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# THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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VOL. XXIX.

LONDON, ONT., AND WINNIPEG, MAN., JANUARY 15, 1894.

No. 350.



ONE OF EACH BREED KEPT AT THE O. A. C. FARM

## EDITORIAL.

**Sheep at the Ontario Agricultural College.**

Almost all the established English breeds of sheep have representatives on the College Farm. They are kept for the purpose of instruction to the students as to their differences in general form, comparative size, quality of wool, etc. Only a small number of each is thought to be necessary, which are good representatives, and kept in good breeding condition. It is not uncommon to hear expressions of disappointment regarding their condition, but would it not be the height of folly to waste feed in ruining their breeding qualities for the sake of the praise of those who look for a show ring animal, instead of those in a condition to produce lambs in best form? We agree with the authorities of the Farm in continuing to keep their sheep in reasonable breeding flesh.

Of Optswoolds there are four ewes and one ram, all two-shear, imported in 1892 from one of the best flocks in England; also three very fine lambs. These are all very good specimens, well covered with fleeces of useful, lustrous wool. One of the finest ewes has a slightly grayish face and legs, the others are all of the white-faced type.

Of Lincolns there are six animals, comprising one ewe and one ram, two-shear, imported in 1892. The ram inclines to be coarse more particularly in its fleece, but the ewe is a very good one. She had a very fine lamb last spring, which now promises to be as good as herself. The remaining three are yearling ewes, which were purchased from Mr. Oliver, of St. Marys, who imported them a few months ago. They are rather nice in quality, but somewhat undersized for first-class specimens.

The Leicester flock consists of two three-shear ewes imported in 1891, one shearing ewe bred on the Farm, two ram and two ewe lambs. They are a nice, even lot of useful sheep.

Of Oxfords there are three three-shear ewes imported in 1891, one two-shear ram imported in 1892. These were successful show sheep in England, which is evidence enough of their superiority. We would, however, look for finer fleeces on typical specimens of the breed. There are also three ewe and three ram lambs, which are a very nice, even lot—in fact, they show more evenness in size and quality than the lambs of any of the other breeds on the Farm.

The Hampshire flock consists of three three-shear ewes, which were imported in 1891, one shearing ewe home-bred, and six lambs. These are all, according to the demands of their admirers, strong and vigorous. In size something less than the Oxford, with fleeces about one grade finer than the Shropshire. They have shown themselves to be peculiarly adapted to forcing their lambs to an early maturity by their excellent milking qualities. We would say that they come next to the Dorsets in this particular.

The next breed to mention is the Suffolk, of which there are two three-shear ewes and one two-shear ram imported in 1891, one shearing ewe home-bred, and four very fine lambs. This breed seems to have some connection in blood with the Hampshires, as they are much like them in general form, but differ in the color and covering of the head and legs, which are of a glossy black, and having little or no wool on the head or legs. They also have a little more length of leg, and are considerably finer in bone, which is noticed in the head as well as the legs. The ears are somewhat less in size and less inclined to droop. At first sight they appear too high from the ground, which gives the impression that they have little substance, and that they would be hard to feed, but such is not the case, as the ewes now in medium condition weigh two hundred and fifty pounds each. One objection to them is their tendency to have clouded patches of wool about the neck and thighs.

The Shropshire flock numbers twenty-three, consisting of one two-shear ram imported in 1892, seven three-shear ewes imported in 1891, three shearing ewes home-bred, eight ewe and four ram lambs. They are all fairly good sheep, being even, smooth and well-wooled. In their own pens they give spectators the impression that they are undersized, owing to their short legs and their position so near the longer legged sorts. Their compactness and symmetry are too well known to need any notice here.

In the pen for Southdowns can be seen the sort that has stood the test for many years, and continues to have many admirers. The flock comprises one ram and four ewes, three-shear, imported in 1891, also five lambs of nice quality. These are,

to many, the beauties of the O. A. C. sheep fold, but they, like the Shrops, suffer somewhat in size when compared with the coarser breeds.

The comparatively new and popular breed known as Horned Dorsets completes the list. Of these there are one two-shear ram imported in 1892, eight three shear ewes imported in 1891, five ram and three ewe lambs, home-bred and dropped in the spring of 1893. Unfortunately this breed has not had a chance to show their special power of producing fall lambs, owing to the uselessness of a sterile ram and other avoidable causes. We hope to learn more of them from the Farm before very long. We feel sure there is a place for them on many Ontario farms, to raise lambs for the spring demand in our large cities.

