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

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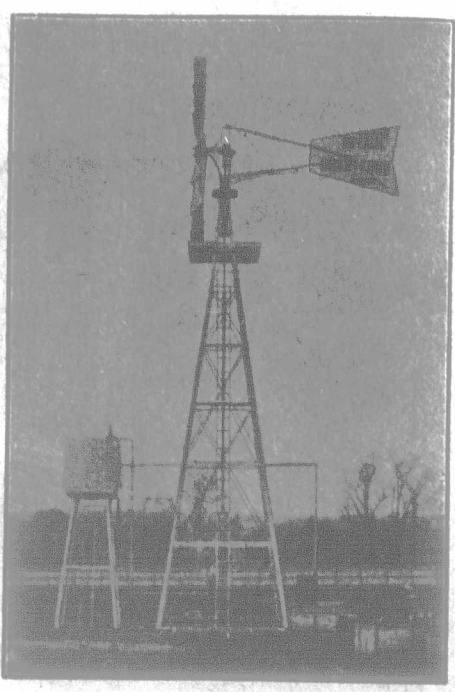
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# The Farmer's Advocate

"PERSEVERE AND SUCCEED." and Home Magazine.

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## EDITORIAL.

### Stockmen in Good Heart.

If recent auction sales of pure-bred stock may be accepted as an indication of the outlook for a good demand at profitable prices the prospect is certainly encouraging. Time was, and not many years since, when a public sale in this country with the terms announced as "cash," might safely be written a failure in advance, when twelve months' credit was the customary terms, and "joint notes" the usual requirement. Now a vendue of stock totalling ten to twenty thousand dollars may be run off in three or four hours, and payment secured by cheque, or cash immediately at the close. This is a great improvement, not only as an indication of prosperity, but also as a business proposition, for, as a rule, it is wiser and better not to buy what one is not in a position to pay for at the time.

The great demand for useful horses, a class of stock in which every farmer is interested, has stimulated importation and breeding to supply a market which is bound to grow and expand with the settlement of the vast tracts of farming land now being opened and made available by the construction of new railways.

The improved financial condition of farmers in the West, who, as time goes on, will more and more adopt mixed farming as a means of maintaining the fertility of the land, will undoubtedly provide an enlarged market for breeding cattle, both of beef and dairy type, which breeders will be called upon to supply. The fact that there were buyers from half a dozen States at the late Shorthorn sale at Hamilton shows that American breeders want our cattle, and one good crop in that country will doubtless greatly increase our trade in that direction.

The probability that Canada will in the near future share largely in supplying the requirements of Texas, Mexico and South America with breeding stock is more than a visionary proposition, trial shipments having proved fairly successful, and the prospect for further orders are promising.

The dairy industry, as shown by reports recently published, is in a very prosperous condition, bringing increasing millions of money to the farmers of the country. The demand for cattle of the dairy breeds never was better than at present; excellent prices are being obtained, and no country is better provided with high-class herds of this class of stock than our own.

The export demand for bacon has been a great boon to Canadian farmers, creating not only a very profitable outlet for the finished product, but also a splendid demand for breeding stock, breeders being taxed to the utmost to supply that demand.

Sheep breeders report their sales in the past year the best for several years, and the prospect decidedly encouraging. In no country are the conditions more favorable for the raising of sheep than in Canada, and Ontario, it is safe to say, will continue to be the breeding ground for the supply of seed stock to all of America.

Canadian stockmen have ample reason to be in good heart, in view of the present aspects and prospects of business. With patience, and judicious care in breeding and management of their herds and flocks, avoiding risky speculations, and making steady improvement, no fears

need be entertained for the future, but a cheerful confidence that there will continue to be a profitable market for good stock in all lines.

### The Agricultural College: Present and Future.

After twenty-five years as President of the Ontario Agricultural College, Dr. Mills has been transferred to a new field of action on the Railway Commission of the Dominion of Canada. His latest position may open up to him immense opportunities to do his country service, still his reputation as a public servant will always rest upon his work at the college. Without exaggeration, it can be affirmed that no other educational institution in Ontario has by its records eradicated so much open opposition, vitalized so much apathy among those whom it was dedicated to serve, or has so signally responded to the efforts of its supporters, as has the Ontario Agricultural College during Dr. Mills' incumbency of the presidential chair.

Now the college will have a new president. Upon him will devolve the work of directing the efforts of the immense forces that have developed at Guelph for the benefit of the agricultural classes of Ontario. Now it contains within itself the latent power to make farmers more capable, more efficient, more happy, and associated with this force is that which aims to give the women of Ontario the benefits to be derived from the study of domestic science, dairying, home sanitation, and all the other problems that a complex civilization thrusts upon the womanhood of the land. The direction and application of these forces is to be the work of the president, and the measure of his ability to do this work must be the measure of the advancement or retrogression of the college.

To fill the position of president of an agricultural college that has attained the status of that of Ontario's justly famed institution, requires a man of peculiar professional experience, and with singular administrative faculties. A college with a less extensive equipment and less diversified facilities for agricultural education, might require a president who would himself be an authority on each subject taught, and who could, if occasion demanded it, relieve any one of his colleagues at lectures, but such is not the requirement of the Ontario Agricultural College. For, while her president should be cognizant of the importance of every subject on the curriculum, the professors of each of those subjects should be the best authorities upon them to be found in the Province, and so limit the work of the president to the responsibility of directing the extent to which each subject shall be taught after due consultation with the professor of that subject. We believe that the problem of agricultural education is too large a one to lay upon any one man, and that the responsibility of carrying it out should devolve upon the professors of the different departments. Up to the present the failure of the college to adopt this policy has been one of the greatest hindrances to its best progress, and with a change in the presidency there should also be a change in policy, so that every department about the institution might accomplish the maximum good.

With the president should be associated a staff of experts and professors, each one of whom is familiar with the needs of the Province in con-

nection with the branch of farming in which he makes his specialty, or which he chooses to investigate. The nucleus of such a staff has already been provided in the coterie of professors who have been associated with Dr. Mills, but their numbers are too small, and the efficiency and value of their work limited, owing to the smallness of the appropriations granted them, and the rigid policy of false economy which they have been compelled to pursue.

The shuffle incident upon the change of president should be taken advantage of by the agricultural community to press their demands for enlargement of scope and extension of facilities for teaching and experimenting at the college. Ontario, not behind any other similar area in agricultural production and resources, is sadly behind several of the States in certain branches of agricultural education, although in the aggregate ours may be equal to theirs. The time has come when Government aid to the work of the college should not be stinted. The college has done some good work, but with liberal support it will do much more. Electors of the country can ask their representatives in the Legislature to support no more useful appropriation than that for the purpose of fostering agricultural education at the college.

While it is not the province of the "Farmer's Advocate" or any other paper to enumerate the details of the work that the college should take up in the interests of the farmer, still there are a few general lines of work that people are anxious to have pursued. Foremost in this list is the extension of actual demonstrations of the work in the experimental department. This department has already much useful data on hand, but it requires greater scope in order to verify results obtained in a necessarily small way on the college plots. For instance, experiments conducted with grasses and clovers indicate that a very considerable increase in yield of hay can be obtained from a mixture of red clover, orchard grass and tall oat grass over the ordinary clover and timothy mixture. This conclusion was reached from experiments conducted in small plots. It now requires verification of its practical value by the growing of the crop on a large scale, and the results should be dissemination throughout the country by the use of the press, bulletins, etc. In the live-stock department there are many questions to be investigated, namely, the value of the many new materials, or old ones in new forms, making strong claims as stock foods, pasture mixtures, etc., and the extension of the short-course work in stock judging. So through each department of the college there are problems to be solved—problems that demand immediate attention, and the earliest possible announcement of properly verified results. If all departments of the institution combined could show each farmer of the Province how to increase his income by even one dollar per annum the Province would be well repaid. Liberal appropriations, efficient management and capable instructors and experts are the factors that go to make a successful agricultural college, and Ontario demands such characteristics in her progressive institution. Consideration will doubtless be given at this juncture to the relations between the purely experimental and the teaching departments, so that the one may aid the other without hampering the efficiency of either.

The present condition of agriculture in Canada, and its imperative expansion, will compel the

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farmer (1) to be, more than ever, a student of the natural laws and processes upon which his success depends, and (2) to apply correct business methods to his work. In other words, the college must be an incentive to better directed and more economic methods.

The establishment of aggressive agricultural colleges and other means of agricultural education in Manitoba and Nova Scotia indicates that the other Provinces of the Dominion will be equipped with such schools for their rising agricultural population; but the prestige and equipment which the O.A.C. possesses, or should possess, efficiently handled, will not only hold the Ontario student, but attract, by the larger advantages of what Hon. James Young once described as "Our great agricultural university," many ambitious ones from beyond its bounds. As the strong educational feature of this college for the rank and file of the rising generation of farmers, the development and improvement of the practical two years' course must, however, be emphasized, and given such publicity as will cause its real worth to be appreciated more than heretofore.

First of all, at the beginning of this new era, the college will realize the need of a vitalizing, enthusing and directing force that will renew its youth, impart to it new ideals, aid its students and all who come within the range of its influence, not only as Senator Frost the other day observed, "To produce two stalks of wheat where one grew before," but to school its students in that higher citizenship which alone exalts and makes secure the future of the State.

The life of the farmer is a busy one at all seasons, and although in winter every hour has not to be spent in his season, the farmer who is prepared and is destined to get ahead, is always busy. This, however, is not that busy which is a brain-fag and all its attendant evils. There is a variety in the farmer's life which excludes all monotony and its attendant evils.

### The Railway Commission.

The creation of the Canadian Railway Commission, in accordance with the Railway Act of 1903, passed at the last session of Parliament, may be regarded as the most important public transaction of the year, affecting the agricultural and general commercial interests of the country. This Act abolishes the old Railway Committee of the Privy Council, and substitutes in its place a tribunal practically independent of the Government, and empowered to control the operation of railways, rates, trains, equipment, protection of crossings, and so on. It aims to remove long and short haul discriminations, provide uniform rates of classification, and is empowered to alter rates and control tolls. The public generally associates with the work of the commission relief from unfair rates, but not the least of its functions will be such oversight as will make railways safer to travel upon. Railway accident mortality of late on this continent has been frightful. It is said that there are more deaths for railway accidents in America, presumably caused by recklessness and carelessness, in one year than in England in thirty years. There is still something to be learned about railroading on this continent.

Who are the men to administer this Act? First, Hon. A. G. Blair, for the past seven years probably as thorough going a Minister of Railways as this country ever had. He has a backbone, because when he disagreed with the Gov-



James Mills, LL. D.

ernment in reference to the building of the Quebec-Moncton division of the new Grand Trunk Pacific, he stepped down and out. It has been complained that he was not friendly to the farmer. He was certainly no tool of the railways, and as he was the Father of the Railway Commission Bill, and fought it through Parliament, to the "Farmer's Advocate" he would seem a very fitting chairman, and should now be given unprejudiced opportunity to demonstrate the utility of what is claimed to be the most complete measure of the kind ever enacted, and in the position to which the Government, despite their disagreement with him a few months ago, have now placed him.

Next we have the Hon. M. E. Bernier, of St. Hyacinthe, Quebec, late Minister of Inland Revenue, an efficient business administrator of that department, a lawyer of repute, and a farmer to boot. By those who came in contact with him on the baking powder business and other points where the foods of the people are concerned, he enjoys the reputation of "getting to the bottom of things." He will have ample scope for that gift in following the depths of railroading and getting our New England, our cattle, our cheese, and our fruit to market on time, and without leaving too large a proportion of it in the hands of the transportation companies.

Last, but by no means least, we have a true "son of the soil," Dr. James Mills, for a quarter of a century indubitably identified with agriculture as head of one of the most successful colleges of

agriculture in the world. He is a man of indomitable persistence in attaining the ends which he has in view, and if he had as College President a fault, it was, for example, in personally doing what should have been left to a foreman or clerk of works in the construction of the many new buildings that have been erected at the O. A. C. in recent years. He was bound to "see things done right," and this, in measure, was detrimental to his larger educational vision, and the educational advancement of the institution in recent years itself. But as a Railway Commissioner this very faculty may stand him in good stead. One weakness of the commission is that it is without an experienced railway man, and another that the West is not specifically represented upon it, but Dr. Mills is well versed upon the needs of the farmer from one end of Canada to the other, and in sympathy with agriculture.

A most superficial view will show that Hon. Mr. Blair and his fellow commissioners are about to approach the severest task to which an executive board has ever set its hands in this country, for they will have to deal with many of the oldest, keenest, and most capable railway men on the continent at the present time, and transportation is an intricate and many-sided business.

What is it that has made Canada, a country of vast agricultural areas, almost limitless in their possibilities, and of as yet small population, one of the greatest food-producing countries in the world? Transportation to the world's greatest market—Great Britain. What is it that may now retard the agricultural and commercial interests of the Dominion more than any other one cause? Want of transportation facilities, inefficient service and excessive charges. What is it that stands in the way of unifying the Canadian West and the Canadian East more than any other one cause? Want of sufficient transportation facilities, and charges that bear unduly upon the producer or the consumer, or both. Unchecked, the railroad tendency is to "clap on all traffic will bear," and let the public, which so largely helped to build the road, look out for itself. Now we have a railway commission to look after the interests of the people, and as it will cost us some \$10,000 or \$50,000 a year, we naturally expect something for our money, but let us not expect too much, nor expect it like magic. We have every reason to believe that the work of the commission will do much to improve the conditions of transportation in Canada, and will expedite under more favorable terms the carriage of our products and manufactured supplies.

The Commission will need information and the public will benefit at the very outset by publicity. Let all our great agricultural organizations, such as the associations of live-stock breeders and exporters, dairymen, grain-growers, fruit-growers, and others, have their transportation committees, who will collect the facts and back up the representation to the commission of individuals who have complaints of whatever character to make.

### Dr. James Mills.

Dr. James Mills, who has resigned the presidency of the Ontario Agricultural College to become one of the Dominion Government Railway Commissioners, was born on a farm in West Gwillimbury township, Simcoe county, Ontario, on November 21st, 1840. His parents were both natives of the North of Ireland. At the age of twenty-one, while operating a thresher, Dr. Mills had the misfortune to lose his right arm. In those days the success of a farmer was measured by the amount of work he was capable of doing with his hands, and the misfortune of losing his arm so handicapped young Mr. Mills that he was forced to enter some other profession. Accordingly, he began again at public school, at an age when most young men have begun their life's work. From public school he went to Bradford Grammar School, from there to Victoria University, from which he graduated gold medalist in 1868; obtained the degree of M. A. in '71, and received the honorary degree of LL.D. in '92. After graduating in '68, he taught in the Cobourg Collegiate Institute, but was shortly chosen as Head Master of Brantford High School. From a third-rate school, the Brantford High School rose under Dr. Mills' regime to first rank in the schools of the Province. In the autumn of 1879, the Ontario Government appointed him President of the Agricultural College, Guelph, then a struggling and much discredited institution. From that time forward the college began an advanced march, its growth being almost wholly the result of Dr. Mills' efforts, and on leaving it after twenty-five years of fostering care, he leaves a monument to his zeal and energy that is as enduring as the Province itself.

**The Agricultural Situation in B. C.**

The condition of live-stock association affairs in B. C. is not in the flourishing condition that makes for advancement, either commercially or educationally. Internecine strife rages between officialdom and the association, and, as a consequence, the ship of agricultural progress is yet anchored in the pool of stagnation.

The association claims the right to elect its own secretary, to which it is undoubtedly entitled, whether that person is persona grata with the officials of the Provincial and Federal Departments of Agriculture or not, and objects strenuously to being penalized for exercising their undoubted prerogative, by the withholding of all aid, in the way of official recognition, without which it is hard to get reduced rates or passes from the railroads for association purposes, and also the withholding of all financial aid by the Federal Department of Agriculture.

As the association is made up of men who have borne the heat and burden of days gone by, when it cost more to bring pure-bred stock to B. C. than it does now, these men are entitled to some consideration, and should not be subject to the whims and caprices of officialdom.

A Vancouver daily recently advised editorially the abolition of the Deputy Ministership of Agriculture, along with that of another department, a move which would be a distinct backward step. As the agricultural portfolio is held by the Finance Minister, an energetic, tactful, capable deputy is an essential to agricultural progress, and to the Minister. The Agricultural Department is manned on a large enough scale to get results. Besides a deputy minister, there are two veterinarians doing public health work, a freight-rates commissioner, a fruit inspector, a horticultural board of four or five members; about twenty-three farmers' institutes, and about the same number of local shows, also receive aid from the Government, so that it would be unfair to charge the Government with neglect of the profession of agriculture. What faults need remedying will be found to exist in the way that the resources furnished are applied. The Department could well afford to lop off the local shows, which are little more than a sort of charitable distribution of public funds, and of tolls levied on the local merchants.

The following improvements are suggested: First, the abolition of the strife existing between

the live-stock association and officials, so that the progress of agriculture (which ranks above the dignity of officials or associations) will not be hindered. Secondly, the abolition of all the local shows, the efforts of the Provincial Department of Agriculture being concentrated on fewer shows, say four or five, one or two in the upper country, the New Westminster and Victoria shows (which two have already demonstrated their right to live and receive aid), in place of the numbers now existing. Courses in live-stock judging should be offered, as is now done in Ontario, Manitoba and the N.-W. T. We are pleased to note that the Royal Agricultural and Industrial Society of New Westminster has seen the need and will endeavor to meet the want next March (although refused aid by the Dominion Department of Agriculture). There is room and need for a week or more of such courses, to be given also in the upper country and on Vancouver Island. In addition, a first-class horticulturist should be secured by the Provincial Department, one with both scientific and practical training, to give lectures and demonstrations in the horticultural branches, such as planting, grafting (not the political meaning), the handling of fungous diseases by spraying, etc. Such a man can be secured from the Agricultural College at Guelph.

The Dominion Department of Agriculture could well afford to arrange for a fruit experiment station on a small scale in the Okanagan, the results of the tests at Agassiz being of comparatively little value to the upper country, owing to the difference in climatic and soil conditions; and, as an additional reason, the Okanagan is the premier fruit district of B. C. The same principles need to be observed in civil service circles as obtain in commercial life: If men or officials are able to demonstrate their usefulness and suitability to the work set before them, retain them; if not, let them go, despite the old maxim, "There is (not always) strength in numbers!"

"Because heaven is in us  
To bud and unfold,  
We are all the younger  
For growing old."

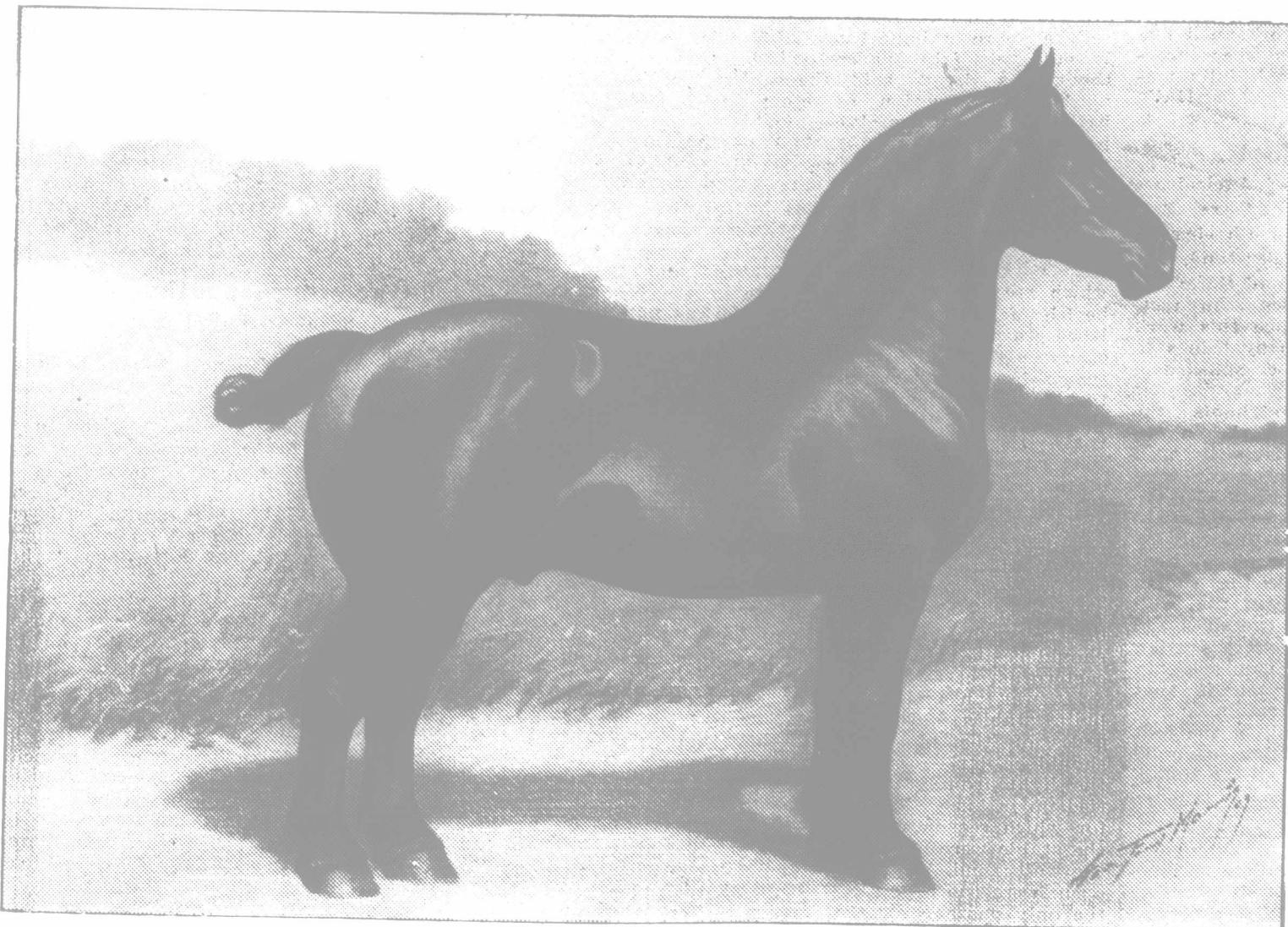
"I know that Love never is wasted,  
Nor Truth, nor the breath of a prayer;  
And the thought that goes forth as a blessing  
Must live as a Joy in the air."

**HORSES.**

**The Age at which Light Horses Should be Taught to Drive.**

The value of a harness horse depends to a great extent upon his manners, and his manners depend largely upon his education. The age at which he should be taught to drive is a matter of opinion. Some, apparently, think that he should not be handled any more than sufficient to halter break him (and sometimes not even that) until he reaches adulthood, or, at least, three or four years old, and is ready to be fitted for the market or go to work on the roads for his present owner. Under these conditions he is usually put to work without any preliminary education or fitting; he is large and strong, has spent a few years in idleness, and is unaccustomed to restraint. As a consequence, he is more or less self-willed and stubborn, is hard to handle, and the exertion of fighting for his own way and performing the functions of a road or carriage horse is much harder on him than it would be if he were prepared, both in training and muscular development, for the labors required. It also requires more strength, tact and skill on the part of the driver to handle a green, full-grown horse, than it does to handle a younger animal, and in the majority of cases a horse that has been broken in this way does not make as reliable, safe and pleasant a horse to drive as one that has been gradually educated when young. While we consider it very unwise to ask a colt to do much work until he is at least four years old, we think it advisable to teach him to drive while quite young. For racing purposes, where money is the main object, the racing of one, two or three year olds may, in a manner, be justified, but when we wish to develop a sound, strong, mature animal, he should not do much work of any kind under the ages mentioned. If we notice the career of racing animals, we will observe that a colt that distinguishes himself on the turf as a one or two year old, seldom continues to attract notice as a mature horse. Excessive continued physical exertion in an immature animal of any breed tends to weaken the constitution and prevent development, and while there are exceptions to this, the rule holds good in most cases. At the same time the gentle exertion necessary to educate a colt to go well in harness has a tendency to increase rather than impair his growth and muscular development, and at the same time educate him gradually, rather than break him quickly. We advocate the very early handling of a colt, especially one of the lighter breeds, whose future function will be to go in either light or heavy harness. He should be taught to lead when a few days, or, at the most, a few weeks old, and the more gentle handling he gets at this age the better. It teaches him early to not fear man, to yield to restraint and do as he is asked, and in after years he has no stubborn will to conquer. He should be taught to stand tied the first winter, and he should also get his first lessons in biting, or, in other words, "giving him a mouth." This can be done with little time or trouble by putting a nice light bridle with an ordinary snaffle bit on him, and leaving it on for a few hours each day, until he ceases fighting the bit. He may also be taught to lead by the bit, and to stand tied by it instead of by the halter. In addition, he should be taught to submit to having his feet handled and pared. The paring of his feet is, in most cases, necessary for his comfort and future usefulness, as well as for his education.

When the time arrives in the spring of his second year, when he is turned out to pasture, his education usually ceases until the following fall. As soon as he is taken to the stable for his second fall and winter his schooling should be continued. He has now reached sufficient age and development to be taught to drive, but he should not be asked to go in harness without further preparation. He should be given a nice, large box stall, or if the weather be not too cold and rough, a paddock. It is good practice now to use a dumb jockey on him a few hours each



**The Imported Percheron Stallion, Pink.**

Champion at the International, 1903; grand sweepstakes Minnesota State Fair, 1903; and first prize Iowa State Fair, 1903. The property of Dunham, Fletcher & Coleman, Wayne, Du Page County, Illinois.

day, allowing him to wear it in the box or paddock, gradually shortening the check straps until we get his head as high as we wish. This teaches him to yield to the restraint of the bit, and to hold his head in the desired position. A substitute for a jockey can be made with an ordinary surcingle, crupper and sidechecks. When he has had sufficient handling of this sort a set of harness should be put on him and left on for a few hours daily in stall or paddock until he becomes accustomed to it. He is, or should be, now ready to drive, but should be driven a few times in the harness before he is hitched to a rig. He should be taught the meaning of the words of command that he will hereafter be expected to obey; as few words as possible should be used. He should be taught to stand at the word "whoa," step backwards at the word "back," go forward at a chirrup or the command "go on," lessen his gait at the word "steady," etc., etc. The same word should be used at all times to express a certain action. We often hear drivers use the same word to express different ideas; for instance, we hear a man say, "Whoa, back," when he simply wants his horse or team to slacken their gait, or say the same when he wants them to stand, etc. This certainly has a tendency to confuse a colt. We should say "back" only when we wish the animal to step backwards; "whoa," only when we wish him to stand, etc. In driving with the harness only, the lines should pass through the shaft tugs, instead of through the terrets, as they then pass along the sides, and the driver can prevent the colt turning, as he has leverage on his hips. After this has been done until the pupil has learned to obey the words of command, and not endeavor to turn or become frightened at objects on the road or street, he is ready to be hitched. It is wise to hitch him to a two-wheeled rig at first, as if he should turn suddenly there is much less danger of serious results. It is also good practice to use a kicking strap (or, possibly, we should say an anti-kicking strap) for the first few times. In most cases very little trouble is experienced when the colt has had the foregoing education, and until the time comes to drive him very little time has been spent. When once we commence to drive, he should be driven a little every day until he becomes handy. While I prefer teaching a colt to go in single harness first, others think it wise to teach him to go double, and where a steady, prompt and reliable mate can be had, it probably is as well. We usually find that when a colt is taught to go well in either harness there is little trouble with him in the other. During the summer of his third year we consider he should again be in pasture, and his training should be continued his third winter. When three years old he should be safe for any person to drive, and do a reasonable amount of work, but should not be expected to do hard and steady work of any kind until at least four years old, and we find that, with few exceptions, horses that are useful at a very old age have not done much work until five or six years old. It certainly pays when practicable to go easy with horses until fully matured.

### The Care of Unshod Hoofs.

The United States Department of Agriculture has done a good work in issuing Farmers' Bulletin No. 179, which treats of horseshoeing, a question that is far too little understood, not only by the farmer but also by many of those who undertake the work of shoeing horses. In fact, there are some shoers who have done this work all their lives, and yet there are many things in regard to it which they have never sufficiently mastered.

In speaking of the care of unshod hoofs, the bulletin says: "The colt should have abundant exercise on dry ground. The hoofs will then wear gradually, and it will only be necessary from time to time to regulate an uneven wear with the rasp and to round off the sharp edges about the toe to prevent the breaking away of the wall."

"Colts in the stable cannot wear down their hoofs, so that every four to six weeks they should be rasped down and the lower edge of the wall well rounded to prevent chipping. The soles and clefts of the frogs should be picked out every few days, and the entire hoof washed clean. Plenty of clean straw should be provided. Hoofs that are becoming awry should have the wall strengthened in such a manner as to straighten the foot axis. This will ultimately produce a good hoof, and will improve the position of the limb."

### Monument for Prof. Nocard.

At the recent annual meeting of the Ontario Veterinary Association it was resolved to ask all veterinary practitioners to contribute to a fund for the erection of a monument to the late Prof. Nocard. Dr. J. G. Mackenzie, of Toronto, has been appointed to receive contributions.

It was also decided to offer a \$250.00 scholarship to be competed for by the 1904 graduates of the Ontario Veterinary College.

### Healthy Stables.

One phase of stock-raising that is claiming more than the usual amount of attention at present is the question of properly ventilating stables, and the effect upon stock of continued confinement in comfortable or warm quarters. It is not a fancied condition—the general hardiness of stock much accustomed to outdoor life, but an actual fact that confronts all thoughtful breeders. It would seem that in our anxiety to make conditions as favorable as possible to the development of the best types we had overstepped the mark, and have been subjecting our stock, with the idea of making them comfortable, to conditions more injurious to their health than the ordinary temperature would impose.

There is a tendency operating in all animal life to fortify itself against adverse conditions, and this tendency is developed by gradually subjecting stock to conditions that without proper preparation would appear severe, but which, with gradual and continued use, are endured without any ill effects. Writing on this subject in the Live-stock Journal Almanac, Sir Walter Gilbey says:

Though originally the inhabitant of a hot climate, the horse can endure without danger, or even discomfort, a much lower temperature than is generally supposed. In this country, given extended pasturage and water, he requires little attention from man, the most that is necessary, perhaps, being an open lean-to shed or hovel wherein he may find shelter in tempestuous and stormy weather, or during the heat of summer find refuge from the annoyance of flies.

It is interesting to observe the behavior of horses in a pasture where such shelter has been erected. They will seldom seek its protection in cold weather, even when snow falls and there is frost on the ground. This indifference to cold is significant, indicating, as it does, that what the horse desires above all things is fresh air.

There can be little doubt that the principal cause of most diseases to which the horse is subject is confinement in close and ill-ventilated stables; the effluvia arising from excretions in ill-ventilated stables are harmful to his lungs and eyes alike.

The horse, by reason of the character of the work exacted from him, is peculiarly exposed to the dangers of bad air; coming into his stable after the day's work, he suddenly exchanges the fresh, cold, outdoor atmosphere for that of a close, sometimes artificially heated, building.

Moist, hot air relaxes the fibers, while fresh air acts as a stimulus, bracing up strength and vigor. We all know the exhilarating effect of clear and frosty air upon ourselves, when in winter we come out of doors. Equally we know from experience the drowsy sensation produced by sitting in a warm room with a number of people; this drowsiness is produced by breathing a vitiated atmosphere.

The supreme importance of ample ventilation is not yet fully understood in this country, though, as already said, the subject has received much more attention of recent years. Stables have almost always been, and still are, built less with an eye to practical advantages than with regard to appearances. Only too frequently the horse owner who contemplates erection of a range of stabling devotes by far the greater part of his attention to questions of proportion, architectural design and external appearance, than to the questions of ventilation and light, which are of the first importance in securing the health of the horses to be kept in the building. When we consider how large a proportion of his existence the race horse, carriage or saddle horse spends in his loose box or stall, the vital importance of ventilation becomes apparent to us. With the large majority of such horses it is probably within the mark to say that, taking the whole year round, the animals pass fully three-fourths of their lives indoors.

When the erection of stabling is contemplated, the first point to be considered in arranging details of construction is to provide for free circulation of air. The aspect of the stables is almost equally important. "Sun is life." The horse in confinement revels in the brightness of the early morning sun, and his love for it should be indulged by selecting a south or south-eastern aspect for his stable.

It was an article of faith among those who built stables during the earlier and middle decades of the nineteenth century that a stable should be dark. It was supposed by some that the light from a window in front of the horse tied up in his stall was injurious to his eyesight, for which reason windows on the manger side of the stable were made small and placed high up in the wall, and being small and not convenient to open, were generally left closed, thus blocking the only passage for the ingress of fresh air and the escape of foul air. Light in the stable was held objectionable on the supposition that light attracted flies, the truth being that foul litter, etc., are the attractions which bring swarms of flies to annoy the horse in his stall.

### Stallion Lien Act.

To the Editor "Farmer's Advocate":

In your issue of the 14th inst., I notice the article, "Stallion's Lien Act," every word of which, after over thirty years' experience, I most heartily endorse. But the writer does not, in my opinion, go far enough. When I was in the business, I made it a condition in my horse bills that, on a certain day, all my patrons should bring their mares to the stand at which they patronized my horse, date of which they were notified by mail. This saved me a great deal of trouble in collecting. They all knew where to find me, and these whose mares were not in foal were sure to bring them, while those whose mares were in foal usually paid the cash, or, if that was not convenient, I took their notes of hand at whatever time we agreed upon, with interest; but if they neglected to bring their mares, and I had to make a special trip, I charged two dollars extra for every special trip made for collecting. With that condition inserted in my bill, I had very little loss of time, as they all either came or sent a proxy.

In the stallion business, all is not gold that glitters. I will relate one case, out of many, which affected me personally. A party sent two mares one year to my horse. At the end of the season I was under the firm belief that both were in foal, but when he brought them for inspection neither of them were looking like being in foal. He said to me, when I made the remark that I expected both of them would have proved to be in foal, "Oh, there is not a foal in their skins, so that I can take my oath." I thought it was strange for a man to be willing to take his oath. It set me thinking, and I began to make enquiries about it the next season, for the horse was on the same route, and I found that each mare had picked foal during the winter, having been strained lumbering, but I made him foot the bill in full, all the same.

Your correspondent does not say anything as to how to manage if a mare is disposed of.

One man parted with his mare, and wanted me to go only one hundred and twenty miles to look after her, but I made him come to time, because he was worth more money and was better able to pay than I was to take the trip.

If an act were passed making a lien on the mare, it might give the owner of the horse a great deal of trouble to find out the truth, and also to locate the mare. My experience in the stallion business clearly indicates that, in the eyes of some people, it is quite right to "do" the horse owner, if possible, no matter how. I do hope that your correspondent may be able to work it out so as to protect the man who runs the risk of importing or purchasing a good horse for the benefit of his country as well as himself. Horse-breeder should also include in the proposed lien act, a clause requiring a license on all male animals charging a service fee. I remember having a very fine imported Shire horse travelling about one hundred miles from home, and when accosted as to amount of service fee, I told the party twelve dollars. "Oh," said he, "what nonsense; twelve dollars. Why, I can get the use of such a man's horse, and insure a foal, for two bushel and a half of oats."

Now, how do you think any man having enterprise enough to bring out from England a good horse could buck against such as that? This, however, is very common in some parts of Canada, I am sorry to say.

Then, we should also raise the duty on American bronchos, etc., etc., for these scrubs are doing the horsemen of this country a very great deal of injury.

Wellington Co., Ont. OLD STALLIONMAN.

### Watering Animals.

There should be a prescribed system for the regular watering of all animals on the farm. The belief is more common than it should be that water at long intervals is not only sufficient, but that it is the best way of treating cattle. Of course, this is a mistake, and one that ought to be apparent to all who give the matter any thought. In the first place, a thirsty state is an uncomfortable state for the animal to be in, and from motives of humanity it should be relieved. It is a condition directly opposed to good digestion. When thirst is allayed only when it has arrived at a stage of acute suffering, an overdose of water is taken, and that causes as much injury to the digestive organs as the thirsty condition which it supercedes. Cattle should, when on dry feed, get water.

### Wind-shield Records in a Separate Class.

The officials of the three light-harness associations which control the sport in America, at a recent meeting decided that the so-called "wind-shield" records which were made last year by Lou Dillon, Major Delmar, Cresceus, Dan Patch and Prince Alert on numerous occasions, and over which there has been much agitation, shall be placed in a class separate from the regulation trotting and pacing records which are on file as official marks. This action leaves Maud S. the undisputed queen of trotters, inasmuch as her record to high-wheeled sulky has not been broken, according to the race associations.

STOCK.

Our Scottish Letter.

I don't know how much attention is bestowed on the new year in Canada; it is still the great winter festival in Scotland. Having got it over and settled down to work again, the first thing that attracts attention is the report on the carcass results of the Smithfield champions. For many years the Live-stock Journal (London) has laboriously collected information from the butchers who have killed the champions and published these. The information is useful, and educative to a degree. The champion of 1903, the cross-bred heifer, Miss Charles, was mercilessly criticised by some outside critics, but they cut a very poor figure now that the carcass results are announced. Her buyer says he never cut up a show heifer like her. She was up to a great weight, being the heaviest animal in the show, and was a fine model of a beef animal. Her sire, Count Alaric, was a Duthie-bred Shorthorn; her dam was a pure-bred A.-A. cow. She killed 68.99 per cent. carcass to live weight. Her average daily gain in weight from birth was 2.01 lbs. Her butcher gives her the high praise of being full of lean flesh, and the best 100-st. heifer he ever saw, as far as that is concerned. The favorite for the championship with many was Mr. John Cridlan's A.-A. steer, Twin Ben, and it is interesting to see how he pegged out. His average daily gain was 1.80 lbs.; his percentage carcass to live weight, 68.58, and his butcher says he was a very well-fleshed animal. Exactly the same percentage is placed to the credit of the King's champion Hereford. His average daily gain was 1.73 lbs., and his butcher says he cut up well. One of the best animals shown was the Inverness and Edinburgh champion, "The Baron." This extraordinary cross-bred was of the same cross as but in the opposite way from the champion Miss Charles. He was got by an A.-A. bull, from a pure-bred Shorthorn cow. His average daily gain was 2.11 lbs., and he dressed 68.53 per cent. dead to gross live weight. His butcher describes him as a mass of lean flesh—not an atom of waste fat in his body. Certainly he looked like an ox that would kill well. The best killing animal reported on was a Highland bullock, which dressed 72.33 per cent. carcass to gross live weight—certainly an extraordinary result. His average daily gain was 1.44 lbs., and he killed full of lean meat, the weight of fore and hind quarters being about equal. The Highlanders generally get splendid certificates from the London butchers. "A splendid body of beef," "Best-fleshed bullock," "Full of prime flesh and no coarse meat"; such are some of the tributes to this great race. The ripening is, however, slow. The average daily gains of the Highlanders reported on are as follows: 1.34 lbs., 1.33 lbs., 0.95 lb., 1.36 lbs., 1.44 lbs., 1.17 lbs. The ox with the average daily increase under one pound is described as a grand body of beef, full of prime meat and no waste. He was, however, 5 years 7 months 10 days old, so that it must have cost a deal to make him what he was. Only one Galloway is reported on—the Edinburgh champion. His flesh was well-marbled, but the carcass was altogether too fat. The average daily gain was 1.60 lbs., and the percentage of carcass to gross live weight 68.47.

We are having open weather now, after about a fortnight of frost. Generally, the weather seems disinclined to freeze hard. Some days curling was in vogue, but, as a rule, the ice lacked keenness, and a good curling day was usually followed by a day when the ice had to be left alone; 1903, by all accounts, had the heaviest rainfall of any year in our time. It is doubtful whether it was excelled in this particular by any year of the nineteenth century. One consolatory reflection in connection with a study of the rainfall tables of the nineteenth century is that there is no need to anticipate a succession of wet seasons. The years of last century reporting the heaviest rainfall were almost invariably followed by years in which the rainfall was slight. We are, therefore, hoping that 1904 will be a dry year.

At the close of the first week in January we begin to be within measurable distance of the Spring Horse Shows and Bull Sales. February is always a crowded month, and a great deal of work has to be compressed into narrow space. The Scottish Stallion Show at Glasgow takes place in the first week of the month, and promises to be an interesting event. Good horses are fairly numerous, and 1903 was a splendid export year—over 400 horses having been sold. Canada was the best customer. Even at the low price of £100 each, this means a trade involving about £40,000, or \$200,000. Perhaps £100 is too high an average, but one-half of it is too low. This week a small but very valuable shipment has been made to Australia. The buyer is an Ayrshire gentleman, named Mr. Gibson, who has made a fortune out there. He placed his order in the hands of Mr. James Kilpatrick, Craigie Mains, Kilmarnock, who selected high-

class mares in foal to the leading horses. Mr. Gibson in this way hopes to import two animals for every one actually shipped. May good success attend him. Canada has been our best customer, and it is earnestly hoped that those who have taken out and bought the horses may have good luck with them.

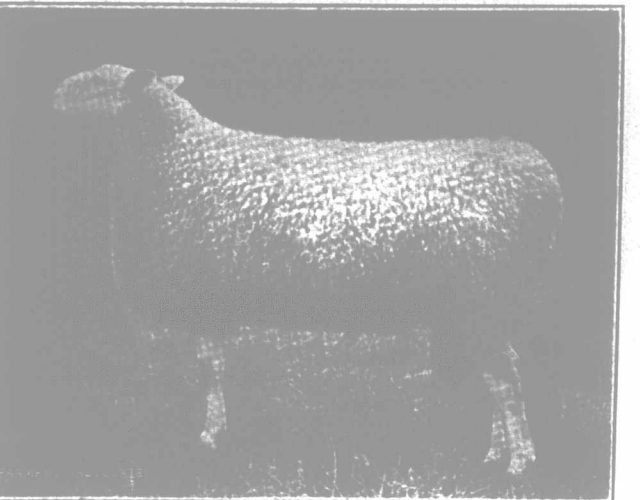
Co-operation is better understood among farmers in Canada than at home, but here we are rapidly progressing. The official organ of the Government recognizes the importance of the movement, and those in authority have been at considerable pains to collect full information from all quarters. The Dane is the great co-operator in production, but the principle is being applied in many other ways. One of its most useful examples is seen in the matter of insurance. An interesting company exists in Ayrshire, the object of which is the compensating of such of its members as suffer loss through fire. The company is founded absolutely on the mutual principle, and very good results have been obtained through its operations. Much is being done to develop Irish dairy farming on Danish lines, and Canadians have undoubtedly keen competition to face in that quarter.

Several landlords are giving abatements of rent, on account of the unprecedentedly bad harvest. In the case of one estate, the whole half-year's rent, due in November, has been remitted; in other cases one-half the amount has been cancelled, and in others abatements have been made. It seems probable that the British farmer will surmount the difficulties of even the abnormal season, 1903. 8th Jan., 1904. "SCOTLAND YET."

Lord Polworth on Selection and Mating.

To the Editor "Farmer's Advocate":

Dear Sir,—I read with much interest the article on Mertoun stock in the issue of October 15th, and a more recent reference. I hope I appreciate fair criticism as much as praise. I think, however, it is only right to correct an impression which prevails, and is much exaggerated. I refer to in-and-in-breeding. It is true that in all my stock breeding I pursue a definite aim, and proceed on definite lines. I adhere more or less to the type or ideal which commends itself to my



Pride of Mertoun.

