 p. m.; Wed. and Sat. until 9 p. m.