It will be noticed that the number of shearings is very small, which can be accounted for in the fact that the ravages of the tape worm was so great in the spring of 1892 that almost all the lambs of all the breeds were lost. Last season the College Veterinary, Prof. Dr. Reid, treated the lambs with medicine composed chiefly of a decoction of pumpkin seeds, and the result has been to destroy the pest to such an extent that very few were lost. They were also pastured on another part of the farm from the former year, which may have had a beneficial influence.

**Annual Meeting of the Ontario Veterinary Association.**

The annual meeting of this Association was held in the Veterinary College, Toronto, on Thursday, December 21st, 1893.

The President, Mr. John Wende, V. S., of Buffalo, N. Y., U. S., in the chair. In his opening address Mr. Wende spoke with much feeling of his gratification at being placed in the honorable position he occupied, and he impressed on the members present the advantages of associations of the various professions, and, indeed, of all the callings in life, and of their meeting for mutual improvement and discussion.

The Secretary's, Registrar's, Treasurer's and Auditors' reports were then received and adopted.

Mr. John Wende read an interesting paper on pyo-sephamisa, commonly called "joint ill" in foals. He mentioned the different names by which it was known, and the various views as to its pathology which had been held. He said that Bollinger, in 1873, first recognized it as omphalo phlebitis. He fully described the symptoms, also the post mortem appearances produced by emboli in the capillaries of the viscera. He mentioned that "pervius urachus," though frequent, was not invariably present. It is a very serious disease. He also gave the line of treatment he adopted.

Messrs. Crowforth, W. J. Wilson and others took part in the discussion that followed.

In a discussion in which Mr. C. Elliott, Major Lloyd, Mr. Quinn and others took part, it was ultimately suggested that the Council of Arts should send representatives to attend at the nominations of the Ontario Veterinary College.

A discussion then took place on certain parties advertising as teaching veterinary dentistry, and granting diplomas as veterinary dentists; and a resolution was passed that a committee be found to frame a resolution strongly condemning such parties for issuing their so-called veterinary dental diplomas, the resolution to be presented to the Provincial Secretary and to the Crown Attorney, who were to be interviewed on the subject.

Moved by Mr. O'Neil, seconded by Major Lloyd, and carried, that a motion of condolence be forwarded to the widow of the late Mr. Hand, of Alliston, an old and respected member of this Association, expressing deep feelings of sympathy with her in her late sad bereavement.

The question of contagious pleuro-pneumonia in cattle then came up, and a resolution was moved by Mr. C. Elliott, seconded by Mr. W. J. Wilson, that no contagious pleuro-pneumonia exists at the present time, neither has that disease ever made its appearance in the province of Ontario. This was carried unanimously.

Mr. John Wende gave a short account of his attendance at the United States Veterinary Congress at Chicago.

Moved by Mr. W. J. Wilson, seconded by Mr. A. Crowforth, and carried, that all the directors read a paper at the next meeting of the Association.

The following new members were duly elected:—Mr. W. McGuire, D. V. S., of Shawville, Que.; Mr. A. Crowforth, V. S., of Lockport, N. Y., U. S.; and Mr. S. T. Holder, V. S., of Mount Albert, Ont.

The officers for the following year are: Mr. W. Burns, V. S., King, President; Mr. G. L. Robson, V. S., Manchester, First Vice-President; Mr. H. Hopkins, V. S., Green River, Second Vice-President; Mr. C. H. Sweetapple, V. S., Toronto, Secretary; Mr. W. Cowan, V. S., Galt, Treasurer. Directors—Messrs. J. Wende, D. Hamilton, J. E. Quinn, W. Gibb, W. J. Wilson, S. T. Holder, A. Crowforth and W. Steele. Auditors—Messrs. C. Elliott and J. D. O'Neil. Messrs. J. H. Wilson and J. D. O'Neil were appointed representatives to the Western Fair Association. Mr. W. Cowan was appointed representative to the Central Farmers' Institute.

**Annual Convention of Western Dairymen at Ingersoll.**

The seventeenth annual convention of the Dairymen's Association of Western Ontario will be held at Ingersoll, Ont., on January 23rd, 24th, and 25th, 1894.

During the summer months the farmer directs his attention and puts forth every effort to produce as much as possible from his land, in order that he may have his barns filled with the most suitable foods for his stock during the winter. It is just as important, and just as much his business, that he should, during the comparative leisure of the winter months, store up in his mind valuable information in reference to the best practices in caring for his stock, and in operating his farm so as to carry it on most successfully, and be enabled to produce this storehouse of suitable food with the least cost and with the greatest amount of profit to himself.

The numerous Farmers' Institutes and Dairy Conventions will furnish ample opportunity for acquiring this knowledge, consequently these meetings, as well as the meeting of Western Dairymen at Ingersoll, should be largely attended.