Border Leicester ram. Bred by Lord Polworth, Mertoun, St. Boswell's, Scotland. Sold at Kelso ram sales for £75.

judgment. I endeavor to mould my stock accordingly, and to perpetuate the character by line breeding, but I rarely resort to close in-and-in-breeding. I recognize its value in certain cases, but not beyond a certain point. I have also observed that just as bad results may flow from interweaving the systems of two animals in which taint of delicacy or disease lurks, however remote in blood relationship, however distinct in type and character. So on the other hand, the careful mating of animals more or less related in blood, and mutually replete with ancestral good qualities, with robustness of constitution and vigor of system, will produce in the highest degree admirable results. Even here, however, a wise breeder will, more or less, differentiate so as to maintain the fertility and breeding qualities of his stock. To do this without destroying type is one of the difficult problems ever requiring solution. Probably in modern times the late Mr. A. Cruickshank has been the most striking illustration of this. He had many families in his herd, used a number of different bulls with more or less success until in the bull Champion of England he found what suited his taste and judgment. Then, as is so well described on pages 637 and 638 of Mr. Sanders' book (Shorthorn Cattle), he permeated his herd directly and indirectly with his blood. He could not have done this had he not had a variety of females, and when I knew his herd when that famous bull was at the head of it, his herd was decidedly of a uniform distinct type. That type was admirably

adapted for the country and the purpose, and has been rightly appreciated in many directions. My reference to this, however, here, is to indicate that to breed on such a system requires a certain variety amongst the females. So far from Mertoun herd being all inbred, there are 25 different families, or sub-families, so that even when comparatively few bulls are in use there is little reason to breed excessively close. As a matter of fact, I am at present breeding from two bulls of a family I have hardly ever used in the herd, viz., the Townley Butterfly, and another from the family which produced the sire Rapid Rhone, the progenitor of my best show cows, about thirty years ago. This will, I think, correct the misapprehension as to very close inbreeding being pursued in my herd. At the same time, I have never known any stock prove really prepotent for good which was not bred on definite lines.

To turn to the flock, the previous remarks may equally apply, only the larger number of females renders differentiation easier. Reference is made to the repurchase of sires sold. No doubt I have thus got a certain distinctiveness now and then, but I lay more stress on the retention of such young sires as appear to me in flock or herd best adapted for the want of the time. No doubt this means keeping back some of the best, and thus reducing the top put into the market. However, even this year, I did not hesitate to retain four or five of the best shearlings for my flock.

In stock breeding, as in other things, one has to study fashion, no doubt, but to be led by it is apt in the end to prove disastrous. Moreover, while the production of sires is generally the main object of the breeder, it is essential to devote attention to the female side too, because more of such are wanted than males, and because the foundation of flock or herd is in the females. No doubt a good sire is half a herd, but the best sire will come from the best dam.

As it was years ago, certain strains take the lead in fashion, especially through the influence of shows, but if Amos Cruickshank had not followed the bent of his own good judgment alone, the valuable cattle he bred would not have existed. I may not have the same type as my ideal, but I neither despise his type nor any other. Happily, in stock breeding, there is not only room for variety, but great benefit to be derived from it.

The amalgamation of different strains when the types coalesce is often beneficial, but a wrong cross is just as disastrous. I have tried not a few in the herd, and discarded most, even when the sires were grand looking animals and prize-winners, such as Nonsuch, a champion at the Royal and Highland. The best out-cross I ever had was Sir Arthur Irwin, and, strange to say, the result of mating him with some grand cows was failure; whereas, when mated with one near of kin to him, the result was Truth, a champion cow.

I have, however, trespassed too far on your time, and only beg you will make such use of these notes as you see fit. Permit me, however, to extend a cordial welcome to yourself, and any Canadian or American breeders who may care to have a look at my stock, and judge for themselves. I only wish a bull such as Royal Commander, brought over from Canada by Hugh Aylmer, might come to rejuvenate the old blood by the rigor of a new country and climate. Yours faithfully,—POLWORTH.

[Note.—Mr. John Graham, Carberry, Man., while travelling in Great Britain last year, paid a visit to the estate of Lord Polworth, Mertoun, St. Boswell's, Scotland, and favored the "Advocate" readers with a description of the Mertoun herd, and other items of interest connected with this historic spot in the Old Land, in Oct. 15th issue. Lord Polworth, whom we are pleased to have as a constant reader of the "Farmer's Advocate," has written the foregoing letter as a fuller explanation of his methods of selection and breeding.—Editor.]

A Breeders' Organization.

A new organization, called the American Breeders' Association, was perfected at St. Louis, December 29th and 30th, 1903. It includes both animal breeders and plant breeders, also scientists who are interested in the study of heredity in plants and animals. Hon. James Wilson, Secretary of Agriculture, was made President, and Wm. Hays, Minnesota Agricultural College, Secretary. The purpose of the new association is "to study the laws of breeding, and to promote the improvement of plants and animals by the development of expert methods of breeding." This organization had its origin in the American Association of Agricultural Colleges and Experiment Stations, which held their annual convention on the above dates. A full report of the convention, which includes addresses by many of the most advanced thinkers in the U. S. and Canada, may be had by becoming a member of the Association. J. D. Funk, Bloomington, Ill., is secretary of the membership committee. Hon. John Dryden, of Toronto, was elected chairman of the animal section.

### The Sheep Industry in Ontario.

To the Editor "Farmer's Advocate":

Sir,—During the past six months the public and press have apparently been taking stock of the live-stock industries common in our Province. The questions of profit and cost of labor have been studied as never before. The latter consideration, always an important factor on the farm, is receiving more attention, and bulks larger and larger in the accounts as the years are passing by. Lines of industries, profitable with help available, have been abandoned, as often the assistance necessary could not be got at values and of the quality to furnish a living margin of profit. Hence, we see and hear and read of many carefully spying out the land, endeavoring to find relief, and something in the way of a change of operations which will lessen the burden and make life more enjoyable. To me it seems an open and a most inviting line of breeding, and work is right at hand in the business, which according to statistics and many reports has been neglected and in recent years discarded by hundreds throughout our land, and that is the sheep industry. No line of live-stock raising can be carried on successfully with so little labor; no kind of stock can be grown and matured at so low a cost; no kind of stock in Ontario has had so little attention given it in fitting for the market; and no other stock can, in my humble opinion, show as satisfactory a balance sheet at the end of the year, nor is there another kind of animal we raise to which we are so deeply and so universally indebted for comforts and luxuries as the gentle, innocent sheep.

Many and various are the reasons offered why sheep are decreasing in numbers. Dogs are one bugbear, but what of rats and weasels, skunks and foxes, and scores of mites and diseases to which poultry are subject, and yet do we hear of that blocking the almost marvellous growth of our chicken industry.

Fencing is another bugaboo. What nonsense, when of all our domestic animals sheep are the easiest to house and to keep under control in field or in winter quarters. Just notice the slipshod treatment given the lamb crop year after year on the majority of farms, if we want to learn where the fault lies. Lambs with long tails, uncastrated, run to market full of burs, and at a time of year when prices are at the lowest notch, just the same as was formerly done with the hogs.

Were lambs given such care and attention as the bacon hog gets of late years, and a similar preparation for the ever-ready market, no longer would paltry excuses lead to the neglecting of the sheep business. Nowhere in the wide world are diseases and other serious troubles among sheep so little known as in our Province. Had we half the ills to contend with that the British shepherds have, there would be some sense in the abandonment of a very profitable line on the farm. And over the sea do we find the sheep-raisers drop out, because of the serious difficulties, unknown to us, they meet with, and also all those which trouble us, such as dogs and fencing, etc.? Not by any means. They do not so readily follow a bad example, falling in line with a cry of this or that, which, by being repeated over and over and printed here and there, has in a manner become fashionable, and the evil shadow, which has so little to harm or hinder us, becomes thereby to the unthinking a terrible bugbear.

For many years back I have heard comparisons made as to the cost and probable profits in fattening lambs and cattle, the difference of a dollar per 100 pounds in cost of added weights being always in favor of lambs; and leading markets the past ten years have paid an average price of not less than a dollar per hundred live weight more for lambs than good quality cattle. Last week a letter from New York State mentions lambs selling in Buffalo at \$6.70, with best cattle two cents less, and such is not at all uncommon.

Having had some experience for many years in growing and feeding both kinds, and recently having been called on to talk along these lines, I investigated carefully the results obtained by others and myself. The outcome of my calculations have been so far beyond the opinions held, that if correct, it would not seem right to keep them hidden. If, on the other hand, my reckoning is astray, it is my wish that it should be corrected. In order to make the comparisons as clear as possible, the cost of adding 300 pounds to the bullock, and a similar amount to the required number of lambs, in given times, are compared, and the profits on each as well.

FATTENING A BULLOCK FOR SIX MONTHS.	
Bullock 1,000 pounds, cost 3½c. live weight.....	\$35.00
Fed 1 lb. clover hay daily=180 bu. at 6c. per bu. 10 80	
Fed no hay the first month.	
Fed 6 pounds of meal daily 2nd and 3rd months.	
\$3.60; 16 lb. of meal daily 4th to 6th months, \$9.00	12.60
Fed 1,500 pounds of meal at \$1.00 per ton.	4.50
Total cost	\$62.90

Sold at 5c. live weight, weighing 1,300	\$65.00
Showing a profit of	2.10

#### FATTENING ONE HUNDRED LAMBS FOR FIVE MONTHS.

100 lambs at 75 lbs. each, bought at 4c.....	\$300.00
Fed on rape and grass for a month at cost of...	31.00
Fed 120 days indoors, as follows:	
5 lbs. turnips each daily, 1,000 bu. at 6c.....	60.00
1 lb. clover hay each daily, 6 tons at \$6.00...	36.00
1 lb. unthreshed peas each daily, 200 bu. at 60c. ....	120.00
Total	\$550.00

Sold at 5½c. per lb. live weight, averaging 120 lbs. each=12,000 lbs. ....	\$660.00
Showing a profit of	110.00
Or an average of	1.10

#### COMPARISON OF COST, GAIN AND PROFITS.

- 1 steer during 6 months eats \$27.90 worth, to make 300 pounds gain, or \$9.90 per 100 pounds.
- 6 2-3 lambs during 5 months eat \$16.67 worth, to make 300 pounds gain, or \$5.56 per 100 pounds.
- 1 steer costs daily 15½c., making a gain of 1 2-3 lbs.
- 6 2-3 lambs cost daily 14c., making a gain of 2 lbs.
- 1 steer gives \$2.10 profit in 6 months—to 12 per cent. per annum on \$32 invested.
- 6 2-3 lambs give \$7.33 profit in 5 months—to 88 per cent. per annum on \$20 invested.

In the above calculations, objection may be taken to having the lambs on the fields for a month, while steers were housed when purchased. It would make a difference of 16 cents less profit on each lamb, supposing the gain to be equal out and inside, but that is not probable, as the grain and root feeding does result in faster fleshing than field feeding alone.

If my deductions are correct, they will justify my claiming that in the meat-making business the lamb used as the machine is, and has been for the past ten years, the most profitable line of meat production on the Ontario farm. If my estimates and conclusions are wrong, I invite a thrashing out of the facts, that we may learn a little more of the ins and outs of our labors. We are no longer grain-sellers. Animal husbandry is the only possible way at present in sight likely to provide us with the comforts we have a right to expect in tilling the land. But we must in the future give more thought as individuals to what is the proper course for us each one to follow, and not be misled by unwise and misleading statements, which, even if false, pass for currency by continuous repetition. Each year brings new problems for us to deal with. Progress is the prevailing watchword, and nowhere is it more required than in life on the farm, so as to keep abreast of the times.

JOHN CAMPBELL.

### Beef Cattle from Dairy Cows.

Even in this day of advanced live-stock knowledge, we are frequently met with the question as to the possibility of producing young stock for beef from cows of the distinctively dairy breeds. In the dairy sections of the country, where the present scarcity of labor is most acutely felt, and people are turning about for some line of production involving less labor than dairying, some attempt is being made to raise young stock for beef production, either the offspring of dairy cows and dairy or scrub bulls, or of dairy cows and beef bulls, which are brought in for the purpose of producing young stock fit for beef. Farmers' Institute lecturers in many parts of the country are asked the question, "What breed would you recommend me to use, to cross with my herd of dairy cows—Holstein, Ayrshire or Jersey—in order to produce a calf that can be profitably turned into beef?" That it is impossible to combine a distinctively dairy business, based on the use of dairy breeds, with the production of beef, seems to be a thing that has not yet dawned on a considerable portion of our people. As a consequence, numbers of ill-fed and ill-bred calves are raised, to be sold as stockers at two or three years old, which are a source of loss to everyone that has anything to do with them.

The distinctive dairy type and the distinctive beef type are too far apart to be successfully combined. The wedge-shaped, skiny dairy cow, belonging to breeds that have been bred for many years with the sole purpose of producing milk, cannot, in the nature of things, be the mother of the compact, square, fleshy animal which alone is profitable as a producer of beef. No matter what sort of a bull may be used, the offspring of such cows will show the narrow back, light quarter and high flank which are characteristic of the dairy breeds, but are not when they appear in a beef animal. No matter how well such calves were fed, they would never be really good beef animals, would never be as profitable as the unprofitable culls. In the dairy districts, however, where cheesemaking is followed in the summer, it is impossible to feed the calves well, and the result is seen in the

miserable, ill-shapen, undersized young stock found in many dairy districts, ill-bred, ill-fed and unprofitable from start to finish.

It is not the intention here to make any comparison between dairying and beef-raising. Both have their place in our agriculture, and it is impossible to say which is the most profitable. Each of these industries has found some particular breeds which are best suited to its purposes, and the characteristics of the animal suited to the one industry are almost the direct opposite of those suited to the other. Under these circumstances, the folly of attempting to raise beef cattle from dairy cows at once becomes apparent. As a matter of fact, very few, if any, of the men who buy stockers care to touch any that show even a trace of the blood of the distinctively dairy breeds, and such animals are always disposed of at a disadvantage. We do not think it wise for those who are engaged in a dairy business, and who have herds of Ayrshires, Holsteins or Jerseys, to make any attempt to raise young stock for beef, or to purchase bulls of the beef breeds with the object of producing young stock that can be used for beef-production.

There is, however, such a thing as a dual-purpose cow, but she is found in only one breed—the Shorthorn. This breed has been developed along the two lines of beef and milk production, and the two strains have been largely intermixed. Hence, it is possible to get cows of this breed that will give fair returns in milk, and, at the same time, produce a good beef calf, and, as a matter of fact, the great majority of the best stockers are the offspring of such cows. The cows, however, do not, as a rule, give as large returns in milk as the distinctively dairy breeds, and the man who would raise cattle for beef must be content with a smaller return in milk.

In conclusion, we would strongly advise those who are engaged in the dairy business, and use the dairy breeds, to make no attempt to raise young cattle for beef. If, however, some should decide that it is necessary for them to raise beef-cattle, owing perhaps to exceptional circumstances, they must discard altogether their dairy breeds, purchase a herd of grade Shorthorns, and be content with a somewhat smaller return in milk. D.

## FARM.

### Organizing a Beef Ring.

Could you give any information for the organizing of a beef ring?  
R. J. M.  
Wentworth Co., Ont.

It will be necessary to get at least sixteen, and preferably twenty, men willing to go into the ring. This may be done by announcing a meeting for that purpose by poster or otherwise. When the requisite members have been secured, some local butcher or other person who is competent to kill and dress an animal is secured to do this work. This person must also cut up the beef, and keep account of the amount each member receives. In most cases, the beef-ring builds a slaughter-house convenient to the butcher, and allows him a fee of two dollars for each animal slaughtered. Each member of the ring agrees to furnish a two-year-old beast, to dress four hundred pounds, and subject to inspection by two members of the ring appointed at the annual meeting of the ring for that purpose. The animal is delivered to the butcher by the owner, and is killed and dressed in the early hours of the morning. The disposition of the hide, heart, liver, etc., are details that can be arranged between the ring and its butcher. A cut illustrating the method of cutting up the carcass was given in our January 14th issue.

### Age and Germination of Seeds.

According to Prof. Mumford, of the University of Missouri, who has been experimenting with the object of determining the vitality of seeds, those of beans, peas and carrots are good for two years; of lettuce, asparagus and radish, for three years; of cabbage and turnip for five years, and of beets, melons and squash for from six to eight years. Of course, seeds kept for so long a time should not be exposed to undue extremes of heat, drouth or dampness.

With wheat, barley, oats or corn the aim should be to sow seed of the previous year's growth rather than to sow older seed. The loss in the vitality of these grains after one year of age is often considerable. The stage of ripening at which the grain is harvested has also an important bearing on the vitality of seeds.

### More Welcome Than Ever.

To the Editor "Farmer's Advocate":  
Gen'l Sir, Please find postal note for \$1.50, to renew my subscription for the "Advocate" for the year 1904, as I cannot get on without its valuable hints, being more welcome than ever now since it comes weekly.  
Welland Co., Ont. JAMES K. DILS.



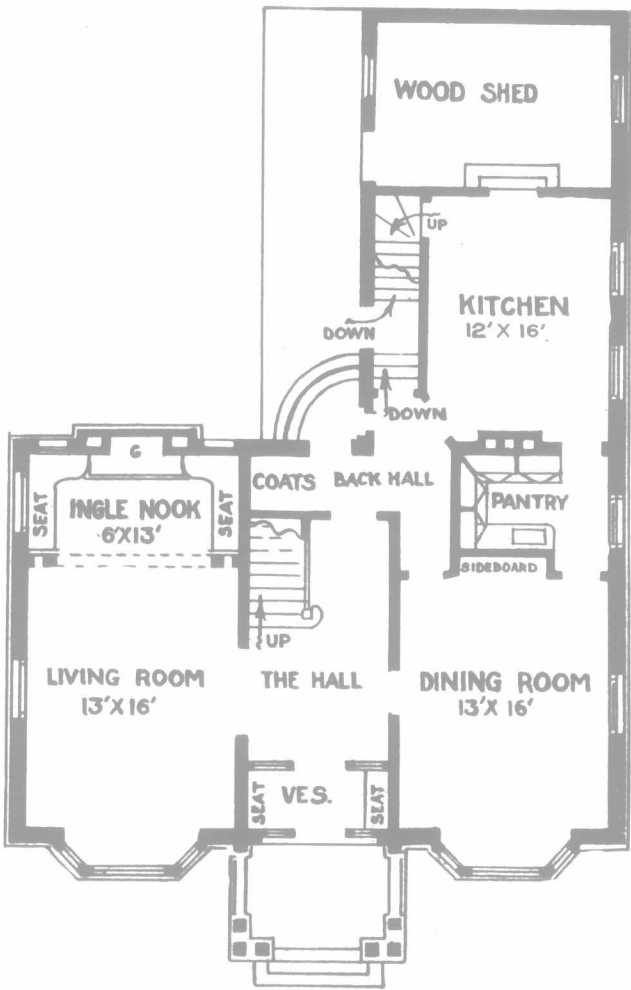
Concerning Soil Moisture.

The retention of moisture in the soil is dependent on climatic changes; yet it is a matter subject to natural laws, upon which intelligent action can be brought to bear to the advantage of the tiller of the soil.

Every farmer is aware of the use of cultivation in conserving soil moisture. The reasons why cultivation does so, however, are too often forgotten. Land that has been plowed in the fall is, after the effects of winter frost and fall and spring weathering, in a state highly susceptible to the effects of capillary attraction, and if left too long without being handled by some cultivating implement, all the moisture available for plant food would evaporate, and the farmer would be at the mercy of the spring rainfall.

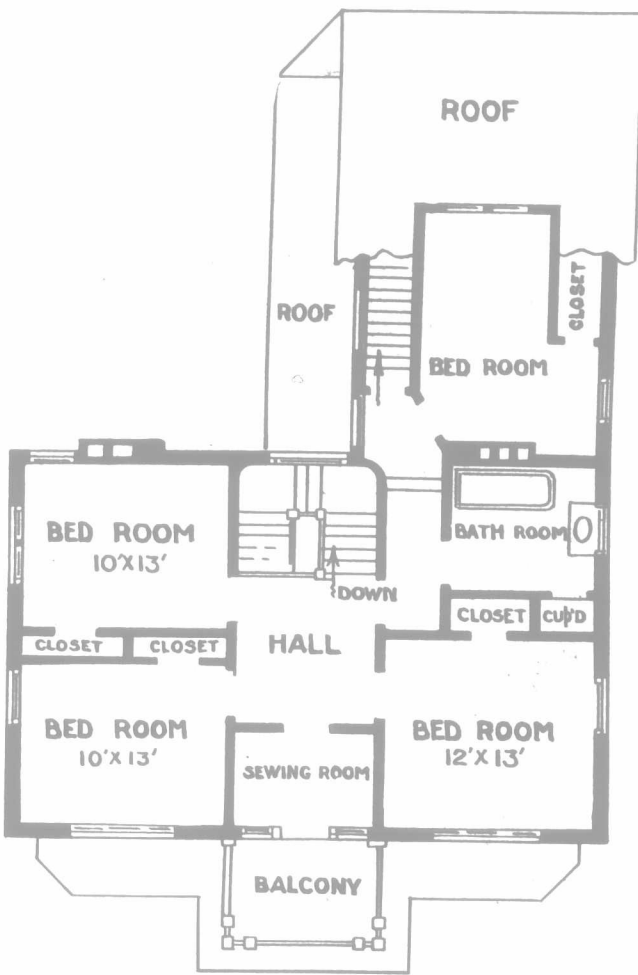
the study of every farmer, each approaching the case from the conditions prevailing in his own particular location.

Prize House Plans.



GROUND FLOOR PLAN

The accompanying plans of a farmhouse were designed by W. B. Van Egmond, Toronto, and won first prize in the Massey-Harris competition, Toronto Exhibition, 1903.



FIRST FLOOR PLAN

Rattle of the Harvester.

Those who are curious enough to verify the statement of fact in this article can easily do so if they have access to a good compendium of the world's products, or a cyclopedia. By doing so they will learn that this old world of ours is engaged in one continuous wheat harvest.

vest belt in the world, it would require but a few weeks at the farthest to load wheat right from the thresher any month of the year and get it to any possible famine center that might develop in any part of the world.

Temperature of the Soil.

The variation in temperature in soils of different texture is very noticeable in most soils. It often happens in our prairie soil that for the first three inches during the first two weeks of seeding the soil is below that temperature at which plants can grow, and anything which can be done by the farmer during that period to increase the warmth of the soil has a distinct advantage in hastening plant growth during the early spring.

Free Rural Mail Delivery Wanted.

To the Editor "Farmer's Advocate": Sir, I have been thinking for some time of writing you a short letter on "Rural, free mail delivery." The "Advocate" has done good service in this, as well as in other matters pertaining to the farm, but it is, probably, time to stir the matter up again.

I was sorry to see some time ago a report in a newspaper that the Postmaster-General did not think the country ready for rural free delivery. Now, I would not presume to set my judgment up against that of so able an administrator as Sir William Mulock, but if he meant that the farmers did not want it he was mistaken; if he meant that the Government was not prepared to meet the expense, he may have been right.

It looks as though the rule of "Small profits and quick returns" worked well in this case, and if the Post-office Department wished to make money, all they would need to do would be to reduce the postage still further.

I am glad to know that farmers are looking after their rights more now than they have done in the past. I think it is hardly fair that the citizens of London, for example, with six post-offices within the city limits, yet have their mail delivered twice daily, and people within two miles of the city limits have their mail delivered three times a week at a country post-office, and then have to travel two or three miles to get it.

I would suggest that at every Farmers' Institute meeting this matter be brought up and resolutions passed (and forwarded to the Postmaster-General) in its favor, as was done at Dorchester on January 13th, at a meeting of the East Middlesex Institute.

In all probability we will have a Dominion election during the present year, and I would advise farmers all over the country to attend their party conventions and talk this matter up; impress the fact upon the candidates that if they don't push this thing we will get others who will, and as soon as the Government finds that farmers are aroused on this question I think they will find a way to overcome the financial difficulty.

There is no doubt in my mind but that the large increase in the amount of mail handled would very soon meet the added expense. Newspapers all over the Dominion should press this matter on the attention of their readers, as it would benefit the newspaper almost as much as

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make any com- raising. Both and it is in- most profitable, some particular purposes, and suited to the ct opposite of these circum- to raise beef comes apparent, ny, of the men any that show tinctively dairy, ys disposed of ink it wise for business, and teins or Jer- e young stock the beef breeds ng stock that

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corn the aim previous year's eed. The loss er one year of age of ripening as also an im- seeds.

Ever.

ote for \$1.50, Advocate on without its one than ever

ES K. DILS.

the farmer, because people would take more papers if they could get their mail more conveniently. I am glad to see that not only the "Farmer's Advocate," but some of the leading daily newspapers have taken this matter up, and are giving their readers a good deal of information on it.

Thanking you for your efforts in this matter in the past, and wishing you greater success in the future.  
WM. E. GRIEVE.  
Middlesex Co., Ont.

**Material for Stable Walls.**

Mr. R. C. Clute, K. C., York Co., Ont., writes us: "Mr. Peer's book on stable construction, pages 104 and 105, says: 'The best possible construction of a barn to attain this end (that is warm in winter and cool in summer) is to build it with two air spaces between the outer and inside coverings.' Then again, 'I have had much experience with stone- and brick-wall basements, and would on no account recommend them for any kind of stock. They are, as a rule, damp, chilly and unwholesome, if not unhealthy, for a great portion of the year. I am so prejudiced against them, compared with double-air-spaced wooden barns, that I would not have one put in a barn of mine if it could be done without cost.' What is your opinion of this? Cement, I presume, is much like stone in regard to dampness, etc. Is the opinion of this writer now admitted to be correct? I am aware of the immense number of cement basement barns, but if, as he states, they are unhealthy, the sooner this is generally known the better. I am about building a barn for cattle and horses, and do not wish to make a mistake in this regard."

Ans.—There is no doubt, all other things being equal, such a wall as recommended in Mr. Peer's book would be drier than a stone, brick or concrete wall, but the objection of dampness in a stable built of either of the last named materials can be overcome. Mr. Peer's experience was probably with stone walls as they were built some fifteen or twenty years ago. Then the common practice was to select a bank into which to build the barn, and to make the wall and all of the stable as air-tight as possible. Very often, too, the site was naturally damp, and no care exercised in its selection or drainage. In such a stable dampness would be inevitable, and would be but an indication of a worse condition, namely, lack of ventilation. Proper ventilation and dryness are difficult to obtain in a bank stable, but in stables built on the level, as is now the common practice, such conditions are comparatively easy to attain. We would have no hesitancy in advising our correspondent to use either cement or stone, on condition that ample provision be made for ventilation, that the basement be well above ground, the site fairly dry, and that drainage be put in about the walls. If cement is used, the walls should not be given a smooth finish. The cement blocks, with air spaces inside, though more expensive, will probably insure a drier atmosphere inside, and make a more attractive wall outside. Cement walls have been so long and so thoroughly tested that their utility is well settled. Being so much less expensive to build, as a rule, than stone, not requiring skilled artisans, they have superseded the latter almost altogether. They are the cheapest and most durable wall ever introduced in farm practice.

**Wheat Breeding in Canada.**

At the organization meeting of the American Plant and Animal Breeders' Association, held in St. Louis, Mo., on Dec. 29th and 30th, Dr. Wm. Saunders, Ottawa, is credited with showing that Preston, Stanley and other wheats bred by him have been widely distributed throughout the entire Dominion. The report goes on to say that Preston wheat has been tested as to its milling and baking qualities by leading experts in Britain and in Minneapolis, and found practically as good as Red Fife. It is also said to be in the lead in yield per acre in several experiment stations in Canada.

Whether Dr. Saunders has been correctly reported in the abstract press report sent out by the American Breeders' Association we are not in a position to say, neither do we wish to detract from the value of any good work which he may be doing at Ottawa for this country. We believe that plant breeding is, to the farmers of Canada, one of the most important lines into which scientific research is being extended to-day, and when an investigator can by selecting and crossing varieties produce a wheat that will yield even one bushel per acre more than, and be of equal quality to our best, he has added to the financial advancement of agriculture beyond estimate.

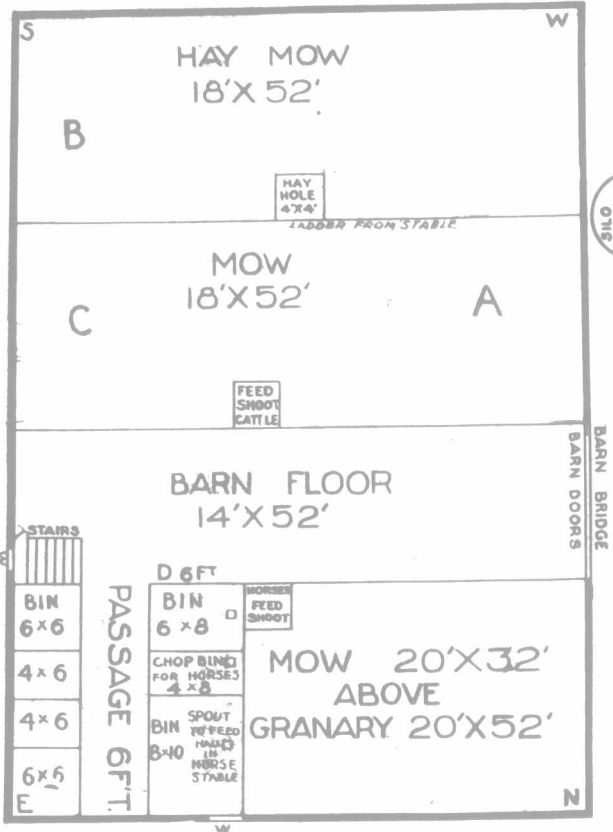
**American Drovers and the Railroads.**

One of the most recent innovations in American railroad management is to charge stock dealers returning from Chicago and other markets full fare for their passage. Previous to January 1st, the dealer who used a car for shipping purposes was given a complimentary ride to his original destination, and the action of the railway companies in inaugurating the new policy has aroused considerable dissension among the fraternity of stockmen.

**Plan of a Convenient Barn.**

In your issue of January 14th, I noticed a large barn that stabled about thirty head of cattle and six or eight horses. It allowed no feed-room or machine-house, and all work of stable cleaning was to be done by hand.

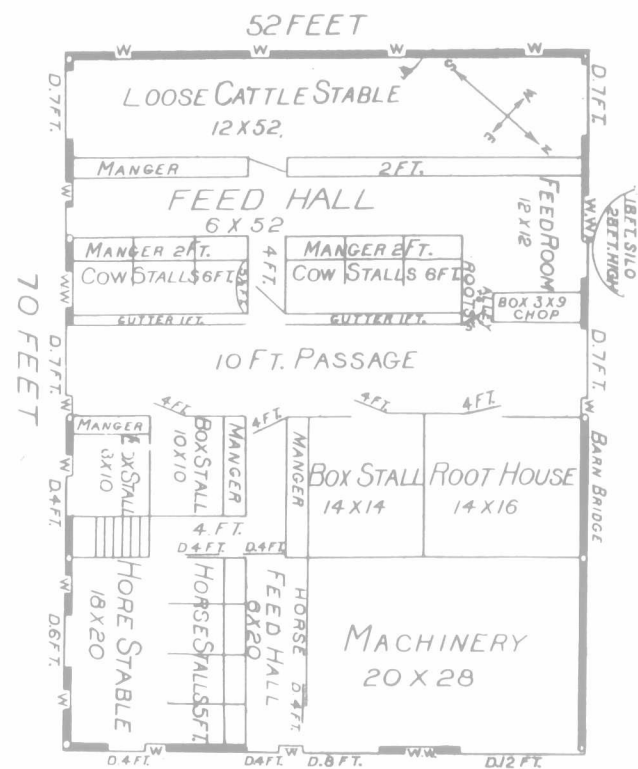
In the plan I am submitting for your inspection, I have taken the same sized barn, but I prefer having two feet longer on the west end where the loose cattle are. It stables a few more cattle,



a few less horses, and leaves a machine and drive house 20 x 28; also, a feed-room 12 x 15, and all the work is horse work, as far as possible, and the barn is convenient throughout, as a large part of the plans are in present operation.

A glimpse at the plan shows its convenience for a hundred or hundred and fifty acre farm, but I might add a few suggestions.

The basement would be of stone or cement (the latter preferred), to a height above ground above the drips of rain spatter, say two or three feet, then frame or whatever desired. Underneath all drive doors would be a wide foundation, and raised six or eight inches above the level, and nicely sloped up with cement. If the upper foundation were cement, the windows would be about two feet wide and one foot high, and the double widows twice the size, and all set well to the top of the wall.



It is not necessary to have all the loose cattle together, as gates can be swung on the outside wall at the posts, or fastened in the cement, and swung along the wall as desired. If the barn were two feet longer, it would probably be better to have three gates (if desired) to swing on separate posts, or a couple or three planks as bars serve as well.

The passage door would set to the outside of the manger, so as to avoid a hooking-corner.

This door should be short and swing several inches above the floor.

The feed-hall opens to nearly all the silo feeding cattle. The loose stall will hold fifteen or sixteen two-year-old steers and twenty yearlings. The cow stalls accommodate twelve cattle tied, and all may be cleaned with a wagon, and taken right away and spread on fields, or cleaned with a dump-cart and drawn to manure heap.

The silo, as you see, is handy at feed entry, and the chop-box is conveniently near, and the roots just across the manure passage.

A very handy illustration of a chop-box is given in your issue of the 14th inst., but on the top there should be a lid sloping to the manure passage, and the little cover at the back I would have two or three feet high, so no feed would roll in while mixing. This box filled five feet will hold a ton of shorts, or twenty to twenty-five bags of chop.

The walls of the root-house should be snugly built, and the beauty of it is you can draw your roots in a gravel-box on your barn floor and dump them down a chute through a trapdoor into the root-house.

In the feed-hall have spouts, coming from oat or grain bins above, come out near the partitions between horses, so as not to be inconvenient in feeding hay.

The doors about the horse stable (inside) are all roller doors, and close to the ceiling, as I believe horses are better in a separate compartment from cows.

Now for the main part of the building: In a barn of this size one should have two center posts under a swing-beam. After threshing, it would be well to save the space from west center post out for cut feed.

In filling the barn, if not crowded for room, leave from center post out for straw, marked B, also C.

The hay mow at the west end would hold thirty loads of hay, leaving a space, B, 17 x 18, for straw, but a load or two better be rolled in here on the bottom.

It is necessary to have a cement floor under the large loose cattle, but the yearling calves do not necessarily need it. Have a cement floor in feed alleys, and clean daily. A gutter that is much admired hereabouts is a cement one, with a drop of from six to ten inches behind the cows and gradually sloped up to manure passage, with about a two-foot top. Some have the whole passage on a round, with steeper slopes by drops.

Middlesex Co., Ont. WM. BRYAN.

**The Prosperous West.**

The General Manager of the Canadian Bank of Commerce, in his address delivered at the annual meeting of shareholders recently, quotes the Winnipeg manager, who in considering the present position of the Western farmer, says:

"He has within the past two or three years improved his position by going into mixed farming. The cattle, horses, hogs, sheep, and all classes of animals, so necessary to the Eastern farmer, have increased very rapidly in numbers on Western farms, and as regards grade and breeding compare equally with any part of Canada, so that the Western farmer is not now so dependent upon a big grain crop as formerly, or as the majority of Eastern Canadian people suppose. He has also been somewhat cured of the craze for more land, and is directing his attention more to improving what he already holds, in the way of better buildings for his live stock and more home comforts for himself and family.

The actual number of acres sold is less than last year, but, whereas last year large blocks changed hands with little relative settlement thereon, this year the sales are mainly for actual settlement, while the prices obtained are fifteen to twenty per cent. higher. Of course, what we want is settlement, not speculation in wild land. The new settlers who came into the Northwest in 1902 numbered 72,800. This year, estimating December, the total reaches 118,000."

**How Trees Breathe.**

Besides giving out oxygen in assimilation, trees also take in oxygen from the air through their leaves, and through the minute openings in the bark, called lenticels, such as the oblong raised spots or marks on the young branches of birch and cherry and many other trees, says a student of tree life. All plants, like animals, breathe; and plants, like animals, breathe in oxygen and breathe out carbonic acid gas. This process of respiration, or the breathing of the tree, goes on both day and night, but it is far less active than assimilation, which takes place only in the light. Consequently, more carbonic acid gas is taken into the tree than is given out, and the surplus carbon remains to be used in growing.—[Farmers' Review.]

**Keeping Farm Accounts.**

Realizing the benefit derived from a system of keeping farm accounts, I would ask the privilege of presenting to other farmers, through your columns, a form of account that has proved very useful to me.

When I first commenced keeping a diary, I also commenced a receipt and expenditure account. I shall not dignify it by calling it a system of farm book-keeping, but it encroached so much upon my time that I dropped it, and retained the diary up to the present, which is now over thirty years. I would not like to presume upon the intelligence of the vast army of readers of the "Advocate" to even suggest a system of bookkeeping suitable for the average farmer. I can, however, recommend the form of keeping accounts I herewith present. The science of accounts, to my mind, is so intricate that any attempt to keep them thoroughly by one not acquainted with the process only results in confusion. Remember, I would not discourage any effort on the part of anyone to try it, but I have observed that most business men, even in a small way, leave this part of their business wholly to the person employed to do this work, though they may have time to do it themselves.

The inventory may, perhaps, require some explanation. In making it, it would be best to divide it into sections, taking first, horses. Name or number each horse, and set his value down in a column for that purpose, and total it up at the division for horses. Follow the same process with the cattle. With the sheep and swine, the inventory may be taken in "lump." In taking the inventory, one should be careful not to set too high a valuation on any animal or implement, for, as will be seen, the proprietor is debited with the inventory at the beginning of the year, and credited at the end, and if his books are to be exact the inventories must be correct. The same process of stocktaking should be gone through with in every detail of the farm, valuing the implements etc., at their cash value. The detail value of the stock and implements, as entered in the inventory, may be kept in a separate book or on certain pages of the regular account book.

S. J. Simcoe Co., Ont.

**INVENTORY.**

Name or Number.		Horses.	
Jack			\$125.00
Nell			75.00
Jim			110.00
Etc., etc.			
		Cattle.	
Stock bull			200.00
Bella			45.00
Rose			30.00
Jess			
Red heifer 1			30.00
Red heifer 2			25.00
White steer 1			28.00
Etc., etc.			
		Swine.	
Brood sows			40.00
10 hogs, 6 months old, at \$12 each			120.00
Litter, 4 weeks old, at \$2 each			16.00
Etc., etc.			
May 31, 1904.		Implements.	
Binder			75.00
Seeder			40.00
Etc., etc.			
Total			\$959.00

James Jones in account with farm for the year ending June 1st, 1905.

	Dr.	Cr.
June 1—By inventory		\$959.00
June 1—To cash on hand at commencement of year	\$ 75.00	
June 20—To received for 20 hogs, 3,700 lbs. at \$5.25 per cwt.	194.20	
By paid for 20 pigs at \$2.00 each		40.00
By paid for chop and mangolds for 20 hogs		114.20
July 15—To received for cow sold		32.00
July 30—To received for 10 tons of hay at \$8.00 per ton	80.00	
To received from cheese factory for milk during June		36.00
Aug. 10—By paid wages for help in haying		16.00
And so on to the end of the year.		
May 31—To inventory of May 31st	1,250.00	
	\$1,670.20	\$1,229.20

[If any of our readers have a simple method of keeping accounts that is an improvement on the system here outlined, or if anyone can suggest practical additions to this system, we should be glad to place our columns at their disposal for that purpose.]

**Milk and Honey.**

(Concluded.)

By G. A. Deadman.

In the last issue of the "Advocate," we referred to the value of milk as a food. But what about honey, and why associate these two at all? We will not say that one is a necessary adjunct of the other, but they agree so well together that it has been stated that if, by any misfortune, one should partake too freely of the sweet, then drink plenty of milk, and any nauseous feeling will soon disappear. Of course, there is no need of any such feeling to follow the eating of honey, because, when well ripened, and taken in reasonable quantities, it will seldom make anyone sick. Apart from this, milk seems to quench the thirst that may arise from eating honey much better than other beverages.

Referring more especially to the latter, however, too many of us are inclined to look upon it as a luxury, and not as something that will assist us to live and perform our daily work. We are too likely to forget that sweets are no longer looked upon as valueless as food, and that, on the contrary, they are now recognized as having a part to perform in sustaining, warming and strengthening the body. Hence, it follows that they should be used regularly, and that preference should be given to the sort that is found to be the best.

It would appear from recent investigations that honey is superior to cane sugar, inasmuch as it is more easily digested, and can have no injurious effect, such as sometimes follows the use of sugar. Sugar, with some, causes acidity, the stomach being unable to digest it. In such a case, honey should be substituted. Indeed, it might be better for all of us to use it, as far as possible, instead of sugar or other sweets. It



The Late Wm. Cochrane, Claremont, Ont.

A pioneer Canadian farmer. Born Dec. 5, 1823. Emigrated from Ireland in 1845. Died Dec. 2, 1903.

is a fact worthy of note that medical men allow their patients to eat honey where sugar is forbidden. Prof. Shutt, M. A., F. C. S., Chemist of the Experimental Farm, Ottawa, says: "The digestibility of food, in a large measure, limits or regulates its value. It is not the food we eat that does us good, but, rather, the food we digest and assimilate, that is converted into body tissues, or helps, to develop heat and energy. When we take sugar or syrup in the mouth it is mixed with the saliva, and converted into glucose, which is the form of sugar which is assimilated, passes into the blood, and nourishes the body. We have that work already done in the case of honey, so that it is immediately assimilate and may pass into the system." And Dr. J. H. Kellogg, of Battle Creek Sanitarium, a well-known authority on this subject, has this to say: "I consider honey much preferable to cane sugar as food. It is, practically, a fruit sugar, and is ready for absorption. Eaten in moderate quantities, it ought to tax the digestive organs much less than cane sugar, and is to be commended. . . . Honey is practically cane sugar already digested. Long ago, honey was looked upon as something which gave nourishment and strength. Jonathan, after long fasting, partook of some that was found in the wood, and we read how it was a matter of sorrow that others also who were faint dare not (because of the king's oath) partake of it, too. We know that John the Baptist came forth from the wilderness strong and vigorous, and we are told that his meat was "locusts and wild honey"; and the Disciples, in response to Christ's question, "Have ye here any meat?"—gave Him "a piece of broiled fish and of an honeycomb." From the frequent mention made in Scripture of honey, we conclude that it was a common article of food, and as we are told that manna tasted like "wafers made with honey," we may understand that it was used in cooking also.

A writer, not long since, stated that "one pound

of honey is equal to two pounds of beefsteak." Be that as it may, it is now proven to be a food giving nourishment and relish, and so we need not reproach ourselves as being extravagant for using it. When writing on this subject, a friend, well known to the "Advocate," stated, "I attribute my abounding good health, in my present sedentary occupation, largely to using honey as a food." He also goes on to say: "We use about two hundred pounds a year in our family of five or six, having it daily for breakfast." I suppose beekeepers themselves are amongst the largest consumers. The family of one beekeeper of our acquaintance, seven in number, uses six hundred pounds annually. At our house we are never without it for breakfast, and seldom for supper, and it is always accompanied with both milk and cream. May be some have not thought of the cream. If so, just try it when you next serve honey. Instead of intensifying its richness, as some might suppose, it seems to modify it. Honey is not very expensive, and it is not necessary to keep bees in order to have it. We would no more recommend that everyone should produce their own honey, than that butcher should raise their own beef. I think it would, in many cases, be much better if, instead of keeping a few bees, we should raise a little extra of something else—an extra pig or calf, for example—whose proceeds might be devoted to honey.