This annual gathering of dairymen will be unique in many respects; it will be the largest gathering of prominent and practical dairymen in Ontario. During the three days of the meeting more practical information about the cow, how to use her, how to feed her, and how to make the most profit out of her, will be given than can be got from any other source in the same length of time. It will enable everyone who attends to hear some of the leading dairymen and agriculturists on this continent, including Hon. Jno. Dryden, Hon. Thos. Ballantyne, Dr. L. L. Vanslyke, Geneva, N. Y., John Gould, Esq., Ohio, Profs. Robertson and Fletcher, Ottawa, Prof. James, Toronto, Prof. Dean, Guelph, and other practical men.

Every farmer, every dairyman, every cheese and buttermaker, and every manufacturer who desires the latest information about paying for milk by butterfat, the selection of dairy cows and how to feed and care for them for profit, the silo and its benefits to the dairyman, and the benefits to be derived from practical dairying, should make it a point to be present at the Ingersoll meeting on the 23rd, 24th and 25th. Reduced rates on railways.

The reports of the Experimental Union and the Eastern Dairymen's Association have crowded out of this issue many useful contributions. These will be published as soon as our space will allow.

For some time we have endeavored to induce farmers who had used commercial fertilizers to give our readers the benefit of their experience. In this issue, J. Y. O. is out with an article on this subject. Can we not induce others to send us an account of their experience along this line. Come, gentlemen, no more "Rip Van Winkle". Wake up and tell our readers whether the use of commercial fertilizers has paid you or not. Give us your experience.

We thoroughly endorse Mr. W. J. Stevenson's suggestion, viz.: Let us who are interested start a query column, where questions may be asked and answered by capable and experienced men—let us tell each other our experience. Come along, gentlemen, we want the result of your experience; tell it to us, and we will tell thirty thousand farmers what you say. Some of them may be able to tell you something valuable. We will try to get them to do so. Come along, Mr. Stevenson; we can't hear from you too often, judging by the letter we publish in this issue.

In her poultry article this issue, Mrs. Tilson, among other good things, says: "Although our own experience is the best teacher, another's experience often gives us a great start up the hill of knowledge, and puts money in our pockets." These are true words, and should be heeded by every reader; by careful observation each should learn. The person is either conceited or foolish who supposes he can learn nothing from his neighbors. One of the great benefits to be derived from the institute work is that farmers may meet and compare notes, affording food for thought, and increasing a desire for reading and study. The Government can do much to stimulate the institute work, but it can never make it benefit any farmer, if he will not attend the meetings, or follow up the speeches he hears by reading and increased thoughtfulness and observation.

**Errata.**

Under the heading, "Oats or Wheat for Horse Feeding," in our last issue, the writer was made to say: "For a basis of comparison, therefore, it must be *assumed*." This clause should have read: "For a basis of comparison, therefore, it must be *assumed*."

**THE FARMER'S ADVOCATE & HOME MAGAZINE**

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**Our Clubbing Rates for 1894.**

We offer our subscribers papers at the following rates:—

THE FARMER'S ADVOCATE AND HOME MAGAZINE	
Winnipeg Weekly Tribune	\$1 75
Toronto Weekly Mail	1 50
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**Wanted! Seed Grain Correspondents.**

We request our readers to send us reports concerning the varieties of spring wheat, oats, barley, corn, potatoes, turnips, mangolds and carrots that did best in their respective districts last season. If new varieties were tried, tell us what they were and how they succeeded. Send reports so that they will reach us not later than February 5th.

**Tuberculosis in the Dairy Herd of the Agricultural College at Guelph.**

The subject of tuberculosis at the College Farm is by no means a new one to the people of this country, but the facts concerning it are not so well known. Party organs have, as is their custom, tried to make a great deal of capital out of the matter. We have endeavored to learn all the facts concerning the late outbreak, as many of our contemporaries style the last trouble at Guelph.

As we all know, tuberculosis does exist in the dairy herd at the college. Almost a year ago an imported Guernsey cow was known to be diseased and slaughtered. Two more cows of the same breed began to show symptoms before spring and were isolated and ultimately slaughtered, along with a calf from one of them, which gave evidence of having contracted the disease from drinking the milk from a cow when in the advanced stages of the trouble, as the calf's intestines alone were badly diseased, the lungs being perfectly sound, so far as Professor McKenzie, the Bacteriologist of the Agricultural Department, could determine with the naked eye. This slaughter was made publicly and all the students were invited, and most were present to witness it and listen to Professor McKenzie's explanation of the tubercule test. During the summer a Red Poll and an Ayrshire cow were noticed to be unhealthy, and were isolated to await development or cure. In July nine animals were tested with the Koch lymph, when four gave a reaction indicating the presence of tuberculosis, while the remaining five gave no rise in temperature. Three of the affected animals were destroyed, and the other, the imported Guernsey bull, was isolated for experimental purposes. One of the slaughtered cows, a healthy looking grade, was so slightly diseased that an unprofessional eye could not detect anything wrong with her, and, according to authorities, might have died of old age without harm to man or beast through tuberculosis. It was decided to test the whole herd, but lymph could not be obtained before October, when twenty-six quite healthy-looking animals were tested, seventeen of which gave a rise in temperature. Since that time they have been kept far enough from the healthy animals to insure no contagion. Their milk has been heated to a sufficient temperature to destroy any germs which might be present in it.

Now, as to the dairy stock offered at the last sale, seven calves were taken from the dairy stable to be sold, all of which were dropped a considerable time before the October test was made. They have never suckled their dams, and had not been fed with diseased milk. They have been kept in box stalls in the part of the stable farthest removed from the tubercular cows, and were considered by Prof. Dean and Dr. Reid, the college veterinarian, to be safe and sound. We contend that it was a gross mistake to offer any stock for sale out of such a stable. The Minister of Agriculture left the selection of stock to be sold to Prof. Dean and Dr. Reid, instructing them not to offer any animals that were in the least tainted with the disease. Should the Minister have personally supervised the selection of the stock? Some will say yes, but when a professional veterinarian and the professor of dairying, men who knew all about the dairy stock so far as could be known, were given charge of the selection, with strict instructions not to offer any animals that had come in contact with diseased ones, we cannot blame the Hon. Mr. Dryden for the mistake. Had Prof. Reid and Dean exercised reasonable judgment in the matter, no reasonable man would have thought of blaming any one. We contend that those who selected the stock, and perhaps President Mills to some extent, are the ones on whom public censure should fall.

We understand that Mr. Dryden, on learning that some of the calves being sold were from condemned cows, was horrified to think such a blunder had been made, and immediately instructed Prof. Dean to make the facts known to those who had purchased calves. This was done, and what might have been a source of danger to the country was avoided.

A short time ago a wholesale slaughter was made; a number of healthy-looking animals were destroyed; some of them were so slightly affected that only the most careful examination could detect disease. In one or two only a mere speck was found on dissecting the liver, which goes to show the value of the tubercule test, as even the smallest trace of disease is shown long before it could possibly interfere with the health of the animal or other animals drinking their milk.

We wish to correct a statement which some of the party papers have circulated, that is, that the disease in the College dairy herd is pleuropneumonia. Why such a statement has been made is not known, except the desire to make a bad matter as much worse as possible. It has been clearly demonstrated during the last year that no pleuro-pneumonia exists in Canada. The most careful examination by skilled veterinarians, wherever the slightest suspicion presented itself, has proven conclusively that Canadian cattle are entirely free from that dread disease.

Several writers in Reform papers have justified the college authorities by stating that the herd at the Central Experimental Farm, Ottawa, had suffered very much from tuberculosis, and that a number of animals were killed, which is true. The officers of neither of these stations are at fault because the disease exists in their herds. It is their misfortune, not their fault. The same trouble may overtake any breeder. The disease may appear and does appear in the best managed herds, both pure-bred and grade. The difference between the two stations is this:—At Ottawa the officials offered no animals for sale; at Guelph animals were put up and sold at public auction that were a menace to the public health. The Ontario Minister discovered the error in time to check it. No harm in reality has been done, but a severe lesson has been taught the officers at Guelph which will prove valuable to the country.

**Death of Mr. John Hope, of Bow Park.**

We regret to be called on to chronicle the death of one of Canada's agricultural leaders. On the evening of January 3rd, Mr. John Hope, who had been suffering from a severe attack of la grippe and neuralgia, asked one of his men for a bottle of laudanum, from which he had been in the habit of taking doses for neuralgia. It was given him, and in a short time afterwards he was found lying unconscious at one of the stable doors. Medical aid was summoned, but consciousness could not be restored. He soon passed peacefully away, without being able to recognize those about him.

Mr. Hope was born near Aspatria, in Cumberland, England, Jan. 5th, 1844. He, along with the other members of the family, were left fatherless while quite young, which circumstance caused them to separate shortly afterwards, the deceased coming to Markham, Ont., where he was engaged in the cattle trade for a number of years. He afterwards went to Missouri, U. S., and finally came to Bow Park Farm, where he has been for twenty-three years, acting first as manager under the Hon. George Brown, and latterly sole manager for the company owning the estate. He has long been regarded as perhaps the best authority on Shorthorns in America. His opinions have frequently been sought by persons in all quarters of the continent with regard to matters pertaining to livestock breeding and management. The fame gained by this farm and herd is due almost solely to the capabilities and untiring zeal of John Hope. He has occupied a position in the pure-bred stock industry of America which will be exceedingly difficult to fill. Very few men are capable of managing so large a business successfully, while every detail connected with this great enterprise has been carefully looked after. Although Mr. Hope will be greatly missed in agricultural circles, his decease will be most keenly felt in his own family circle and among those with whom he came into daily contact. Although he was frequently called away from home on matters of business, his own family circle and neighborhood was by far the dearest spot to him. He was honored by all classes of men, and esteemed as an upright gentleman in all matters of business. He was a man of action under any circumstances, and was always ready to help deserving causes which came under his notice.