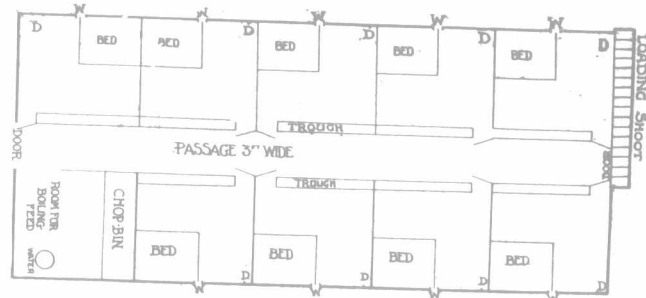
Before concluding, I wish to give a word of advice as to the kind of honey to have. In Canada, at least, honey from white and alsike clover, and that from the basswood or linden tree, are considered the best. All are light in color. Those who like a mild honey will choose the clover, while others preferring a spicy flavored article will take the basswood. As regards our preferences, it will be largely a matter of education. They say that in New York State, where buckwheat honey is plentiful, there are some who even prefer this. You can make no mistake, however, if you choose the clover. They say, "once a customer for clover honey, always one."

We must not suppose, though, that all clover or basswood honey is good. Honey differs, even when gathered from the same source, and it may be pure and yet a very poor article. Not many can explain how it is that a beekeeper whose property joins yours on the north may have honey far superior to the one living just to the south of you. This is due, not to location, but to management. Honey, when first gathered, is known as nectar, and contains a large percentage of water. If it is taken from the hives soon after it is gathered, it is usually thin and watery, lacking in rich flavor and keeping qualities, and when swallowed produces an unpleasant sensation in the throat. This is what is called "unripe" honey. Of course, more can be got in this way, but no one will ever want much of this kind. Away with all beekeepers who, either through ignorance or greed of gain, extract and sell unripe honey, as nothing will so quickly discourage the sale and consumption of the good article as will this miserable stuff. Before the machine known as the honey extractor was invented, this so-called honey was never sold, because the nectar was left in the hives until the season was over, and so had plenty of time to thicken and ripen. Practically the same thing is accomplished now when it is left to ripen before being extracted. In fact, we can even secure a better article, as the best honey can be kept separate from the darker or inferior grades. Good clover or basswood honey may be known by its granulating hard and white. The better it is, the harder it will granulate, but when liquified by warming it will be clear, and, in cool weather, so thick that it can scarcely be lifted with a spoon. This is the honey that is wholesome and delicious, the sort of which we never tire.

Huron Co., Ont.

**Plan of Piggery.**

Built by Mr. Hector McIntyre, Middlesex Co., Ontario. Beds are raised ten inches above the level of the floor.



**Don't.**

Don't allow milk to stand in the byre. Don't mix water with the milk to raise the cream. Don't guess the temperature of the cream by sticking the finger in it—thermometers are cheap. Don't salt butter by guess—weigh or measure it. Don't use cheap, coarse salt—only fine dairy salt is fit for salting butter. Don't touch the butter with the hands. Don't think rinsing will keep cans and dairy utensils clean—add boiling water, washing powder, muscle, and sunshine. Don't sorrip the feed when the cows leave the pasture. Don't curry and brush the cows with the milking stool. Don't keep a cow that is not earning her feed. Don't breed to a scrub sire, and don't milk with wet hands.

## DAIRY.

## As a Farmer's Cow.

By George Rice.

No breed of cattle have had more to contend with from opposition of rival breeds than Holsteins. Prejudices die hard, but Holsteins have shown, wherever given a fair chance, such intrinsic merit as dairy cattle that they have won their way to first place in the estimation of many practical dairymen, until now, in this great dairy county of Oxford, no breed is more popular. This has been brought about by the unbroken series of victories in public test, and by the great showing made by this breed in official tests. Figures and facts are strong arguments. It is results dairymen want, and it is results Holsteins have shown in all sorts of tests. There are more and larger records to the credit of Holsteins than can be shown by any of the other breeds. It is not alone as pure-breds Holsteins have demonstrated their worth, but many dairymen have, by the use of good Holstein bulls on grade cow, shown great improvement in the milking qualities of Holstein grades. The great records made by grade Holsteins in the herd of that zealous dairyman, the late E. D. Tillson, are known very widely. But many others working in the same line have had, on a smaller scale, equally good results, until now a black-and-white cow will sell for more money at public sales than any other. It was only a short time ago that a number of grade Holsteins sold at the large price of \$78.00 per cow. Why? Because they had shown such good records in actually supplying milk to the cheese factory. Dairymen consider a cow worth as much as she will make in one year, and there are a great number of grade Holsteins that make from \$50.00 to \$75.00 per year, and many do better. A grade Holstein at the last winter dairy show made the good showing of 127 pounds of milk, testing 3.95 per cent. of butter-fat in forty-eight hours. She was bred from the Advanced Registry Holstein bull, Sir Paul De Kol Clothilde, with several pure-bred daughters in the Advanced Registry.

Holstein breeders have, as a rule, steered clear of fads and fancies as regards type, form, etc., that have worked injury to other breeds, and have banked upon performance. The Advanced Registry, wherein actual performance is the crucial test, is the standard that Holstein breeders set most value upon. They believe that a cow to transmit milk habit to her descendants must possess capacity for milk. A cow may possess what is generally called "great dairy form," and then be an indifferent performer. How can a cow transmit what she does not possess? A cow, on the other hand, that is a great performer may lack some of the points that some in ignorance call "dairy form." What are fancy points worth? A good performer must possess the essential points—good constitution, vigor and capacity to assimilate and digest food, with the temperament to turn it into milk. Such a cow is the Holstein. For this very purpose has she been bred for years, and the result is she "gets there" to the satisfaction of dairymen who value a cow for what she does.

In pure-bred Holsteins it is quite common for two-year-old heifers to give forty to fifty pounds of milk daily, and make ten to fifteen pounds butter per week, and larger records for other ages, and a great many cows have made official test from twenty to twenty-four pounds of butter per week, and several have made from twenty-four to twenty-nine pounds. This is the kind of work that commends itself to dairymen. "Performance"—not "form" type, or such misleading and indefinite a thing, but actual performance—is the word which Holstein breeders swear by, and that is what breeders are working for. This is the secret of the marvellous growth of the popularity of the Holstein breed, whether as pure-breds or crosses. If a dairyman uses a good Holstein bull from performing ancestors, raises the heifer calves intelligently, success is assured.

## Cleaning the Cow.

The cow ought to be kept cleaner than the horse. This is difficult because of the habits of the animal, but for this reason the cows should receive more care. Their flanks should be kept free from manure; they should be brushed, and the bag should be wiped with a damp cloth or sponge just before milking, to prevent dirt from falling into the milk. The amount of dirt and filth that gets into the milk from the cow is surprising, and is one of the chief causes of the rapid spoiling of milk. To reduce this still further, good dairymen are beginning to use special pails.—[Professor Conn.]

## Western Ontario Dairymen's Convention.

The dairymen of Western Ontario held their thirty-fourth annual convention at St. Thomas on January 12th to 14th. The convention this year was without the presence of Prof. Jas. W. Robertson, who had just returned from a trip abroad, and who has been a constant attendant at conventions in past years. Distinguished visitors present were: Mrs. Adda F. Howie, Wisconsin, and Hon. John Dryden, Provincial Minister of Agriculture.

## PRESIDENT'S ADDRESS.

Mr. James Connolly, Porter's Hill, in delivering the President's annual address, conveyed the sympathy of the association to the family of the late Andrew Pattullo, one of the association's ex-presidents, then proceeded to touch upon some of the most salient features of the dairy industry, and outlined the work before the dairymen and farmers for 1904. The past season has been a satisfactory one, from the producer's standpoint, and should be taken as a lesson to prepare for unfavorable years. In the future profit in dairying will be made by reducing the cost of production, and by turning out a first-class product. To this end good cows must be kept and well cared for, old factories must be remodelled or abandoned, and the best machinery must be obtained. Co-operation in connection with hauling must be further adopted, in order to reduce cost. In some districts now, where the producers of milk take advantage of co-operative opportunities, the cost of hauling does not exceed 35 cents per cwt., while in other districts it is costing \$1.25. In some factories the cost of manufacture is not one cent per pound, while in others it is 2½ or 2½ cents per pound of cheese. This may easily mean the difference between profit and loss. To assist patrons in all matters in connection with sanitary production, co-operation in hauling, manufacture, etc., the association will endeavor to furnish speakers to attend the annual meetings of the various factories, encourage the patrons to work more together, and to try and improve the condition of things generally, that we may keep up our reputation as a dairy people. In connection with the appointment of instructors, the President pointed out that the system now in force, namely, the appointment of instructors by the Minister of Agriculture, on the recommendation of the Executive of the Dairymen's Association, and subject to dismissal by the Chief Instructor, might not always work, and recommended that this matter receive the attention of his successor. With regard to making an exhibit of dairy products at the World's Fair, St. Louis, the President voiced the opinions of the great majority of the dairymen, by saying that the expense in connection with the exhibit would hardly be justified; that it would be an expenditure of money for which we would get but very little return, and unless given particularly favorable inducements we might employ our energies and money to better advantage than by making an exhibit at St. Louis.

## DIRECTORS' REPORT.

The directors for the past year were able to report a most satisfactory season. Buyers of our cheese were unanimous in their appreciation of the work of the instructors in the different syndicates. To further improve the quality of our dairy products, the directors recommend that a resolution be passed to the effect that all cheese and butter factories be licensed. The board expressed its thanks to the Windsor Salt Co. for the donation of \$200, to be divided into first and second prizes, and to be given to the two factories in each group that showed the greatest improvement during the season.

## CHIEF INSTRUCTOR'S REPORT.

Chief Instructor Barr reported on the instruction given at cheese factories and creameries during the past season. Throughout the whole district marked improvement has been made as a result of the work of the instructors, but in some few cases there are makers who will not adopt the best methods, whose factories are unsanitary, and whose equipment is antiquated. This year instructors were allotted to those creameries where assistance was requested. Among the chief defects found in the cream received at the creameries were too much acidity, sometimes as much as 7%, and cream too thin. Frequently cream tested as low as 15% of fat, when 30% or 35% would have been much better. Some creameries adopted the Babcock test during the season, and some pasteurize the cream before churning. Many complaints are received that

patrons will not deliver their cream until it has developed some acid, as they claim that by so doing they get a better test by the oil churn. This trouble can best be overcome by using the Babcock test. Much damage to our butter results from the use of light flimsy boxes.

## FINANCIAL STATEMENT.

The report of the secretary, Mr. Geo. Hately, showed a satisfactory standing for the year. Receipts amounted to \$7,637.44, and expenses \$7,163.16.

Prof. Harrison, O.A.C., submitted a few

## BACTERIOLOGICAL NOTES FOR 1903.

The increase in cream-gathering creameries makes the problem of good buttermaking more difficult. Where such is the case there is a danger of bad flavors developing upon the farm. Fortunately, there is always present a predominating number of favorable bacteria, those forming lactic acid. In normal development of flavors certain volatile acids are set free, which produces aroma. The right kind of organism has the effect of producing the right flavor and texture. Some cultures give better results in this respect than others. Besides the normal organisms, there is always present injurious bacteria. These always increase in long-kept milk. This year the most troublesome organisms were yeasts, which have their habitat on trees and about barns. In collecting milk, see that the first amount is properly soured, so that it may act as a starter on future supplies. In warming up cream, a temperature of 140 will destroy lactic acid, and in ripening cream if these are destroyed a good starter must be used. But this is a poor plan. In making butter the water often contaminates the cream. In most water there is a germ that causes an off flavor, and is responsible for much bad-keeping butter, acting upon the fat. The principal bad flavor in butter is rancidity, and rancidity always begins on the outside, because the germ needs oxygen; the active principle of rancidity is butyric acid. The remedy for these difficulties is education of the producers. Protect the milk. Send it away sweet, and let it be ripened by the use of pure cultures. In some cases preservatives might be used, as salicylic acid, boracic acid, or bichlorate of soda.

## LOW TEMPERATURES MAKE NUTRITIOUS CHEESE.

W. G. Gamble, Chemist at the O. A. C., gave the convention the results of experiments conducted at the college to determine at what temperatures to ripen cheese in order to secure the greatest nutritive value. It was found that a temperature about 40° F. was most conducive to the production of the valuable nitrogenous compounds, and at this temperature the development of the end products, amides, ammonia, etc., was retarded. From a chemical standpoint the experiments throw much light on the subject of curing cheese.

## FORMAL OPENING.

The convention was formally opened on the evening of the 12th. Mayor Maxwell, of St. Thomas; Mr. W. H. King, President of the Board of Trade, and Mr. E. McKellar, Warden of Elgin County, welcomed the delegates. The principal speaker of the evening was Mrs. A. F. Howie, of Wisconsin, the subject of whose remarks was "Home Making." In part she said:

Much time is spent discussing the methods of stock-raising, grain-growing, etc., but very little is given to the most important of all, home-making. Too little attention is given to the little pleasantries of life. We count the value of our stock, our field, our forests, but seldom do we estimate the value of our lives. Throughout the country there is every indication of dilapidated farming, which all tends to drive the aesthetic youth from the farm.

What do we do to make the farm life attractive? Often we cast a stigma upon our own occupation. We often magnify the life and occupations of city people. We often tell our children that we have worked our fingers to the bone, but you shall not degrade yourself with the same work. The eldest boy shall be a doctor, a lawyer, etc. Why do we not give him a good agricultural education? Why not teach him to ally himself with the forces of nature, and become a co-partner with nature?

Our daughter shall receive a classical education, in order that she may marry well. What is the significance of "marrying well"? Is it not to give her to the son of some rich man

who is longing for his father to die; is it not to give her up to a dissipated life?

Notice our girls! How maternally they caress their dolls, how lovingly they nurse their pets. Let us cultivate these God-given attributes. Do not say, "Mary, you go and practice; I'll do the dishes, they will make your hands red." Not one woman out of fifty knows how to wash dishes. Teach the girls that the best and greatest of all accomplishments is to be able to do everyday work. Never let us teach our girls a few fligree tricks, and call that education or accomplishments.

Let us give them a true education. Let us teach them the value to humanity of ordinary tasks. Why teach them the doctrine of looking out for Number One when that develops selfishness and incompetency. Let us teach them the beauty of Number Two, true self-sacrifice and work for others. Twenty years ago we had plenty of brides of fifteen years; now we have many girls, just as attractive, but at the age of twenty-eight have never even received a single proposal. In educating our daughters we have also spoiled our sons. We have taught them to admire the fashionable girl. This has led our boys to think lightly of marriage. Evenings are spent with different girls who can play ragtime music, etc., but such company never brings a man to think seriously of matrimony. Mrs. Howie has gained the epithet of "Match-maker," simply because she has told the girls of Wisconsin how to secure and retain the love of good husbands. Notice how the man catches a colt. He takes oats in a pan and shakes it before the young animal. Girls, take oats in your pan, stand in your father's door and shake them. Then, when a husband has been secured, look well to his physical comforts. Women should never think that men are angels, and when you have made a man believe that you are the sweetest creature on earth, never give him reason to believe that you are not. Man is the most vain of creatures. Tell him, "Our pigs look better than Neighbor Smith's—you must be a better feeder than he," and if he isn't, he soon will be.

**CLEANLINESS AND SANITARY CONDITIONS OF FACTORIES**

was the subject of W. G. Medd's paper. The existing conditions at most factories are yet far from perfect, fully fifty per cent. being actually unhealthy. Some of these conditions are due to unsuitable location; rotten, leaky, foul-smelling floors; rough and dirty walls and ceilings; impure water supply; dirty, greasy barrels, from which water is used; leaking vats; unclean utensils; filthy whey tanks; flies; untidy, unclean makers, etc. In improving, the help of a competent instructor is a great benefit, but each maker should set about remedying his own individual difficulties and evils. Cement floors, open drains, painted buildings, fly screens, gravel roads, pure water, grassy lawns, should characterize each factory. For disinfecting drains, chloride of lime, copperas or lye may be used. All main drains should be trapped to prevent foul gases or odors returning to the factory, and no wash water should be mixed with the whey.

**A FAN FOR A COOLING ROOM.**

W. A. Bothwell gave his experience with the use of a fan to reduce the temperature in a curing-room. A sub-earth duct was used to introduce the outside air to a cell containing ice; from there the air enters the curing-room at several openings, circulates freely, and is withdrawn through a chute, in which the fan is in operation. By the use of the sub-earth duct, the ice and the fan, the temperature of the room could be kept 20° F. below the outside temperature. The fan was run about five hours per day, and the cheese in the room was free from mould and well cured. In the discussion upon this subject Mr. Ruddick sounded a note of warning, that while the plan outlined by Mr. Bothwell was a great improvement over the ordinary curing-room, still we wanted curing-rooms where the temperature could be brought down to at least 56° F., and according to Prof. Dean's experiments, 40° F. was the best temperature at which to cure cheese.

**DEFECTS IN CANADIAN BUTTER**

were pointed out by Mr. P. W. McLagan, Montreal, who was at the convention as a representative of the Montreal commission merchants. The great problem before the dairymen to-day is the can sell her butter well, because she has cold storage right from the churn to the British markets demands. We must do the same. The great defects in our butter are: lack of uniformity in flavor, color, salting and general quality. The market demands three grades of butter—unsalted, lightly salted, and full salted—and in making we should classify our product according to these grades. In coloring, nothing higher than a pale straw-color is wanted. We should also eliminate sectional flavors. Our boxes are practically all too light, and are seldom filled close enough to

the top; no salt should be put on top of the paper. Boxes holding 56 lbs. are the right kind, but they should be at least three-quarters of an inch thick, dovetailed or nailed, not made with mortice and tenon, as is common now, and should be the shape of a cube. Shipping facilities, of course, must be improved, so that our butter can be marketed as soon as possible after being churned, for lack of keeping quality is one of the worst defects of our product. In Ireland, makers must pass stringent examinations, and are then licensed. Some such scheme might be worked to advantage in Canada.

A paper on the best methods of caring for, delivering and determining the value of cream was read by J. A. McFeeters, one of the instructors who visited the creameries during the past season. Cleaner methods of milking were urged upon patrons, and the practice of setting the cream crock under the spout of the separator was condemned. A better plan is to let the cream stand in a smaller crock between skimmings, and then thoroughly stir into the older supply. Haulers should be instructed not to accept cream over 60° F., or with too much acid, depending upon the length of time between gathering and churning.

**THE ACIDIMETER.**

Mr. Frank Hems, Strathroy, opened a discussion on the use of the acidimeter in cheesemaking, by reading a paper on the subject. On its first introduction the acidimeter was not generally popular, owing chiefly to the extreme care necessary in its use, and the consequent unsatisfactory results; but as the ripening of curd is an acid-forming process, and as the acidimeter will show the extent of the development of acid at any



J. N. Paget, Canboro, Ont.

President Western Ontario Dairymen's Association.

stage of the ripening, it naturally follows that so useful a test will become more popular. The rennet test is good, as it tells the susceptibility of milk to the action of rennet, but the acidimeter also tells the extent to which the rennet has acted upon the milk.

**MILK TESTING.**

Recently, because many cheesemakers do not understand thoroughly the principle of the Babcock test, and could not explain difficulties to the patrons when they arose, the use of the test has been abandoned in some factories, which now pay for milk by weight. This is considered a decidedly backward step. Makers must learn how to use the Babcock test, and patrons should demand to be paid according to the per cent. of fat in their milk.

**HON. JOHN DRYDEN'S ADDRESS.**

The Ontario Minister of Agriculture did not think two years ago that the system of instruction inaugurated then would accomplish so much good in so short a time. But we must continue to improve, for there are some dairy products yet that command a higher price than ours. What we want now is uniformity of quality in our product, and uniformity of package, and more cooperation between makers east and west. The makers of poor stuff must be educated or driven out of the business. This is the object of the campaign of instruction. Impure, tainted and poorly cared-for milk is not wanted, it cannot be used. Some of the instructors would like to invoke the power of the law to secure purer milk and cleaner factories, but he would persist in educational methods. One of the most deplorable features about cheesemaking is that makers will guarantee to make a first-class product, thus re-

moving the responsibility from the patrons of supplying pure milk. What really is wanted is a class of patrons who will guarantee to supply pure milk and sanitary factories.

**A WOMAN'S WAY.**

Mrs. Howie addressed the convention again on Wednesday, on "Managing a herd for profit." Many men buy cows indiscriminately, sell the product for any price, and imagine they are dairymen. Good barns with lightning rods are not indications of a dairy farm. Never put a cement floor under a highly-bred dairy cow. The sensitive constitution of a cow will not stand such treatment. Stanchions are among the greatest abuses to which cows are subjected. Every dairy stable should be cleaned twice a day, whether it needs it or not, and the walls whitewashed every year. A simple plan of stall was used to illustrate the remarks on fastening. Use scales and tables to keep the record of each cow. Buyers demand a statement of a cow's performance, and the record often saves considerable strain on the conscience. Grooming undoubtedly stimulates the secretion of milk, and should be performed every day. If a herdsman is employed, see that he is good tempered, intelligent and kind, for if cows are abused they are certain to retaliate. Cleanliness is essential; there is no excuse for carrying milk from the stable with straws and dust upon the surface. The secret of handling a herd for profit lies in the words kindness, cleanliness, and unflagging energy.

**BENEFITING THE MILK PRODUCER**

was the subject taken by J. R. Burgess, of Strathroy. The lines of improvement must be in the direction of more intensive production and higher standards of cleanliness. Cows that do not reach a standard of 6,000 pounds of milk per year should be disposed of. Opportunity should be given a cow to do her best, by providing fodder crops, regular milking, etc. Cleanliness should consist in the best methods of milking, disinfecting the utensils, care of the whey in the cans, etc. Patrons should learn to take more interest in their business. It is an easy matter for one patron to destroy the flavor of the product of the whole factory.

**EVENING SESSION.**

The Wednesday evening session opened with an address from Mr. Jabel Robinson, M.P., which partook of a reminiscent character. Mr. G. G. Publow, Superintendent of Instruction in Eastern Ontario, followed. The objects and work of the instructors was outlined, and some of the necessities for the work enumerated. In many cases visits were made to farms, and the sources of contamination detected. As a result new cans were purchased, and the stands erected in more sanitary positions. This class of work has a tendency to stimulate patrons and makers, and interest them in their work. The defects in the cheese are practically the same as those found in the western end of the Province. During the months of July and August the milk is invariably over-ripe, and should be kept cool before being sent to the factory. Factories in the east pay \$15.00 per year for the service of the instructors.

**AWARDS OF PRIZES**

for general improvement, cleanliness and sanitation were made by G. H. Barr. These prizes consisted of cash of \$25 and \$15, donated by the Canada Salt Company, of Windsor. The improvement in the conditions of the factories as a result of this competition amounted to over \$1,000.

Commenting on the competition, Mr. J. N. Paget said the conditions of the factories were largely responsible for the dryness of western cheese during July and August, necessitating the use of salt and quick marketing.

The championship trophy, awarded each year for the best cheese shown at the Winter Exhibition in connection with the convention, this year went to R. H. Green, Trowbridge, and was presented by A. F. McLaren. The sweetstake cheese this year scored 99 points, against 97½ last year. The transportation question was then taken up by Mr. McLaren. In the future he would like to see all butter and cheese shipped to some port at the head of Lake Ontario, and there marketed and shipped from that point, where transportation companies would compete for the haulage of the products. Our agricultural export products during the past year, consisting of grain, stock, cheese, butter, bacon, poultry and fruit, have amounted to over \$100,000,000 worth. Our total revenue from exports of all kinds amounts to \$500,000,000.

**THURSDAY MORNING'S PROGRAMME.**

The work of the convention was considerably hurried during the last session. J. C. Bell was the first speaker, and had for his field the whole work of buttermaking. In his opinion, if we are to make first-class butter, the cream must be ripened at the factory. Use pure culture testing about 6.7 by the acidimeter, and if the desired result cannot be obtained by using a normal amount of starter, use as high as 15%. The chief

trouble in most factories is that they receive cream too thin, generally 20% fat, and with too many flavor organisms developed.

Prof. Ruddick then discussed the preservation and safe transportation of cheese and butter. Some suggestions offered were: To wash the floors, walls and ceiling of the factory in the spring with a solution of bichloride of mercury, one to one thousand of water, and to take especial care in delivering butter to the cars. Paraffining cheese prevents shrinkage, mould, etc., but is only practicable where cool curing-rooms are provided. In paraffining, the cheese are first placed on the shelves for a week or ten days, after which they are lowered into a vat of hot wax, 200° F., for about ten seconds. Retailers in Britain claim they should have some rebate on cheese that are paraffined, as they shrink considerably on being stripped when placed on their counters, but experiments conducted at Ottawa prove that the shrinkage is due only to the loss of the weight of the wax coat, and amounts to about four ounces per cheese. Something must be done with our boxes. Fully 25% of our boxes are broken when they land in Britain. This is partly due to bad arrangements in loading cars. In the Government's experiments, heavy veneer, about five to the inch, were used, and these give best satisfaction, although they cost about two cents more. Boxes should be carefully fitted to the cheese.

OUR EXPORT BUTTER TRADE

was the subject of Mr. Arch. Smith's paper. Our best butter is made in Quebec, at separator creameries, uniformly packed, and regularly shipped. In Western Ontario makers are slow to adopt improvements, and must be shown that it pays to do so. The length of time which elapses between making and shipping detracts from the value of our product. What is needed now is a central cold storage plant at the head of Lake Ontario, and from there cold storage facilities by boat to Montreal. Instances were known where our butter laid on the Glasgow docks from two to twelve days before being sold.

WATER CONTENT OF BUTTER.

Prof. Shutt, Ottawa, submitted to the association the result of some of his investigations on the moisture content of butter, the text of which will be given in the dairy columns of our next issue.

RIPENING CHEESE.

Prof. Dean spoke on the proper temperature at which to ripen cheese. Results of his experiments point to the temperature of 40° F., not considering the cost of obtaining that point. At from 28 to 29° F. the shrinkage was lowest. Cheese ripened at about equal rate whether at 28 or 60, after an initial stage of about four weeks. At a temperature of 40° cheese may be boxed at one week from the hoops. If we can get our cheese cured at a temperature of 40° our trouble will largely be overcome.

A DAIRY SENATOR.

Among other resolutions passed at the convention was the following:  
Moved by A. F. MacLaren, M.P., seconded by the President, Jas Connolly, "That the Dairymen's Association of Western Ontario, in annual convention assembled, hereby endorse the action of the Board of Directors in urging upon the Premier that he recommend the appointment of the Honorable Thomas Ballantyne to a seat in the Senate, and confirm the resolution which they at that time adopted, a copy of which was submitted to the Premier. This large meeting of dairymen, representing such immense interests in Western Ontario, feel justified in demanding that they should be specially represented in the Senate, and believe that none could so fitly represent them as the Honorable Thomas Ballantyne."

ELECTION OF OFFICERS.

The officers for the ensuing year are:  
Hon. President, Thos. Ballantyne, Stratford.  
Hon. Vice-president, Harold Eagle, Attercliffe.  
President, J. N. Paget, Canboro.  
1st Vice-pres., Robt. Johnston, St. Thomas.  
2nd Vice-pres., I. W. Steinhoff, Stratford.  
3rd Vice-pres., Thos. Ballantyne, Jr., Stratford.  
Directors—J. McQuaker, H. R. Shearer, J. Brodie, J. Connolly, W. R. McLeod, W. A. Bothwell, A. F. MacLaren.

PRIZEWINNERS.

The winners of the prizes offered by the association for the highest scoring cheese and butter and by the Windsor Salt Company, as mentioned elsewhere, were as follows:

BUTTER	
Winter Creamery Boxes.	
1st—Wm. Waddell, Kenwood	96
2nd—W. A. McKay, Courtice	94
3rd—W. A. Bothwell, Hickson	92 1/2
Winter Points.	
1st—W. A. Bothwell, Hickson	95
2nd—W. A. McKay, Courtice	93
3rd—Wm. Waddell, Kenwood	92

October in Boxes.	
1st—Jas. Bristow, St. Thomas	96 1/2
2nd—Thos. Balkwell, Lafontaine	93
3rd—Jas. McQuaker, Owen Sound	90 1/2
Alderney Butter Co. Special.	
1st—Wm. Waddell	
2nd—G. M. McKenzie, Ingersoll	
CHEESE.	
Sweepstakes—R. H. Green, Trowbridge	
September White.	
1st—R. H. Green	99
2nd—W. J. Goodwin, Brussels	98
3rd—A. C. Gracey, Dorchester	92 1/2
October White.	
1st—Wm. Stacey, Fullerton	98
2nd—J. S. Izzard, Paisley	97
3rd—R. H. Green	97
September Colored.	
1st—Frank Boyes, Northwood	97
2nd—Geo. A. Boyes, Putman	96 1/2
3rd—J. D. Doan, New Sarum	96
October Colored.	
1st—Hugh Wilson, Kyser	98 1/2
2nd—R. Cuddy, Woodstock	97
3rd—Jno. Francis, Aden	96 1/2

A magnificent trophy is awarded each year to the winner of the sweepstakes in cheese.

Winners of the Windsor Salt Co.'s prizes were:  
Ingersoll Group—1. M. McKenzie, Ingersoll; 2. John Stubbs, Crampton.  
Simcoe Group—1. John Eccles, Villa Nova; 2. John Francis, Eden.  
Brantford Group—1. E. Nichols, Lynden; 2. J. Seitz, Canboro.  
Stratford Group—1. R. Johnston, Avonbank; 2. W. M. Waddell, Kerwood.  
Outside Factories—1. Wm. Angus, Atwood; 2. Farlane Christie, Woodstock.

APIARY.

Sweet Clover a Honey Plant.

A Kansas beekeeper, writing in an exchange, has the following to say about sweet clover:

"Bees have done poorly for me this past season on account of cold, wet weather in June, losing a few hives by actual starvation before I was really aware of it, and if it had not been for a three-acre field of sweet clover I should have lost more, as this patch kept about fifty hives in fair condition. In fact, they went far ahead of the out-apiaries. I have sown, this season, five acres more, and next spring I intend to put out about forty acres more, as I can rent land for this purpose at \$1.50 per acre. I intend to put out mostly the yellow variety, as it comes in just at a time when there is nothing else, and the blooming period is longer; but the three acres of white, I am satisfied, was worth to me this season \$30, and I also have considerable seed from it."

Why Outdoor-wintered Bees Die.

"Gleanings in Bee Culture" says: We have been having unusually cold weather, beginning about the middle of November, and letting up a little this morning, Jan. 8th, when it is thawing a little. Much of the time the mercury has been playing very closely around zero, and a great deal of the time we have had high winds. These are trying times for outdoor-wintered bees, and why? During very cold weather the bees will draw up into a very small cluster, and they will remain in this bunch, closely compacted, as long as it continues to be very cold. If no warm spell comes on, giving them a chance to move over and seek a new spot from which they have eaten the honey all out, they will be liable to starve to death. After a very cold snap I have gone over some of our outdoor colonies, and found little bunches of bees dead. The honey had been eaten away from the cluster for perhaps two inches all around. They had contracted into a small bunch until the honey was out of reach. A few stray bees will always be found that have left the cluster in the effort to get food, but chilled to death. It was too cold for the cluster to move, and, hence, it starved to death.

It has been stated that the cluster will move during cold weather; but I have never had the evidence of it; but I have seen the outside bees on the cluster stiff and cold, but still showing signs of life.

This warm spell that has just come on, even if it lasts for only a day, will give the bees a chance to get over to one side to get on the honey again, with the result that they are ready for another cold snap.

In very cold winters the indoor plan is certainly much to be preferred. In all climates, while the thermometer remains below the freezing point during most of the winter the indoor method will be somewhat more economical of stores, and furnish stronger and healthier bees for the following spring.

POULTRY.

How Much to Feed.

It is equally important to know how much to feed as it is what to feed.

The rations suitable to fowl is a combination of grain, green food or vegetables, with animal food, to give the best results in egg production. But how much to feed is something we all must learn, and the lesson should not be a difficult one. Nature furnishes the indicator, and if one will study the indicator, he will not feed too much on the one hand, or too little on the other. The bird's crop is the indicator. In the wild state, when food is abundant, the hen starts out in the morning with her crop empty, and returns at night with it filled to repletion. The amount of food she seeks is what her crop will hold, plus the amount that has passed into her gizzard during the day. The ideal way to feed a hen in confinement would seem to be to give her a mixed ration, and as much as she cared to dig out of the deep litter during the day; but, practically, this is not possible. The poultryman must compromise. There is a rule, however, which he may adopt with good results. During the short days of winter feed but twice a day—once soon after the fowl get down from the roost in the morning, and once in the middle of the afternoon.

In the morning give them all the warm mash they will eat up clean in ten minutes, and scatter a little grain in the litter to induce them to exercise. In the middle or early part of the afternoon scatter sufficient grain in the litter so that they can comfortably fill their crops before retiring for the night.

After the hens have gone to roost, go through their pen and feel their crops. If the crop is distended and hard, feeling as though the bird had swallowed a base ball, you are feeding too much; if the crop is nearly empty, too little. The grain, etc., in the crop ought to be tight as a drum, but loose and yielding. By experimenting a little, you will soon know how much to feed. Give little more in winter than in summer, but give more heating food. Oats is a good food in summer and wheat in winter for the grain ration.

Evolution of the Chick.

One of the best means of studying embryology is the egg of the fowl—any breed will do. So alike are the embryos of such vastly different beings, as the fish, the fowl, reptile, the horse, and man, at certain corresponding stages in their prenatal career that only a skilled scientist can tell "tother from which." All animals start life as a single cell (none larger than the size of a pin point), and although the processes of nutrition are dissimilar, the principles are practically the same.

The egg contains the food for the young chick, whereas the circulatory system provides it in the case of mammals. As the germ cells within the egg increase, so they gobble up the yoke and white, and transform the substance into flesh, bone and feathers of either a pullet or a cockerel. That is if the hen has had her way and squatted on the egg for the necessary length of time; or if the egg has been hatched in an incubator. If, of course, it has gone into trade, it has helped to build up bone, muscle, hair and good looks for the lords and ladies of creation.

However, that is merely by the way. So let us come to the evolution of the chick. The incubator has scarcely set on her eggs twelve hours before some lineaments of the head and body of the chicken appear. The heart may be seen to beat at the end of the second day. It has at this time somewhat the form of a horseshoe, but no blood yet appears. At the end of two days, two vesicles of blood are to be distinguished, the pulsation of which is very visible. One of these is the left ventricle, and the other the root of the great artery. At the fiftieth hour an auricle of the heart appears, resembling a noose folded down upon itself. The beating of the heart is first observed in the auricle, and afterwards in the ventricle. At the end of the seventieth hour the wings are distinguishable; and on the head two bubbles are seen for the brain, one for the bill, and two for the fore and hind parts of the head. Towards the end of four days the two auricles already visible draw nearer to the heart than before. The liver appears toward the fifth day. At the end of 131 hours, the first voluntary motion is observed. At the end of seven hours more the lungs and stomach become visible, and four hours later the intestines, the loins and the upper jaw. At the 144th hour two ventricles are visible and two drops of blood, instead of the single one as seen before. The seventh day the brain begins to have some consistency. At the 190th hour of incubation the bill opens and the flesh appears on the breast. In four hours more the breastbone is seen. In six hours after this the ribs appear, forming from the back, and the bill is very visible, as well as the gall bladder. The bill becomes green at the end of 236 hours; and, if the chicken be taken out of its covering, it evidently moves itself. The feathers begin

# THE FARMERS ADVOCATE. EVENTS OF THE WORLD.

to shoot out toward the 240th hour, and the skull become gristly. At the 264th hour the eyes appear. At the 288th the ribs are perfect. At the 331st the spleen draws near the stomach and the lungs to the chest. At the end of 355 hours the bill frequently opens and shuts, and at the end of the eighteenth day the first chirp of the chicken is heard.—[Wilcox Review.]

## Amount of Glass in Henhouse.

A poultryman in Chicago intended to build a henhouse with roof sloping to the north, and all the south side of glass, clear down to the ground, so as to be light and sunny in winter. In summer time a cotton curtain would be pulled over the front, or the glass would be whitewashed. It was thought this place would be most healthful and most conducive to good laying, but on seeing a clipping in another paper from the "Advocate," which said, "Do not make the mistake of having one side of the house all glass," wrote, asking the reason for such advice. Speaking generally, such an amount of glass is not necessary. In climates where the extremes of heat and cold are quite marked, an all-glass front means that the temperature of the house will fall very low during a long cold night especially, and would also be warmer in the summer time. A reasonable amount of light is necessary for the health of the fowl and work of the attendant, but it is needless to go to too great an extreme. There seems to be a disposition among poultrymen at the present time in favor of open runs, with a moderately open shed for scratching in, and then a warm place for roosting and laying.

## GARDEN AND ORCHARD.

### Importance of Cover Crop.

The continued low temperature of the present winter emphasizes the importance of a cover crop for the orchard, especially in localities where there is little or no snow. It is stated that the peach-growers of Essex are afraid that the disaster of '99 may be repeated, when thousands of peach trees were killed by root-freezing. There is more danger during a cold wave when the ground is bare from this cause than from damage to fruit buds. It is estimated that the fruit buds of the peach are in danger when the temperature reaches from 12 to 15 below zero, although they have often come through even a lower temperature unharmed. Much depends, however, on the weather that has prevailed previous to the cold wave. A warm spell in December, or a prolonged January thaw, followed by a severe cold wave, will often result in serious damage; while the same degree of low temperature preceded by dry, moderately cold weather would do no harm. But, in the case of root-freezing, there is always danger from a continued cold wave when the ground is bare. It is well known that apple trees, more especially the tender varieties, often suffer serious injury from the same cause. Fortunately, over the greater part of the country the roots are this year protected by an ample covering of snow. But this is not by any means assured every year, and cold waves may occur when there is no covering of snow, and often extend far to the southward. Therefore, it is advisable that the fruit-grower should make provision for a cover crop of some kind to protect the roots of the trees from damage. Damage to fruit buds of any variety of fruit from severe cold is a temporary kind—the loss of or shortening of the crop for the year. But damage to the roots is of a permanent nature. Where it does not entirely kill, it damages to the extent of shortening the life of the tree.

The advocates of cover crops do not claim that under every and all circumstances it will entirely prevent injury, but it is one of the most economical and useful aids that we can use to that end. There are many useful plants that may be used for this purpose, such as crimson clover, red clover, rye, and the hairy vetch. Crimson clover is very tender, and will not succeed in northern districts. The hairy vetch is probably one of the best, and has been used with great success in the Niagara Peninsula. The common red clover is probably the next best plant for the purpose. Where the orchard is not planted too close, it will usually form a pretty thick mat over the ground before winter sets in, if sown in July. If the orchard is kept well cultivated from early spring, there will be plenty of moisture near the surface to give the clover a good start, and it will make rapid growth. A cover crop should always be one that will remain green through the winter. Such a crop as peas, that will kill when severe cold sets in, even though it makes considerable top, is not the best. Perhaps there is nothing better for most localities than the common red clover. The advantage of cover crops is not entirely in the protection they afford to the roots of the trees, but, in plowing them in the following spring we add largely of two elements which most of our orchards are sadly in need of, viz., nitrogen and humus. The plants recommended for cover crops are, with the exception of rye, leguminous, or, as the Americans aptly term them, nitrogen traps.

## Russia vs. Japan.

Reference to the map will, perhaps, help to make references to the Far East question more intelligible. To the north is Siberia, Russia's great territory in northern Asia, traversed by the Trans-Siberian Railway, which, running from St. Petersburg in Europe to Vladivostok, is about 6,585 miles long. Lake Baikal, over which trains must be transported by ferry, greatly impeded by ice in winter, is its greatest drawback. Manchuria is nominally a Chinese Province, rich in undeveloped resources, with a territory about six times as great as England and Wales. Manchuria has, however, been drawn almost completely under the Russian control. The branch railway running from Kharbin to Port Arthur was built by Russian capital, in order that Russia might have a port (Port Arthur) which would be free from ice in winter. Korea is an "independent" country, at whose head is an emperor. Both Japan and Russia have coveted the possession of Korea, and Japan's anxiety as to the continued occupation of Manchuria by the Russians is due to the certainty that, with possession of that Province, Russia's next move would be to obtain Korea, a consummation which would be full of menace to Japan herself, and prevent her ambitions of expansion.

Again the outlook regarding the situation in the Far East has changed somewhat. At the time of going to this hopeful view of the case being induced by the fact that the Czar, under friendly pressure of the European powers, so it is said, has intimated to the Japanese Minister that he is willing to make certain concessions to the Japanese demands. Some excitement has been caused by the recent dispatching of 40,000 Russian troops northward from Port Arthur, destined, so it is reported, for the Yalu River; but the authorities have declared that this is no indication of an immediate outbreak, and, on these grounds, have refused the applications of numerous war correspondents who wished to accompany the troops. In Tokio, however, the war spirit is still strong. The Japanese believe that no concessions the Russians may make will be satisfactory, and that war is the only possible outcome.

Arrangements for establishing a Boer colony in Montana are almost completed. The selection of Montana has been made by General Joubert, on the recommendation, it is said, of Jas. J. Hill, President of the Great Northern Railway.

Within the last two weeks, \$5,000,000 from Japan has entered the United States to pay for wheat, flour and munitions of war. Russia is also buying heavily from the U. S.



Scene of the Asian Crisis.

Colombian troops are reported to be on the march toward Panama. The troops of the Isthmus are ready for them, and, to the number of 12,000 fighting men, have enrolled to defend the three passes by which only access can be had to Panama. The Isthmians say that at these passes a few soldiers can keep at bay a great army.

The Lapps are in danger of starvation. Their entire wealth consists of their reindeer, which, owing to the inclemency of the weather during this winter and last spring, and the scarcity of reindeer-moss, have been dying out, leaving the Lapps in a deplorable state of want.

Word has been received that Moosha G. Daniel, a Persian who attended Knox College, Toronto, some years ago, and who lectured in various parts of the Dominion, returning subsequently to Persia as a missionary, has been murdered by Mohammedans. Mr. Daniel is also known as the author of "Modern Persia," and other works. As he took out naturalization papers as a British subject while in Canada, it is likely that the British authorities will demand an explanation as to his untimely death.

The advice given in the first bull issued by Pope Pius, which was recently given to the public, is worthy of consideration by Protestants as well as by the Catholics, who, will, no doubt, be influenced by its pacific teaching. It has been principally directed, in the interests of peace and the welfare of the social fabric, against the actions of lawless strikers. "Laborers," he says, "must not damage the property or injure the person of their employers, and must abstain from all violence." On the other hand, he demands that capitalists pay fair wages, and that they do not impose on their employees tasks beyond their strength.

British and Continental Jews have formed a Jewish Emigrants' Information Society, whose purpose is to supply to the oppressed Jews of Europe, information as to the most suitable countries for the establishment of Jewish colonies, also to aid emigrants in obtaining transportation, and in getting settled in new lands. Leopold de Rothschild and many other prominent Jews are named among the directors of the Society.

Letters received recently in India from Colonels Younghusband and MacDonald state that the British are encountering many difficulties in proceeding through the unknown, mountainous regions of Tibet. They have been met at various points by bodies of armed natives, who, however, have, as yet, permitted them to go on without further molestation. Much concern is evinced in Russia as to the object of the advance, but the report of the dispatching of Russian forces has not been confirmed.

A wonderful new motor has been invented by Peter Thornley, an engineer at Burton-on-Trent, England. It is said by experts that its development may result in railway engines running twice the present speed at one-half the cost, and that by its use steamers may possibly be enabled to cross the Atlantic in three days. It can be worked either by compressed air or by steam.

The latest news from the Balkans is to the effect that the situation in Macedonia is becoming every day more critical. The military forces sent by the Turks to keep the peace have ejected the people from their huts, and have taken possession of them themselves. The villagers have lost hope, and are fast becoming ripe for the fresh insurrection which the Bulgarian Revolution Committee hopes to bring about in the spring. In anticipation of an early movement, the Turkish troops have begun to concentrate at Kumanova, on the road leading to the Bulgarian frontier. A cursory explanation of the situation, which is extremely complicated, is as follows:

The Macedonians (under which term are included the Greeks, Serbs and Bulgars who live in Macedonia) have long realized that under the sway of the Sultan of Turkey they can make no advance in civilization or prosperity. Moreover, they have been distressed by heavy taxes, robbery and the insecurity of their lives in a country of Mohammedan rulers, to whom Christians' lives are of less account than those of the vermin of the earth. Again and again they have broken out in revolt, and have called upon the powers of Europe to intervene in their behalf, but without avail. In October last, the insurgent troops had several brushes with the Turks, in which now one side, now another was victorious, and in which the loss of life amounted up in the hundreds. Through sympathy and aid of the Bulgarians, who have thus embroiled themselves in the affair. Their demands have chiefly been for autonomy, or self-government. Nevertheless, it is generally held that the rebels must realize that they cannot form a separate government of any stability, and that, since their main desire is to escape from Turkish misrule, and, at the same time, to avoid the possibility of Russian rule, which they dread, they would not object to partition of their territory between Bulgaria, Serbia and Greece. Coveted by Russia and Austria on the north, by Italy on the west, and harassed by persecution within, the Balkan Provinces are indeed in a precarious situation.

## NOTES AND NEWS.

"Life is not so short but that there is always time enough for courtesy."—Emerson.

"We live through our days of happiness without noticing them. It is only when evil comes upon us that we wish them back."—Schopenhauer.

Mr. Sam Wilson, of Stanwood, Iowa, thinks he has the largest calf in America. When twelve months old it weighed 1,290 pounds.

A man in Seattle, Wash., sold \$400 worth of winter rhubarb from a house 20 x 100 feet. It is said that rhubarb may be successfully forced even in a cellar.

"Small things swell the farmer's balance at the bank. Poultry, intelligently kept, never lose money."—[Farmer and Stockbreeder.

Rich gold fields are reported from the vicinity of White Horse, Yukon. Access to this place is easy, and a rush of miners is predicted for the spring.

Edson M. Crossman, N. Y., has succeeded in producing an apple that is green in color, with pink flesh, resembling that of a watermelon. Its flavor is said to be excellent.

A new steamer, to be called the "Canada Cape," will shortly be launched on the Clyde for service between Canada and South Africa. This will make the fourth on this service.

Congress has appropriated \$500,000 for the extermination of the boll-weevil in Texas. This should be interesting to us, as the depredations of the little insect, if not checked, will have the effect of making our cotton dearer.

Newfoundland is the greatest fishing country in the world. About two-thirds of its population are engaged in fishing. If Newfoundland concludes to come into Canada as one of the Provinces, our coat-of-arms will need another fish or two.

Mr. R. H. Grant, of Carleton Co., Ont., has made a success of poultry. He keeps from 80 to 100 hens, and is now shipping over twelve dozen eggs each week to Montreal, receiving a high price for them. Last fall he sold 300 fat chickens. He says it pays to use hens well.

Miss L. Goodell, Canastota, N. Y., started, twelve years ago, with a borrowed hen and a setting of Dorking eggs. To-day she owns extensive poultry-houses, and clears, annually, from \$500 to \$1,000. This shows what a woman can do if she goes about it the right way.

The emigration to Canada from England last year amounted to over twenty-five per cent. of the total emigration from British shores. That is, out of 250,000, 60,000 have found homes in Canada. Two years ago 10,000 represented the extent of English emigration to Canada. This year, the emigration promises to be greater than ever.

At an eastern Farmers' Institute meeting, it was stated by Mr. G. H. Hutton that investigations carried on have shown that Canadian seedsmen have got into the way of sending the best seed to Europe, where it commands high prices, leaving the poorer class for the Canadian farmers. It is high time that farmers should see to it sharply that their seed is up to a certain standard.

Mr. S. Wiederhold writes us: "Having read in the 'Farmer's Advocate,' a treatment for ringworm, I thought I would give you a more simple remedy, as there are a great many stables infected. The diseased part should not be touched with the hand, as it is contagious and very painful. Put plenty of salt in lukewarm water, and apply to the parts affected. I have never known this remedy to fail by simply applying twice."

Jas. J. Hill, President of the Great Northern Railway, speaking at Minneapolis lately, dwelt upon the probability that Chamberlain's policy, if adopted, will injure American trade to such an extent that there will be a surplus of from 20,000,000 to 30,000,000 bushels of wheat, unless new markets are opened. He spoke hopefully of these markets being found in the Orient, where, it is interesting to note, the people are just learning to eat bread made from wheat flour. It baffles the mind even now to imagine the quantities of wheat which will be required when China's 400,000,000, along with the hordes of the Russian steppes, the Persians, Afghans, Hindoos and all the rest of them, get to eating up-to-date Western bread and muffins.

## Farmers for Canada.

A party of nine hundred farmers will leave Yorkshire for Canada in the spring of the year. They are the pick of the people. They can boast a purer pedigree than any save a few families in the nobility and gentry. They have stuck to the soil generation after generation, and now they are going from us, to be followed by others of their kith and kin, and more of the agricultural community from other parts of the United Kingdom. They leave the mother country, but they stay within the Empire. They are not altogether lost to us. On the broad, fertile prairies of the West we wish them golden fortunes. Making due allowance for the bright colors of a sanguine optimism, there is no doubt that their prospects are far brighter across the Atlantic than they have been here for thirty years past.—[London Express.

## Shorthorn Breeders' Annual Meeting.

The annual meeting of the Dominion Shorthorn Breeders' Association was held in Toronto, January 19th, and was very largely attended, Mr. Wm. Linton, Pres., in the chair. Mr. Henry Wade, Sec., presented the eighteenth annual report, which showed that registrations in the herdbook have kept up well, Vol. 19 having been recently issued, containing the pedigrees of 10,444 animals, an increase of 1,227 over that of Vol. 18. The pedigrees of 84 imported bulls and 428 imported cows are recorded in Vol. 19, importations having been made in 1903 by Edwin Battye, Gore Bay; H. Cargill & Son, Cargill; David Clough, Whitechurch; H. J. Davis, Woodstock; J. I. Davidson, Balsam; W. C. Edwards & Co., Rockland; W. D. Flatt, Hamilton; Alex. Isaac, Cobourg; Geo. Isaac, Bomanton; Arthur Johnston, Greenwood; James Lawrence, Clearwater, Man.; John Miller, Jr., Brougham; Sir William Mulock, Newmarket, and John Graham, Carberry, Man. The registration fees received in 1903 amounted to 9,749, an increase of \$251 over the previous year. The total paid-up membership is 1,936, an increase of 174 in the last year. The income from members' fees in 1903 was \$3,872, an increase of \$348 over that of 1902. The receipts of the year, including a balance on hand on January 1st, 1903, of \$7,704.79, were \$21,756.34, and the expenditures, including the printing of herdbooks, prizes granted at shows, etc., were \$16,242.41, leaving a balance of cash on hand of \$5,513.93. The assets of the Association are \$15,796.43, after all liabilities are paid.

The Association was most liberal in its grants to the different exhibitions. The delegates from Manitoba—J. G. Barron, Carberry, and J. G. Washington, Ninga—succeeded in securing a grant of \$1,200 for the Dominion Exhibition at Winnipeg. The other amounts voted were: Winter Fairs, Guelph and Ottawa, \$700; Winter Fair, Amherst, N. S., \$100; Industrial Ex-



The Late Wm. R. Stewart.

hibition, Toronto, \$1,500; Brandon, Man., \$250; Calgary, Alberta, \$100; New Westminster, B. C., \$100; Victoria, B. C., \$100; Sherbrooke, Que., \$100; Fredericton, N. B., \$100; Halifax, N. S., \$100; Charlottetown, P. E. I., \$100; London, \$250; Ottawa, \$100.

On motion, Mr. H. Gerald Wade, in recognition of valuable services rendered the Association, was appointed Assistant Secretary and Editor of Herdbooks.

## OFFICERS FOR 1904.

The following officers were chosen, being almost altogether re-elections: President, Wm. Linton, Aurora; 1st Vice-president, W. G. Pettit, Freeman, Ont.; 2nd Vice-president, A. W. Smith, Maple Lodge, Ont.; Vice-president from Provinces—W. D. Flatt, Hamilton, Ont.; F. G. Boyer, Georgetown, P. E. I.; W. H. Ladner, Ladner's Landing, B. C.; Wm. H. Gibson, Point Claire, Que.; Bliss Fawcett, Sackville, N. B.; C. W. Peterson, Calgary, Alta.; C. A. Archibald, Truro, N. S.; W. A. Heubach, Touchwood Hills, Assa.; Jas. Bray, Longburn, Man.

Board of Directors: W. D. Cargill, Cargill; S. Dymont, Barrie; John Isaac, Markham; George Raikes, Barrie; C. M. Simmons, Ivan; W. J. Higgins, Clinton; E. C. Attrill, Goderich; James Tolton, Walkerton; H. Smith, Exeter; John Davidson, Ashburn; James M. Gardhouse, Highfield; T. E. Robson, Iderton; F. W. Brown, Portage la Prairie; J. G. Washington, Ninga, Man.; F. W. Brown, Portage la Prairie; Thomas Russell, Exeter.

Executive and Finance Committee: William Linton, Aurora; W. G. Pettit, Freeman; W. D. Flatt, Hamilton; Arthur Johnston, Greenwood; Robert Miller, Stouffville. Delegates to Dominion Cattle Breeders' Association—John Isaac, Markham; T. E. Robson, Iderton. Delegates to Industrial Exhibition—Wm. Linton, Aurora; Robert Miller, Stouffville. To Western Fair—Henry Smith, Exeter; C. M. Simmons, Ivan. To Central Fair, Ottawa—R. R. Sangster, Lancaster;

D. McLaren, Dunmore. To Provincial Exhibition, Halifax, N. S.—F. L. Fuller, Truro, N. S.; F. C. Dickie, Fort William, N. S. To Provincial Exhibition, New Brunswick—Senator Josiah Wood, Sackville, N. B.; Bliss Fawcett, Sackville, N. B. To Provincial Exhibition, Prince Edward Island—C. C. Gardiner, Charlottetown, P. E. I.; F. G. Boyer, Georgetown, P. E. I. To Winnipeg Industrial Exhibition—Hon. Thos. Greenway, Crystal City; J. G. Washington, Ninga. To Calgary Exhibition—E. Osborne Reid, Cochrane; Hon. Wm. Beresford, Calgary. To New Westminster Exhibition—W. H. Ladner, Ladner; T. W. Patterson, Ladner. Secretary, Henry Wade, Toronto; Assistant Secretary and Editor, H. Gerald Wade.

## Meetings, Shows and Sales.

Annual meetings of live-stock associations, shows, sales, etc., 1904:

February 2nd.—

11 a. m.—Meeting of the Directors of the Canadian Ayrshire Breeders' Association, at Toronto.

1.30 p. m.—Sixth annual meeting of the Canadian Ayrshire Breeders' Association, at Toronto.

8.00 p. m.—Third annual meeting of the Harness, Hunter and Saddle Horse Society, at Toronto.

February 2nd.—

Annual meeting Canadian Holstein-Friesian Association, Palmer House, Toronto.

February 3rd.—

11 a. m.—Fifteenth annual meeting of Canadian Shire Horse-breeders' Association, at Toronto.

2.30 p. m.—Twelfth annual meeting of the Canadian Hackney Horse Society, at Toronto.

4.30 p. m.—Third annual meeting of the Canadian Pony Society, at Toronto.

February 4th.—

11 a. m.—Meeting of the Directors of the Canadian Clydesdale Horse-breeders' Association, at Toronto.

2.00 p. m.—Eighteenth annual meeting of the Canadian Clydesdale Horse-breeders' Association, at Toronto.

8.00 p. m.—Annual meeting of the Canadian Horse-breeders' Association, at Toronto.

February 5th.—

Combination sale of pure-bred stock, Amherst, N.S.

February 6th.—

Annual meeting Canadian Jersey Cattle Club, at Toronto.

February 10th.—

S. H. Anderson's Shorthorn Sale, Camilla, Ont., near Orangeville, C. P. R.

February 11th.—

C. N. Blanshard's Shorthorn Sale, Appleby, Ont., near Burlington, G. T. R.

February 17th.—

J. G. Hammer's great sale of Shropshire sheep, at Brantford, Ont.

February 24th.—

Thos. Mercer's dispersion sale of Shorthorns, at Markdale, Ont.

February 24th.—

L. Burnett's Shorthorn Sale, Greenbank, near Uxbridge, Ont.

March 2nd to 4th.—

Canadian Spring Stallion Show, Toronto.

March 2nd, 3rd and 4th.—

Second annual Canadian Spring Stallion Show, at Toronto.

March 7th to 11th.—

Eastern Ontario Winter Poultry Show, Ottawa.

Central Canada Spring Horse Show, Ottawa.

The dates for the annual meetings of the Cattle, Sheep and Swine Breeders' Associations, which will be held in the Palmer House, Toronto, are as follows:

Dominion Cattle-breeders' Association, Friday, February 5th, 9.30 a. m.

Dominion Sheep-breeders' Association, Friday, February 5th, 3 p. m.

Dominion Swine-breeders' Association, Saturday, February 6th, 9.30 a. m.

Winter Fair Board, Saturday, February 6th, 2 p. m.

All persons attending the meetings during this week are requested to purchase a single ticket to Toronto, and obtain from the station agent at the starting point a standard convention certificate. This, by being signed at the meetings, will entitle them to reduced rate returning.

## Sudden Death of Mr. W. R. Stewart.

Mr. W. R. Stewart, the well-known horse-rancher, and President of the Territorial Horse-breeders' Ass'n. of Macleod, Alberta, suddenly dropped dead in the C. P. R. telegraph office at St. Thomas, Ontario, on the 18th inst. Mr. and Mrs. Stewart were on a visit to friends in Ontario, and on the day of Mr. Stewart's death were on the way from Ridgeway to Galt and Guelph. Much sympathy is felt for the bereaved family, as Mr. Stewart was well and favorably known, both east and west.

## Winter Fair and Horse Show Postponed.

On Monday last, the building in course of erection at Ottawa to accommodate the Eastern Ontario Winter Fair and Horse Show collapsed. The cause of the accident is said to be the change in temperature, thus weakening the girders that supported the heavy pine joists. The original dates of the fair, March 8th to 11th, have been cancelled.



Stock Judging at O. A. C.

The short course in stock-judging closed January 20th, and was, in many respects, the most successful course that has yet been given at the College. The attendance was scarcely so large as in previous years, though some 150 men, young and old, took advantage of it. The first three days were devoted to beef cattle. A very interesting feature was the judging, alive, of four fat steers, which were subsequently slaughtered, and the carcasses cut and discussed before the class. Mr. John Gosling, of Kansas City, gave several very instructive addresses on this phase of the subject. The breeds represented in the pure-bred classes comprised Shorthorns, Herefords, Aberdeen-Angus and Galloways. A number of breeders kindly lent their stock to the College. Mr. W. R. Elliott, Guelph, sent Shorthorns; James Bowman, Guelph, Aberdeen-Angus; The F. W. Stone Stock Company, Guelph, Herefords, and Col. D. MacCrea, Guelph, Galloways. Among those who assisted with the judging in the beef classes were Hon. John Dryden; A. W. Smith, Maple Lodge; and John Gosling, Kansas City. Dairy cattle were also well represented, Dentonia Park Farm, Toronto, sending up Ayrshires, Jerseys and Guernseys. Mr. J. B. Ketchen, manager of Dentonia Park, assisted in discussing the different classes.

The sheep section presented some hard problems for the students to solve, and proved a very interesting feature of the course. Mr. John Campbell, Woodville, who assisted in placing the awards, and who also gave some valuable talks on sheep husbandry, brought along some of his strongest show-yard Shropshires. Mr. Henry Arkell, Arkell, had over a strong lot of Oxfords; Whitelaw Bros., Guelph, furnished Leicesters; Telfer Bros., Paris, Southdowns; R. H. Harding, Thorndale, Dorset Horns; and James Hume, Arkell, made a nice exhibit of Cotswolds. A dressed carcass competition was also conducted with the sheep, the animals first being judged alive, and the carcasses carefully compared afterwards, with a view to showing what the handling qualities of the living animal indicated in the dressed carcass.

In swine, the College was indebted to Mr. R. Moody, of Guelph, who furnished Berkshires; William Elliott, Galt, who sent a nice bunch of Tamworths. J. E. Brethour supplied some of the Yorkshires, and also assisted in the judging. A class of bacon hogs was judged alive, and, as in the case of the cattle and sheep, the animals were subsequently slaughtered and the carcasses carefully compared. It is worthy of note that in cattle, sheep and swine, the awards in the dressed carcass competition were the same as in the live classes.

The horse division was also interesting. Messrs. O. Sorby, James Bowman, and A. Atchison, Guelph, provided a capital string of Clydesdales. In the other classes, the College is indebted to Messrs. A. McCannell, D. McKenzie, J. Tovell and J. Hurley, Guelph, and Dr. Short and Mr. Robinson, of Erin, for supplying horses of different classes.

In all cases, of course, the College stock was used to supplement the stock supplied by outsiders, so that good strong classes were furnished in nearly all sections.

In addition to the work in stock-judging, a valuable course was given in grain-judging, and also in the identification of the seeds of various weeds, and, in the evenings, meetings were addressed by different members of the staff, as well as some prominent outsiders, upon a variety of subjects of general interest to farmers. It will be seen, therefore, that the students who took advantage of the course put in a very busy two weeks, and the sentiment of the class is expressed in the following resolution, which was carried unanimously at the close of the session:

Moved by W. W. Hubbard, seconded by W. L. Dixon, resolved that the members of this special stock-judging course request Mr. R. R. Elliott to convey to Hon. John Dryden and the various officers of the Agricultural College who have so zealously and efficiently labored to make this course practical, useful and interesting, our sincere appreciation of their efforts. We recognize that they have put themselves to a great deal of extra work and inconvenience on our behalf, and for this we are very grateful. We would especially wish to mention the professors who have given us evening lectures, and Professors Day, Reed and Cumming, who have taken charge of the judging pavilion, and Mr. Zavitz, who conducted the grain-judging section, all of whom helped in every way to make the course successful.

Aid for the Consumptive.

That the stamping out of the white plague has become a crying need is a fact which no one, in these days of the ravages of consumption, will deny. Perhaps no institution in Canada is to-day grappling with this disease with more persistence and effect than the Free Hospital for Consumptives, Gravenhurst, Muskoka. This hospital has only been in existence for eighteen months, but in that time has admitted 225 patients, many of whom have been cured, and others greatly benefited. But the efforts of the institution are sadly crippled by lack of funds. This year, \$25,000 will be required for reduction of the debt and to pay for the care of patients, and, as yet, there have been no endowments, except for the maintenance of six beds for one year. Even small contributions will be thankfully received. "Many a mickle makes a muckle," is a truism which should not be forgotten. The Free Hospital for Consumptives makes this appeal to the philanthropy of all people into whose hands the "Farm-

er's Advocate" may fall. Kindly send all contributions to W. J. Gage, Chairman Executive Committee, National Sanitarium Association, Toronto, Ont., mentioning this paper in so doing.

The Hamilton Shorthorn Sale.

The joint sale of Shorthorn cattle at Hamilton, Ontario, on January 20th, was one of the most successful of the series of vendues held at that place. The attendance was greater than at any of the former sales, the spacious pavilion being filled almost to its capacity with as fine a class of men as could be found at a similar event anywhere on this continent—sterling, substantial, progressive farmers and breeders, full of confidence in the future of the country and of the livestock industry. And the cattle were in keeping with the company, being one of the best all-round lots ever offered in this country—a healthy, thrifty, smooth, even collection, in nice breeding condition. While buyers were present from several States of the Union, and from Manitoba and Alberta, the bulk of the stock was taken by Ontario farmers, who showed good judgment and discrimination in their selections. The bidding was prompt and spirited from start to finish, the 60 head being disposed of in less than three hours, at the good average price of \$332. No sensational prices were paid, and a noticeable feature of the sale was the good even prices obtained. Among the buyers from the United States were Messrs. F. W. Harding, Wisconsin; H. F. Brown, Minnesota; E. S. Kelly, and Heintz & Sons, Ohio; T. J. Wornell, Missouri; F. O. Lowden, and Ross & Murray, Illinois; and E. G. Stevenson, Michigan. The last-named gentleman took the highest-priced bull, Victor of Dalmeny,



J. G. Hamner, Brantford, Ont. Importer and breeder of Shropshire sheep.

imp., at \$950, and Mr. Kelly claimed the highest-priced female, Rosewood 86th, imp., at \$925, both of which were included in Mr. W. D. Flatt's contribution. Mr. Gardhouse's fine imported cow, Missie 159th, bred by W. S. Marr, was secured by Mr. E. C. Attrill, of Goderich, at \$800, and as she will be due to calve in February to Imp. Chief Ruler, she should prove a good investment. The sale was admirably managed, everything going off smoothly without a hitch or a minute's unnecessary delay, and the auctioneers, Messrs. Robson, Ingram and Jackson, did excellent work, showing improvement over all former records. Following is the list of sales:

COWS AND HEIFERS.

- Rosewood 86th (imp.), 1 year old; E. S. Kelly, Yellow Springs, Ohio \$925
Missie 159th (imp.), 5 years; E. C. Attrill, Goderich 800
Roan Lady (imp.), 2 years; Thos. Brigham, Oregon, Ill. 610
Sea Weed (imp.), 2 years; Thos. Brigham, Ryckman's Corners 500
Clementine (imp.), 2 years; Wm. Hendrie, Hamilton 475
Lucretia (imp.), 2 years; Wm. Hendrie 470
Hawthorn 24th (imp.), 2 years; Wm. Hendrie 460
Mina 6th (imp.), 2 years; Wm. Hendrie 425
Sea Shell (imp.), 2 years; Mrs. A. Marr, Goderich 410
Aggie Grace (imp.), 5 years; Thos. Brigham 450
Vanda (imp.), 2 years; W. H. Easterbrook, Freeman 400
Roan Beauty (imp.), 1 year; And. Pettit, Freeman 400
Meadow Beauty 2nd (imp.), 1 year; J. Pollard, Iona 400
Rosemary 217th (imp.), 1 year; E. Binkley, Millgrove 880

- Warden Blossom, 4 years; Jas. Douglas, Caledonia \$375
Byres Queen (imp.), 1 year; H. F. Brown, Minneapolis 375
Village Beauty of Ilderton, 4 years; Ross & Murray, Rochelle, Ill. 355
Goldie of Byres (imp.), 1 year; Andrew Pettit 350
Mina of Kinellar 7th (imp.), 1 year; S. J. Pearson, Son & Co., Meadowvale 340
Merry Girl 8th (imp.), 2 years; T. L. Pardo, Cedar Springs 330
Missie of Avondale 3rd, 2 years; Ross & Murray 315
Sappho 2nd (imp.), 4 years; T. J. Wornell, Liberty, Mo. 310
Augusta Queen 3rd (imp.), 10 months; Uriah Pierce, Mt. Brydges 305
Amaranth C 2nd, 1 year; W. T. Wylie, Tara 305
Fancy 8th (imp.), 5 years; A. Lawrence, Thamesville 300
Lovely Mary and calf, 6 years; T. J. Wornell 300
Scottish Primrose 2nd (imp.), 2 years; J. J. Hodgins, Hazeldean 300
Lavender Drop, 1 year; Wm. T. Wylie 270
Beauty 45th, 1 year; Jas. Crerar, Shakespeare 265
Rosebud 9th, 2 years; Wm. Hendrie 235
Rosebud 12th, 1 year; J. J. Barron, Carberry, Man. 235
Sittytton's Gloster 21st, 1 year; H. F. Brown 230
Clara C 2nd, 1 year; Arthur Johnston, Greenwood 225
Kirklevington Bloom, 4 years; Wm. Hendrie 215
Lovely Lass 3rd, 1 year; T. J. Wornell 205
Mina 8th, 1 year; A. Gardner, Leadbury 200
Caroline C, 1 year; T. E. Bowman, Berlin 190
Mavis, 2 years; W. A. Douglas, Caledonia 185
Duchess of Gloster 101st, 10 months; John Dryden & Son, Brooklin 175
Lady Delmark, 2 years; F. W. Harding, Waukesha, Wis. 170
Mina C, 11 months; Arthur Johnston 165
Buchan Fancy 9th, 10 months; Ross & Murray 150
Rosie Leslie, 2 years; Robt. Miller, Stouffville 145
August Flower 6th, 1 year; T. L. Pardo 130

BULLS.

- Victor of Dalmeny (imp.), 1 year; E. J. Stevenson, Detroit \$950
Magistrand (imp.), 2 years; Thos. Brigham 625
Old Lancaster (imp.), 10 months; Heintz & Son, Fremont, Ohio 600
Carnegie (imp.), 1 year; T. L. Pardo 380
Proud Gift (imp.), 1 year; John T. Gibson, Denfield 375
Diamond, 1 year; T. Douglas & Son, Strathroy 365
Star Chief (imp.), 1 year; A. Gardner, Leadbury 275
The Patriot (imp.), 10 months; R. Nichol, Hagersville 275
Victorious Knight, 1 year; T. E. Bowman 230
Cumberland Archer (imp.), 10 months; A. McDonald & Son, Omagh 230
Trout Creek King, 9 months; A. H. Eckford, High River, Alberta 170
Clarified Prince, 1 year; John Davidson, Ashburn 160
Spring Grove Wanderer, 12 months; F. W. Harding 155
Quarantine King (imp.), 4 years; D. McMillan, Hillsburg 155
Marengo's Victory, 1 year; G. Galbraith, Bowmanville 125
Strawberry's King, 1 year; J. Wharden, Carluke 95

President G. C. Creelman.

The Ontario Government lost no time in naming a successor to President Mills of the Ontario Agricultural College, Mr. G. C. Creelman, B. S. A., the well-known Superintendent of Farmers' Institutes, being appointed at a cabinet meeting on January 22nd, the announcement of which was in the nature of a surprise to many. The newly-appointed President is to take office on February 1st, at the same salary as Dr. Mills, \$2,000 and residence. Mr. Creelman was born in May, 1869, on his father's farm at Collingwood, Ontario, so that he is now in his 35th year. His mother was of Scotch and his father of Irish ancestry, both natives of Nova Scotia. His early education was obtained at the public and high schools, and in 1888 he graduated after a three years' course from the Ontario Agricultural College. Subsequently, he took summer vacation courses in botany and horticulture at American colleges. After his graduation he was appointed Assistant, and, subsequently, Professor of Biology in the State Agricultural and Mechanical College of Mississippi, from which institution he received the degree of Master of Science. Mr. Creelman in 1893 married Miss Ada, the eldest daughter of Dr. Mills. In 1899 Mr. Creelman assumed the position of Superintendent of Farmers' Institutes for Ontario, which situation he has occupied with very general approbation ever since, being also Secretary of the Ontario Fruit-growers' Association and Director of the two Provincial Dairy Schools. In addition to the foregoing qualifications, Mr. Creelman has the advantage of youth and enthusiasm on his side.

MARKETS.

Toronto Markets.

Market prices for the past week may be said to have been nominal. The condition of both the country roads and railroads has seriously interfered with marketing. As a consequence of these conditions, some lines of produce have shown considerable strength, notably export cattle, wheat and poultry. Export cattle show a real scarcity, apart from the effects of blocked roads. Other cattle are in demand, owing to several shipments being delayed en route to market. Wheat, apparently, owes its strength to the confidence in the speculative market in Chicago. Last week, May options went above 92 for the first time since the famous Leiter corner in 1898. Holders throughout Ontario seem to have got scent of dollar wheat, and are holding their supplies, with good prospects of reaching the century mark. Enquiries from all over the Province as to the prospects for dairy butter in rolls indicate that large supplies are ready to come forward. The market, however, does not show any inclination to accept cheerfully anything but the choicest grades, lower qualities going to the bakers at much reduced figures. Hog prices hover around \$5.12 1/2, with future prices very uncertain. Local offers throughout the Province hold about \$5.00. Quotations on this market are:

Exporters.—Best, \$4.50 to \$4.75 per cwt.; medium, at about \$4.25 to \$4.50. Export Bulls.—Choice quality, \$3.75 to \$4; medium to good bulls, \$3.25 to \$3.50. Export cows, \$3.50 to \$3.75. Butchers' Cattle.—Choice picked lots of butchers', 1,100 to 1,175 lbs. each, equal in quality to the best exporters, \$4.30 to \$4.50; good, \$4 to \$4.25; fair to good, \$3.60 to \$3.85; common, \$3.15 to \$3.30; rough to inferior, \$2.25; canners, at \$1.75 to \$2.50. Feeders.—Steers of good quality, 1,050 to 1,150 lbs. each, \$3.50 to \$3.80 per cwt. Bulls.—Bulls for the distillery byers, \$2.50 to \$3. Stockers.—One-year to two-year-old steers, 400 to 700 lbs. each, \$2.75 to \$3; off-colors and of poor breeding quality, of same weights, \$2 to \$2.50. Milch Cows.—Milch cows and springers, \$30 to \$55. Calves, \$2 to \$10 each, or from \$4 to \$5.50 per cwt. Sheep, \$3.25 to \$3.75 per cwt. for ewes; bucks, \$2.75 to \$3. Lambs, \$4.60 to \$5 per cwt., and \$5.25 to \$5.50 for choice ewes and wethers for export. Hogs.—Best select bacon hogs, not less than 160 lbs. each, nor more than 290 lbs. each, fed and watered, \$5.12 1/2 per cwt.; lights and fats, at \$4.87 1/2; sows, \$3.50 to \$3.75; stags, \$2 to \$2.50.

PRODUCE.

Wheat.—Ontario—Fall wheat is steadier; No. 2 red, white and mixed, 80c. to 81c. for milling; springs, 76c. for No. 1, east. Goose is quiet but firm, at 72c. for No. 2, east. Wheat.—Manitoba—No. 1 hard is quoted at 94c.; No. 1 northern, at 91c. to 92c.; No. 2 northern, at 88c. to 89c., and No. 3 northern, at 85c. to 86c., on track, lake ports. Milling-in-transit price for each grade 6c. more. Corn.—Canadian is dull at 38c. for yellow, and 37 1/2c. for mixed, cars west. Old American is steady; No. 2 yellow, 56c.; No. 3 yellow, 55 1/2c., and No. 3 mixed, 54 1/2c., in car lots, on the track at Toronto. New is unchanged at 51c. for No. 3 yellow, and 50c. for No. 3 mixed, in cars. Oats.—No. 1 white are quoted at 31c., low freights, 30 1/2c. middle freights, and 29 1/2c. high freights. No. 2 white are quoted at 1c. less.

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Table listing prices for Hay and Straw, Fruits and Vegetables, Poultry, and Dairy Produce.

Canadian Live-stock Shipments.

Live stock shipped from the ports of St. John, N. B., and Portland, Me., for week ending January 16th, 1904, as compiled by Robert Bickerdike & Co., Ltd., Dominion Live-stock Exchange, Montreal: Cattle, 1,408; sheep, 3,374.

Liverpool Apple Market.

Woodall & Co. cabled Eben James, Jan. 23.—Thirteen thousand barrels sold. Sound parcels met with strong demand at top figures: Greenings, 15s. to 17s.; Baldwins, 18s. to 24s.; Spies, 18s. to 22s.; russets, 20s. to 26s.; Ben Davis, 17s. to 22s. 6d.; seconds, 5s. less; Scotian Reds, 10s. to 17s.; greens, 14s. to 17s. 6d.; russets, 18s. to 20s.; seconds, 3s. less.

British Cattle Market.

London—Live cattle steady, at 11c. to 12c. per lb. for American steers, dressed weight; Canadian steers, 10 1/2c. to 11 1/2c. per lb.; refrigerator beef, 7 1/2c. to 7 1/2c. per lb. Sheep, 12c. to 12 1/2c. per lb.; lambs, 14c. to 14 1/2c. dressed weight.

Chicago Market.

Chicago.—Cattle—Good to prime steers, \$2.90 to \$5.65; poor to medium, \$3.25 to \$4.50; stockers and feeders, \$2 to \$4. Hogs—Mixed and butchers', \$4.85 to \$5.10; good to choice heavy, \$5 to \$5.15; rough heavy, \$4.85 to \$5; light, \$4.60 to \$4.95; bulk of sales, \$4.85 to \$5. Sheep—Good to choice wethers, \$4 to \$4.40; fair to choice mixed, \$3.25 to \$4; native lambs, \$4.50 to \$6.

Buffalo Market.

East Buffalo.—Cattle—Prime steers, \$5.10 to \$5.50; shipping butchers', \$4.50 to \$5; veals, \$6 to \$7.75. Hogs—Heavy, \$5.30 to \$5.35; mixed, \$5.25 to \$5.30. Sheep and Lambs—Lambs, \$5.62 to \$5.65; yearlings, \$5 to \$5.50; wethers, \$5.65; ewes, \$4.35 to \$4.40.

Montreal Market.

Montreal.—Cattle—Choice butchers', \$4.25 to \$4.50; good, \$3.25 to \$4; medium, \$2.25 to \$3. Sheep from 3c. to 3 1/2c., lambs selling at 4c. to 4 1/2c. Hogs, \$5.50 for carload lots.

Horses for Japan.

The Japanese Government is looking for cavalry horses in Alberta. S. Okamura, their emissary, is in this country.

Table listing Montreal Markets, Canadian Live-stock Shipments, Liverpool Apple Market, QUESTIONS AND ANSWERS, HOME MAGAZINE, TRADE TOPICS, and ADVTs.



# HOME MAGAZINE



00 to \$10.50  
00 to 10.00  
00 to \$0.85  
00 to 1.50  
00 to \$1.50  
00 to 1.50  
3 to 15  
2 to 14  
00 to \$0.23  
5 to 40  
5 to 7.25

ments.  
St. John, N.  
January 15th,  
& Co., Ltd.  
real: Cattle,

ret.  
s, Jan. 23.—  
and parcels met  
enings, 15s. to  
18s. to 22s.;  
to 22s. 6d.;  
17s.; greens,  
seconds, 3s.

to 12c. per lb.  
Canadian steers,  
7½c. to 7½c.  
lambs, 14c. to

ers, \$2.90 to  
0; stockers  
and butchers',  
\$5 to \$5.15;  
0 to \$4.95;  
to choose  
ed, \$3.25 to

to \$5.50;  
6 to \$7.75.  
25 to \$5.30.  
yearlings,  
35 to \$4.40.

5 to \$4.50;  
Sheep from  
Hogs, \$5.50

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or in  
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on) .....139  
.....140  
145, 146  
150, 151  
145, 148  
to 152

"O, some grow wise, and some grow cold,  
And all feel time and trouble;  
If life an empty bubble be,  
How sad are those who will not see  
A rainbow in the bubble!"

## A FAIR BARBARIAN.

BY FRANCES HODGSON BURNETT.

### CHAPTER VII.—Continued.

Capt. Barold turned to confront her, evidently annoyed at having allowed a surprise to get the better of him. All expression died out of his face.

"I travelled with her from Framwich to Stamford," he said. "I suppose we should have reached Slowbridge together, but that I dropped off at Stamford to get a newspaper, and the train left me behind."

"O grandmamma!" exclaimed Lucia, who had turned to look, "how very pretty she is!"

Miss Octavia certainly was amazingly so this morning. She was standing by a rosebush again, and was dressed in a cashmere morning-robe of the finest texture and the faintest pink; it had a Watteau plait down the back, a jabot of lace down the front, and the close, high frills of lace around the throat which seemed to be a weakness with her. Her hair was dressed high upon her head, and showed to advantage her little ears and as much of her slim white neck as the frills did not conceal.

But Lady Theobald did not share Lucia's enthusiasm. "She looks like an actress," she said. "If the trees were painted canvas and the roses artificial, one might have some patience with her. That kind of thing is scarcely what we expect in Slowbridge."

Then she turned to Barold. "I had the pleasure of meeting her yesterday, not long after she arrived," she said. "She had diamonds in her ears as big as peas, and rings to match. Her manner is just what one might expect from a young woman brought up among the gold-diggers and silver-miners."

"It struck me as being a very unique and interesting manner," said Capt. Barold. "It is chiefly noticeable for a sang-froid which might be regarded as rather enviable. She was good enough to tell me all about her papa and the silver-miners, and I really found the conversation entertaining."

"It is scarcely customary for English young women to confide in their masculine travelling companions to such an extent," remarked my lady grimly.

"She did not confide in me at all," said Barold. "Therein lay her attraction. One cannot submit to being 'confided in' by a strange young woman, however charming. This young lady's remarks were flavored solely with an adorably cool candor. She evidently did not desire to appeal to any emotion whatever."

And as he leaned back in his seat, he still looked at the picturesque figure which they had passed, as if he would not have been sorry to see it turn its head toward him.

In fact, it seemed that, notwithstanding his usual good fortune, Capt. Barold was doomed this morning to make remarks of a nature objectionable to his revered relation. On their way they passed Mr. Burmestone's mill, which was at work in all its vigor, with a whir and buzz of machinery, and a slight odor of oil in its surrounding atmosphere.

"Ah!" said Mr. Barold, putting his single eyeglass into his eye, and scanning it after the manner of experts. "I did not think you had anything of that sort here. Who put it up?"

"The man's name," replied Lady Theobald severely, "is Burmestone." "Pretty good idea, isn't it?" remarked Barold. "Good for the place—and all that sort of thing."

"To my mind," answered my lady, "it is the worst possible thing which could have happened."

Mr. Francis Barold dropped his eyeglass dexterously, and at once lapsed into his normal condition—which was a condition by no means favorable to argument.

"Think so?" he said slowly. "Pity, isn't it, under the circumstances?"

And really there was nothing at all for her ladyship to do but preserve a lofty silence. She had scarcely recovered herself when they reached the station, and it was necessary to say farewell as complacently as possible.

"We will hope to see you again before many days," she said with dignity, if not with warmth.

Mr. Francis Barold was silent for a second, and a slightly reflective expression flitted across his face.

"Thanks, yes," he said at last. "Certainly. It is easy to come down, and I should like to see more of Slowbridge."

When the train had puffed in and out of the station, and Dobson was driving down High Street again, her ladyship's feelings rather got the better of her.

"If Belinda Basset is a wise woman," she remarked, "she will take my advice, and get rid of this young lady as soon as possible. It appears to me," she continued, with exalted piety, "that every well-trained English girl has reason to thank her Maker that she was born in a civilized land."

"Perhaps," suggested Lucia softly, "Miss Octavia Basset has had no one to train her at all; and it may be that—that she even feels it deeply."

The feathers in her ladyship's bonnet trembled.

"She does not feel it at all!" she announced. "She is an impertinent—mix!"

### CHAPTER VIII.

#### Shares Looking Up.

There were others who echoed her ladyship's words afterward, though they echoed them privately, and with more caution than my lady felt necessary. It is certain that Miss Octavia Basset did not improve as time progressed, and she had enlarged opportunities for studying the noble example set before her by Slowbridge.

On his arrival in New York, Martin Basset telegraphed to his daughter and sister, per Atlantic cable, informing them that he might be detained a couple of months, and bidding them to be of good cheer. The arrival of the message in its official envelope so alarmed Miss Belinda, that she was supported by Mary Anne while it was read to her by Octavia, who received it without any surprise whatever. For some time after its completion, Slowbridge had privately disbelieved in the Atlantic cable, and, until this occasion, had certainly disbelieved in the existence of people who received messages through it.

In fact, on first finding that she was the recipient of such a message, Miss Belinda had made immediate preparations for fainting quietly away, being fully convinced that a shipwreck had occurred, which had resulted in her brother's death, and that his executors had chosen this delicate method of breaking the news.

"A message by Atlantic cable?" she had gasped. "Don't—don't read it, my love. Let someone else do that. Poor—poor child! Trust in Providence, my love, and—bear up. Ah, how I wish I had a stronger mind, and could be of more service to you!"

"It's a message from father," said Octavia. "Nothing is the matter. He's all right. He got in on Saturday."

"Ah!" panted Miss Belinda. "Are you quite sure, my dear—are you quite sure?"

"That's what he says. Listen." "Got in Saturday. Piper met me. Shares looking up. May be kept here two months. Will write. Keep up your spirits."

"Thank Heaven!" sighed Miss Belinda. "Thank Heaven!"

"Why?" said Octavia. "Why?" echoed Miss Belinda. "Ah, my dear, if you knew how terrified I was! I felt sure that something had happened. A cable message, my dear! I never received a telegram in my life before, and to receive a cable message was really a shock."

"Well, I don't see why," said Octavia. "It seems to me it is pretty much like any other message."

Miss Belinda regarded her timidly. "Does your papa often send them?" she inquired. "Surely it must be expensive."

"I don't suppose it's cheap," Octavia replied, "but it saves time and worry. I should have had to wait twelve days for a letter."

"Very true," said Miss Belinda, "but"—

She broke off with rather a distressed shake of the head. Her simple ideas of economy and quiet living were frequently upset in these times. She had begun to regard her niece with a slight feeling of awe; and yet Octavia had not been doing anything at all remarkable in her own eyes, and considered her life pretty dull.

If the elder Miss Basset, her parents and grandparents, had not been so thoroughly well known, and so universally respected; if their social position had not been so firmly established, and their quiet lives not quite so highly respectable,—there is an awful possibility that Slowbridge might even have gone so far as not to ask Octavia out to tea at all. But even Lady Theobald felt that it would not do to slight Belinda Basset's niece and guest.

To omit the customary state teas would have been to crush innocent Miss Belinda at a blow, and place her—through the medium of this young lady, who alone deserved condemnation—beyond the pale of all social law.

"It is only to be regretted," said her ladyship, "that Belinda Basset has not arranged things better. Relatives of such an order are certainly to be deplored."

In secret Lucia felt much soft-hearted sympathy for both Miss Basset and her guest. She could not help wondering how Miss Belinda became responsible for the calamity which had fallen upon her. It really did not seem probable that she had been previously consulted as to the kind of niece she desired, or that she had, in a distant manner, evinced a preference for a niece of this description.

"Perhaps, dear grandmamma," the girl ventured, "it is because Miss Octavia Basset is so young that"—

"May I ask," inquired Lady Theobald, in fell tones, "how old you are?" "I was nineteen in—December."

"Miss Octavia Basset," said her ladyship, "was nineteen last October, and it is now June. I have not yet found it necessary to apologize for you on the score of youth."

But it was her ladyship who took the initiative, and set an evening for entertaining Miss Belinda and her niece, in company with several other ladies, with the best bohea, thin bread and butter, plum-cake, and various other delicacies.

"What do they do at such places?" asked Octavia. "Half-past five is pretty early."

"We spend some time at the tea-table, my dear," explained Miss Belinda. "And afterward we—we converse. A few of us play whist. I do not. I feel as if I were not clever enough, and I get flurried too easily by—by differences of opinion."

"I should think it wasn't very exciting," said Octavia. "I don't fancy I ever went to an entertainment where they did nothing but drink tea, and talk."

"It is not our intention or desire to be exciting, my dear," Miss Belinda replied with mild dignity. "And an improving conversation is frequently most beneficial to the parties engaged in it."