The funeral services were conducted by the Rev. Dr. Cochrane, who spoke very touchingly of the excellent qualities of a man with whom he had been in intimate acquaintance for seven years. Notwithstanding the inclemency of a very rough day, a large number of friends from the city and other places throughout the Province and adjoining States congregated to pay their last respects to their departed friend. He was buried in Greenwood Cemetery, Brantford, Ont.

**The Ontario Agricultural and Experimental Union.**

The fifteenth annual reunion of the members of the above society was held at the Ontario Agricultural College on the 22nd and 23rd December, 1893. There was a good attendance of ex-students, while a large number of farmers from the vicinity of Guelph were also present. Much interest was manifested in the experimental work of the past year.

The meeting was opened by the delivery of the annual address by the president, A. G. McKenzie, Fairview, Ont. He reviewed the work of the association for the past year, and congratulated the members on the success which had attended their efforts to increase the interest which is taken in experimental work throughout the country. He said that the good work that was being done by the Union is already attracting attention beyond our own province. Many very favorable notices have appeared in the papers of both the United States and of Great Britain.

In his address the president brought forward a number of new ideas, the adoption of which he considered would greatly increase the influence of the society for the coming year. At the conclusion of the address a committee was appointed to consider it and report later on.

The reports of the different committees on experimental work were then called for, and as this is the most important work taken up by the Union, we give a full account of the report of this department.

**ECONOMIC BOTANY AND ENTOMOLOGY.**

Professor Pantou, O. A. C., Guelph, in reporting for this committee, said that the committee appointed to collect information regarding the presence of injurious insects, fungi and weeds throughout the Province of Ontario, sent out one hundred copies of the prepared circular to the secretaries and some others of the Union. The replies may be summarized as follows:—

**Weeds.**—Forty different species are referred to, but only eleven are named by ten or more correspondents. The following is the list, with figures indicating the number that referred to each:—

Canadian thistle, 42; mustard, 36; couch grass, 28; burdock, 26; ox-eye daisy, 25; rag-weed, 24; pigeon-weed, 22; cockle, 20; wild oat, 18; pig-weed, 15; wild tares, 12.

Bulletin 46, or report O. A. C., 1893, bulletins 85 and 91, or report O. A. C., 1893, will be found of service in the study of weeds.

**Fungi.**—Among the mildews, rusts, etc., we find reference is made to 21, and of these only the following are referred to by ten or more observers:—

Rust, 36; loose smut, 18; bunt or stinking smut, 16; smut (corn), 20; potato blight, 30; black knot, 25; spot on apple, 23; grape mildew, 13; pear blight, 12; pea mildew, 10.

The reports upon injurious fungi are not as definite as desired, owing, no doubt, to the fact that most observers consider these plants as the same species, e. g., loose smut and smut are entirely different types of smut; the former, readily seen, is black, the latter concealed in the kernels, which are known as smut balls. We find the same difficulty arising in speaking of potato blight, of which there are at least three types. Some use the term blight or rot for all the kinds. Three types of fungoid pests affect the grape, under the name of mildews by some. Observers should as far as possible give the particular type in each case. We have no doubt that ere long, as a knowledge of these obscure forms of plant life becomes more general, the indefiniteness referred to will be a thing of the past. Rust and smut seem to have been quite common, the former likely owing to climatic conditions when it appeared; the latter may have been from sowing smutty seed. It is to be regretted that so much black knot can still be seen and allowed to remain on the trees as centres of distribution.

We would refer observers to consult the following bulletins and reports for information upon rust, smut, etc.:—Bulletin 2, or O. A. C. report, 1886; potato rot, bulletin 36, or O. A. C. report, 1888; rust, bulletin 52, or O. A. C. report, 1890; black knot, bulletin 56, report, 1890, smut.

**Insects.**—Fifty species are referred to, the most common being:—

Potato bug, 39; grasshopper, 39; cabbage worm, 27; codling moth, 21; tent-caterpillar, 21; turnip fly, 20; curculio, 18; currant worm, 18; cutworm, 17; wireworm, 16; apple borer, 12; clover midge, 11; pea bug, 10.