"I'm afraid," Octavia observed, "that I never heard much improving conversation."

She was really no fonder of masculine society than the generality of girls; but she could not help wondering if there would be any young men present, and if, indeed, there were any young men in Slowbridge who might possibly be produced upon festive occasions, even though ordinarily kept in the background. She had not heard Miss Belinda mention any masculine name so far, but that of the surate of St. James's; and when she had seen him pass the house, she had not found his slim, black figure, and faint, ecclesiastic whiskers, especially interesting.

It must be confessed that Miss Belinda suffered many pangs of anxiety in looking forward to her young kinswoman's first appearance in society. A tea at Lady Theobald's house constituted formal presentation to the Slowbridge world. Each young lady within the pale of genteel society, having arrived at years of discretion, on returning home from boarding-school, was invited to tea at Oldclough Hall. During an entire evening, she was the subject of watchful criticism. Her deportment was remarked, her accomplishments displayed, she performed her last new "pieces" upon the piano, she was drawn into conversation by her hostess; and upon the timid modesty of her replies, and the reverence of her listening attitudes, depended her future social status. So it was very natural indeed that Miss Belinda should be anxious.

(To be continued.)

### Be Moderate.

A great writer tells us that "moderation is the inseparable companion of wisdom," and another writer says "moderation is the silken string running through the pearl chain of virtues." When we try to do too many things at once we are unfitting ourselves for that practical usefulness which holds no overcrowded state of affairs. She is a wise woman who regulates her life to take upon herself no more duties than she can attend to properly and successfully. She not only saves her health and strength, but her work is satisfactory and her pleasures, though few, are thoroughly enjoyed. Indeed, there is no greater blessing than a well regulated life.



Dear Friends,—

To-day I have the privilege of giving you two of the essays which were successful in winning prizes in the last competition. The first gives us the question, "How to Enjoy the Winter," considered from a mother's standpoint. We think the observation that the species of amusement must be suited to the disposition of the individual, is well taken. There is little use of forcing on one what one has positive dislike for. At the same time, as "Farmer's Wife" has said, it is possible, to a great extent, to lead children to like advisable forms of recreation, one of which, most certainly, is the habit of reading, and of choosing good literature. On the other hand, it must not be forgotten that it is just as necessary to train the bookish child to like taking physical exercise regularly. The parent, in every case, must study the child.

#### How to Enjoy the Winter.

By a Farmer's Wife, Laurel, Ont.

"Enjoyments and recreations must be as varied as the character of the individuals for whom they are planned. What to one person would be a positive delight, to another would be an irksome task. One boy will delight in games, another must have skates, while a third can only be content when training his favorite steed. While endeavoring, to a certain extent, to cater to their fancies, and allow them to indulge in their favorite pastime, it should be our aim to cultivate in our children a taste for more enduring pleasures.

"Reading, for example, is not dependent on any season, age, habits or conditions of life, but may be enjoyed by young and old, rich and poor alike, for, while the tastes which require physical strength decline with age, that for reading steadily grows. It is also a pleasure which enhances many others; it adds to the pleasures of society, of travel, of art, and leads us to take a greater interest in what is going on in the world around us.

"I would suggest as one of the first requisites to a pleasant, profitable and interesting winter, a definite plan of work, something to accomplish which we have never done before. If school boys or girls, we can aim at reaching a certain standard in our studies; or, it may be, we can take the initiative steps in learning some trade or profession. If older, we can plan, arrange, and perhaps accomplish some improvement in our buildings or home surroundings; but let us do 'something'.

"In the country, for the young people, and young-old people, a literary society could be formed or organized. Meetings could be held, essays written, debates given, and subjects appointed for discussion. Impromptu speeches are very helpful in training us to express ourselves readily and fluently, but a definite subject should be taken, that time be not wasted in talking at random. We might choose for discussion subjects such as the following: 'Education: What it is and does'; 'Benefits of Classic Education'; 'The Novel: Its Origin and Use'; 'Canadian Poets and Poetry'; 'Canadian Statesmen of the Nineteenth Century, or any Century,' and many others would arise from these. Do not attempt too much in one evening. Have your discussions interspersed with music, vocal and instrumental. A wise leader will endeavor to draw out the talents of each member. A very small fee from each individual, either monthly or as admission, would defray expenses of meeting and heating a room, or it might develop the ability to meet from house to house.

"The evenings spent in preparation; the pleasant walks or drives to and from the gatherings; the consciousness that you are improving yourself, and, it may be, contributing a little to the happiness of others, must be a source of unalloyed pleasure. I have described only one form of amusement for winter evenings; many others might be suggested, but time will not permit us to dwell on this very attractive theme."

Our second essay has evidently been written by an enthusiastic lover of Dickens. I have enjoyed this letter very much, and must congratulate Miss McTavish on her faculty of being able to form pretty solid judgment on that which she reads, as well as her facility in telling her opinions in few and crisp words. Perhaps Miss McTavish would like to hear what a

#### Enjoying the Winter with Dickens.

By Florence M. McTavish, Chesley.

"Here is one practical reason for reading Dickens. He is one of the most creative writers. Next to Shakespeare, he supplies most of the current quotations. Not to know and understand them is to be perpetually missing the point in conversation and reading.

"Dickens' personages are all alive, and, I believe, immortal. Not to enjoy their acquaintance is to be exceedingly unfortunate. One who is still so happy as to have all of Dickens unread before him, had probably better begin with David Copperfield. If he does not enjoy this delightful book, it is likely he had better abandon his researches into Dickens. For humor and tenderness, this book is among his masterpieces; though the pathos as to Dora and her Dying Dog, may be forced, though the tale is too long, and though Little Em'ly is, or has come to seem, conventional. The heroine has not many admirers, for, as a rule, we do not love Dickens' women, but his men and boys are simply delightful, and Mr. Micawber is a proverb.

"After Copperfield, Pickwick ought to be read. Dickens never again wrote such a book—nobody has ever written such another book.

"Dickens is often referred to as the

## The Advocate in the Home.

That the Farmer's Advocate is fast becoming the women's paper as well as the men's, is very clear to us from the numbers of letters filled with praise of it which the women send in to our offices. One woman wrote recently: "We have to drop some of our papers, but the Advocate will not be one. We find it to be the greatest help to us." And this is only a sample of many that we receive. We are glad to know of this appreciation, and assure our readers that we are trying in every way to deserve it. We are sparing no expense to make the Farmer's Advocate the most attractive and useful paper that enters the farmer's home. Indeed, few people, perhaps, have any idea of the amount that it costs to run a thoroughly high-class paper such as ours. But we are determined that the Farmer's Advocate shall maintain its position at the very top. We ask the readers of the Home Department to tell their friends of our paper and get them to subscribe for it. Push the Advocate. You will be helping both your friends and adding to the welfare of the country by doing so.

prominent critic, Mr. Walter Trewen Lord, recently said in regard to Dickens:

"We may say of his work, as a whole, what Tourgueneff said of Le Nabab—that it may be described as being in some parts very great, while much of it is hackwork. If there is something in Dickens that we would prefer to forget, there is at least as much that we cannot forget if we would. He is often a caricaturist, but at least as often he is far above all caricaturists. His place is not with the greatest artists. He does not live with the Veroneses and the Titians, but he is far apart from the Caraccisti. He is hardly Rembrandt, but we cannot leave him with the Jan Steens and the Ostades. He is not academic, he remained to the last untrained, un-drilled, recognizing no models consciously or unconsciously—one would even say that he despised them. As a result, he often erred, and he often drivelled. He cheers us beyond any other writer that ever lived, and he bores us worse than the daily newspaper. He stands alone—Charles Dickens."

laughing philosopher. Quite the most comic of his later works is "Great Expectations," where the terrible and the humorous are deftly blended. Here, too, the pathos is moral, not that of the deathbed or suffering childhood.

"In this age of change, Dickens must become old-fashioned, and only intelligible with more or less of an effort. A great many of the social abuses which he satirized are modified, if not abolished. His pathos is often forced, and we resent the continual struggle to make us cry; but let us forget his faults in his merits.

"The writer of this sketch will be much pleased if the effort brings new readers to Dickens, and sends old readers back to him, in whose words we always find something new and fresh, causing our gratitude and admiration."

Perhaps it may be necessary to explain that I have been obliged to leave out the first part of the above essay, which introduced the advisability of taking up the reading of Dickens as a pleasant and profitable winter recreation. I also wish to say that Miss A. L. McDiarmid ran Miss McTavish a very close race in this competition. Miss McDiarmid

sent an exceedingly good essay, but its extreme length militated against it. With our limited Ingle Nook space, and our ever-increasing number of correspondents, I find it utterly impossible to find room for very long articles, no matter how much I should like to give them space. I mentioned the advisability of writing fairly short essays when setting the competition, but am afraid some of our correspondents forgot all about it. However, Miss McDiarmid, come again, and don't forget next time.

#### Another Ingle Nook Friend.

"Dear friends of the Ingle Nook,—Noticing, in the issue of the seventh, a request for the simpler and easier method of breadmaking than that sent to New Ontario Boy, I send the following 'tried' recipe: Into a three-gallon crock, put four cups of flour, one cup of salt and one cup of sugar, pour boiling water over this, about three quarts. Stir thoroughly. Add four cups of boiled-mashed potatoes; stir again. Add gradually warm water, until the crock is three parts full. When lukewarm, add one Royal yeast cake, previously dissolved in warm water. Cover the crock, and keep in a moderately warm place over night. In the morning, remove to cellar and keep from freezing. This will keep a month or until used. Take three cups of this yeast, add a little more salt and three quarts of warm water (this will make a large batch). In cold weather make the water quite warm, or warm the flour. Stiffen this ready to mold; cover closely, and wrap warmly. This will be ready for molding early in the morning. Knead in the pan, then turn on a warm board; knead again, as much of the success depends on this. The better way is to cut off a piece the size of a loaf; after molding, lay on one side of board until all has been gone over in this way; then commence at the first and shape into loaves for the pan. Set in a warm place to rise. This method is simple and easy, and any farmer's wife who finds breadmaking a task should give it a trial, and report for the encouragement of others."

MRS. MARY E. BYCRAFT.

We are very grateful to Mrs. Bycraft for her ready response to our request, and dare to hope she will come again with many other practical suggestions. In conclusion, may I ask those who are writing on our new competition, "The Most Amusing Thing I Ever Heard of," to make their essays as short as possible, and to be sure to have them in by the last day of February.

DAME DURDEN.

"Farmer's Advocate" Office, London, Ont.

#### Domestic Economy.

A day or two's abstinence from solid food aids the system to throw off a cold.

Cloths (flannel) wrung from hot water often relieve neuralgia and other severe pains.

If hiccoughs do not yield to the usual remedy of drinking water very slowly, take a small piece of sugar and dissolve it gradually on the tongue.

Heartburn can be immediately got rid of by taking cream of tartar, about half a teaspoonful in half a glass of water. It makes a pleasant effervescent drink, cooling to the blood.

The best treatment for a bruise is an immediate application of hot fomentations; after that, witch hazel, vinegar and hot water or alcohol and water, put on with a bandage and often moistened.

Sprains require prompt treatment. Immediately on receiving the injury bathe the part in water as hot as can be borne, and then swathe in compresses of witch hazel, changing as each becomes dry.

Travelling Notes.

Christmas, and New Year's, too, will both have come and gone before my notes can reach our readers, but in imagination we shall have "foregathered" without the aid of Atlantic cable or Marconi's wireless telegraphy, for we shall in spirit have wafted our good wishes across the waters, and we shall have received in return, yours for us, just as certainly as if we had heard the words with our mortal ears.

I think I have already described somewhat in detail visits I paid some eighteen months ago to some of the places upon our present list; therefore, to these I must make but brief allusion now. Should a little repetition occur here and there it will be caused by my not having with me my old notes, and on that plea I hope to be excused. Our plan on leaving home was to see what we could of Antwerp, Brussels, Cologne, the Rhine, Heidelberg, Munich, Vienna, Venice, Milan, Florence, Rome, Nice, Geneva, Berne, Lucerne, and Paris, "and then," said one of us, "probably the poorhouse for the rest of our lives."

We are now, on 21st December, at Heidelberg, on the point of starting for Munich, where we hope to spend Christmas. We had a delightful stay of a week at Brussels, a most lovely place, and well worthy of more visits than one, for not only are second impressions often more lasting than the first, but one cannot always take in at one view all there is to see anywhere. Brussels abounds in places of interest, and in treasures of immense artistic value. It has thousands of pictures in its art galleries, and many fine buildings, amongst the most striking of which was the Hotel de Ville, or Town Hall, where, for the small fee of 50 centimes, or 10c., one is shown over every department. In one of these, by the law of the land, every one, without exception, has to be married, whether or no they have gone, or intend to go, through a religious ceremony besides. We three spinners were a good deal amused at witnessing one of these functions, at which, in short order, for it did not last longer than five minutes, ten couples were married at one stroke, the magistrate dismissing them with what seemed to us a jabbered injunction, "to sort themselves," an

easy and pleasant task enough for them, but one for which he evidently did not hold himself responsible. The couples walked away, arm in arm, to their several carriages. Some were rich, some were poor, but let us hope that they all may be happy ever afterwards. We were greatly interested in the lace factory from whence comes the beautiful Brussels lace so dear (in more senses than one) to the heart of woman. We were shown the pattern of the wedding veil made for the Princess Beatrice, which took 200 women, working constantly for seven months, to bring to perfection. On asking the scale of wages paid to lace-makers, we were told that they were very small, ranging from 15c. to 30c. per day. Think of this, ye women workers in happy Canada, and thank God for casting your lot where honest toil meets its fair reward. It seems an anomaly, that with this pittance paid to the toilers, lace can be purchased for far less in old London. My cousins were amused at some of the "curious ways" of the people amongst whom we found ourselves, many of them not without their advantages; for instance, the hanging of mirrors at the outside of their windows, at such an angle that they can see what is passing in the street without rising from their chairs, and also become aware of the identity of the ringers at the door-bell before giving admittance. They were struck, as I had been, with the general use of dogs in drawing the small milk and vegetable carts, and even of cows, being put between the shafts of a vehicle large enough to carry a whole family at one time. I would not imply that there was any cruelty shown. No, indeed, on the contrary, the good moolie in cold weather had usually a warm blanket strapped across her back. Perhaps we were more unpleasantly impressed by seeing the very hard and unwomanly work which women have to do in Germany, and the exposure to which it subjects them. We saw them in the fields plowing, spreading top-dressing, and grubbing up the roots from the cold, hard ground, work which must be a great strain upon their strength, or so it seemed to us, but which appeared to be undertaken uncomplainingly enough.

Two days was all we could give to Cologne, some hours of which we

naturally devoted to its wonderful cathedral. On our way thence to Heidelberg, our train skirted the Rhine, entrancing us with its romantic scenery; each of its numberless castles having its story to tell, but none with greater romance surrounding it than that of stately Heidelberg, which is the crowning glory of this garden of Germany.

We three tramps are getting on grandly. Nell, more and more charmed with each new place, never wants to move on, and only once have I heard her say that she was "going straight back to Australia," and this was because she was cold. In England she was always returning by the next ship, notwithstanding she has a round-the-world ticket. Eleanor is an indefatigable sight-seer, poking her nose into everything, until I am beginning to be alarmed lest she may find her way into the lockup, for infringing one or more of the many rules which in Germany are very strictly enforced.

One day we had about six officials chasing us, because we had crossed a railway track and got upon the wrong platform. It was very droll, for we did not know one word they were saying, and vice versa. However, when once they had got us fairly "rounded up" and into the right place, they laughed, and we laughed, and so the episode ended, not only peaceably, but hilariously. I expect to date my next notes from Munich.

MOLLIE.

The Doctor.

This beautiful and touching picture, by the celebrated artist, Luke Fildes, is well known, and has been widely copied, and no wonder, for it tells a story which goes straight to the heart. There can be but few who do not feel a thrill of deepest sympathy with those grieving ones who, in wordless agony of suspense, await the verdict, "To live" or "to die"? The unconscious child lies hovering on the brink, and seems as though already gone over to that great and mysterious beyond, so inert is the attitude of utter weakness. But this is not death, for there sits one who, with rare skill, helped by God's mercy, is straining every nerve to bring back to strength this frail flower. The whole figure and expression of "The Doctor" is

forceful to a degree, as he watches that young face, the light thrown upon it from the raised lamp-shade. The poor mother, with head bowed on her arms, is unable to look longer upon her darling. The father seems as though compelled to look, and that quiet watcher with the kind and noble face, so full of strength and self-control, will stay at his post unflinchingly, and will make no sign until he is sure, and we hope that fair child will be saved for those who love her!

There is so much artistic merit in this picture, that one might linger long over its discussion. The wonderfully natural position of the child's hands is a study in itself, but somehow it seems almost sacrilege to analyze thus. The picture is simply a grand study in human nature, and its masterly drawing stands second to its exquisite conception.

The Twins at Culleston Manor in 1685.

It was not for a few years after their first visit to Culleston that Dolly and Betty were told the whole story, with its mingling of pathos and wasted heroism, of those other twins of the picture, Dorothea and Bettina Culleston, whom they henceforth always called "the brave little great-grandmothers." Nurse had related to them enough to arouse in their minds a very keen interest, as well as a sense of pride, in belonging to a family which had taken part in historic events of nearly a century and a half ago, and this interest was accentuated when their great-aunt, Rebecca Lemorne, sent them as pupils to the time-honored old school on Castle Green, which, in spite of many changes, had educated generation after generation of the daughters of the county families of Somersetshire, and to be educated at which conferred a kind of hall-mark of distinction upon every pupil.

As they passed through the curiously winding corridors, stepped up and down stairs placed in unexpected corners, exchanged schoolgirl confidences in the deep embrasures of small-paned windows, or sat upon the backless benches (for what girl at that time could possibly require any support but her own backbone?) of the room allotted for their hours of study, the whole place was peopled for them by the twelve little maids of Taunton, which formed the contingent contributed by their school to the long procession of girls who dressed in white, with bow-knots of blue—the Monmouth colors—bearing each a flag and following the banner their hands had wrought, with its fatal insignias of a royalty to which he had no claim, marched to welcome the rebel Duke to Taunton in 1685. Monmouth had but lately landed in England, to bring, as it was claimed for him, religious freedom and every other kind of freedom in his train. How miserably he failed, how much suffering, how many lives, including his own, were the price of that huge mistake, is a matter of history, but about which history gives only a very brief account, leaving it to the local records, old family diaries, and mouth-to-mouth tradition to tell the tale.

This is the summing up of history: "1685.—Insurrection of Monmouth and Argyle; both executed. Judge Jeffreys' Bloody Assize. In the Bloody Assize the King's revenge was wreaked for Monmouth's uprising. Jeffreys boasted that he had hanged more traitors than all his predecessors since the Conquest. Of this



The Doctor.

circuit, 300 were hanged and 800 sold into slavery in the West Indies, 100 were awarded to the Queen, and the profit she made on them was 1,000 guineas. Great sums were realized by the judge himself and others from the sale of pardons. Twenty-four (some say twenty-seven) young girls of Taunton who presented flowers and banners to Monmouth when he entered their town, were arrested and given to the maids of honor of the court as their share of the spoils. Two thousand pounds were paid for their escape."

Truly, even thus pithily told, has not the story many elements of tragedy within it?

#### SOME RECORDS FROM THE OLD CABINET AT CULLESTON.

Dorothea writes: "June 20th, 1685, Castle Green School.—My flag is finished at last, and I have been able to help Bettina with hers. There was more work on hers than on mine, because she had to embroider the arms of Taunton, whilst mine was just a drawn sword and a motto. We chose our own designs, and some were mightily pretty ones, each meaning more than did seem at a glance. That with the biggest meaning of all had a crown worked upon it, and, oh, if our cause is lost, it will go harder with our dear little Letitia Lamorne than with the rest of us. For though we keep saying, "We shall win! We shall win!" we older girls do know that there may be real danger for us, even in the very small share we are allowed to take in England's great deliverance. You see there is such a mighty enthusiasm over the whole countryside, men, either duly equipped with arms or with no other weapons than scythes and reaping hooks; men on horseback, men on foot, men springing up like mushrooms by day-dawn from hill and dale, shouting, 'A Monmouth! A Monmouth!', that we believe the cause is as good as won already. The King's militia have fallen back, those who are still known to be Royalists keep within doors, and it is confidently asserted that the King himself trembles on his throne. If it is all true, it will be something, indeed, to be proud of that the maids of Taunton were allowed a share in the hour of triumph."

Bettina writes:

"The great day is over—a day, the memory of which must ever remain in our hearts, whatever may betide. I thought no girl so sweet in face and graceful in carriage as sister Dorothea. No wonder that she should be the favorite of the mistress and pupils alike of Castle Green School; no wonder young Ned Halliday, of Barton Regis, never has eyes for any other when our Dorothea is by, and no wonder was it to any one of us that the great Duke himself should single her out amongst us all for a mark of special favor. We, none of us grudged her the honor, least of all, stately Letitia, who bore the golden banner, and presented it with fitting words to him who was presently to be announced as King of England, and whose proclamation was to be read, after the blowing of trumpets and shouts of rejoicing, in the market place of Taunton Town. I think, too, we were all proud of our mistress, as, with bent knee, she offered the hero of the day the Bible and sword, both emblematic of the beneficent rule under which he pledged to his people his royal word that they should henceforth live and prosper."

Later on, Madam Culleston writes: "Alack a day! What a fool's paradise we have lived in! What a jay in peacock's feathers has the Duke of Monmouth proved himself, and how deluded have been his followers! It is true that they nearly won the cause for which they fought, and which they honestly believed to be a just one and true, and they could, nay, would have won it, had not the weakest spot in their armour been the unworthiness of the man whom they had made their hero. His vacillation, his pusillanimity—nay, his craven heart—has

brought to despair and death his blind and gallant followers. The battle of Sedgemoor has been fought and lost. My husband lies wounded, my sons are, where? But, thank God, my dear little daughters are

safe, must be safe, with Mistress Tredgood at Castle Green School. But here comes news of them at last."

H. A. B.

(To be continued.)



#### "In Due Season We Shall Reap."

Having said so much lately about sowing, I will now give you some selections from Miss Havergal's poem, "The Sowers," which throws some light on the joy of the harvest.

One who though she had little to sow, but did what she could because she loved the Master, gave only quiet words, spoken, or "traced with timid pen." Her seed sprang up, often unknown to the sower, and

"She, who timidly had scattered Trembling line or whispered word, Till the holy work grew dearer, And the sacred courage clearer, Now her Master's own voice heard Calling shining throngs around her, All her own fair harvest found. Then, her humble name confessing, With His radiant smile of blessing, All her dower of gladness crowned."

One had planned to sow much seed, "to fill broad furrows, and to watch it spring, and water it with care," but God gave him other and less attractive work to do. The willing laborer was laid, weak and helpless, on a bed of sickness, but he was not idle. From that silent room floated winged seeds of thought and prayer. When he at last laid down the heavy cross of pain, he was met by a grateful throng of happy souls.

"Who art thou? I never saw thee In my pilgrimage below," Said he, marvelling."

And what an answer he received! Well might he marvel and rejoice when he saw how the tiny seeds had grown and increased. These are the words he heard:

"Words that issued from thy chamber Turned my darkness into light, Guided footsteps weak and weary, Through the desert wild and dreary, Through the valley of the night. Come! for many another waits thee! All unfolded thou shalt see, Through the ecstatic revelation Of their endless exultation, What our God hath wrought by thee."

Another consecrated his musical talent to the Master's service, and to him also came the joy of harvest, for:

"Hark! a voice all joy-inspiring Peals down the golden floor, Leading on a white-robed chorus, Sweet as flute, and yet sonorous, As the many waters' roar. He who sang for Jesus heard it! 'Tis the echo of thy song!' Said the leader. 'As we listened, Cold hearts glowed and dim eyes glinted, And we learned to love and long Till the longing and the loving Soared to Him of whom you sang. Till our Alleluia, swelling, Through the glory all-excelling, Up the Jasper arches rang.'"

One cast much seed on the waters, sowing often in weariness and with little apparent prospect of a harvest.

"The tide of human hearts still ebbed and flowed, Less like the fruitful flood than barren sea; He saw not where it fell, and yet he sowed: 'Not void shall it return,' said God, 'to Me!' The precious seed, so swiftly borne away, A singing reaper's hand shall fill with sheaves one day."

When he came joyfully forward to meet his Master's smile of approval and lay the full sheaves at his feet, a glittering throng joined him

"Whose voice had taught them, To the praise of Him who brought them In a new and rapturous psalm."

Another who longed to sow much seed had no bright grains of thought or fiery words of power to give, so he sowed, prayerfully, the words of others—lending books or copying helpful verses. In the harvest time, he only expected to rejoice in the joy of others, but, to his great surprise,

"Great and gracious words were spoken Of his faithful service done, By the voice that thrills all heaven; And mysterious rule was given To that meek and marvelling one."

A little child who loved the King scattered seeds of love and joy, showing a wondering world how glad and happy anyone must be who walks always holding the Father's hand and looking up into His face. He, too, found a rich harvest, for:

"Aged ones and feeble mourners Felt the solace of his smile; Hastened on with footsteps lighter, Battled on with courage brighter, Through the lessening 'little while,' Till they, too, had joined the mansions

Where the weary are at rest. Could that little one forget them? Oh, how joyously he met them In his dear home safe and blest! And the Saviour who had called him, Smiled upon his little one; On his brow, so fair and tender, Set a crown of heavenly splendor, With the gracious word, 'Well done!'"

One who had spent years in a still, darkened room, patiently enduring the weary monotony of helplessness, thinking that she could sow no seed, speak no words for Christ, only, "suffer and be still," found that she also had a share in the great harvest song. Round her, too, were piled golden sheaves, although she had thought herself only a burden to others and no use at all.

"Thousand, thousand-fold her guerdon, Thousand, thousand-fold her bliss! While His cup of suffering sharing, All His will so meekly bearing, He was gloriously preparing This for her, and her for this."

God sends many laborers into His vineyard, but he does not give them all the same work to do. Some of King David's men were, on one occasion, unwilling to share the spoils of battle with some of their comrades, who were faint and weary and unable to join in the fight. David settled the question, and made it a law in Israel that "As his part is that goeth down to the battle, so shall his part be that tarrieth by the stuff; they shall part alike." He was only enforcing God's command to Moses to "divide the prey into two parts: between them that took the war upon them, who went out to battle, and between all the congregation."

No one can stand alone. One may be called to preach to great congregations, and another may have the less interesting work of cooking his meals and keeping his house comfortable. Surely the person who does the necessary housework, leaving the preacher free to prepare his sermons in peace and quietness, is helping to preach.

Only God knows who will reap the

richest harvests, but surely a great many people will be surprised on that day. Some who feel satisfied that they have sown much seed may find that they have been watering it with pride and vanity, instead of with prayer and humility. Only God can give the increase, and He loves to honor meek souls who seek to glorify Him rather than themselves. HOPE.

#### The Right Way.

Dr. Norman Macleod lost his way as he was going to a place called Daffin, to christen an infant, when he met a herd-boy, and the following conversation took place:

"There's gaun to be a fine shine at the Daffin th' meet."

"Aye, what's going to be up at the Daffin?"

"The meenister's cumin' to bapteeze the wean. I've got the cookies i' th' bag."

Norman did not tell the lad that he himself was "the meenister" in question, but said, "Noo, how d'ye get a livin'?"

"Oh, I'm just a herd-laddie. I split the wood, and carry the water, and bring the kye hame, and do just what I'm telt."

There was a moment's silence. Then the boy, turning to Norman, said, with a mark of interrogation in each eye, "Hoo d'ye get a livin'?"

"Well, that's a fair question. I asked ye how ye got a livin', and ye telt me; now, I'll telt ye how I get a livin'. I get a livin' by tellin' auld folk, and young folk, and little folk like ye the way to heaven."

That little boy stood still and simply screamed with laughter. His laughter was uncontrollable. He was doubled up with laughter. When the tumult of merriment was over, he said to Norman, "That's a good 'un." Another burst of laughter, and then this profound inquiry, "Hoo can ye telt the way t' hivven when ye dinna ken th' way t' th' Daffin?"—Chimes.

#### The Old Rail Fence.

Oh, those blithesome boyhood days With their happy truant ways, When every little sorrow Had its joy to recompense, Excepting just one grief That never found relief From the terror of the "Old Rail Fence."

As soon as spring had come With the sunshine glowing warm, A fear began to haunt us And we waited in suspense, For we knew that it was coming With the yellow hammer's drumming, The moving of that "Old Rail Fence."

Through the warm bright days of spring The birds might build and sing, But all of this, for us, Was of little consequence. For what was springtime joy To a luckless farmer boy Working at an "Old Rail Fence?"

When, midst summer's toil and strain There came a friendly rain With its ever glad promise Of a day of indolence, It only found us wishing That we, too, might go a fishing While fixing up some "Old Rail Fence."

Then come drowsy autumn days With their cobwebs and their haze, When all nature seems a resting From Harvest's toil intense, But our muscles can't relax For we must fence the stacks, Fence them with an "Old Rail Fence."

The "Old Rail Fence" is passing; Oh, quickly speed the day When the last rail Forever shall go hence; No tears of mine would flow If I might look on the glow Of the embers of the last "Rail Fence!"



**Having a Good Time.**

Annette had always lived in the city, but last summer she was sent to visit her cousins who live on a Canadian farm. Although the children were all born in this country, the father and mother came from Switzerland, and they still have great faith in goat's milk. Annette was very pale and thin when she first arrived, but after living out of doors for two months, running barefoot and drinking plenty of goat's milk, her cheeks grew as round and rosy as yours, my dear little country cousins. Do you see how kind Herman is? He is very fond of his little cousin, and old Nanny looks pleased, too, and seems to understand that she is doing a great deal of good to at least one small person. How sorry Annette was when she had to go back to the city, and how she chattered to her school chums about the lovely time she had. Bed-time always came too soon for her taste, and she was quite willing to agree with the child who said:

The clocks don't know their A B C's,  
And so they cannot spell;  
But yet they count much more than I,  
And seem to count quite well.

But what good so much counting does,  
I'd really like to know?—  
Just sending people off to bed  
Before they want to go.

But it is not only in the summer that people have a good time. I am sure you would be sorry if the summer lasted all the year round, and if our dear Canada never provided ice and snow for you children to enjoy. People who live in Florida or California may think a Canadian winter almost unbearable, but we don't feel afraid of a little cold weather, do we? Did you ever hear of "Mrs. Wiggs of the Cabbage Patch?" She was not very warm, certainly, and her bare elbows were sticking out through the holes in a boy's old coat which she wore, but nothing could freeze her cheerfulness. This is the way she talked one cold day, when she had to pin the bed-clothes round the children, as they sat close to the stove, and paste brown paper over a hole in the window: "My, but it's nice an' cold this mornin'! The thermometer's done fell up to zero!"

Mrs. Wiggs always tried to have a good time, and she generally succeeded, although sometimes she had to make-believe a great deal. She was very poor, but when unexpected visitors arrived just at dinner time, it never worried her in the least. "Tain't no trouble at all," she remarked, pleasantly. "All I've got to do is to put a little more water in the soup, and me and Jim won't take but one piece of bread."

When the house was burned down, she still found something to enjoy, and said, "Thank God it was the pig instid of the baby that was burned!"

I know two little Manitoba children who were in a railway accident a few weeks ago. The car was lying on its side all day, and the mercury outside was about forty below zero, but they managed to have a good time. And it is something to talk about now the danger is over. Though you may not have any such exciting experiences, still you can have a good time by pretending that you are having adventures, acting things that you have read. You may, as Stevenson says, visit the land of story books. This is his idea of having a good time:

At evening, when the lamp is lit,  
Around the fire my parents sit;  
They sit at home and talk and sing,  
And do not play at anything.

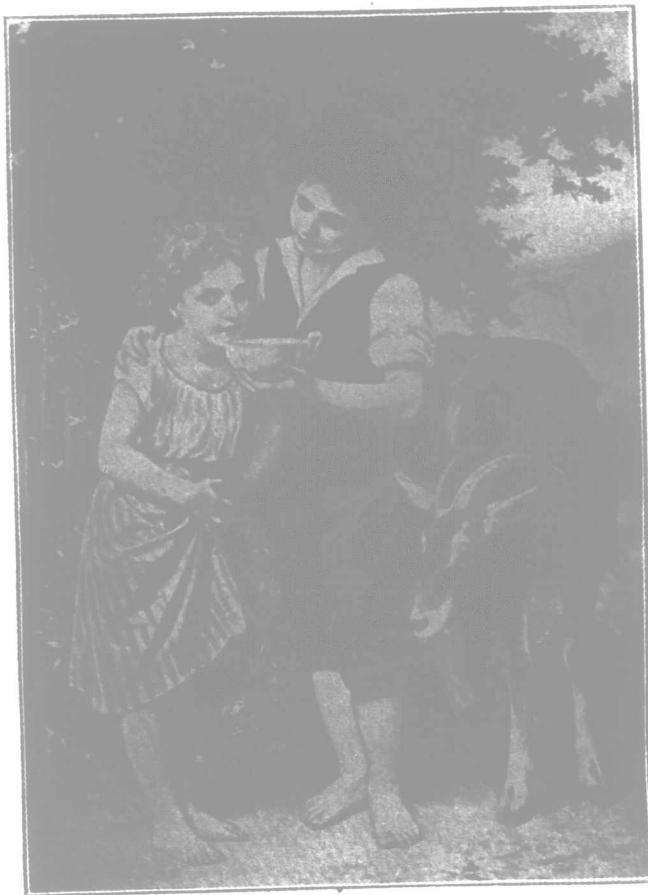
Now, with my little gun I crawl,  
All in the dark along the wall,  
And follow 'round the forest track,  
Away behind the sofa back.

There, in the night, none can spy,  
All in my hunter's camp I lie,  
And play at books that I have read  
Till it is time to go to bed.

These are the hills, these are the woods,  
These are the starry solitudes;  
And there the river by whose brink  
The roaring lions come to drink.

I see the others far away,  
As if in fire-lit camp they lay,  
And I, like to an Indian scout,  
Around their party prowled about.

So, when my nurse comes in for me,  
Home I return across the sea,  
And go to bed with backward looks  
At my dear land of story books.



Having a Good Time.

But you have found out long ago that the best times always come when you are trying to make other people enjoy themselves. It isn't my business to preach, but I must remind you of this way of having a good time, so that you may go right off and try it. It doesn't matter whether you live in a big, roomy farmhouse or in a little shack on the prairie. Happiness is a flower that can grow in every kind of climate, and it thrives just as well in a little shabby home as in a grand palace—often a great deal better. It is like a geranium which will flower splendidly in an old tin can. Water your plant of happiness with love and good temper, and don't forget that rudeness and unkindness will make it wither. If you don't want to kill it altogether, try to keep from worrying. There may be a blizzard coming on Saturday, so that you can't go skating, but worrying about it on Friday won't do anything to make the weather fine outdoors, and it only

makes things unpleasant indoors. As our friend, Mrs. Wiggs, says: "You mark my words, it ain't never no use puttin' up yer umbrell' till it rains." I don't want you to copy her grammar, but if you want to have as many good times as she had, you must try her plan of looking out for pleasant things. You can always find plenty if you keep your eyes wide open. COUSIN DOROTHY.

**The School Lunch.**

If the children cannot come home to a hot dinner, their lunch-baskets should be made as dainty and appetizing as possible. Children should never carry a lunch put up in such a manner that they are ashamed of it. Neat little sandwiches filled with jelly, egg, cheese, minced meat, sardines or nuts are delicious. A generous piece of good, though not too rich, cake, some kind of fruit and pickle, and as a surprise, occasionally, a tiny pie or a tart. In the winter time a small glass provided with a cover and filled with stewed or canned fruit will be found especially good. Here, too, the mother must guard against a sameness. There are so many little things which will be relished in the lunch-basket that there is no excuse for monotony. The hot dinner, whether at noon or at six o'clock, is the main meal of the day. There should always be meat, and that a different kind every day, if possible, potatoes and

cut into fanciful shapes and baked or made into tiny loaves have been tried with success. This is for the little child; but there are so many ways if only the mother will think.

**Humorous.**

Deeds, not words: Father (sternly)—  
"Didn't I tell you if any of the other boys said anything to make you angry, you should count twenty before you said anything?" Tommy—"Yes, sir; but I didn't need to say anything. Before I'd counted twelve the other boy yelled 'Enough!'"

Father—So you took dinner at Willie Stout's house to-day. I hope when it came to extra helpings you had manners enough to say "No." Tommy—Oh, yes, sir, I said "No" several times. Father—You did, eh? Tommy—Yes, sir; Mrs. Stout kept askin' me if I had enough.

First Scot—What sort o' meenister hae ye gotten, Geordie? Second Scot—We seldom got a glint o' him; six days o' th' week he's envees'ble, and on the seventh he's incomprehens'ble.

The gentleman who likes to ask questions was visiting kindergarten. Finally, he turned his attention to "Johnny."

"My boy," he said, "do you know how to make a Maltese cross?" "Yes, sir," "Johnny" answered, promptly.

"Good!" exclaimed the visitor, delighted to learn that in "Johnny's" case, at least, the work of hand and brain were going forward together. "How would you go about it?"

"Why, jes' pull her tail," said "Johnny"; "that's all."

**CURZON WAS NOT CRUSHED.**

Lord Curzon has been long noted for his cutting and cold remarks. Some years ago, says the railway official who tell the story, Lord Curzon came down from London by what was then the London, Chatham and Dover Railway, to address a political meeting at one of the Kent coast resorts. Lord Curzon was in a hurry. The train made its twenty miles an hour all right, but the future Viceroy thought it the slowest train on earth. He said so to the guard. That dignitary, as usual, took the remark as a personal insult.

"If you don't like the speed of this train, mister," he said, "you can get out and walk!"

Lord Curzon was not crushed. Tart as vinegar came the reply:

"I would, only they don't expect me till this train gets in!"

**Knitting as a Nerve Cure.**

It is told of Robert Louis Stevenson that one of the many things he learned to do to keep him amused when he was restless or ill was to knit. There are many men of a generation much older than ours who improve odd moments by working with yarn and needles. But women, to be women, simply must knit after their hair is gray, and it is good for them.

"My prescription, madam, is that you knit two hours daily," said the physician.

"Knit!" exclaimed the nervous patient. "Why, on earth should I knit?"

The doctor replied: "Because nothing is more soothing to the nerves; because nothing conduces to such a calm and cheerful frame of mind. I could prescribe valerian for you, but knitting will be better. It will do you much more good. I believe that a month of it will cure you."

He went on to explain that his attention had been called to an article in a medical journal on the beneficent effects of knitting and he had prescribed the treatment, with excellent success, to a dozen women.

"The shining needles," he said, "playing swiftly among soft-colored silks or wools, engage the eyes pleasantly, and fill the mind with cheery and sane thoughts. At the same time they may produce admirable things—golf waistcoats, golf stockings of wool, delicate evening stockings of silk, shawls, a hundred articles."

The woman smiled, and said she did not know how to knit, but that she would begin to learn at once.

## HEALTH IN THE HOME.

*By a Trained Nurse*

### The Foot-bath.

A foot-bath can be given in bed. Put a blanket over the lower sheet and pillow; let the patient lie on it upon his back, covered by another blanket, with the upper sheet and remainder of bedclothes over that, and take off all clothing, slipping it over the head. The patient is now lying between two blankets. Tuck them in around the neck, and then arrange the rest of the bedclothes, tucking them in also, in such a way that the sheet comes around the face. The upper sheet may be taken off altogether. To do this, hold the blankets at the top with one hand, and pull down the sheet from under them with the other; then fold a towel over the blankets around the face. Now spread a large towel under the knees, and, standing at the side of the bed, place the tub upon it, the patient putting his feet in at the same time.

### THE KNEES MUST BE WELL BENT

or the patient will not be able to get his feet in comfortably, and the tub will very likely upset. Another person may hold the ends of the bedclothes up a little to prevent them from getting wet, or one corner may be folded back from the feet to the knees while putting in the tub, and all can be done without uncovering or chilling the patient. Let the water be as warm as he can stand it. After a few minutes take out a little with a small pitcher, and put back the same amount of hotter water, keeping it well above the ankles. Tuck in the clothes all about the patient and the tub. A few flatirons will help, not placed next to the body, but on the outside of the blanket covering the patient, and well wrapped in paper.

### A COLD, WET TOWEL

should be placed under the chin outside the bedclothes, to prevent the feeling of suffocation sometimes experienced just before perspiration begins, and a cloth wrung out in very cold water must be laid on the forehead. This is very important, and must never be omitted. In fifteen or twenty minutes remove the tub, let the patient put his feet down on the towel already placed there, wrap it around them and allow him to unbend his knees. Leave him in the blankets for a few minutes. He should then be washed off under the blankets with warm water, to which a handful of common salt may be added, and dried with a clean towel. Wash the back last, and when that is done, and the patient is still lying on his side, take the end of the blanket underneath him and roll it lengthwise towards the middle of the bed, finally pushing it under him as far as it will go easily, then let him turn upon his back and there will be no trouble in pulling the remainder of it out on the other side. Put on the night garment next. The arms go in first, then the head is raised, and the garment taken over it and the shoulders, after which it can be gently pulled down straight under the back. The blanket over the patient is then removed. The patient, if strong enough, can hold the bedclothes at the top, or the nurse can hold them in one hand, while she draws it out from underneath them. The upper sheet can be replaced in various ways, the simplest of which is to turn the blankets back a little from the foot of the bed, put on the sheet

in the ordinary way, replace the blankets, tuck the whole in, and then draw the sheet up over the patient underneath the blankets. Leave a hot iron or bag at the foot of the bed, not necessarily touching the feet.

### TO PLACE A BLANKET UNDER A PATIENT ALREADY IN BED.

Loosen the bedclothes everywhere; turn the patient upon his side, and fold the clothes after him, so that half the bed is uncovered. Next, standing at the side of the bed with his back towards you, take a blanket lengthwise in your hands, gathering it up in them until less than half remains hanging. Lay this on the uncovered part of the bed, spread it evenly, and push the gathered part in a bunch gently under the patient's back. Then turn him over carefully upon the blanket already prepared for him, and pull the gathered part which is thus left free over that portion of the bed just vacated, and make it straight and smooth all over, especially under the back. If for any reason

### NO FOOT-TUB IS FORTHCOMING

and there is nothing that can be made to answer the purpose, a good result may be obtained by placing hot irons, or bricks, or bags, all round the patient, the programme in other respects being exactly the same as when the tub is used. Great care must be taken not to burn the patient. Under unusual circumstances, when it might be inconvenient or impossible to wash the patient off with water, which is the best thing after free perspiration, the next best thing is to wipe him with absolutely clean towels, and put on an absolutely clean night garment. Always bathe the face with cold or cool water.

Lastly, the more the patient perspires the better it is for him. It will not weaken him, but relieve his system of waste matter and impurities, and he should drink cold water freely while taking the bath. This is accomplished by the nurse raising his head with one hand, which she places under his pillow, and holding the glass for him with the other. The patient should be instructed not to thrust his chin into the air, but to depress it, when it will be found quite easy for him to drink without spilling the water. A. G. OWEN.

### What Lemons are Good for.

1. Give hot lemonade at bedtime to cure a cold.
2. Bake a lemon, take out the inside and mix with sugar to make a thick syrup. Keep it warm, and take a teaspoonful frequently to drive away a cough.
3. Lemon juice is good to rub on the hands and face at bedtime to remove tan and clear the complexion, but dilute it with water, else it will darken the skin.
4. Lemon juice will quickly remove stains from the hands.
5. A glass of lemonade taken every morning will sometimes prevent bilious attacks.
6. Lemon juice is more wholesome than vinegar when used in salads, sauces, etc.
7. A slice of lemon bound on a corn at night will remove the soreness.
8. Don't waste the lemon rind. A little of it grated when fresh, and added to apple-pie or apple-sauce is an improvement. The rind of a fresh lemon grated and added to bread-pudding will make a different dish of it.
9. Lemons may be kept nice and fresh for a long time if placed in a jar of water; but the water should be changed every day.

### Why He was Not Promoted.

He watched the clock.  
He was always grumbling.  
He was always behindhand.  
He had no iron in his blood.  
He was willing but unfitted.  
He did not believe in himself.  
He asked too many questions.  
He was stung by a bad book.  
His stock excuse was "I forgot."  
He wasn't ready for the next step.  
He did not put his heart in his work.  
He learned nothing from his blunders.  
He felt that he was above his position.  
He chose his friends among his inferiors.  
He was content to be a second-rate man.

He ruined his ability by half-doing things.  
He never dared to act on his own judgment.  
He did not think it worth while to learn how.  
He tried to make "bluff" take the place of ability.  
He thought he must take amusement every evening.  
Familiarity with slipshod methods paralyzed his ideal.  
He thought it was clever to use coarse and profane language.  
He was ashamed of his parents because they were old-fashioned.  
He imitated the habits of men who could stand more than he could.  
He did not learn that the best part of his salary was not in his pay-envelope.—["Success."]

## With the Flowers.

### Insect Pests.

Sometimes, during the winter, house plants become infested with insect life to a degree which changes them from things of beauty into objects loathsome alike to sight and touch. You feel tempted to carry them all out and tumble them into the snow somewhere, where Jack Frost may have a chance of cleaning them. There is, however, no necessity of sacrificing ones plants like this, for, with just a little trouble, they may be made quite clean and healthy again. But it will not do to waste any time about it. In the hot, dry atmosphere of the house, these lice, or aphides, as they are called, multiply with great rapidity. Moreover, while here, they are immune from the host of larger enemies which prey upon them in the summer, and so have every possible chance for working what destruction they please.

The species of insects which are most frequently found upon plants in the house are: the green louse (sometimes called the green fly, because, in one stage of its existence, it has wings), the mealy bug, red spider, and scale insect. Of these, the green fly, mealy bug and scale insect all belong to the order Hemiptera, of which there are over 20,000 species. They are all provided with mouths fitted for piercing and sucking, rather than for biting, and they exude from their bodies a sweetish, sticky fluid, called honeydew, which sometimes drips from the stems and leaves of the plants on which the lice are. This substance, as may be imagined, attracts ants, if any be in the vicinity, and, for this reason, plant lice have been termed the "milk cows of the ants." It has been observed by the naturalists that ants, with their customary sagacity (one can scarcely call it instinct), care for the plant lice, and drive away their enemies, and even carry them, at times, to better feeding grounds. However, all these interesting things do not help us to like the little pests any better, if they appear on our house plants.

It is an old saying that "prevention is better than cure," and nowhere is this adage more true than in caring for house plants. If proper care be taken to have plenty of good, pure air about them, to keep the atmosphere moist (the "steamy" atmosphere of the kitchen is a good place), and to give them frequent washings, or spraying, with tepid water, there will be little danger of lice appearing. If, however, they do appear, try giving the

plants a good bath in water heated to 136 degrees—higher than that will injure the leaves—or, if you spray it on, heat the water to 140 degrees. If this proves ineffectual, for the green louse, spray or wash the plants well with a solution of sulphotobacco soap, which may be procured from any seedsman or dealer in florists' supplies. If you cannot get this conveniently, use castile soap instead.

If your plants look sickly, and the leaves are dropping off rapidly, examine the under side of the latter. If they look dusty, or have small, rustlike spots on them, you may take it for granted that the tiny red spider is working his depredations there. In order to rout him, spray forcibly with warm water, directing the spray chiefly on the under side of the leaves, or spray with sulphotobacco soap solution, or weak tobacco water.

For mealy bugs, which look like tiny tufts of cotton-batting stuck along the stems, syringe with whale-oil-soap solution, or simply wash frequently with warm water.

The scale insect is merely a species of plant louse, whose presence makes itself known by the appearance of hard brown scales, which cling to the stems of hard-wooded plants. They also come, occasionally, on ferns. If you detach some of the larger scales carefully you will find the lice underneath. In order to remove this pest, brush the scales off with an old tooth-brush, and spray with a weak kerosene emulsion mixture.

If plants are being injured by earth worms in the soil, immerse the pot in limewater, so that the soil is soaked with it, and, according as the worms come to the top, remove them.

FLORA FERNLEAF.

"Farmer's Advocate" office, London, Ont.

Answer to E. J. M.:

Bulbs may be planted at any time during the winter, but, after planting, it will be necessary to set the pot away for four or five weeks at the very least, in a cool, dark cellar, where the root growth may take place before the top sprouts are forced on. If you plant the bulb and set it immediately in a warm atmosphere, exposed to the light, the leaves will shoot up very rapidly, but the flowers will be likely to "choke" and not mature properly, if, indeed, they come at all. We judge that this is what you have done with your hyacinth. All you can do now is to diminish the light somewhat, and put the bulb in a cooler place for a while, until the root-growth has had a chance to take place. Remember that you must not hurry bulbs at the start, if you would have success with them.



**An Attractive Type of Womanhood.**

"She stood in her place with a smile on her face,  
Keeping her little world bright."

The great poets differ considerably in their ideals of womanhood, the qualities most admired by some being unnoticed by others; but in almost every instance, their standards are worth studying, as are also those of writers not so well known. There is, indeed, a large and steadily-increasing class of poets concerning whom we know little; but whose verses frequently supply us with what we need most, the helpful thought or the inspiring strain, leading to better things. True, the poet's name may never be known, but that is of little moment. And so, too, with the lines quoted above—simply a couplet printed in a paper without word or comment, not even the name of the writer—but what a beautiful thought they contain.

Do you not see the woman whose portrait has been drawn for us? In your mind's eye can you not picture her standing, "with a smile on her face"? And the smile would, of course, be the right kind of a smile, cheerful, hopeful and glad. Yet it may have been hard for her to smile; she may have had more cause for sorrow than for joy. But she conquered her own inclination, and won a victory for the right.

We may be sure, too, that the smile accomplished its mission, and helped someone to be brave and strong; and, believing this, is it not well for us to follow her example, and constantly practise the art of smiling in the best way. Then our influence on those around us will certainly be for good, for "we help one another by our joy more than by our sorrow."

Again, we are told that she was "standing in her place." The two last words are short ones, but they include a great deal, as the question of "place" is important to us all. Sometimes the place we occupy is not the one we would choose for ourselves, for other lines of work may appeal to us more strongly. Or, at times, we may grow discouraged and think that our place is but a narrow one, one from which we would like to change for a broader outlook.

Still, it is ever the highest wisdom to accept our limitations wisely, resolving to make the best of our place. If we choose, we can make it a happy place, a helpful place, and more than anything else, a sunny place. It depends entirely upon ourselves, and upon the way we live from day to day.

Then, too, there is the last line of the verse, "keeping her little world bright." Does that not sound very attractive, a bright world? And, after all, is it not what we most desire to accomplish, this keeping our world bright? We are not told how the poet's woman did this; but we may be sure that the expression on her face helped, for a happy face tells of a happy heart, and a happy heart goes a long way in making the world brighter and better. We may not always attain our desires, but if we keep this end in view, we shall not fall of our purpose.

But it is only a pen-picture, you think, and not that of a real woman. Yes, but it has been said that the poets study their types from life, and so it may have been in this instance. And even if it was not, can we not make it real and true ourselves by keeping the little verse in memory, thinking often of it, and resolving to practice its example steadily. If we do, it will help us in many ways, for the smile on our faces will make our own and other lives fuller and happier, and is that not an ideal worth striving for and worth winning here and now?

Stellarton, N. S. S. L. HARIVEL.

Sirs,—I like the "Farmer's Advocate" very much, not only for the help it gives relating to farming, but its moral tone is uplifting, and the Home Magazine department and Quiet Hour is edifying. I join in wishing the editor, and all the staff, a Happy New Year.

W. E. H. GARDINER.  
Middlesex Co.

We, all of us, try to forgive and forget  
When similar treatment we crave,  
And think we are virtuous paragons, yet  
We cannot forget we forgave.

**Recipes.**

**LEMON CHEESE CAKE.**

Two cups of sugar, one-half cup of butter, three-quarters of a cup of sweet milk, whites of six eggs, three cups of flour, and three teaspoons baking powder.

**1-2-3-4 CAKE.**

One cup butter, two cups sugar, three cups flour, four eggs, one cup milk, one-half teaspoonful cream tartar, and one-half teaspoon soda. Very good.

**COCOANUT LAYER CAKE.**

Excellent. Two cups sugar, one-half cup of butter, three eggs, one cup of milk, three cups flour, and two teaspoonfuls baking powder. Bake as for jelly cake, in six round tins. Filling—One cup good cocoanut, shredded; whites of three eggs, beaten to a froth, and one cup of powdered sugar. Spread this between the layers of cake. Then to one-fourth cup of cocoanut add four table-spoonfuls of powdered sugar and spread thickly over top of cake.

**COLD SLAW.**

Sprinkle a quart of finely-chopped cabbage with salt; let it stand an hour or more. Drain off the liquor into a granite saucepan. Then pour into it half pint of strong vinegar, a piece of butter (size of a hickory nut), a teaspoon of mixed mustard, half teaspoon black pepper, and a dash of red pepper. Let this come to a boil. Then stir in two well-beaten eggs and three table-spoons of sweet cream. Pour hot over the cabbage, and serve cold. A most delicious relish with all kinds of meat.

**TAPIOCA FRUIT PUDDING.**

One-half cup of tapioca, soaked over night in cold water enough to make a quart. In the morning cover the bottom of a pudding pan with any kind of fruit (peaches or quinces are very nice), and sprinkle with one-half cup of sugar. Pour the tapioca over the fruit, and bake one hour. Serve cold with sugar and cream.

**SIMPLE PUDDING.**

Put a pint of milk in a saucepan, and, as soon as it begins to boil, stir in three table-spoonfuls of flour, stirring briskly. Let it cool a little, and put in three pieces of candied orange peel cut in shreds, a little grated nutmeg, and a teacup of treacle, with one whole egg. Mix well, and turn into a pie dish lined with a nice, short crust. Bake in a hot oven for half an hour.—[Mass. Ploughman.

**HINTS TO HOUSEKEEPERS.**

Those who have trouble with custards are recommended to scald the milk to be used, set it aside until cool, and make the custard as usual. It will not curdle.

To make cream sauce for venison, put in a saucepan, with half a pint of cream, one cooked onion, well chopped, and a piece of butter rolled and worked in flour. Stir the whole over the fire till it boils. Then move the pan to one side, and mix in the beaten yolks of two eggs and a spoonful of any flavoring preferred. Stir over the fire until it thickens, but do not let it boil again. Serve in a sauce dish with the game.

Restore creased ribbons by laying them evenly on a board or table, and dampen them with a clean sponge and a little clear water. Then roll them tightly and smoothly around a good-sized bottle.

Tart apples and crisp celery cut up in equal quantities and mixed with hickory-nut meats make an excellent salad. Serve on lettuce hearts with a mayonnaise dressing.

For fig jelly filling take a pound of figs, chopped fine, a cupful of sugar, and half a cupful of boiling water. Boil to a jelly, stirring constantly.

For caramel filling for cakes, boil a cupful of brown sugar in a half cupful of boiling water until it threads. Beat the white of an egg until stiff, and add to it three table-spoonfuls of cocoa and half a teaspoonful of flavoring. Pour the boiling syrup over the egg and cocoa, and stir in a bowl until it hardens.

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**GOSSIP.**

**POSTPONED SHORTHORN SALE.**

Owing to the severe snowstorm, on Jan. 21st, blocking the railways, the dispersion sale of the herd of Shorthorns belonging to Mr. C. N. Blanshard, Appleby, Ont., advertised to take place on that day, was postponed, and, as announced in the advertisement in this issue, will be held on Thursday, February 11th. The herd has been long established, has had the benefit of a long list of Scotch-bred sires, and should be well up to the standard of approved type. The farm is near Burlington, on G. T. R., near Hamilton. C. P. R. runs to Hamilton and Radial line from there to Burlington.

**HANMER'S SALE OF SHROPSHIRE.**

Mr. J. G. Hanmer, Brantford, Ont., advertises his second annual unreserved sale of high-class Shropshire sheep and Jersey cattle to take place at Hill Home Stock Farm, about three miles from the city, on Wednesday, Feb. 17th, next. Mr. Hanmer informs us that there will be no reserve. Intending purchasers will, therefore, have a rare opportunity to procure first-class stuff at their own prices. The offering consists of 200 sheep and 9 cattle. The sheep to be sold comprise 75 ewes in lamb to that excellent imported ram, Harding's 282, 191934, a lifelike engraving of which appears in the "Farmer's Advocate." This ram was a winner at the Dominion Exhibition, Toronto, 1903; also at the International, Chicago. Viewed from a mutton standpoint, which is the principal one, this ram is an excellent specimen, and should leave stock of high-class quality. Fifty of the above mentioned ewes are yearlings, mostly from imported stock; the remaining 25 are imported, ranging from two to five years old (just in their prime). They are a strong, well-covered, typical lot that will average about 170 lbs. each, just in breeding condition. The 75 ewe lambs, taken all together, are a superior lot, some of them being imported. The



Harding's 282, 191934.

Imported Shropshire ram used in flock of J. G. Hanmer, Brantford, Ont.

home-bred ones are mostly sired by Canada King 161726, an imported Royal winner, and Lord Roberts 147559, the sweepstakes ram at Toronto, 1902. Mr. Hanmer's show lambs and winners of 1903 are included in this sale, as is also the 15 that (we are informed) Mr. G. Howard Davidson, of Millbrook, N. Y., refused to compete against, when Mr. Hanmer offered to accept his challenge at the late Chicago Live-stock Show for \$500.00 a side. Mr. Davidson's reply was, "I cannot compete; I withdraw my challenge." When we consider that Mr. Davidson's was one of the best flocks in the United States, this in itself ought to be a sufficient guarantee as to the quality of these lambs. The 50 rams that are being offered are mostly lambs and yearlings, just as well bred as any of the above mentioned. There are many among them good enough to be placed in the best of flocks; in short, they are a good, useful, well-covered lot, neither culls nor over-fitted stuff being included in this sale. It is probably the first time that the sheepmen of America have had such a good chance to get selections from such a large number of good Shropshires at their own prices; no doubt many of America's future winners are among this lot.

The Jerseys are also of the best. Two prizewinning bulls, one of them a winner of first at Toronto, and the other a winner of first at both Toronto and London, have sired a few heifers here that ought to make show animals. They are light fawns, and are good butter producers.

**TRADE TOPICS.**

**A SUCCESSFUL VETERAN** in the tree business is D. Hill, Dundee, Ill. For forty years he has been engaged in growing and distributing trees. Write for catalogue.

**THE TORONTO POULTRY AND PRODUCE CO.** announce to their customers that they will not receive any more consignments of produce until the opening of next season. In the meantime, communications should be sent to Glenavy Farm, Davisville, Ont.

**ARNOTT INSTITUTE.**—At Berlin, Ont., is an institute for the treatment of all kinds of speech defects. The habit alone is not cured, but the cause of the habit is also treated. Many persons with impediments in their speech are receiving benefit from the Arnott Institute. Cases undertaken are guaranteed. Remember the address, Arnott Institute, Berlin, Ont.

**THERE IS AN ADVERTISEMENT** in another column, in which is listed a big selection of organs. These instruments have been taken by that reliable old firm of Gourlay, Winter & Leeming, in exchange for pianos, and will be sold on the easiest of terms and the lowest possible prices. Read their offer, and conform to their terms, if an instrument is wanted.

**AN INSTANCE OF GROWTH.**—It is a pleasure, in this day of great industrial combinations, to note an instance where an independent concern has attained to mammoth proportions and has grown steadily but surely for years from a small beginning into the fullness of the present time. Such an institution is cited in the seed business of D. M. Ferry & Co., who for nearly half a century have gone forward each year, constantly adding new customers and retaining all its old ones, until it is today a source of seed supply from which many of the great crops of this country spring. Thousands of farmers, gardeners and flower-growers look to them year after year for the seeds from which the prosperity of their fields and gardens is to grow, and the fact that they are never disappointed in Ferry's seeds is the secret of the wonderful expansion of this popular firm. Their seeds can be bought in every city, town or hamlet of this land, and are always fresh, true to name and sure to grow. Their 1904 Seed Annual, a valuable guide in the selection of the proper seeds to plant, will be sent free to all readers who apply to D. M. Ferry & Co., Windsor, Ont.

**PRESSED HAY INDUSTRY.**—During the last statistical year, the exports of hay from Canada showed an increase of \$2,315,529 over the preceding year. For local trade vast quantities must be pressed into bales. This great increase shows that, to meet the demands of the times, the speediest and best means of compressing hay must be resorted to by the man who has hay to transport. A steam hay press, which is highly recommended is the "Columbia," manufactured by Wigle & Conklin, Kingsville, Ont., whose advertisement appears elsewhere in this issue. This press possesses very powerful gearing and a most effective feeder, which raises up entirely out of the way of the man who puts the hay over the feed-hopper. The block-dropper is arranged so that it cannot interfere with the feeding, nor drop the block at the wrong time; while the machine is devised so as to lessen the danger of accidents or breakage. It is also supplied with a bell indicator, and a chaff-grate, and is described as one of the easiest to run on the market. It has a record of 50 tons in ten hours, and is claimed to have pressed 3010 tons in 70 days' work. Mr. S. Orr, of Kent Co., Ont., an extensive hay operator, states that after thorough trial he found the "Columbia" all that it was recommended to be. Messrs. Wigle & Conklin are practical men and have a large and well-equipped factory at Kingsville. Persons interested in hay pressing should correspond with them.

An auction sale of seven head of registered Shorthorn cattle, twenty head of grade cattle, eleven horses and colts and the farm implements, property of S. H. Anderson, Camilla, Ont., is advertised in this paper to take place on the farm, lot 11, Centre Road, Mono, near Orangeville Station, on C. P. R., on Wednesday, February 10th, 1904.

**UNRESERVED DISPERSION SALE**



**30 High-class Scotch Shorthorns,  
50 High-class Shropshire Sheep.  
Also some Clydesdale Mares**

Bred to Royal Keir (Imp.) Mr. Leonard Burnett, Hillside Farm, Greenbank, Ont., having leased his farm, is selling his entire stock of high-class animals at auction at his farm on

**WEDNESDAY, FEB. 24th, 1904.**

TERMS.—Ten months' credit, 5% per annum discount for cash. Morning trains met at farm on application.

**LEONARD BURNETT, Greenbank, Ont.**

Port Perry and Uxbridge. Catalogues mailed on application.  
**MR. G. O. JACKSON, Auctioneer,**  
Port Perry, Ont., will conduct the sale.

**UNRESERVED  
Credit Auction Sale**

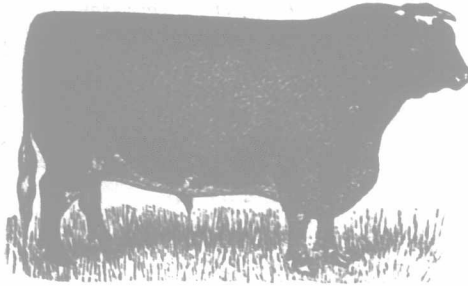
I will sell by public auction, at my farm, lot 14, Centre Road, Mono, on  
**WEDNESDAY, FEB. 10th, 1904,**

**7 Head Registered Shorthorn Cattle**

4 females and 3 bulls, of the very choicest breeding, showing such sires as imported Scotland's Fame, imported Prince Louis, imported British Statesman, etc. Also 20 head grade cattle and 11 horses and colts, together with farm implements. Catalogues on application. Parties coming by train will be met at Orangeville, C. P. R., by sending me post card.

**G. McAllister, S. H. ANDERSON,**  
Auctioneer, Shelburne. CAMILLA, ONT.

**CREDIT AUCTION SALE**



**35 HEAD SCOTCH AND  
SCOTCH-TOPPED SHORTHORNS**  
Property of C. N. Blanshard, Appleby, Ont., on  
**Thursday, February 11th, 1904.**

Some prizewinners, a number sired by Marr, Duthie and Cruickshank bulls. Possibly more high-class sires have been used on this herd than any other in Canada. Farm 2 1/2 miles from Burlington Junction, 10 miles from Hamilton. Ten months' credit, 5% discount for cash. Sale at 1 p. m. C. N. Blanshard Prop., Appleby, Ont.; Auctioneer, T. Ingram, Guelph.

**WINDMILLS**



**A CANADIAN (Galv.)  
AIRMOTOR**

Will do more work than any other implement  
**ON THE FARM**

Grinding, Straw-cutting, Pulping, Pumping, etc.

**BEWARE OF NEWFANGLED  
WINDMILLS**

Made largely to sell (you).

We make a **GOOD ARTICLE** and stick to it.

**Ontario Wind Engine & Pump Co.,  
Limited,**  
TORONTO, ONTARIO.

**'Perkins' American Herbs'**

Will positively cure Constipation, Rheumatism, Sick Headache, Dyspepsia, Nervous Troubles, Kidney Disorder, Liver Complaint, Stomach Trouble, Female Complaints, Catarrh, Neuralgia, and all skin diseases. The \$1 box is sufficient for 200 days' treatment, and is guaranteed to cure the above diseases or money refunded. Samples sent free to any address.

**The NATIONAL HERB COMPANY,**  
DIXON BUILDING, TORONTO, CANADA.  
Agents wanted in every locality.

**Buff Orpingtons** Pullets, from \$1.50 up; Brown Leghorns, females, \$1 up; trios Rhode Island Reds, Dark Brahmas, Black Wyandottes, \$2.50. Eggs—Orpington, Parred and White Rocks, Brown Leghorns; Golden, White, Fuff Wyandottes, \$2 for 13. **ROOKE & GEORGE,** 52 Clarence Street, London.

**GOSSIP.**

The annual meeting of the Canadian Jersey Cattle Club will be held on Saturday, Feb. 6, 10 a. m., at Walker House, Toronto.

S. Macklin, Streetsville, Ont., writes: "Holsteins have been in great demand the past season. Correspondence coming from all parts of Ontario as well as the United States. I sold two fine heifer calves to Wm. Webb, Kingston; three two-year-olds to A. D. Bessem, North Bay; one cow and two heifer calves to Alfred Deller, Norwich, Ont.; one bull calf to A. P. McLean, Finch, Ont.; one bull calf to E. Ecker, Hartfield, N. Y.; one bull calf to John Pierson & Son, Burgoyne; two fine heifer calves to James Shields, Smith's Falls, also an extra fine cow to Ernest Macklin, Port Hope."

**THE WORLD'S FAIR PRIZE LIST.**

Since the preliminary addition of the prize list for the St. Louis World's Fair Live-stock Show was issued, Chief Coburn, of the Exposition Department of Live Stock, has made a number of important additions and changes. Breeders who are arranging to show stock at St. Louis this year will find much of value in the following summary of these changes, which Mr. Coburn has furnished to the "Farmer's Advocate": No change has been made in the preliminary classification for horses as published last August, but a correction has been made as to some of the foreign studbooks recognized for the German Coach horses.

For cattle, an important change is made in the sections for the "herd bred by exhibitor." An entirely new section has been added, thus providing for two such herds instead of one, and it is not necessary that the bull shown in either of these herds shall be bred by the exhibitor. The sections for "aged herd, females bred by exhibitor," will provide for a herd consisting of bull, two years old or over; cow, three years or over; heifer, two years and under three; heifer, one year and under two, and heifer, under one year, the females to be of exhibitors' breeding. The new section is provided for "young herd, females bred by exhibitor," composed of a bull, under two years old; two heifers, one year and under two, and two heifers, under one year. The cash to be offered in each of these herd sections is \$200, in the classes for Shorthorns, Herefords, Aberdeen-Angus, Galloways, Jerseys, Holsteins and Guernseys, and \$150 for Red Polled, Devon, Polled Durhams and Brown Swiss.

Two entirely new classes have been arranged for champion pure-bred and grade fat cattle by ages. These will be for direct competition between Shorthorn, Hereford, Aberdeen-Angus, Galloway, Red Polled, Devon, Polled Durham and Brown Swiss steers and spayed heifers. The sheep classes have received a number of important additions. The Lincoln and Dorsets will be raised to the same classification and prizes as are given to Hampshires, Cheviots or Leicesters, each breed being allotted \$2,921. The three Merino types will be somewhat changed from the arrangement given in the preliminary list. All fine-wool wethers, including Rambouillets, will now be grouped in one class, and compete together.

The class for Large Yorkshire swine will be increased as to the amount of money allotted from the original arrangement of \$488 to \$3,241.

All white breeds of record not otherwise classified are grouped and will compete together, including Sheshires, Victorias, Small Yorkshires, Suffolks, etc.,

**MILBURN'S**



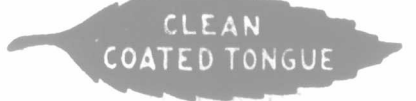
As a combination of the active principles of the most valuable vegetable remedies for diseases and disorders of the Liver, Stomach and Bowels.



Sick Headache, Jaundice, Heartburn, Catarrh of the Stomach, Dyspepsia, Blotches and Pimples.



Dyspepsia, Sour Stomach, Water Brash, Liver Complaint, Sallow or Muddy Complexion.



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.

the class for Chester Whites remaining unchanged. Some alterations have been made in the classes for Essex and Tamworth swine.

**MR. BURNETT'S SHORTHORN SALE.**

Canadian stockmen and farmers, or our American cousins, seldom have so good opportunity offered to them of getting first-class stock at their own prices as will be afforded them in the dispersion sale of the choice herd of Shorthorn cattle belonging to Mr. L. Burnett, Greenbank, Ont. Mr. Burnett having leased his farm, everything will be sold without reserve. He has about eighty head of cattle, thirty of which are registered Shorthorns of the most up-to-date Scotch breeding. The matrons in this herd were mostly sired by that noted imported Cruickshank bull, William Rufus 6455 (56769), bred by E. Cruickshank. Several other noted bulls have been used on this herd, among which was Duke Dido 1215 (47378), an imported Cruickshank Duchess of Gloster bull. Golden Earle, from a Watt-bred sire and a Dryden-bred dam, was used in the herd to good advantage, as was also Victory (50598), another imported Cruickshank bull who made his mark here. The thick-fleshed, Duthie-bred bull, Count Sarcasm = 32057 = (74301), of the Sittytton Secret family, is now at the head of the herd. He is a roan six-year-old son of Count Arthur, dam by Gravesend. He is to be sold, and it is a rare chance for someone to get a good individual, a good stock-getter and a fashionable pedigree combined. While the females nearly all merit special mention, space will not permit. Among the best of them, to our mind, is Victoria, a roan five-year-old that would do credit to any show-ring. Roan Beauty, an exceptionally thick yearling heifer, by Bonny Lad 25927, should fall into the hands of some exhibitor. If so she will likely be heard from again. Another exceptionally well-bred yearling heifer, perhaps fully equal in every respect to Roan Beauty, has for her dam Pure 18682, and Count Sarcasm 32057 for her sire, giving her five imported top crosses of pure Scotch bulls. Cherry Bloom is another heifer of special merit. She is of the same breeding as Victoria. Suffice it to say the females are a thick, even-fleshed lot, well-covered with heavy coats of good quality, and of fashionable breeding, a rare opportunity for Shorthorn fanciers to strengthen their herds. Mr. Burnett is also selling fifty Shropshires, mostly breeding ewes, only about ten of them being ewe lambs. The foundation was from imported stock and imported rams have been used almost continuously ever since. They were imported by Mr. Robert Millar, Hon. John Dryden, Mr. A. N. Patton, and others. This flock is strong and healthy-looking, of true Shropshire type and covering, and anyone in want of such will consult their own interests by attending this sale.

There will also be sold a few good Clydesdale mares in foal, of which we hope to make further mention later.

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



**QUESTIONS AND ANSWERS. VETERINARY.**

**DIARRHŒA IN SHEEP.**

Several of my sheep have had diarrhœa. Some partially recovered and eat, but do not thrive, others died after a few days. I feed hay and roots, no grain.

H. A.  
 Ans.—The diarrhœa is doubtless due to local causes. Probably you are feeding too many roots, or the hay and roots may be of poor quality. Change the food. Give clover hay of first-class quality, and feed oats twice daily. Give no roots for a while, and then feed in small quantities. The diarrhœa can be checked by giving half a drachm of powdered opium, two drachms catechu, and four drachms prepared chalk, in half a pint of cold water as a drench every four hours until the diarrhœa ceases.

**FOUL IN SHEATH.**

Steer became clogged in his sheath so that he had difficulty in urinating. I got a veterinarian to attend to him, but he is filled up again.

G. W. H.  
 Ans.—The only treatment is to remove the collection with the fingers. In most cases the steer has to be cast and secured with hobbles. Inject with a four-per-cent. solution of carbolic acid in warm water, after removing the obstruction, and it is good practice to inject the sheath about every second day, especially in cases like this that have recurred. It is probable the condition is due to too much lime in the drinking water, and a change of water might prevent it. Some steers appear particularly predisposed to it.

**FOUL IN SHEATH.**

Five out of ten steers got foul in sheath. They were on clover pasture, and are not much better in the stable.

A. A.  
 Ans.—See answer to G. W. H., this issue.

**MISCELLANEOUS.**

**TURNIP LICE.**

Is there any remedy for the turnip louse? They are getting very troublesome in this locality.

SUBSCRIBER.  
 Ans.—Plant an early patch of a few rows as a trap, and plow it under when the lice appear. Destroy all weeds upon which the aphids feed or propagate. Spraying with dust or kerosene emulsion is sometimes recommended, but is seldom satisfactory. A reader in Dec. 15th issue of the "Advocate" recommended sowing ashes on the turnips as a remedy for lice.

**TEXT BOOKS ON GEOLOGY, MINERALOGY, ETC.**

Kindly direct me to some one who could furnish literature on the formation of different minerals, etc.

W. E.  
 Ans.—Any of the following may be ordered through your bookseller: Scott's Introduction to Geology; (Sir Wm.) Dawson's Handbook of Geology; (Sir Archibald) Geikie's Outlines of Field Geology; Dana's Manual of Geology; (Sir Archibald) Geikie's Text-book of Geology (Edn. of 1903); (E. S.) Dana's Minerals and How to Study Them; Harker's Petrology for Students (Cambridge, Eng., 1902).

**RATION FOR MILCH COWS.**

We have some fresh milk cows. We feed them, per day, 25 lbs. mangels (pulped), 4 lbs. bran, 4 lbs. crushed oats, half lb. pea meal, 1 lb. cottonseed meal. This mixture is fed with roots in two feeds. Also all the timothy and clover hay that they will eat. Is this a balanced ration, and enough; if not, what is? Should a heifer, two and a half years old, get as much as an aged cow?

D. G. M.  
 Ans.—Not knowing the amount of hay the cows consume, we cannot tell the exact ratio between the nitrogenous and non-nitrogenous constituents that go to the cows' maintenance. But, assuming that with the above allowance of grain and roots, a cow weighing 1,000 lbs. eats 15 lbs. of mixed hay, then she will have about the proper amount of dry matter, but a rather narrow nutritive ratio. To remedy this defect, some chaff or cut straw might be fed, or the cottonseed meal taken out of the ration and replaced by peas, or bran allowance slightly reduced. If the ration were to be improved at all, it would be in the direction of reducing the amount of nitrogenous substances, or widening the nutritive ratio rather than narrowing it, and by following the course indicated, this would be done. A heifer two and a half years old, in milk, will scarcely eat as much as a cow of four or five years of age, and in reducing her allowance be guided by the amount of roughage she eats, reducing the grain allowance in proportion. Some individuals, however, may possibly eat as much as an aged cow, in which case give all they will clean up.

**BONES IN THE CARCASS—QUALITY.**

1. Can you tell me through the columns of your paper how many pounds, proportionately, is there of bone to the 100 pounds flesh in an unfattened beef, and how much in the finished animal?

2. How many bones are in the vertebrae of the cow and horses respectively?

3. Does the coarseness or the fineness of these denote any difference in the quality of the animal?

R. E. M.  
 Ans.—1. Prof. Armsby gives the following percentage of bone in the dressed carcass:

	Percentage.
Well-fed ox bones	7.4
Half-fat ox bones	7.3
Fat ox bones	7.1

2. There is not a fixed number of bones in any specimen of either class. In the neck there are seven, in the back eighteen or nineteen, the loins six, the croup seven, and the tail from thirteen to twenty, averaging for the horse sixteen, and the ox eighteen.

3. Yes. In speaking of the quality of a horse, fineness of bone is invariably one of the associated characteristics. Fineness of bone is one of the most certain signs that flesh is also fine-grained, although a fine-boned ox or cow may carry some fat or flesh that is far from being fine in quality, but fineness of bone must always be associated with what is known as quality, especially in the horse.

**SEQUEL TO DISTEMPER.**

About a year ago, my pure-bred Percheron stallion, three years old, had distemper, swelling under jaw. It never broke, and it has left him thick in hind legs around hocks. I would like to get clear of the swelling. What treatment do you advise? Exercise apparently has no effect. Would a blister be beneficial?

HORSEMAN.  
 Maple Creek, Assa.  
 Ans.—Chronic thickening around the hocks in stallions are frequently hard to get rid of. Would advise you to prepare him for a physic by feeding him on bran mashes for a few days, after which give him one ounce Barbades aloes and one-half ounce of ground ginger, either in the form of a ball or as a drench shaken up in a pint of tepid water. After the above has operated, procure the following: Powdered digitals leaves, six drachms; potassium iodide, six drachms, and potassium nitrate, one ounce. Mix and divide into twelve powders. Give one each morning and evening in feed. Give him regular exercise. A mild blister might be beneficial, but do not blister too severely, especially in front of the hocks.

**Unreserved Auction Sale**

of high-class SCOTCH-BRED SHORTHORNS. At his farm at Markdale (on Owen Sound branch of C. P. R.), in the County of Grey, Ontario, on

**WEDNESDAY, FEBRUARY 24,**

Mr. Thos. Mercer will sell his entire herd of

**54 HEAD SCOTCH-BRED SHORTHORN CATTLE**

including 3 imported bulls, 4 Canadian-bred bulls, 19 heifers, from 8 to 15 months old; balance breeding cows in calf and calves at foot. In this herd are a number of show animals.



The whole will positively be sold, as Mr. Mercer is going west. At the same time and place will be sold his choice 200-acre farm, without doubt the best-equipped stock farm in the County of Grey; is in first-class state of cultivation; buildings A1; water in stable; first-class orchard, etc. For fuller particulars see Gossip and catalogues, for which apply to

AUCTIONEERS: CAPT. T. E. ROBSON, GEO. NOBLE, WM. SHEPARDSON.

THOS. MERCER, Markdale, Ont.

**IRREGULAR STRANGLES.**

1. Last July, I bought a bunch of Western horses coming from Montana.

In a short time after arriving on the Canadian side, a very bad form of distemper broke out among them. In some cases large lumps would appear on the body, and finally fester and break. In other cases, especially the yearlings, the legs were affected. They would swell and often break out in horrible sores—many died. Those taken in and cared for in the stable seemed to die quicker than those which were let run. About September, the distemper had died out, but it left those which survived very thin. By freezing-up time, they had gained up in flesh; but some of them, when they would lie down, were not able to get up again without help. Several valuable animals died from this cause. I had a veterinarian examine these several times, but further than to say it was kidney trouble, he did not help them. Now, at this date, the disease seems to be still among them, and the legs of some are swelling. I have some of the very thin ones in the stable, and though they are getting the very best care and feed, they do not fatten. Kindly tell me what the disease is, and how to treat it in its various stages, and how to deal with the weak, thin ones?

2. Please, also tell me how to cure a horse of cribbing?

W. L. H.  
 Ans.—1. When the characteristic swellings and abscesses of distemper break out on the body, legs, etc., the disease is then known among horsemen as bastard or irregular strangles, and the mortality is then very high, especially in poorly-nourished animals exposed to the inclemency of the weather. As a sequel, many, as in your case, are left weak and emaciated, as a result of the poisons (toxines) not having been eradicated from their system. As you say, they are receiving the very best of care, etc., in the stable; it is not likely they will improve much until they get on to the grass next summer. For treatment, procure some tincture of iron,

give affected animals from one to two tablespoonfuls twice a day, according to age and size (must be given well diluted), also give one tablespoonful of the following twice a day in feed (boiled barley and flaxseed preferable): Powdered nux vomica, two ounces; powdered gentian, six ounces; soda bicarbonate, six ounces. Mix thoroughly together.

2. The best plan of curing a cribbing horse is to remove all objects away from him upon which he is likely to fasten his teeth, or else cover with tin or sheet-iron; could also try a strap buckled tight around the throat.

**PIGGERY VENTILATION.**

I have built a large pigpen one and a half stories high, with a hip roof, and loft for holding chop and straw. When the weather is cold, white frost forms on the inside of the roof, making everything wet when the weather is mild. Would you advise stove heat or ventilation, or both; if so, should the ventilators be run through the roof or through the gable ends; of what size should they be, and how many? The pen is 26 x 32, and 18 feet high at the ridge.

S. E. R.

Ans.—In this case, we would try ventilating by putting tile in the walls near the ceiling on both sides, about 12 feet apart. Over these rows of tile, put a board with hinges on the bottom edge, so that it would open and close aperture according to the direction of the wind. Then in the roof, put two ventilators to draw the air out of the loft. This we think would improve the conditions; but if not sufficiently, put two trapdoors in the ceiling to let the foul air through to the ventilator in the roof. A stove would be used only as a last resort, and only when every other means of reducing the dampness of the pen failed.

**Catalogue Printing Our Specialty.**

Many of the best Catalogues in Canada are produced by us. Latest type faces, designs, ornaments, and modern machinery. Best in America. Up-to-date covers designed by special artists without extra charge.

London Printing & Litho. Company, Ltd., LONDON, ONTARIO.

### Imported Clydes & Shires, Shorthorns & Yorkshires

Five Clydesdale Stallions; one Shire Stallion eleven Clyde Fillies; three Shorthorn Bull Calves, imp. in dam, a few imported Heifers; and imported Yorkshire Hogs. Clydes by such sires as Prince of Carruban, Prince Stephen, Prince Thomas and Royal Champion. Write for prices, or come and see. om

**GEO. ISAAC,**

Cobourg Station, G. T. R. BOMANTON, ONT.

### BAWDEN & McDONELL

Exeter, Ont.



IMPORTERS OF  
**Clydesdale, Shire and Hackney Horses**

Our new importation has arrived, and we have now about 30 stallions for sale, ages from 2 to 7 years; the best that could be purchased in Scotland and England. om

### CLYDESDALE MARES

Registered mares, from three years old and upwards, for sale.

**NELSON WAGG.**

Clarendon station, C. P. R., 3 miles. Stauffville station, G. T. R., 4 miles. om

### RED RIBBON STUD

Largest Importers and Breeders of

### Shire Horses



in the Dominion, including first-prize winner at Royal Agricultural Show in England; and gold medal for best Shire stallion, gold medal for best Shire mare, donated by the Shire Horse Association, England; three silver medals for sweepstakes, eight 1st prizes, four 2nd prizes and one 3rd prize at Industrial Exhibition, Toronto, 1903. Stallions and mares all ages, home-bred and imported, always for sale. Over 50 to choose from. om

**MORRIS & WELLINGTON,**

Fonthill P. O., Welland County, Ont.

### ROSEDALE STOCK FARM J. M. Gardhouse, Prop.

Choice imported and home-bred stallions and mares, also young stock. Two extra good young bull calves, and a few imported and Canadian-bred Scotch cows and heifers, bred to the imp. Mar bull, Chief Ruler. Telegraph, Post Office and Telephone (at residence), Weston, Ont. G. T. R., C. P. R. Stns. om

### ABSORBINE

**REMOVES**  
Puffs, Tumors, Thorough Pin, Capped Hock, Swellings, etc., without laying the horse up or removing the hair, strengthens strained and weak tendons, restores the circulation, allays all inflammation. Cures tumors, hernia, weeping sinew, etc., on human family. Price, \$2 per bottle. Circulars with testimonials free.

Manufactured by **W. F. YOUNG, P. D. F.,** Springfield, Mass.  
**LYMAN SONS & CO., MONTPEAL,**  
AGENTS FOR CANADA.

### EVERGREENS

Hardy sorts, Nursery grown, for wind-breaks, ornament and hedges. Priced \$1 to \$10 per 100. Great bargains to select from. Write at once for free Catalogue and Prospect Sheet. Local Agents wanted. D. Hill, Dundee, Ill.

**HOLSTEIN BULLS FOR SALE.** Pauline, Heifer and Jesse families, my herd. The record of 42 cows at the above factory for 8 mths, was 129,845 lbs. milk average per cow of 9,295 lbs. J. A. Caskey, Madoc, Hastings Co.

### QUESTIONS AND ANSWERS. MISCELLANEOUS.

#### TANNING SKINS.

I should be glad if you would kindly give me a recipe through the columns of the "Advocate" for the curing of animal skins. A SUBSCRIBER.

Ans.—See January 21st issue, page 108.

#### LICE ON CATTLE.

Would you let me know the best way to rid cattle of lice? P. A. B.

Ans.—See answer to same question in our last issue, and don't fail to thoroughly sweep the walls, and white-wash the whole inside of the stable.

#### ROOFING MATERIAL.

I have to put a new roof on my barn, and as it is a large one, I would like some of my brother farmers to give me their experience as to the best kind. Some are getting galvanized iron, and quite a few rubberoid, four ply. I put some on a shed last year; it seems to make a very good roof, but will it last? It cost the same as shingles, but is much easier put on. Any information will be thankfully received. R. A.

[If any of our readers have had an opportunity of making a good comparative test of the merits of different kinds of roofing material, we should be glad to learn the results.—Ed.]

#### COWS FAILING TO BREED.

We have two registered Shorthorn heifers, four and five years old, that fail to breed. They come in heat regularly, seem to be all right in every way, and are in the pink of condition. The younger heifer dropped a calf at two years old, and has failed to breed since. Can anything be done to induce them to breed? C. C. H.

Ans.—The only suggestions we can offer are to try a change of bulls, or an examination by a veterinarian to ascertain if the neck of the womb is closed, which examination should be made when the cow is in season; service being allowed after opening, which is done by a rotatory motion with the finger. The application of belladonna ointment to the part is said to facilitate the relaxation of the closure.

#### GOSSIP.

In our advertising columns, J. Bergin, Cornwall, Ont., offers some choicely-bred Ayrshire bulls for sale. Ayrshires are now having their innings, as witness the result of the dairy tests at the Winter Fairs last month, at Guelph and Amherst.