From the replies it is readily seen that two insects, not usually common, appeared in many places, viz., grasshoppers and an aphid upon turnips, rape and cabbage. One observer refers to the larva of a moth (*Drasteria erechtea*) affecting the clover.

Reference to bulletin 87, or O. A. C. report, 1893, will give information as to the best way to get rid of many, if not all, these pests.

In further work we would recommend correspondents to mention any new weeds, blights and insects that have appeared in their districts, as well as the most injurious forms.

The Professor of Natural History at the College will always be pleased to assist in determining species of plants or animals referred to him, and will consider it a favor to have such sent him at any time.

**APICULTURE.**

R. F. Holtermann, in reporting for the apiculture committee, stated that they had been investigating the merits of an automatic self-hiver, which promised to be of great help to bee-keepers. The self-hiver is placed between the old and the new hives; the queen, in attempting to follow a swarm, will be prevented by means of perforated metal trap, which would lead her into the new hive below. The bees, on missing their queen, would return, and finding her in the new hive, would enter, and thus be hived without either labor or anxiety on the part of the bee-keeper. This invention, if successful, will be a great boon to bee-keepers, and especially to those who only keep a few colonies, for if the swarms are lost, as they frequently are, a large share of the season's profit will be gone.

Reports were received from eleven who had used the hiver, and the opinions expressed were that in working for extracted honey it would be found a great success, but that it would not be of so much use to those who were working for comb honey.

**DAIRYING.**

The experiments in dairying showed that composite samples of milk could be tested at longer intervals than is usually done and the results will be perfectly reliable. By testing samples of the patrons' milk at intervals of three weeks or a month the labors of both the maker and the secretary would be greatly lightened. Prof. Dean had kept samples seven weeks in hot weather, and had found that the results were practically the same as when the tests were made every day.

**HORTICULTURE.**

E. Lick, Oshawa, gave the report of the horticultural experiments. He stated that great interest was being manifested in the work, and that already twelve persons had made application for experiments next year. In the potatoes four of the varieties were the same as last year. In such cases we give the yield of both years. It will be noticed that the yield is much less than last year, doubtless owing to the unfavorable season.

	1893.	1892.
Rural No. 2	188.9	213.6
Empire State	177.7	255.6
Kaiser	173.3	.....
Puritan	166.7	.....
Burpee's Extra Early	166.2	208.3
Summit	165.9	236.3

As will be noticed, the Summit has dropped below in yield this year. By referring to last year's report it will be seen that it was second in yield in 1892, and it also headed the list in 1891. Some members present thought that this was owing to the dry weather, and that the yield would have been greater in comparison with the other varieties had the season not been so dry. Rural No. 2, which promised exceedingly well two years ago, has again satisfied the expectations of its friends by heading the list this year for the greatest number of bushels to the acre. It will be remembered that last year it was a partial failure, owing to the failure of the seed to grow.

In regard to quality, Empire State and Puritan had the most admirers, with Burpee's Extra Early, Rural No. 2, Summit and Kaiser in the order named. Puritan, Burpee's Extra Early and Summit were the earliest; Rural No. 2 the latest, and Kaiser the next late. Rural No. 2 is a round potato. Empire State is a long potato, and does not weigh as many pounds to the bushels, although it yields well. Kaiser is much like No. 2. Puritan is usually a smaller sized white potato. Burpee's Extra Early is about the same as Summit; in shape like Empire State, although of a reddish hue. Summit is a new variety, about four years, grown from seed. One experimentalist thought it a good potato if it did not turn black at the heart in spring, but no one else complained in this respect.

In the discussion which took place the selection of seed was very strongly advised. The tubers should be selected of medium size, perfect in type and from the strongest plants. If this was done, there would be no danger of varieties running out. The practice of spreading the potatoes in the sun for some time previous to planting was also recommended. The advantages claimed were that it ensured against rot, gave them a much earlier start and brought them on ahead of the bug, and that they were much more vigorous and healthy.

The shallow, flat cultivation of potatoes was strongly emphasized by several speakers. Experiments were cited which showed that in many cases a large proportion of the crop was lost from the breaking of the roots, owing to the deep cultivation.

Mr. Hilborn strongly urged the selection of seed, and gave the following answers to questions which were put to him on the subject:—

"How would you select potatoes for seed?" I would select just a medium-sized potato, and the most perfect of its type. If I wanted to grow Early Rose, I would take the nicest of that type and select the smooth ones always. If I were growing a variety that grew long, I would select long potatoes, unless I wanted to shorten the variety. I believe you can change the shape by selecting longer or shorter seed and continuing to do that. I would go over the field where they were growing before they ripened, and for early potatoes I would select the earliest hills to ripen, those with the strongest stalks.