#### SMITH & RICHARDSON'S IMPORTATION.

"Messrs. Smith & Richardson, Columbus, Ont.," says the Scottish Farmer, "made their second shipment of Clydesdales for the season ten days ago from Liverpool. Mr. Fred. Richardson was himself over, and made the selections. He purchased five stallions from Mr. Peter Crawford, Dargavel, Dumfries, and an equal number from Messrs. A. & W. Montgomery, Netherhall and Banks, Kirkcubright. Among the horses purchased and shipped by them was Michael (11434), the big, thick son of the champion Hiawatha, which stood reserve for the Glasgow premium when a three-year-old, and again last February occupied the same position. He grew into a great horse, and his weight, thickness and good breeding will make him a formidable competitor at the Toronto Spring Show. He was bred by Mr. James Fleming, Bent, Strathaven, and is descended from rather a famous tribe of Clydesdales. Other horses bought from Mr. Crawford were got by the famous £1,000 horse, Montrave Mac (9958), which ranks so high among breeding horses, and has an unequalled pedigree, being got by McGregor, out of the celebrated champion mare, Montrave Maud; and Prince of Johnstone, one of the biggest and weightiest sons of Prince of Carruban (8151). Of the horses bought from Messrs. Montgomery, one was a full brother to the celebrated prize mare, White Heather, owned by Mr. St. Clair Chalmers. This is a fine thick, broadest horse, of true Clydesdale type and character. He had

## Trumans Pioneer Stud Farm

BUSHNELL (McDonough Co.), ILL.



IMPORTERS AND BREEDERS OF

### SHIRE, PERCHERON, SUFFOLK, BELGIAN, HACKNEY STALLIONS

At the recent International, stallions now in our barns won 1st and 5th in aged class; 1st and 4th in 3-year-old class; 2nd and 5th in 2-year-old class; gold medal offered by the English Shire Society, and gold medal offered by American Shire Horse Association for best Shire Stallion, any age, and Grand Champion Shire Stallion of the show. We have on the farm at the present time imported Shire mares that won the following premiums at the last International: 1st and 2nd in aged class; 1st in 3-year-old class; 2nd in 2-year-old class; 2nd and 3rd in yearling class; 1st for best three mares, and gold medal for the best imported mare; 3rd in double heavy harness class; 2nd and 5th in single heavy harness class, and 4th in light harness class. If you want a prizewinner, come to the same place that our competitors do to find them. If we can sell importers their prizewinners, why can't we sell you yours? We have made seven importations the past 12 months and have another shipment ready to leave Europe. Our warranties are good and not given with a view to get your money only, but to give you a good, honest deal. We will charge you no more for these prizewinners than others charge for the cheap, old-fashioned kind. Have imported more Shire stallions than any two of our competitors combined during the past year. Write for our 25th annual catalogue and poster.

**J. G. TRUMAN, Mgr., Bushnell, McDonough Co., Illinois.**

### HELP WANTED! RELIABLE MEN IN EVERY LOCALITY IN CANADA AND UNITED STATES

Salary or commission, \$840 a year and expenses, payable weekly, to introduce new discovery and represent us in their district, distributing large and small advertising matter. No experience, only honesty required. Write at once for instructions. om

**SALUS MEDICINAL CO., LONDON, ONT.**



### CLIP YOUR HORSES' with 20th Century Clipper ONLY \$7.50

They feel better, look better, work better, and are less liable to catch cold. Don't let your horses stand in the barn all night with a heavy damp coat of hair on. It weakens them and they lose flesh. If clipped they dry out quickly, gain flesh and can be groomed in one fourth the time. Weighs only 15 lbs. Clips a horse in 30 minutes. Send for Catalogue H. CHICAGO FLEXIBLE SHEAF CO. 110 La Salle Ave. CHICAGO, ILL.



### Varicocele Hydrocele Cured to Stay Cured in 5 Days No Cutting or Pain. Guaranteed Cure. Money Refunded.

**VARICOCELE** Under my treatment this insidious disease rapidly disappears. Pain ceases almost instantly. The stagnant blood is driven from the dilated veins and all soreness vanishes and swelling subsides. Every indication of Varicocele vanishes and in its stead comes the pleasure of perfect health.

I cure to stay cured, Contagious Blood Poison, Kidney and Bladder Troubles, Nervous Debility, and allied troubles. My methods of treatment and cure are original with me and cannot be obtained elsewhere. I make no experiments. All cases I take I cure.

**Certainty of Cure** Is what you want. I give a Legal Guarantee to cure you or refund your money. What I have done for others I can do for you. My charge for a permanent cure will be reasonable and no more than you will be willing to pay for benefits conferred. I CAN CURE YOU at Home.

**Correspondence Confidential** Write me your condition fully and you will receive in plain envelope a scientific and honest opinion of your case, FREE of Charge. My home treatment is successful. My books and lectures mailed FREE upon application. **H. J. TILLOTSON, M. D., 255 Tillotson Building, 84 Dearborn Street, CHICAGO.**

one of the Kirkcubright premiums during the past season. Another was got by the Lanark-premium horse, Coroner, a prizewinner at the H. & A. S. Show as well. Two were well-bred, thick horses, bred by the Duke of Buccleuch, at Holystone, Thornhill. Altogether this lot of horses is likely to sustain the reputation of the firm of Smith &

Richardson, and to command a speedy sale in Canada."

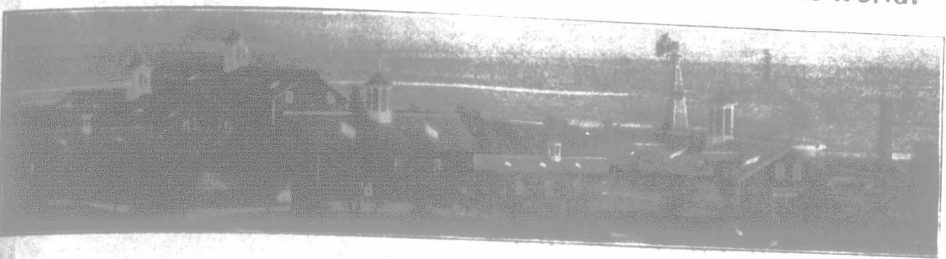
#### Home Treatment for Cancer.

All forms of cancer and tumor cured by soothing, balmy oils. Doctors, lawyers and ministers endorse it. Write for free book to the home office, Dr. D. M. Bye Co., Drawer 505, Indianapolis, Ind.

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

**Farm**  
ILL.

**OAKLAWN FARM**  
The Greatest Importing and Breeding Establishment in the World.



**Percherons, Belgians, French Coachers.**  
GREATEST COLLECTION EVER GOT TOGETHER NOW ON HAND.

Our 1903 importations include 80 first-prize winners from the leading European shows. At the International, Chicago, 1903, our horses won 40 prizes, 21 of which were firsts, including in Percherons, champion stallion, champion mare, champion American-bred stallion, best group of five stallions, best stallion and four mares. Although our horses are better, our prices are lower than can be obtained elsewhere in America. Catalogue on application.

**DUNHAM, FLETCHER & COLEMAN,** Wayne, Du Page Co., Illinois.

**20-CLYDESDALES-20**

We now offer for sale 20 head of Clydesdales, including fillies and mares, from one to five years old, and among them a number of prizewinners. Also a few young Clyde stallions and Shorthorn cattle. People wanting to buy should come and see them before purchasing. Inspection invited.

**HODGKINSON & TISDALE,** Beaverton, Ont. Long-distance phone in connection with farm, 70 miles n. of Toronto on Midland Div. G. T. R.

**ALEX. GALBRAITH & SON**

BRANDON, MAN.,

have on hand a magnificent collection of

**CLYDESDALES**

SUFFOLKS and PERCHERONS, with a few choice HACKNEYS and GERMAN COACHERS

Prizewinners at the Royal Show, the Highland Show, and the International. The best horses in North America at present for sale at reasonable prices, on easy terms, and every stallion guaranteed. A safe motto: "Buy stallions only from those who have a well-earned and established reputation." Catalogue for 1904 now ready. Address

**JAMES SMITH, Manager, Brandon, Man.**

**IMPORTED CLYDESDALES**

I have just returned from Scotland with a fine lot of Clydesdale stallions of great breeding and individuality. They are indeed a fine lot, and just the kind the country needs. Write for prices and description, or, better still, come and see and be convinced of what I say.

**WM. COLQUHOUN,** MITCHELL P. O. AND STATION (G. T. R.), ONT.



**International Importing Barn**

J. B. HOGARE, Prop., SARNIA, ONT., IMPORTER OF

**CLYDESDALE, SHIRE AND HACKNEY STALLIONS**

Last importation Nov. 9th, 1903, consisting of stallions sired by Sir Everard, Hiawatha, Black Prince of Leighton, King of Kyle, Sir Thomas, Royal Carrick, Clan Chattan, Lord Lothian, Balmedie, P. Charming, Prince of Airies, and from noted dams. Several are tried horses. If you want first-class horses at right prices, terms to suit, write for particulars, and come; I will pay one-half railroad fare. Think I can save you money.

**H. H. COLISTER, Travelling Salesman.**

**Thorncliffe Clydesdales**

THORNCLIFFE STOCK FARM has for sale a carload of Clydesdale stallions and mares, including prizewinners. Some of the mares are in foal to the justly-celebrated stallion, "Lyon MacGregor." For prices, etc., etc., apply to

**ROBERT DAVIES**  
36 Toronto Street, TORONTO.

**CLYDESDALES**

AYRSHIRES and POULTRY.

**R. Ness & Sons, Howick, Que.**



importers of Clyde, Percheron and Hackney stallions, Ayrshire cattle, and poultry, have for sale 5 Clyde stallions, sired by Baron's Pride, Sir Everitt and Royal Carrick, 1 Percheron, and 1 Hackney winners. Ayrshires of both sexes, and poultry.

**TRADE TOPIC.**

**A HALF DAY WITH "BEAUTY DOCTORS."**—While the sentiments of Solomon, "There's nothing new under the sun," may be echoed by wise men of the world, yet could my stay-at-home sisters have accompanied me on my visit to the Graham Dermatological Institute, 502 Church St., Toronto, I think they would have said with me that, in their application, some things are "ever new and ever young." Save for its sign, The Graham Institute has nothing to distinguish it from the dwellings around it, but inside I found in active operation all those spells that destroy and conceal the effects of time. In order that my laudable curiosity might be satisfied, the presiding genius kindly allowed me a seat behind the curtain, where, for one forenoon, I was an intensely-interested spectator and listener. The case in hand was the removal of superfluous hair from the cheek of a young lady. The other cheek, having been treated two weeks previously, now presented as fair an appearance as if its surface had never been disfigured by that hirsute appendage. The process, electrolysis, as advertised, had always seemed to me as painful and expensive, but here I found it exceedingly simple. \* \* \* Judging from the merry conversation carried on during the operation, the pain must have been inconsiderable. The skin was left slightly reddened, but it soon took its natural tint.—[Extract from a letter written by a farmer's wife to the Brantford Expositor.

**GOSSIP.**

During the only lull of a minute at the late Hamilton Shorthorn sale, Col. Ingram, the witty auctioneer, related the story of a fellow-Irishman, who went to Muskoka on a hunting excursion, loaded for bear. On the second day out, he was more fortunate in finding game of that brand than he had hoped for, coming upon a real live bear, which sat upon his haunches at a respectable distance before him. After looking at each other for a time, as the sportsman made no advances, Bruin got down on his fours and walked towards the man, who, instead of shooting, retired under cover of his gun, the bear continuing to advance, and the man to retreat orderly, till he got within speaking distance of the camp, when one of his companions shouted: "Shoot now, why don't you shoot?" "Begorra," said the Irishman, "I'll not do it. I want to bring him in alive."

One of Governor Hoard's recollections is of a prosperous old German farmer with whom he was once conversing in northern Wisconsin, when the subject of humor came up.

"It has always seemed strange to me," said the Governor, "that you Germans, as a rule, do not appear to understand American humor. You have some remarkably clever humorists in Germany, and their jokes are easily comprehended by the American mind, yet your people do not seem to see the point of our jokes at all."

The German promptly controverted this, claiming that his people were quick to see and appreciate American humor.

"You gif me a joke," said he, "and you vill see dat I vill understand it yooast as well as you."

So Governor Hoard told of a man in his county who had feet so big that he had to use the fork of a road as a bootjack.

The German stood smilelessly waiting for the point, when the Governor said: "There! I told you a German wouldn't comprehend an American joke."

"Do you mean to tell me dat dis man haf feet so big dat he haf to go out der eyre night and pull off his boots mit der fork of der road?"

"That's the idea," the Governor admitted.

"Ven you talk about der fork of der road do you mean der place where one road runs dis vay und der odder runs dat vay?"

"Yes."

"Und you say dis man haf sooch big feet dat he haf to use dis fork of der road for a bootjack?"

"Exactly."

"Vell, dat's no joke. Dat's yooast a tam lie."

**IMPORTED Clydesdales**



8 stallions and 6 mares of this year's importation for sale. Stallions got by such noted sires as Hiawatha, Sir Everard, Ascot, etc.

**T. H. HASSARD**

Millbrook, Ont.

Stations: Millbrook G. T. R.; Cavanville, C. P. R., four miles.

**Imported Clydesdales**



My offering now consists of Three Imported Two-year-old Clydesdale Stallions

of choicest breeding, best quality and immense size. Inspection invited.

**Geo. Stewart**

Howick, P. Q.

Imported Clydesdales just landed. Five stallions—4 two-year-olds and one 3-year-old. The gets of Mains of Airies, Clan Chattan, etc. Prices right. ALEX. McGEHEE, Epson, Ont. 4 miles east of Uxbridge station, on the G. T. R.

**FOR SALE.**

**Seven Imported Clydesdale Fillies,**

2-year-olds, sired by the prizewinning stallions, Ascot Cornet, Handsome Prince, William the Conqueror, etc. All have been bred to stallions. For further particulars address: PATTERSON BROS., Millbrook, Ont. Millbrook on G. T. R. Cavanville, C. P. R.

**THE KINDERGARTEN STUD FARM, GUELPH**

**JAMES HURLEY, Proprietor.**

Breeder of Thoroughbred horses from noted sires and dams. All classes of horses for sale.

**FOR SALE - Three Imported Clydesdale**

stallions - Uamvar 2199, Vice-Admiral 347, and Knight of Park 2921; also two registered Canadian-bred stallions, 3 years old. For further particulars address DAVIS & GRAHAM, Schomberg, Ont.

**Clydesdales and Hackneys For Sale.**

Four young Clydesdale and 2 Hackney stallions, all imported, representing the best blood in Great Britain. Prices right. Inspection invited. MOWAT & BABE, Shelburne, Ont.

**FOR SALE** The Canadian-bred draft stallion, Tullamore Bob. This is a dark bay horse with two white hind heels and narrow strip on face, weighing over 1,600 lbs., and rising four years old. Price reasonable. CHAS. ELLIOTT, Tullamore, Ont.

**JOHN GARDHOUSE & SONS**

Highfield P. O., Ont., Breeders of

Scotch and Scotch-topped Shorthorns, Shire Horses, Lincoln and Leicester Sheep.

A good selection of young stock of both sexes always on hand for sale. Scottish Prince (imp.), Vol. 49, at head of herd. Royal Albert (imp.) 20367, at head of stud. Farns 31, mares from Weston, G. T. R. and C. P. R., and electric cars from Toronto.

**SPECIAL OFFERING IN JERSEYS**

for the next 60 days; heavy-milking strains. Write for particulars to

**W. W. EVERITT,**

Dunedin Park Farm, Chatham P.O. & Sta.

**Aberdeen-Angus Bulls**

For sale: One one-year-old, two bull calves, sired by Laird of Tweedhill. Will sell right. om Drumbo Station. WALTER HALL, Washington, Ont.

**High Park Stock Farm Galloway Cattie.**

4 choice young bulls and heifers, 6 months to 2 years old, for sale. Prices right. Come and see. om

Shaw & Marston, P. O. Box 294, Brantford, Ont.

**HEREFORDS.**

I am offering for sale 5 young bulls from 12 to 14 months; also females 1 and 3 years old. E. S. LEE, Williamsford P. O., Ont.

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

**GOSSIP.**

The Smithfield champion, a cross-bred Shorthorn-Angus heifer, killed 68.99 per cent. of her live weight; the King's champion Hereford steer, 68.58 per cent.; and the Rosehaugh cross-bred ox (Angus-Shorthorn), The Baron, 68.53 per cent.

Mr. Arthur Johnston, of Greenwood, Ont., writes this office in making a change in his advertisement, and says: "Our Shorthorns are in the nicest form, though not fat. The hard winter has agreed with them better than with their owner. The young bulls have done especially well—never better—and we have never had a better lot. We have recently made a nice sale of twelve good ones to go to California. The first we have ever sold to go to that State. The lot includes eight females and four young bulls. We have also sold three very nice females to go to Dundas Co., Ont., besides scattering ones to various quarters. Sales have been very much better than any of us expected."

Messrs. Dunham, Fletcher & Coleman, Wayne, Ill., importers and breeders of Percheron, Belgian and French Coach stallions and mares, write: "During the past few weeks, we have made some very satisfactory sales, and our visitors have come from parts of the country very widely separated, and as they have found what they needed in our stables, it stands to reason that the selection we now offer the public is of the sort demanded by up-to-date buyers. One sale in which many will be interested is that of our grand big horse, Picador, which has stood so well at the International Exposition for so many years. He was looking better than ever when he left here for his new home. He was purchased by the Brunswick Percheron Horse Co., Lake Co., Ind., and if ever there was a stallion well-calculated to do good work in a new locality, it is Picador in his present home. Other sales recently made cover the country from the Canadian Northwest Territory to New York, and on the west in the States, and south to Utah and Old Mexico. We have a splendid lot on hand of the big-boned, short-backed sort, and can suit the most fastidious of buyers. Our new barn, on the site of historic 'No. 6' (lately destroyed by fire), is now fast nearing completion, and, in as much as the plans were prepared with the assistance of the leading insurance companies, we think it is a model of safety and convenience. We shall be glad, at any time, to show this barn and its principles of structure to anyone who is thinking of building a stock barn in which he desires to combine safety, convenience and economy."

**A FEW DON'TS.**

1. Don't say "them pigs," "them apples," or "them anything else;" say "these pigs," "these apples," if the objects referred to be close at hand, but use the word "those" if they be at some distance, e. g., "these cows are mine, those are my neighbor's."
2. Don't say "I seen" anything; say "I saw." On the other hand, remember that with an auxiliary verb, such as "have" or "was," you must use the word "seen," saying "I have seen," instead of "I have saw."
3. Don't say "him and me," or "me and him" did anything; say "he and I" did whatever may be the thing in question.
4. Don't neglect sounding the "ing" in words that end in it. "Going" is as easily said as "goin'," and sounds much better.
5. Don't use the word "will," unless you intend to show that your action is a voluntary one. "Will," when used in the first person always implies voluntary action. Thus you may say "I will see if this is done." Use the word "shall," when you wish it to be understood that your action is dependent upon something outside of your will, as "I shall be sorry if he does this."
6. Don't murder the English language, if you can avoid it. It takes no longer to speak correctly than incorrectly, and correct use of language always adds refinement to one's conversation. If your "chance" in grammar has been insufficient, notice how things are expressed in print, and by the best methods of expression.

# Carnefac Exhibition Prizes

**Carnefac Offers Prizes of \$175.00** for Calves born since the New Year, exhibited at Guelph or at the Dominion Exhibition at Winnipeg. Calves entered for the Carnefac Competition can be entered, of course, for all other prizes in the class.  
**WRITE FOR PARTICULARS.**

Castlebury, Man., July 23, 1903.

The Carnefac Stock Food Co.:  
Gentlemen,—After using your Stock Food for some time, we take great pleasure in testifying to its merits in feeding calves. We have found it an excellent preparation for preventing calves from scouring, and as far as a flesh-producer is concerned, no wise farmer will be without it. We have also fed it to our horses and have found it very beneficial to them for keeping the animal in proper condition for work. Hoping that this may be of benefit to induce other farmers to use your Stock Food.—Yours truly, (Sgd.)  
**GEO. & WM. BENNIE.**  
P. S.—We have had practically no sickness since we started using the food.

Prize  
Winners  
of  
Last  
Year's  
Exhibitions  
Write  
of  
Carnefac.

Souris, Man., July 23, 1903.

The Carnefac Stock Food Co.:  
Dear Sirs,—It affords me great pleasure in testifying to the merits of your Stock Food. I have been using your food in fattening a calf which was born on January 4th, 1903, and to-day it weighs 626 lbs., which I claim is due to using your Stock Food, as I feel sure that without it my calf would not have stood the feed he got. I have found it second to none in keeping horses in good condition, and especially for preparing them for spring work. This testimony I give free gratis, hoping it will be an inducement for other farmers to find out the value in the use of Carnefac, and wishing you every success with same, I remain, Yours sincerely, (Sgd.) J. HERRIOT.

—We would like to send you a plan whereby a farmer remote from dealers may try Carnefac at trivial cost.

Carnefac Stock Food Co., Winnipeg. 65 Front St. East, Toronto

## PAGE METAL GATES

3 feet wide, 4 feet high, including hinges and latch.....\$2.75  
10 feet wide, 4 feet high, including hinges and latch ..... 5.75  
Other sizes in proportion.

Supplied  
by us or  
local dealer. 203

THE PAGE WIRE FENCE CO. Limited, - Walkerville, Montreal, Winnipeg, St. John

## Imp. Clydesdales and Shorthorns



**MESSRS. SMITH & RICHARDSON,**  
COLUMBUS, ONT.,

Importers of Clydesdale horses and Shorthorn cattle, are now offering 10 imported stallions, including sons of the renowned Baron's Pride, Prince Thomas, Royal Carrick and Mountain Sentinel; also 10 mares, 6 of them imported, and the balance from imported stock. Shorthorns, imported and home-bred, all ages. Stations:

Oshawa & Brooklin, G. T. R.; Myrtle, C. P. R.  
40 miles east of Toronto.

Long-distance Telephone at residence, near Columbus Telegraph, Brooklin.

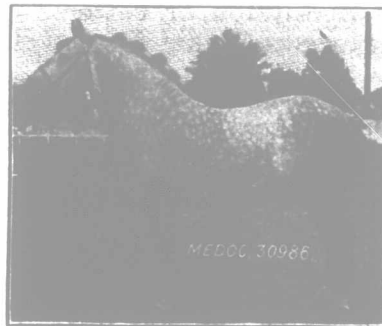


## LARGEST STUD IN THE WORLD OF AMERICAN-BRED Percheron, Shire and Hackney Stallions and Mares

I breed, feed, and grow them with size, quality and action. Won over 80% of all first prizes and gold medals shown for at New York, Ohio, Indiana, Missouri, Iowa, Minnesota and Wisconsin State Fairs and International at Chicago for past four years, and am now selling stallions of equal value at \$500 to \$1,000 below my competitors. My stallions are young and fresh, 2 to 5 years old, and sold on a guarantee of 60%. Terms to suit the purchaser. Will pay half the R. R. fare to our barns to intending buyers.

CORRESPONDENCE AND A VISIT SOLICITED. om

**LEW W. COCHRAN,**  
607 West Main St., CRAWFORDSVILLE, IND.



## PINE GROVE SHORTHORNS AND SHROPSHIRE.

Our herd comprises over 150 females, including our last importation of 30 head, all of the most esteemed strains. Of Shropshires, we offer a few choice Rams, also high-class Ewes bred to first-class Rams. Address om

**W. C. EDWARDS & CO.,**  
Rockland, - - - - - Ontario.

## W. B. WATT'S SONS, Breeders of SHORTHORNS and CLYDESDALES.

FOR SALE: A number of choice young bulls fit to head any herd. Several good young cows and heifers, daughters and granddaughters of great Royal Sailor (imp.), and in calf to Scottish Beau (imp.), by Silver Plate.

Let us know what you want and we will try to supply you at a moderate price. om  
Elora Station, G. T. R. and C. P. R., Salem P. O. Tel. No. 42a.

## HIGH-CLASS HEREFORDS

We have for sale the following choice young stock, which have been bred from imported stock. Intending buyers will do well to inspect the following: 18 young bulls, 25 young heifers, and 15 cows; also 20 Banded Plymouth Rock cockers. Correspondence invited. om  
**A. S. HUNTER, Durham, Ont.**

## THE SUNNYSIDE HEREFORDS

90 head in herd, headed by Imp. Onward, by March On. For sale: 18 choice bulls, imported and home-bred, from 8 to 22 months old; 12 choice cows and heifers. Prices reduced to make room for new importation. Visitors welcome. O'NEIL BROS., Southgate, Ont., Lucan Sta., G. T. R.



## INGLESIDE HEREFORDS 100 Head.

Calves to 6-year-olds. If you want to start a small herd, write for particulars. The quality and breeding is of the best. A good foundation means success, and here is where you can get it at prices and terms to suit your purse. om  
**H. D. SMITH, COMPTON, QUE.**

## THE MAPLES FARM HEREFORDS

Near Orangeville, Ont., on C. P. R. (Owen Sound branch). Imported and pure-bred bulls and heifers for sale, from imported and pure-bred dams, and sired by imp. Spartacus, No. 109829, -1716-, winner of sweepstakes and silver medals, Toronto, 1902 and 1903. Young bulls a specialty. Prizewinners wherever shown. Inspection invited. Popular prices. **W. H. HUNTER, om** Near Orangeville, Ont. **THE MAPLE P. O.**

## Elm Park Stock Farm

We can now sell a few good females, either imported or home-bred, bred to the champion Aberdeen-Angus bull of Canada, Imp. PRINCE OF BENTON 58632. We have also a few young bulls fit for service.

A promising Clydesdale stallion, PRINCE OF ELM PARK 1104, dark bay, white stripe, 3 white stockings, rood feet and pasterns, sire Sorby's noted Lord Charming (2264) 7561, dam Queen of Sunnyside (2588) 7348. PRINCE will be 2 years old next June and will weigh now over 1,300.

**JAS. BOWMAN,**  
GUELPH, - - - - - ONT.

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

TROUT CREEK SHORTHORNS



Even Imported Bulls for Sale.

JAS. SMITH, Manager, Millgrove, Ont. W. D. FLATT, 378 Hess St. South, Hamilton, Ont.

R. & S. NICHOLSON Sylvan P. O. Parkhill Station, Ont. Importers and breeders of SHORTHORNS

Have for sale: 13 IMPORTED HEIFERS, 30 HEIFERS (choice).

Safe in calf to Imp. Spicy Count. Home-bred herd composed of Nonpareils, Minas, Clementines, Orickshank Lovelys, Shethin Rosemarys, A. M. Gordon's Estelles, Miss Symes, etc.

OAK LANE STOCK FARM. Shorthorns Cotswolds Yorkshires and Barred Rock Fowls.

Imported and Canadian-bred Shorthorns Open to take orders for N. W. trade. Write for prices. Satisfaction guaranteed. GOODFELLOW BROS., MACVILLE, ONT.

JOHN DRYDEN & SON BREEDERS OF

CRUICKSHANK SHORTHORNS AND SHROPSHIRE SHEEP.



Catalogue of twelve young bulls of choicest breeding and splendid quality sent on application. Your choice of 25 BEAUTIFUL YEARLING RAMS at reasonable prices. Also a FEW SELECT EWES.

HUNTLYWOOD FARM SHORTHORNS AND SOUTHDOWNS

We have for sale two fine young bulls of the noted Broadhooks tribe and one secret. Write for prices.

W.H. GIBSON, Mgr., Point Claire P. O., Quebec

T. DOUGLAS & SONS, STRATHROY STATION & P. O., BREEDERS OF Shorthorns and Clydesdales

88 Shorthorns to select from. Herd bulls (Imp.) Diamond Jubilee = 28861 = and Double Gold = 37854 =. Young bulls, cows and heifers for sale at all times. Also one (imp.) stallion and two brood mares.



High-class Shorthorn Bulls For Sale

Some imp. and some from imp. cows, and sired by imp. bulls. Also cows and heifers. New importation came home Dec. 10th.

Arthur Johnston, Greenwood, Ont.



Get an Empire.

Examine all the Cream Separators on the market; look carefully to their construction; then select the one which you think will do the best work and give you the least bother. We believe that's the

EMPIRE

Easy Running Cream Separator.

Guaranteed to run more easily, to be easier to clean and last longer than any other. It's for you to decide. Try it first. Get our free book.

Empire Cream Separator Co.

28 Wellington St. W., TORONTO, CANADA.

16

Shorthorn Bulls

FOR SALE.

Bred in the herd that produced Topman and Moneyfuffel Lad; sweepstakes winners at Toronto, all ages competing; also Lord Stanley, junior champion over all beef breeds, and heading three first-prize herds at World's Fair, Chicago.

Yonge St. Trolley Cars from Union Station Toronto, pass farm. J. & W. RUSSELL, RICHMOND HILL, ONTARIO.

SHORTHORNS FOR SALE.

Four bulls, that challenge comparison, sired by the champion of champions, Spicy Marquis (imp.). This is a rare chance. Brave Ythan at head of herd.

JAMES GIBB, Brookside, Ont.

W. G. PETTIT & SONS FREEMAN, ONT., Importers and Breeders of

Scotch Shorthorns

110 head in the herd, 40 imported and 20 pure Scotch breeding cows. Present offering: 3 imported and 6 pure Scotch from imported sire and dam; 6 Scotch-topped from imported sires; also imported and home-bred cows and heifers of the most popular type and breeding. A few choice show animals will be offered.

Burlington Jct. Sta. Telegraph & Telephone

Spring Grove Stock Farm Shorthorn Cattle and Lincoln Sheep.

HERD prize and sweep stake at Toronto Industrial Exhibition. Three years in succession. Herd headed by the Bruce Mayflower bull, Prince Sunbeam, imp. Present crop of calves sired by Imp. Wanderer's Last, sold for \$2,005. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns Apply on

T. E. ROBSON, ILDERTON, ONT.



Imported and Canadian-bred bulls, cows and heifers for sale of the following families: Broadhoke, Village Maid, Marchioness, Victoria, Beauty, Merry Lass, and other good strains. Four extra good bulls, ready for service. H. J. DAVIS, Importer and Breeder of Shorthorns and Yorkshires, Woodstock, Ont., C. P. R. and G. T. R. main lines.

GOSSIP.

Mr. H. J. Davis, Woodstock, Ont., writes: "I have recently sold to James Dorrance, Seaforth, Ont., a very fine roan heifer calf, having for dam Beauty of Woodside, winner of third prize in Shorthorn dairy test, 1903; to Messrs. Kyle Bros., Agr., the imported Shorthorn heifer, Marchioness, bred by C. M. Cameron, Balnakyle, and in calf to Bapton Chancellor (imp.). These young breeders are building up a good herd of Shorthorns of the right type."

Mr. Wm. Colquhoun, Mitchell, Ont., writes that he has sold and delivered to Mr. B. Bender, of Palmerston, Ont., the imported four-year-old Clydesdale stallion, Montrave Dauntless (11119), bred by Sir John Gilmour, sire Macgregor (1487), dam by Prince of Fashion, grandam by Darnley (222). Mr. Bender and his district are to be congratulated on securing a horse of such excellent breeding, and we are assured that the horse's quality and general make-up is as good as his breeding, which greatly adds to his value.

John Miller & Sons, Brougham, Ont., write: "The first sale of Shorthorns we made this year was the imported bull, Royal Prince (71490), to David Birrell, Greenwood, Ont. He has been our chief stock bull for six years, and we now have nearly thirty of his get in our herd, including some extra nice young bulls. In the lot is one of the best we have bred in recent years, a nice roan just about twelve months old, whose breeding could not be better, having for dam the imported Marr cow, Alexandrina 28th, by Wanderer, which makes her half-sister to the \$6,000-Missie cow, and Wanderer's Last sold for \$2,005. Another good calf we have is out of the Brawith Bud cow, Golden Locks. He is just nine months old, and will make a very large bull. A full-sister sold in Iowa for \$1,750. The Lavender bull, we imported last fall is doing well, and we think him one of the most promising young bulls in Canada at the present time. In stallions, we have two of our own breeding rising three years. Royal Charger has for sire the champion stallion, Royal Cairnton, and for dam the mare, Bess of Cairnbrogie, a prizewinner at Toronto. He is a great deal like his sire, and should make a profitable investment for any person in want of a good horse. We also have several imported stallions and a few young mares. One, a very good brown, rising four years, in foal. She was got by McQueen, and out of same mare as Royal Charger."

\$3,500 FOR A SHIRE STALLION.

At the Finch horse sale, at Joliet, on the 13th inst. Mr. J. G. Truman, on behalf of Truman's Pioneer Stud Farm, of Bushnell, Illinois, secured the champion Shire stallion, Commodore 5th, being the last bidder, at \$3,500, said to be the highest price ever paid for a draft stallion at auction in the United States. Finch Bros. purchased Commodore 5th from Truman's Pioneer Stud Farm when the colt was coming three years old, soon after he was imported by the Trumans. They have shown him at the Iowa, Illinois, Minnesota and Indiana State Fairs, and won first at each place with him, and also at the International the same year he won first, and was reserve for championship. At the last International Show, in his four-year-old form, he won first in the best class of aged Shire stallions ever shown in the United States; also gold medal offered by the English Shire Society, and the gold medal offered by the American Shire Association; also the grand champion ribbon for the best Shire stallion in the Show.

It is claimed that in the Truman stables, at present, may be found stallions and mares that have won twenty-five ribbons and three gold medals at the last International Show, and horses that have won several at other large shows in England, to say nothing of the winners of all the first prizes at the Iowa State Fair last fall.

Truman Bros., it is said, had fully made up their minds before starting for the sale that Commodore would be brought to Bushnell, even if it took \$5,000 to bring him.

Hawthorn Herd OF DEEP-MILKING SHORTHORNS.

FOR SALE: Five young bulls, also a few females, by Scotch sires. Good ones.

Wm. Grainzer & Son, Londesboro, Ont.

We are offering 18 BULLS from 4 to 10 months old, sired by imported Diamond Jubilee = 28861 =. Also a few females, all ages, of good Scotch breeding.

FITZGERALD BROS., Mount St. Louis, Ont.

Elmvale Station, G. T. R.; Hillsdale Telegraph Office.

Shorthorns, Clydesdales, YORKSHIRES.

I offer for sale a young red bull calf by Republican (Imp.), out of Nonpareil 34th (Imp.)—a good one. Also young Yorkshires and Clydesdales, all ages. Also Count Amaranth at a bargain, if taken soon.

A. E. HOSKIN, SPRINGVALE FARM, OSBOURNE STA. & P. O.

SHORTHORNS (Imp.)

We have on hand for sale 3 yearling bulls (imported in dam), 7 three-year-old heifers (imported in dam) due to calve during next 3 months. These young animals are of exceptional breeding and individuality. Prices reasonable. Write for particulars.

EDWARD ROBINSON, Markham P. O. & Sta.

SHORTHORNS.

Importer and breeder of choice Shorthorns. Scottish Hero 156726 at the head of herd.

JAS. A. CREEAR, Shakespears, Ont.

SHORTHORNS FOR SALE.

I am offering for the next month, at exceptionally low prices, several young bulls, heifers and bred heifers of choice Scotch breeding and good individuality. These are rare bargains. Write for my prices, I feel sure they will tempt you. Address

H. SMITH, Exeter, Ontario.

P. O. and Sta., G.T.R.

Rosevale Shorthorns

Herd comprises Augustas, Polyantus, Crinson Flowers, Minas, Strawberries and Levins.

For sale, both sexes, the get of Imp. Maringo Heydon Duke, Imp. Baron's Heir, Imp. Golden Able and Imp. Golden Conqueror.

W. J. SHEAN & CO., Owen Sound P. O. & Sta.

GRANDVIEW SHORTHORNS.

For sale: One bull by Barron's Heir (Imp.) (28854), also a few females. Herd headed by the Missie bull, Marengo 31055. J. H. BLACK & SON, Ailenford P. O. and Station.

SHORTHORNS.

Four Bulls, nine to fifteen months old; four heifers, two years old. A number of cows, also in calf to Royal Prince = 3121 =, by Imp. Royal Sailor.

H. K. FAIRBAIRN,

Theford P. O., Telegraph and G.T.R. station.

SHORTHORNS.

THORNHILL HERD, ESTABLISHED 27 YEARS.

Imp. Royal Member and Sailor Champion now at head of herd, which are all bred on straight Scotch lines, and are of the up-to-date kind. Present offering: some choice young bulls.

REDMOND BROS., Millbrook Sta. and P. O.

Shorthorn Cattle, Lincoln Sheep

Imp. Prime Minister at head of herd. Imp. Clippers, Miss Ramadana, and other famous families. Lincolns won more than half the money and first for stock at the Pan-American; International, Chicago, 1901 and 1902.

J. T. GIBSON, DENFIELD, ONT.

MAPLE LODGE STOCK FARM, 1854

An offering a very superior lot of Shorthorn Bulls and Heifers

as well as something VERY attractive in Leicesters.

Choice ewes got by imported "Stanley" and bred to imported "Winchester." Excellent type and quality.

A. W. SMITH, MAPLE LODGE, ONT.

Present offering: Shorthorns: Our stock bull, Heir-at-law = 34563 =, a grand stock-getter and sire, 3 years old. Also 1 bull, 13 months; heifers and cows. Shropshires, all ages and sex. BELL BROS., Bradford, Ont.

Greengrove Shorthorns

Number 35 head families. For sale: Several young bulls, by Wanderer's Last, Imp. Fitz Stephen and Freebooter. Females of all ages.

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

SHORTHORN CATTLE and Oxford Down sheep.

Imp. Prince Homer at head of herd. Present offering: Young bulls and heifers from imported and home-bred cows; also a choice lot of young rams and ewes from imported sire. JAMES TOLTON & SON, Walkerton, Ont. Farm 3 1/2 miles west of Walkerton Station.

Shorthorns and Clydesdales.

We are now offering an extra good lot of young bulls, home-bred and imported; also stallions, and a few young mares which are in foal.

JOHN MILLER & SONS, Laramont Sta., C.P.R., on Brougham P.O.

**A QUICK, SHARP CUT**  
 Fully warranted.  
 Hurts much less than a bruise, crush or tear.  
**DEHORNING** Done with the  
**EXPLORETT'S**  
 is the safest. Quick, sharp cut. Cuts  
 from four sides at once. Cannot  
 crush, bruise or tear. Most humane  
 method of dehorning known. Took  
 highest award World's Fair. Write for  
 free circulars before buying.  
 Owned and Manufactured by R. A. McKENNA, V.S., Picton, Ont.

**Imp. Shorthorns and Lincolns**  
**A. D. MOGUGAN,**  
**RODNEY, ONT., P. O. AND STA.,**

Imported Aberdeen Hero at the head of the herd, which is composed of the best Scotch families. Two grand yearling and two-year-old ewes for sale, in lamb to a Royal winner. Also ewe lambs from imported Dudding ewes at reasonable prices.

**Scotch-bred Shorthorns,**  
 with size and quality, at bargain prices; reds and roans, of both sexes, from 6 to 12 months old.  
**L. K. WEBER, Hawkesville, Ont.**

**MANITOULIN SHORTHORNS**  
 Edwin Beck, Gore Bay, Manitoulin Island.  
 Breeder of SCOTCH and SCOTCH-TOPPED SHORTHORN CATTLE. A few choice animals.

**SPRUCE HEDGE SHORTHORNS.**  
 We are offering females of all ages. Among them are prize winners and youngsters that are sure to win.  
**JOHN McKENZIE, Keward P.O. and Chatsworth Station, C.P.R.**

**CHAS. RANKIN, WYEBRIDGE, ONT.**  
 Importer and Breeder of  
**SHORTHORN CATTLE and OXFORD DOWN SHEEP.**  
 Herd headed by Pride of Scotland (Imp.).  
**FOR SALE—**Females and bulls of all ages, from noted Scotch families.

**FOREST HILL STOCK FARM.**  
**High-Class SHORTHORNS**  
 for sale. A choice lot of young bulls, from six to eighteen months old. Apply **G. W. KEAYS, HYDE PARK P. O., ONT.**

**Shorthorns and Lincolns** A few choice bulls from 12 to 15 mths.  
 One bull 25 mths. Also females any age for sale.  
**J. K. HUX, RODNEY, ONTARIO.**  
 L. E. & D. R. K. and M. C. R.

**Shorthorns, Berkshires and Leicesters.**  
**FOR SALE:** Choice two-year-old heifers, well gone in calf; also yearling heifers, bull calves. Bows and covers fit for breeding, and young pigs.  
**ISRAEL GROFF, ALMA, ONTARIO.**

**SHORTHORNS FOR SALE**  
 I have on hand 9 young heifers from 5 to 11 months, 5 young bulls from 7 to 11 months, and 3 or 4 bred heifers (bred to Royal Sovereign), that I will dispose of at reasonable prices to quick buyers, as I am overcrowded. This is a great chance to get some first-class young stock of good breeding and individuality. Be sure and get my prices before purchasing.  
 Address: **RICHARD WARD, Balsam, Ont.**

**FLETCHER'S SHORTHORNS**  
 Comprise Cruikshanks, Orange Blossoms, Nonpareils, Crimson Flowers, Mysias, Languishes, Butterflies and Jessamines, and are headed by the noted Duthie-bred bull, (Imp.) Joy of Morning (76929), winner of 1st prize at Toronto Exhibition, 1903. Several choice heifers and young cows bred to Joy of Morning, also bull calves suitable for herd headers, for sale.  
**GEORGE D. FLETCHER,**  
 Erin Shipping Sta., C.P.R. Binkham P.O.

**Scotch Shorthorns** Leicester Sheep—For sale: Three young bulls by Christopher (Imp.) 28859, and Tuscarora Chief 46733. No reasonable offer refused. Leicester rams, yearling ewes, ewe lambs and young bred ewes of rich breeding. Write for my prices and let me quote you on something choice. Address:  
**W. A. DOUGLASS, P. O., Tuscarora, Ont.**  
 Station—Caledonia, Ont.

**WILLOW BANK STOCK FARM.**  
 Established 1855.  
**SHORTHORNS AND LEICESTERS**  
 A grand lot of young stock for sale, rich in the blood of Scotch Booth and Bates families. Rosicrucian of Dalmeny 45220 (Imp.) at head of herd. We breed the best to the best Leicester sheep of rare breeding and quality. Address:  
**JAS. DOUGLASS, Proprietor,**  
 P. O. and station, Caledonia, Ont.

**VALLEY HOME STOCK FARM.**  
**S. J. PEARSON, SON & Co.,**  
 BREEDERS OF  
**Scotch Shorthorn Cattle and Berkshire Swine**  
**FOR SALE:** 6 young Scotch bulls, some from imported sires and dam; also young cows and heifers, and young Berkshire swine of both sexes. Come and see them, or write for particulars.  
 C.P.R. Station, Meadowvale Telegraph and P.O.

**I GUARANTEE A \$500 PACKAGE OF BARREN KOW CURE**  
 postpaid, to make any cow under 15 years old breed, or return money. No trouble, no risk. Given in feed twice a day.  
**L. F. Sells, Druggist, Morrisburg, Ont.**

**For Singers and Speakers.**

**The New Remedy for Catarrh is Very Valuable.**

A Grand Rapids gentleman who represents a prominent manufacturing concern and travels through central and southern Michigan, relates the following regarding the new catarrh cure. He says: "After suffering from catarrh of the head, throat and stomach for several years, I heard of Stuart's Catarrh Tablets quite accidentally, and, like everything else, I immediately bought a package, and was decidedly surprised at the immediate relief it afforded me, and still more to find a complete cure after several weeks' use."



"I have a little son who sings in a boys' choir in one of our prominent churches, and he is greatly troubled with hoarseness and throat weakness, and on my return home from a trip, I gave him a few of the tablets one Sunday morning when he had complained of hoarseness. He was delighted with their effect, removing all huskiness in a few minutes and making the voice clear and strong."

"As the tablets are very pleasant to the taste, I had no difficulty in persuading him to use them regularly. Our family physician told us they were an antiseptic preparation of undoubted merit, and that he himself had no hesitation in using and recommending Stuart's Catarrh Tablets for any form of catarrh."

"I have since met many public speakers and professional singers who use them constantly. A prominent Detroit lawyer told me that Stuart's Catarrh Tablets kept his throat in fine shape during the most trying weather, and that he had long since discarded the use of cheap lozenges and troches on the advice of his physician that they contained so much tolu, potash and opium as to render their use a danger to health."

Stuart's Catarrh Tablets are large, pleasant-tasting lozenges, composed of catarrhal antiseptics, like Red Gum, Blood Root, etc., and sold by druggists everywhere at 50 cents for full treatment.

They act upon the blood and mucous membrane, and their composition and remarkable success has won the approval of physicians, as well as thousands of sufferers from nasal catarrh, throat troubles and catarrh of stomach.

A little book on treatment of catarrh mailed free by addressing F. A. Stuart Co., Marshall, Mich.

**17 Shorthorn Bulls**

3 imported bulls.  
 7 bulls from imp. sire and dam.  
 7 bulls from imp. sire and Scotch dams.  
 25 females, imp. and Canadian Scotch.

**R. MITCHELL & SONS,**  
 Nelson P. O., Burlington Jct., Sta.

**GOSSIP.**

Mr. Gerald Wade, of the Dept. of Registrar of Live Stock, and who has been connected with the Dominion Shorthorn Association for the past twelve years, has been appointed Assistant Secretary of the Dominion Shorthorn Breeders' Association, and Assistant Editor of the Herdbook.

Mr. Jas. A. Russell, Precious Corners, Ont., writes that the Yorkshire sows advertised by him in this paper are show animals, are from imported sows and boars, and are bred to imported boars. He can give pairs not akin. The younger stock are choice, and will make show animals, under one year, next fall, and he guarantees satisfaction. See his advertisement and write for prices.

A bulletin from the U. S. Department of Agriculture says: Fortunate indeed is the farmer who is situated where he can secure sugar-beet pulp. For fattening, we have been too much inclined to condensed rations, largely made up of cereals, hay and water, too dry and too compact, requiring too much of the digestive organs. Sugar-beet pulp enters readily into any balanced-food ration designed for specific purposes. No single item makes a food ration. This statement is as true of corn as it is of pulp, and vice versa. I would not undertake to discourage the use of cereals in the proper place in a food ration. I do wish to encourage the introduction of other food along with them, especially succulent foods, a good type of which we find in sugar-beet pulp. It is available in large quantities. It is nutritious, and its sanitary effect is remarkable. Its aid to digestion is its strongest recommendation. The Dresden Sugar Company have made it possible to transport beet pulp to all parts of the country by drying it out, so that this food is now within the reach of every feeder who has to purchase stock food. See their advertisement of Molasses Stock Food, which is kiln-dried beet pulp with molasses added.

**TRADE TOPICS.**

THE NATIONAL HERB COMPANY, of Washington, D. C., is pleased to announce to the readers of the "Farmer's Advocate," that they have recently opened up a Head Office in Toronto, for the sale of Perkins' American Herbs. This remedy is put up after a perfected prescription of Dr. J. H. Perkins, who has spent about thirty years of his life in the discovery of an herbal medicine that can be accepted by all as a perfect, safe, and potent household remedy. His formula, embodied in this medicine, includes a Brazilian root which acts upon the kidneys. The herbs, barks and roots of which this medicine is composed are said to be used and known to every doctor of prominence in the world as containing most valuable medical properties.

THE ELGIN FACTORY is the largest in the world. The daily output is 2,000 watches, and 102 different kinds are manufactured. The watches go to every part of the world, and are sold even in Geneva, Switzerland. The different parts of a watch are manufactured in different departments by different people, who have devoted their lives to that particular kind of work, and have been trained to a delicacy and exactness which is more important in watchmaking than in any other mechanical industry. These parts are then assembled as they are needed in another department, where they are put together by experts, who handle them as easily and almost as unconsciously as a great pianist will strike the keys of his piano. The completed watch is tested and timed, and then, strange to say, is put into a refrigerator with the temperature below freezing point and kept there for a number of days to cool off. After it has been frozen, the watch is taken to a furnace, where it is allowed to lie for several days more in a temperature of 95 degrees. This particular discipline is intended to teach the watch that it must not mind changes of weather, and that the steel and other metals of which it is made must not allow themselves to contract or expand by cold or heat. You can learn a good deal in a watch factory.—William E. Curtis, in Chicago Record-Herald.

**SHORTHORNS AND BERKSHIRES.**  
 4 extra good bulls from 7 to 8 months old, by hand-teer = 60196 =; also 1 2-yr-old. Cows and heifers, with calves at foot or in calf, heavy milkers in herd. Berkshires—young sows 3 and 5 mos. old, lengthy bacon type, and with pedigrees of best breeding. Prices reasonable.  
**F. MARTINDALE & SON, York, Ont., Caledonia Sta.**

**GEDARDALE FARM,** Bulls, from 6 months old to two years. All good standard reds and from first-class stock. "Gloucesters" and "Lord George" stock. Also three cows in calf, and three heifers, from one to two years old, two of them in calf. "Trilby," "Beauty" and "Flora" dams. DR. T. S. SPROULE, Markdale, Ont., P. O. and Station.

**SHORTHORN CATTLE and COTSWOLD SHEEP**  
 of good breeding and individuality. Young stock for sale at reasonable prices. Special—Two 6-months and two yearling bulls. Seven ram lambs.  
 CORRESPONDENCE SOLICITED. ADDRESS  
**J. E. DISNEY, GREENWOOD, ONT., HILLVIEW FARM.**

**3 SHORTHORN BULLS 3 FOR SALE.**  
 Two 2-year-olds, 1 bull calf, all of good breeding and from deep-milking strains. Prices right. Also heifers for sale.  
**W. B. ROBERTS, - SPARTA, ONT.**

**Shorthorns, Leicesters and Berkshires.** FOR SALE—1 yearling bull, bull and heifer calves; Berkshire boars and sows ready for service, and suckers ready to wean. Write for wants, or come and see E. Jeffa & Son, Board Head P. O., Bradford and Beeton Stns., G.T.R.

**Mertoun Herd of Shorthorns**  
 Established in 1882. Prince of Banff (Imp.) 45212 = heads the herd. THREE CHOICE YOUNG BULLS for sale; also A FEW FEMALES, in calf to Prince of Banff. Prices right.

**O. HILL, STAFFA P. O., ONT.**  
**Scotch-Topped Shorthorns—(Imp.) Captain May** fly (No. 28858), winner of sweepstakes at Toronto (1900), 1st at Toronto and London (1902), at head of herd. Animals of all ages and both sexes for sale.  
**JOHN C. BRICKER, Elmira P. O. and Station, on G. T. R.**

**Queenston Heights Shorthorns**  
 Two Scotch bull calves, choice heifers, at reasonable prices.  
**HUDSON USHER, - QUEENSTON, ONT.**

**CHOICE SHORTHORNS.**  
 We are now offering 12 heifers from 6 months to 2 years of age, and 7 bulls from 6 to 10 months old, some of them extra choice and prizewinners—a low-down, thick lot. Also, Yorkshires.  
**WM. McDERMOTT, Living Springs P. O., Fergus Station.**

**SCOTCH SHORTHORNS**  
 Twelve blocky, sappy young bulls, 10 to 14 months old, reds and roans, sired by the Princess Royal bull, Imp. Prince of the Forest = 40119 =, and out of high-class Scotch and Scotch-topped cows. Also ten thick-fleshed heifers, in calf to Imp. Prince of the Forest, placed at head of herd at cost of \$650.  
 Come and see, or write for prices.  
**J. & E. OHINNICK, Chatham, Ont.**

**Six Shorthorn Bulls**  
 Fit for service: Also cows and heifers, imported and home-bred, of Scotch breeding, prizewinners. Moderate prices. **DAVID MILNE & SON, Ethel Station and P. O., Ont.**

**PROSPECT High-class SHORTHORNS**  
**HILL FARM** For sale: 8 bulls, from 6 to 18 months old; 2 sired by Aberdeen Hero (Imp.), 6 by Royal Sailor (Imp.). Also some heifers.  
**J. R. McCALLUM & SON, Iona Sta., Ont.**

**J. WATT & SON,** Salem P. O., Ont. Stations G. T. R. & C. P. R., Elora. **SHORTHORNS and BERKSHIRES.** Ready for shipment, bulls by Royal Wonder and Scottish Peer; also three two-year-old heifers, by Royal Victor and Valasco 40th, bred to Royal Archer (Imp.) or Prince Louis (Imp.). Our stock show excellent quality and individuality. Young Berkshire bears and gilts, rich in the blood of the great sweepstakes Baron Lee 4th. Write for description and prices.

**SHORTHORN BULLS FOR SALE.**  
 Some ready for service, young, and bred from imported and Canadian stock; also a number of heifers and cows, Dorset sheep and Yorkshire swine for sale. **D. BARTLETT & SONS, Smithville P. O. and Station, Ont.**

**SHORTHORNS.** 8 young bulls, 11 heifer calves, yearlings, two-year-olds and young cows for sale. Several Miss Ramedens and the very best families represented. Prices moderate.  
**G. A. BRODIE, Bethesda, Ont. Stouffville Station.**

**JERSEYS** For sale: Sweepstakes bull at London, Monarch (Imp.) and out of a deep-milking cow; also fifteen other imported and home-bred bulls, and cows and heifers, all ages. Can spare a carload. **B. H. BULL & SON, Brampton, Ont., C. P. R. & G. T. R. Sta.**

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





**HOLSTEINS AND TAMWORTHS**  
Present offerings: Sows, bred and ready to breed; boars fit for service, and a fine lot of young pigs of both sexes. Also 1 bull calf, 4 mos. old. Write or call and see the stock. Enquiries promptly answered.

**HERTRAM HOSKIN,**  
Grafton Sta., G. T. R. The Gully P. O.  
**Ridgedale Farm Holsteins** Bull and heifer calves, bred from rich milking strains, on hand for sale. Prices right. Write for what you want.  
**R. W. WALKER,** Utica P. O., Ontario.  
Shipping stations: Port Perry, G. T. R., and Myrtle, C. P. R. Ontario County.

**AYRSHIRE BULLS.**  
Two fit for service, two March calves, and a few August, 1903, calves.  
**W. W. Ballantyne,**  
Neldpath Farm, on Stratford, Ont.

**HIGH-CLASS AYRSHIRE CATTLE FOR SALE:** Both sexes; bulls and heifer calves from 2 to 9 months old; cows and heifers all ages. Famous prizewinners bred from this herd, including Tom Brown and White Floss, sweepstakes prizewinners at Chicago. **DAVID BRNING & SON,** "Glenhurst," Williamstown, Ont.

**DAVID LEITCH,** CORNWALL, ONT., BREEDER OF **AYRSHIRE CATTLE.**  
A few choice bulls fit for service, and bull calves and heifers, sired by Roseland of St. Anne—8901—, and from deep milkers, with good udders and teats. Cornwall 5 miles, G. T. R. and O. N. Y.

**AYRSHIRE BULLS** We combine beauty with utility. My herd has won over seven hundred lots, 2ods and sweepstakes, several diplomas, three bronze medals, in 8 years. For sale: Seven young bulls from 6 months to 1 year old, sired by Royal Star of St. Anne (7916), winner of 1st at Toronto, 1st and sweepstakes at London, at 2 years old, and from dams with milk records from 51 to 59 lbs. per day. Price from \$35 to \$50 each. A few deep-milking cows from \$65 to \$80 each. Also B. P. Rocks, White Wyandottes, Silver-tray Dorkings, Indian Games, \$1.50 to \$2.00 each; Toulouse geese, beauties, \$5 pair. Write **WILLIAM THORN,** Trout Run Stock Farm, Lynedoch, Norfolk Co., Ont.

**STOCKWOOD AYRSHIRES.**  
Our herd now numbers 40 head of all ages, with milk records from 40 lbs. a day up. Stock of both sexes for sale. Bulls a specialty.  
**WATT BROS.,** Allan's Corners P. O. St. Louis Sta., near Howick, Que.

**Menie Stock Farm** Choice young **AYRSHIRE** bulls and heifer calves, from 2 to 9 months old. Also cows and heifers all ages. Write **W. STEWART & SON,** Menie, Ont.

**SPRING BROOK AYRSHIRES** for profit and comprise animals with a large milk record and high test. **COMRADE'S LAST OF GLENORA 1347** now heads the herd. Several Bull Calves for sale. Prices right. **W. F. STEPHEN,** Spring Brook Farm, Trout River, Que. Carr's Crossing, G. T. R., 1 mile. Huntingdon, N. Y. C., 5 miles.

**DAVID A. McFARLANE,** KELSEO, P. O. **AYRSHIRES.**  
Young stock for sale from imported and home-bred foundation. Prices reasonable.

**AYRSHIRES AND YORKSHIRES**  
 **YORKSHIRES** in pairs not akin now ready for shipment.  
**SIX AYRSHIRE BULLS** nearly one year old, out of big, strong, deep-milking dams, and sired by Comrade's Heir of Glenora (11966). Cheap if sold before winter.  
SEND FOR CATALOGUE.

**J. G. CLARK,** Woodroffe D. and S. Farm, Ottawa.

**FOR SALE: IMPORTED AND HOME-BRED AYRSHIRES,** including cows, heifers and young bulls out of our prize and sweepstakes cows. Foundation selected with due regard to quality and productiveness. Come or write.  
**WM. WYLIE,** HOWICK, QUEBEC

For Sale at **SPRING BURN STOCK FARM** 12 Ayrshire bulls from 2 to 15 months old, females any age; 4 Oxford Down rams; 20 Berkshire pigs, and some fine Buff Orpington cockerels. Prices reasonable.  
**E. J. Whittaker & Sons,** North Williamsburg, Ont.

**FOR SALE AYRSHIRE BULLS—**Pratonius No. 14393, bred by R. Ness, Howick Que., April, 1901 (by Duke of Clarence) importer of Barcheskie, dam Pansy, by Harcourt of B 7890, red and white, with two others by Carlyle of Leesnescock 12747, imp., 1855. For particulars apply to  
**J. BERGIN,** Cornwall, Ont.

**PRIZEWINNING AYRSHIRES**  
4 imported bulls from the best milking strains in Scotland and head the herd of 75 head. Won prizes for 1903 at Toronto and Ottawa. The 2nd and 3rd prize herds; 38 prizes in 1903, 28 in 1902, 5 thirds, 9 fourths. In the 1903 Ayrshire milk test, the 2 first Ayrshires were from this herd. Quality, size, milk and udder of all ages. Bulls and heifers for sale. Write for particulars.  
**W. W. WALKER,** Utica P. O., Ontario.  
G. T. R. and C. P. R. Shipping Stations: Port Perry, 20 miles; St. Catharines, 25 miles.

**THE VALUE OF CHARCOAL.**

Few People Know How Useful it is in Preserving Health and Beauty.

Nearly everybody knows that charcoal is the safest and most efficient disinfectant and purifier in nature, but few realize its value when taken into the human system for the same cleansing purpose.

Charcoal is a remedy that the more you take of it the better; it is not a drug at all, but simply absorbs the gases and impurities always present in the stomach and intestines and carries them out of the system.

Charcoal sweetens the breath after smoking, drinking or after eating onions and other odious vegetables.

Charcoal effectually clears and improves the complexion, it whitens the teeth and further acts as a natural and eminently safe cathartic.

It absorbs the injurious gases which collect in the stomach and bowels; it disinfects the mouth and throat from the poison of catarrh.

All druggists sell charcoal in one form or another, but probably the best charcoal and the most for the money is in Stuart's Absorbent Lozenges; they are composed of the finest powdered Willow charcoal, and other harmless antiseptics in tablet form, or, rather, in the form of large, pleasant-tasting lozenges, the charcoal being mixed with honey.

The daily use of these lozenges will soon tell in a much-improved condition of the general health, better complexions, sweeter breath and purer blood, and the beauty of it is, that no possible harm can result from their continued use, but on the contrary, great benefit.

A Buffalo physician, in speaking of the benefits of charcoal, says: "I advise Stuart's Absorbent Lozenges to all patients suffering from gas in stomach and bowels, and to clear the complexion and purify the breath, mouth and throat; I also believe the liver is greatly benefited by the daily use of them; they cost but twenty-five cents a box at drug stores, and although in some sense a patent preparation, yet I believe I get more and better charcoal in Stuart's Absorbent Lozenges than in any of the ordinary charcoal tablets."

**IMPORTED AND HOME-BRED AYRSHIRES**

The average butter fat test of this herd is 4.8. A few young bulls and females, all ages, FOR SALE.  
**Robt. Hunter & Sons, Maxville, Ont.**  
Farm one mile from Maxville station on C. A. R.

**AYRSHIRE CATTLE**  
**SHROPSHIRE SHEEP**  
**B. P. ROCK FOWL** and **20 YOUNG LARGE ENGLISH BERKSHIRES** FOR SALE.  
**J. YUILL & SONS,** Carleton Place, Ont.

**Maple Cliff Dairy and Stock Farm**  
BREEDERS OF **AYRSHIRE CATTLE, BERKSHIRE AND TAMWORTH PIGS.**  
Special offer this month of TWENTY-FIVE YOUNG BOARS, fit for fall service. They are good ones.  
Farm adjoins Central R. R. **REID & CO.,** Experimental Farm. Hintonburg, Ont.

**SUNNYSIDE AYRSHIRES.**  
Our present offering is 10 heifers, from 10 mos. to 2 years of age; 1 bull, 6 mos. old, and 8 young cows—a rare good, straight-lined lot, and will be sold right. **J. W. LOGAN,** Allan's Corners P. O., Howick Sta., Que.

**"THE HUME FARM."**  
FOR SALE: The 2nd-prize under-1-year bull of Toronto, a full brother, dropped Aug. 23, 1903, and others. Two lots of Yorkshires, 6 and 2 months old. For anything in Ayrshires or Yorkshires, write us.  
**ALEX. HUME & CO.,** Menie, Ont.

**Ayrshires for Sale**  
I have a choice lot of spring calves, of both sexes, sired by Minto. **F. W. TAYLOR,** Wellman's Cor. P. O., Hoard's Sta., Ont.

**Dorset Horn Sheep**  
THE largest flock in America. The most celebrated prizewinners at the Columbian Exhibition and Canadian exhibitions. Contains more Royal winners than any other. Awarded 5 out of 8 first prizes at Toronto, London and Ottawa in 1900. Flock of 300.  
Stock for sale always on hand.  
**John A. McGillivray, Uxbridge, Ontario.**

**AYRSHIRES** for sale, all ages. Some extra fine bulls, coming one year old, and heifers of all ages. Also my stock bull, Sir Donald of Ebn Shade, just 3 years old.  
**DONALD CUMMING,** Lancaster, Ont.

**GOSSIP.**

When Lord Kitchener was in Ireland he visited the Wishing Well at Killarney, with two plain, elderly spinsters. Beside the well sat an old Irish woman, who looked up into Lord Kitchener's handsome face, and asked:

"Phwat are you wishin' for?"  
"What do you think I wish for?"—he good-naturedly inquired.

"Och, thin, for a beautiful young swateheart, of coorse," said she.

He pointed to the two spinsters, who stood at a little distance, and said:

"Don't you see I have two with me?"

"Ah, thin, it's the grace o' God you'll be wishin' for!" replied the sympathetic old woman.

In a cathedral, one day after service, the bellows-blower said to the organist, "I think we have done very well today."

"We!" said the organist, in no small surprise at the independence of his mental; "how can you pretend to have any merit in the performance? Never let me hear you say such a thing again."

The man said nothing more at the time, but when they were next playing he suddenly intermitted in his task of inflating the organ. The organist rose in wrath to order him to proceed, when the fellow, thrusting his head out from behind the curtain, asked slyly, "Shall it be 'we,' then?"

Mr. John Lahmer, Vine, Ont., writes: "My sales of Berkshires for the year just closed has exceeded my expectations very largely, the result of advertising in the 'Advocate.' Over ninety per cent. of my sales last year were mail orders, many purchasers repeating their orders. In the month of November, I sold to Mr. J. Haycock, near Ingersoll, seventeen pigs, the largest consignment of Berkshires to an Ontario buyer in many years. These hogs I delivered personally, and, upon my visit to Mr. H.'s farm, the thought struck me, how fortunate it would be for pure-bred stock generally if they landed in such pleasant, roomy and comfortable quarters. The larder well provided with lots of water, and the eye and the vigilant hand of the master in evidence everywhere. The genial mistress and family made my short visit one long to be remembered."

Dun-edin Park Farm, the home of Mr. W. W. Everitt, Chatham, Ont., breeder of Jersey cattle, was visited by a representative of the "Farmer's Advocate," who found Mr. E. busy preparing the product of his herd for his customer, who was waiting for it. Mr. Everitt has twenty-five head of registered Jerseys that have every appearance of being heavy producers of both milk and butter. They are mostly of the St. Lambert strain, several of them having a daily record of over forty pounds of rich milk. Records of seventeen pounds of butter in seven days, and four hundred pounds in one year are also to be found in this herd. Carnation's Flower, by the champion, Belvoir King, also Charity of Glen Rouge, bred by Mr. Rolph, of Markham, Ont., are among the cows that have given, and are still giving, excellent returns. Wild Rose of Kent is another worthy of special mention. Rosy's Comet (from the herd of W. G. Laidlaw) is now at the head of the herd. The young stock is mostly sired by Hand-some Rieter, the Toronto champion, by Lillum's Rieter, he by Canada's Sir George, a wonderful show and stock bull. They are thrifty and of good dairy form, with strong constitutions, and should give good accounts of themselves in the near future. Vita's Riotress, a heifer nearly due to calve, is a very nice one, with a well-balanced udder. Her younger sister is also a good one. Mr. Everitt informed the writer that several of those have to be sold before spring, on account of his pasture being limited. This affords a good opportunity for intending purchasers to get good stuff at very reasonable prices, and the owner says he never had a better lot. They certainly appear to be all right.

**EUROPEAN ADVERTISEMENTS.**

**W. W. CHAPMAN,**  
Secretary of the National Sheep Breeders' Association,  
Secretary of the Kent or Romney Marsh Sheep Breeders' Association,  
and late Secretary of the Southdown Sheep Society.  
Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.  
Address: **HOWBRAY HOUSE, NORFOLK ST., LONDON, W. C., ENGLAND.**

Cables—Sheepsheads, London.

**SUSSEX CATTLE**

The breed for hardiness and early maturity. The highest average daily gain, alive, 2 lbs. 8.34 ozs., and also the highest percentage, 68.02, of carcass to live weight of any animal, for its age, at Smithfield Show, was given by Mr. Gerald Warde's first-prize Sussex steer at the age of 681 days. Leading honors won at all the principal shows. Selections always on sale. Apply  
**G. Warde, West Farleigh, Kent, England. SUNNYLEA FARM.**

**THE RIBY HERD and FLOCK**

OF SHORTHORN CATTLE AND LINCOLN LONG-WOOL SHEEP  
**HENRY DUDDING,**

Riby Grove, Great Grimsby, Lincolnshire.

To get Champions by the produce of Champions. These can always be secured from the Riby Grove Herd and Flock, the largest in England, comprising the choicest lines of blood extant. Their is a world-wide reputation, and suffice to say that at no period of its history, dating back 150 years, were they stronger in merit or quality. 86 awards were won in 1901, and equally good results secured in 1902, culminating in those great victories at Smithfield Show, where its pen of wethers won the 100-guinea Challenge Cup for the best pen of sheep of any age or breed; and at Chicago Live Stock Show, in December last, where a ram from this flock won the \$400 prize offered for the heaviest sheep in the world. **CABLE—Dudding, Keelby, England.**

**HAMPSHIRE DOWN SHEEP.**

"RESERVE" FOR CHAMPION IN THE SHORT-WOOL CLASSES, SMITHFIELD, LONDON, 1901.

Splendid Mutton, Good Wool, Great Weight.

This highly valuable **ENGLISH BREED OF SHEEP** is unrivaled in its wonderfully early maturity and hardiness of constitution, adapted to all climates, whilst in the quality of mutton and large proportion of lean meat it is unsurpassed; and for crossing purposes with any other breed, unequalled. Full information of

**JAMES E. RAWLENCE,**  
SECRETARY HAMPSHIRE DOWN SHEEP BREEDERS' ASSOCIATION,  
SALISBURY, ENGLAND

**CLAYFIELD STOCK FARM**

**J. C. ROSS, PROP., JARVIS, ONT.**  
Cotswold Sheep ready for shipment. Shearing and yearling rams, bred ewes and ewe lambs; imported and Canadian-bred. My flock has won 131 firsts and 85 seconds at Toronto, London, Guelph and other county shows, also silver medal and two diplomas, during the last two years. Shorthorns ready for shipment. Two yearling bulls, one six months' bull and several young heifers of choice breeding. Clydesdales—I have for sale two or three very choice two-year-old and three year-old fillies. Accurate Description Guaranteed.

**Linden Oxfords.**

Imported and home-bred stock of the choicest breeding always on hand.  
**R. J. HINE, Dutton, Elgin County, Ont.**

**FAIRVIEW SHROPSHIRE EWES.**

A few good ones, bred to first-class imported prizewinning Rams, for sale. Also Barred Rock cockerels, equal to the 1902 birds, which, without exception, pleased customers. Prices \$1.50 and \$2.

**JOHN CAMPBELL, Woodville, Ont.**

**Lincoln Sheep and Shorthorn Cattle**

Choice Lincoln Lambs of both sexes. Several carloads choice yearling rams and two carloads of one and two-year-old ewes, ready for Sept. and Oct. delivery. Also some choice young bulls, cows and heifers, which will make good herd foundations.

**F. H. NEIL, PROP.**  
Telegraph and R. R. Station, LUCAN, ONT.

# Neglect the Liver And You Will Suffer

Scarcely an Organ in the Body but Feels the Effects of a Disordered Liver.

When the liver gets torpid and inactive, bile is left in the blood—causing jaundice.

Indigestion results, because the liver is an important organ of digestion.

Constipation arises because bile from the liver is nature's own cathartic.

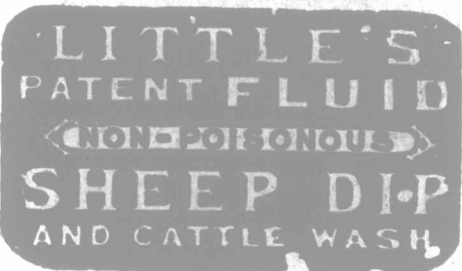
A torpid liver means a poisoned system—pain, suffering, chronic disease.

By their extraordinary influence on the liver Dr. Chase's Kidney-Liver Pills positively remove the cause of such disorders. Biliousness, dyspepsia, constipation—headaches, backaches and bodily pains disappear when the digestive, filtering and excretory systems are set right by the use of this great medicine.

Lock for proof to the thousands of Canadians who have been made well by using Dr. Chase's Kidney-Liver Pills. Such an army of witnesses can be summoned in support of very few preparations.

Mrs. Wm. Scott, Portland, Leeds County, Ont., states: "I can recommend Dr. Chase's Kidney-Liver Pills as an invaluable family medicine. We always keep them on hand for use in cases of constipation, kidney, liver and stomach troubles, and do not hesitate to say that they are the best medicine we ever used. We have also used Dr. Chase's Syrup of Linseed and Turpentine for the children when they have coughs and colds, and found it excellent. We have unlimited confidence in these remedies of Dr. Chase, and feel that we cannot recommend them too highly."

Dr. Chase's Kidney-Liver Pills, one pill a dose, 25 cents a box, at all dealers, or Edmansons, Bates & Co., Toronto. To protect you against imitations, the portrait and signature of Dr. A. W. Chase, the famous recipe-book author, are on every box of his remedies.



## THE ORIGINAL Non-Poisonous Fluid Dip

Still the favorite dip, as proved by the testimony of our Minister of Agriculture and other large breeders.

**For sheep.** Kills ticks, maggots; cures scab; heals old sores, wounds, etc., and greatly increases and improves growth of wool.

**Cattle, horses, pigs, etc.** Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

Prevents the attack of Warble Fly. Heals saddle galls, sore shoulders, ulcers, etc. Keeps animals free from infection.

No danger, safe, cheap, and effective. Beware of imitations.

Sold in large tins at 75 cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to breeders, ranchmen, and others requiring large quantities.

SOLD BY ALL DRUGGISTS. SEND FOR PAMPHLET.

Robert Wightman, Druggist, Owen Sound. Sole agent for the Dominion.

## Holwell Manor Farm

**SHROPSHIRE FOR SALE.**

Twenty shearing rams; twenty shearing ewes; twenty-five ram lambs; also twenty Cotswold rams, shearlings and lambs. These are animals of choice quality. Prices very low, quality considered. Scotch collie puppies from first class stock.

D. G. GANTON, Elmvalle P. O., Ont. om

## SHEEP BREEDERS' ASSOCIATIONS

American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to HORTON LEVERING, Secretary, Lafayette, Indiana.

### GOSSIP.

Mr. James Boden, manager Tredinnock Farm, St. Anne de Bellevue, P. Q., writes: "Our Ayrshires never looked better than now, and the cows are milking splendidly. Sales have been good, and prices first-class. I have just sold to an American six head (one bull and five females) to start a herd. He would have nothing but Lord Dudley heifers and a Glencairn bull. Size, milk and teats was what he was after. Our Dudley heifers are turning out great; we never had such fine vessels and teats on our young stock. Old Glencairn 3rd is looking well in his fourteenth year, and we have a bull calf of last August, I think the best he ever sired, and we have four of our last imported cows in calf to him again. Kirsty Wallace has just dropped a bull calf, sired by Glencairn 4th, our first-prize one-year-old bull. I expect great things from this calf, as for milking on all sides he can't be beat. Kirsty never milked better than at present. The wonder is, where do some papers go to; but the wonder is, where does the 'Advocate' not go to, as I have enquiries from all over Canada, the States, from Southern California, to Newfoundland—it is the same thing. I saw your advertisement in the 'Farmer's Advocate.' I wish you every success with your venture as a weekly."

### MERCER'S SHORTHORN SALE.

On Wednesday, February 24th, at his farm, just outside the corporation limits of the Village of Markdale, Ont., a station on the Owen Sound branch of the C. P. R., Mr. Thos. Mercer will hold an unreserved auction sale of his entire herd of fifty-four head of imported and home-bred Scotch Shorthorn cattle, including his show stock bull, Imp. Broadhooks' Fame, Vol. 19, bred by S. Campbell, Kinellar, Aberdeenshire; sired by the great bull, Golden Fame; dam Roan Rose (imp.), by Abbotsford 2nd. This bull is considered by his owners one of the best, both from the breeder's standpoint and individually, in Canada to-day. There are also two other young imported bulls, both belonging to the noted Jilt family, that are strictly A1 (for pedigrees, see catalogue), besides six home-bred bulls, bred in the purple and choice individuals. The females, of which there are nineteen heifers from eight to fifteen months old, belong to the following well-known and fashionable families: Missie, Stamford, Matchless, Flora, Claret, Pineapple, Mina, Village Girl, Scottish Lass, Lovely, Red Rose, etc. Every one of the breeding cows is guaranteed a breeder, and is now in calf to the stock bull, Imp. Broadhooks' Fame, or has a calf at foot. As will be seen by referring to the catalogue, which will be sent on application, the breeding of this herd is gilt-edged, and seldom is a better opportunity afforded the buying public of getting foundation animals and increasing herds already founded, with fashionably-bred animals at the buyer's own price; also, among the heifers are several that are said to be fit to enter any show-ring, the progeny of the cows that will be sold, so that buyers will be in a position to see exactly the kind of stock they are bred from. Mr. Mercer says every animal offered at this sale will be sold, as he is moving to British Columbia.

At the same time and place, will be sold, his 200-acre stock farm. This farm is in a first-class state of cultivation, well fenced and drained, and is one of the best-equipped stock farms in the County of Grey. The main stock barn is 70 x 65 feet, with cement floors in stable, is fitted throughout with shafting and pulleys for running machinery, the power being supplied by one of Mr. Gill's celebrated tread-powers. The water system is perfect, being pumped by wind power into a huge tank, and from there conveyed through the stables by galvanized piping. There is also a cement silo, 37½ feet by 14½ feet. In fact, everything conducive to a well-equipped stock farm will be found here. The house is frame and roughcast, and in good condition. There are about three acres of choice fruit trees. The farm will be sold in either 100- or 200-acre lots, as there are buildings on both farms. Sale will start at one p. m. Conveyances will meet the C. P. R. trains from both the north and south on day of sale.

## HILLCREST LARGE ENGLISH BERKSHIRES

Founded upon imported stock and Canadian show animals. Various strains represented and new blood introduced at intervals. Each purchaser gets registered certificate of pedigree, and any animal failing to prove a breeder is replaced. JNO. LAHMFR, VINE, ONT.; Vine Sta., G.T.R., near Barrie.

## Oxford Down Sheep at "Farnham Farm."

First time entered show-ring since "World's Fair," Chicago. Won this year at Toronto, Syracuse, London and Ottawa, 40 firsts, 25 seconds, 12 thirds and 6 champion prizes. Am offering 1 yr fall trade 20 yr. and two-shear stock rams, strong, fine fellows; 40 yearling and two-shear ewes, bred to imported Vanity and Hampton Hero 4th, both flock rams; 100 ram and ewe lambs of most modern type, from imported sires. Prices reasonable. Guelph, G. T. R. HENRY ARKELL, ARKELL, ONT. Telegraph, Guelph. Reference—"Farmer's Advocate."



**Pennabank SHROPSHIRE and SHORTHORN** A number of extra good and well-covered yearlings of both sexes, sired by Imp. Ruddyram. Also two extra nice young bulls. Prices reasonable. om HUGH PUGH, WHITEVALE, ONT.

## American Leicester Breeders' ASSOCIATION.

A. W. Smith, Pres., Maple Lodge, Ont. Pedigrees now being received for Vol. 5. For information, blanks, etc., address: A. J. TEMPLE, Sec., CAMERON, ILL. U. S. A.

## SPECIAL SALE OF SHROPSHIRE SHEEP.

Offering for this month: 10 shearing rams and 8 ram lambs, out of imported ewes; also a few imported ewes and ewe lambs. Prices very low for immediate sale. om T. D. McCALLUM, "Nether Lea," Danville, Que.

**Only The Best.** My small but select importations are just home. Imported and home-bred rams and ewes, bulls and heifers of the best quality and breeding for sale at moderate prices. ROBERT MILLER, Stouffville, Ont. Representative in America of Alfred Mansell & Co., Shrewsbury, England. om

**"ROAD LEA OXFORDS."** An offering choice ewe and ram lambs, shearing ewes and a few shearing rams for flock headers. Also young Yorkshire pigs of the best bacon type. Teeswater, C. P. R. W. H. ARKELL, Wildmay, G. T. R. om Teeswater, Ont.

## DORSET SHEEP

A choice lot of EWES and RAMS of different ages for sale. om JOHN HUNTER, WYOMING P. O., ONT.

**SHROPSHIRE** shearing rams, shearing ewes, ram and ewe lambs of choice breeding. Prices right. GEO. HINDMARSH, Altona, Ont.

**LARGE ENGLISH YORKSHIRE** Sows safe in imported stock, bred to imported boars; boars fit for service, same breeding as sows; boars and sows three and four months old from imported stock, pairs not akin. om JAS. A. RUSSELL, PRECIOUS CORNERS, ONT.

**LARGE ENGLISH YORKSHIRES** At the leading show in America in 1901, 1902 and 1903 we won 90 per cent of the first prizes. Pigs of all ages at moderate prices at all times. Write for particulars. om D. C. FLATT & SON, MILLGROVE, ONT.

**BERKSHIRES AND YORKSHIRES.** For Sale—Boars fit for service; sows in farrow and ready to breed, and younger stock, all of the ideal bacon type. Pairs not akin. JOHN BOYES, Jr., Rosebank Farm, om Churchill, Ont.

## Weston Herd Large Yorkshires

Choice young stock for sale, from imported and home-bred stock of highest breeding and quality. Prices low. Satisfaction guaranteed. My motto: "Not how cheap, but how good." Telephone, Telegraph and Stations: C. P. R. and G. T. R., Weston, Ont. (electric cars from Toronto). Address: om L. ROGERS, EMERY, ONT., Willow Lodge Berkshires.

I will offer very cheap for the next thirty days, young boars and sows from 2 months old up to 7 months old, of extra quality and breeding, in order to make room for the litters now with sows. Can supply pairs not akin. om WM. WILSON, Snelgrove, Ont.

**YORKSHIRES** For sale: Sows in pig to imported boar; sows 3 months old; boars imported and home-bred; at reduced prices for one month. Write om C. & J. CARRUTHERS, COBBOURG, ONT.

**FOR SALE:** **Yorkshires and Holsteins** Best type and quality. Young stock constantly on hand. Prices right. E. HONEY, om Brickley P. O., instead of Warkworth.

**Chesterswine** From Toronto and London prize-winners. Dorset sheep and lambs. Prices reasonable. om E. E. HARDING, Mapleview Farm, om Thornedale, Ont.

## TAMWORTHS

30 head from 2 to 5 mos. old, registered. Write for particulars and prices. om D. J. GIBSON, Newcastle, Ontario.

## Newcastle Herd Tamworths and Shorthorns

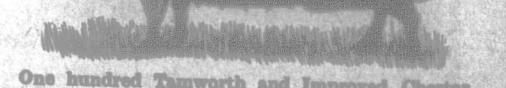
We have for quick sale several choice spring sows, due to farrow in March; also about 30 Oct. and Nov. boars and sows, the produce of our Toronto sires—Vanity stock and the undefeated boar, Colwill's Choice 1903. We also offer for quick sale at moderate prices, one 12 mos. Shorthorn bull calf, 2 heifer calves, and 1 2-year-old heifer in calf; all first-class stock and got by bull weighing 2,500 lbs. Write quick, if you want something good at moderate prices, to COLWILL BROS., Newcastle, Ont.

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At living prices. Have some excellent young stock of good bacon type; both sexes. LOUIS D. BARCHFIELD, Grimby, Ont., P. O. and Station. Telephone on farm.

## GLENHOLM HERD OF TAMWORTHS

For sale: 1 boar, 6 months; Sept. and Oct. pigs, both sexes. Pairs supplied not akin. om F. O. SARGENT, Eddystons, Grafton Sta., G.T.R.



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A few young boars at special prices. Choice young sows, bred to farrow early in April. Shorthorn calves of both sexes. om JOHN BACON, Jr., Lennoxville, Que.

**CHESTER WHITES** We will furnish pigs, farrowed July 21st, at seven dollars each if taken soon. Pigs are the best we ever raised. om J. F. PARSONS & SON, Barreton, Que.

## PINE GROVE FARM HERD OF LARGE ENGLISH YORKSHIRES.

The oldest-established registered herd in America. We have 12 imported boars and sows and 20 home-bred animals breeding, and have a limited number of young boars and sows for sale, suitable for this fall's breeding. Satisfaction guaranteed in all mail orders. om Joseph Featherston & Son, Newcastle Station, C. P. R., and P. O. and Telegraph Station, G. T. R.

## LARGE YORKSHIRES

**GLENBURN HERD;** winners of gold medal 2 years in succession; average 100 head. Sires at head of herd: Imp. Holywell Hewson and Oak Lodge Prior. A large number of sows for sale, due to farrow in March or April, also a few good young boars. Prices reasonable. David Barr J. R. Benfrew, Ont. om Box 5.

**YORKSHIRES** Boars fit for service, at reduced prices. Sows in farrow and ready for sale. Write for prices. om WM. HOWE, North Bruce, Ont.

**YORKSHIRES AND COTSWOLDS.** Grand young boar and some excellent young sows, 5 months old, of right type. Also high-class Jersey cattle and young Cotswold ewes. om WM. WILLIS & SON, Newmarket P. O. and Sta.

## MAPLE GROVE HERD YORKSHIRES OF LARGE ENGLISH YORKSHIRES

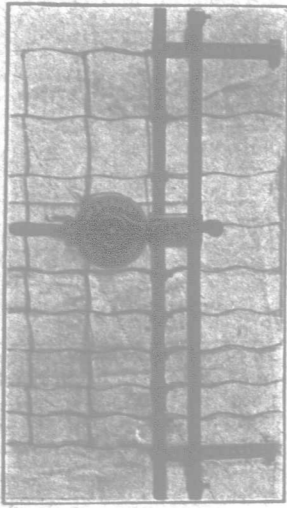
I have several young sows, bred to my Imp. boar, ready to ship. Also 5 or 4 nice young boars, 6, 10 and 12 months old, of my usual good breeding. My herd have won 29 lots, 25 birds and 2 diplomas at 6 county fairs this year, including diplomas for best bacon boar and sow (all breeds competing). Write for my prices, as I have some first-class stock for sale.

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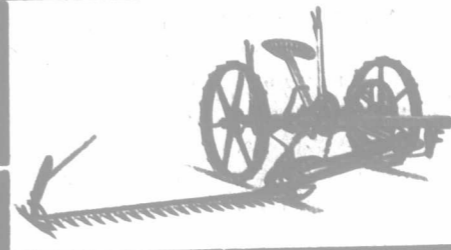


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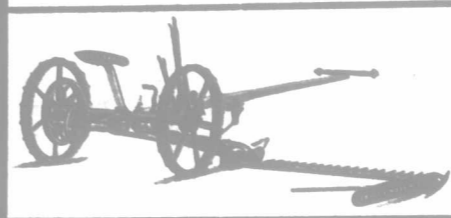
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Toulouse and Embden geese, Pekin ducks, White Plymouth Rock, Barred Plymouth Rock and White Leghorn cockerels. Would exchange for Partridge Cochon pullets, Brown Leghorn cockerels or White Muscovy drake. Also Yorkshire swine from the Pioneer Herd of the Province of Quebec, all ages and sexes. Nothing but No. 1 pigs shipped. Write for prices to  
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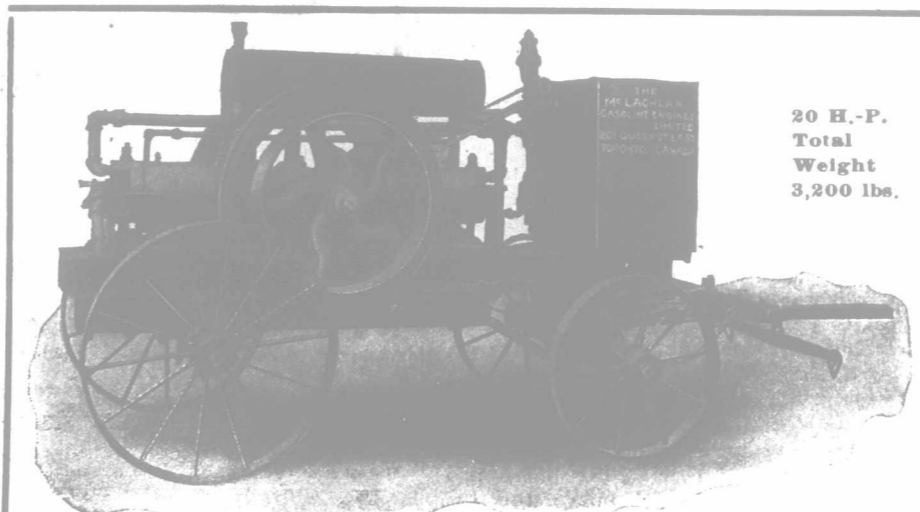
100 College Street, until the 1st of September of this year. The Company will continue to receive orders through these columns, to the 1st of that time, and again solicit your orders for the season.

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