"Do you think changing potatoes from one district to another would be an advantage?" It helps, no doubt, from light to heavy, but I think selection has more to do with it. "Should you go farther north or farther south in selecting seed?" I would rather go farther north than south, though I do not think it matters a great deal. We imported 240 varieties from Germany and tested them on the Experimental Farm. I exhibited 1-0 varieties at Toronto the fall of that year, and we found that the imported varieties did not succeed as well as our American sorts. "Did you decide after one year's test or longer?" The test was continued later on, but I left the farm and did not keep track of it, so could not say. "Do you think the temperature potatoes are wintered over at may injure vitality?" I think it possible, but have known potatoes to remain out during the winter and must have been frozen, yet they grew. I think more depends on the tubers and selection. "What is a good average yield of potatoes?" I do not suppose they average 100 bushels throughout the country one year with another. The Rural New Yorker made experiments and quoted 100.0 bushels to the acre, but I do not think this is a reliable report.

John S. Pearce—I think Mr. Hilborn has struck the key-note of this Union, and that is selection. There cannot be too much stress laid upon this. In the experimental work carried on here there should be a great deal of attention paid to the seed. I have been watching this matter for myself for a great many years, and am fully satisfied that if a number of our young men would go in for making a selection from the old standard varieties and follow it up for three or four years, they would surprise themselves and the country. We always selected typical potatoes of the variety and put one fine potato in a hill, and we had our best results from these.

There was but little to report with regard to the experiments with raspberries and strawberries, but a full report may be expected next year.

**AGRICULTURE.**

The report of the chief work of the Union, and that in which the most interest was taken, was then delivered by Mr. C. A. Zavitz, Experimentalist, Experimental Farm, Guelph. The work for the past year had consisted in the testing of fertilizers, and also of the different varieties of farm crops.

The year had been rather unfavorable, as it had been the driest for several years, though in a few sections there had been too much rain. The rainfall at Guelph for the five summer months was 11 inches. In 1892 it was 16.9 inches, and for the two previous years it averaged about 12 inches for the same months.

The success of the work can be judged by the increase in the number of packages sent out. In 1888 there was only one experiment, eight experimenters and thirty-five plots. This year there are thirteen distinct experiments—two with fertilizers, three with fodder crops, three with roots, and five with grain; 7,181 packages of fertilizers and seeds were sent out, and successful returns were received from 416 experimenters, who had carried on their work on 2,105 plots. The work has spread over the whole province, and this year there had been a number of successful reports from Algoma, Parry Sound and Muskoka. In regard to those to whom the material is sent, Mr. Zavitz said:—

"We give the first chances to the members of the union, in the second place we send to all experimentalists of previous years who wish to carry on the experiments again this year, and then we send to those who send in applications, whether they are members of the union, ex-students, or whether they have carried on any previous experiments or not.

"With regard to the material sent out I might say we send out only choice varieties, and it is after some four or five years' experiments with each variety that we are able to choose the choicest varieties, and it is these only we send out. We send out nothing about which we do not know a considerable amount at this institution. We try all material, and send out nothing but what is of a superior quality, and not one package was sent out this year without being hand-picked, and there was not one complaint received regarding the quality of the seed from over 1,100 experimentalists.

"We sent spring experiments to 873 farmers. Of these we have received 322 successful reports, and 82 partial reports. After the reports came in, we went over them carefully and culled out those that we thought not correct, or were lacking in any one variety.

"In the spring we sent out a letter, outlining the work of the Union and naming the experiments. Each person to whom this letter was sent was asked to fill in the blank form and send it back to us, so that we could know which experiment he desired, and in this way we got a very good idea of the demand for the different classes of grain. We had sixty applications for fertilizers, and we have the results here of twenty successful experiments. There is no reason why there should not be as many ask for rape as for oats; all had the same chance to choose.

In experiment No. 1, the results this year correspond exactly with the results of last year. Last year we had the results of seven successful experiments, this year we had the results of twenty. The fertilizer used both years was of the same quality and price. The mixture used was made up of nitrate of soda, muriate of potash and superphosphates. The cost of the fertilizer in every instance was \$1.00 to \$1.50 an acre."

FERTILIZERS WITH OATS.

Fertilizers.	Yield of Straw.		Yield of Grain.	
	1893.	1892.	1893.	1892.
Mixture.....	1.18	1.31	41.3	47.2
Nitrate of Soda.....	1.21	1.30	38.6	43.3
Muriate of Potash.....	1.77	1.22	37.6	40.8
Superphosphate.....	1.20	1.18	36.2	39.2
No Fertilizer.....	1.00	1.09	31.4	35.9

In this experiment the increase in the grain cost 44 cents per bushel. The results from the different varieties of soil all gave the same results. Of course there would be a certain amount of fertility left in the soil, but on the whole the results went to show that it would not pay to use the above artificial fertilizers in a dry season such as the last. The results might have been different had there been a greater rainfall.

FERTILIZERS WITH RAPE.

In the experiments with rape, sodium nitrate gave a gain of five tons of rape to the acre, owing to the addition of 80 pounds at a cost of \$2.00; in this case there was a decided profit. The superphosphate gave but little increase in yield. The yields were as follows: No manure, 4.1 tons; superphosphate, 5.1 tons; sodium nitrate, 9.2 tons.

CARROTS.

Five varieties.	Yield per acre.	
	Co-operative test.	At O. A. C.
Improved Short White.....	780	1097
White Belgian.....	661	853
White Vosges.....	657	838
Danvers' Half Long Orange.....	657	861
Guerande.....	601	740

It will be noticed that the White Vosges is second in the test at the Ontario Agricultural College and the Belgian third, which is the position that they occupied in both tests last year. The two varieties which were the easiest to remove from the ground were the White Vosges and the Short White.

TURNIPS.

Four varieties.	Yield per acre.	
	1893.	1892.
Jersey Novet.....	689	New variety.
Red Globe Norfolk.....	684	905
Hartley's Bronze Top.....	659	783
Carter's Elephant.....	602	764

The first two are fall varieties, the last two are Swedes. It will be seen that the last three varieties hold the same relative position as they did last year, Red Globe Norfolk being the highest in the yield, the Jersey Novet not being in the list last year.

MANGOLDS.

Four varieties.	Yield per acre.	
	1893.	1892.
Long Red Selected.....	1016	
Mammoth Red.....	844	
Carter's Orange Globe.....	785	
White Silesian.....	778	

Long Red Selected and Mammoth Red again lead the list this year.

MILLET.

The results obtained this year in regard to millet are practically the same as last year. The same varieties were sent out. Salzer's Dakota is far ahead in yield, the common millet is the poorest, while the Golden Wonder occupies a middle ground. Salzer's Dakota is a variety which was obtained from the Western States, and has been doing exceedingly well on the farm at Guelph. Golden Wonder is also a new variety from the Western States. Mr. Zavitz would consider Salzer's Dakota a good feeding millet, though rather coarse. It stands stiff in the straw, and has a larger amount of leaf than either of the other two.

LUCERNE.

Reports from those who have experimented with lucerne this year and last are quite favorable, while from those who tried the experiments four years ago the majority were unfavorable, though in some cases, where it had been sown on high, dry land, the experiment had been very successful.

CORN.

Six Varieties.	Yield Per Acre.	
	Tons Per Acre.	Green Ears.
Mammoth White Surprise.....	17.5	2.4
Thoroughbred White Dent.....	15.9	3.5
Giant Beauty.....	15.5	3.0
Mammoth Cuban.....	15.2	3.4
Wisconsin Early White Flint.....	14.1	3.5
Salzer's North Dakota.....	13.2	3.5

Mammoth White Surprise is a very large variety, and has given the largest yield per acre of all the varieties grown at Guelph, where it has been grown for five years. It is very late, and it is a question if it is not too late for any part of the province. White Flint is a well-known variety. On the Guelph farm it is not early enough, only reaching the milk stage. Salzer's North Dakota will get very hard. Wisconsin Early will get fairly hard. Mammoth Cuban will get in very fair condition for ensilage. Salzer's North Dakota will do, as its name implies, best farther north. It will ripen at Guelph. It is impossible to say which variety will do best for the Province of Ontario, as much depends on the locality. The speaker would recommend Wisconsin Early, Mammoth Cuban, Compton's Early and North Dakota for general use in Ontario.

BARLEY.

Five varieties.	Yield per acre.	
	Co-operative tests.	At O. A. C.
Mandschuri.....	23.7	33.3
Oberbrucker.....	29.7	49.7
Hungarian.....	20.0	32.3
Guaymalaye.....	18.0	33.0
Kura Kula.....	17.7	37.1

The Mandschuri and Oberbrucker occupy the same positions as they did last year. The Mandschuri is a Russian variety, and has a very long, strong straw.

SPRING WHEAT.

Six varieties.	Yield per acre.	
	Co-operative tests.	At O. A. C.
Herison's Bearded.....	15.0 bush.	27.0
Blue Stem.....	15.0 "	25.0
Rio Grande.....	14.0 "	23.0
Mt. Corbin.....	14.0 "	22.0
Red Fern.....	13.0 "	30.8
Pringle's Champion.....	12.9 "	26.9

It will be noticed that though the Red Fern is only fifth in the co-operative experiments, it headed the list at the College Farm with a yield of 30.8 bushels. Last year it headed the list in both sets of experiments. Herison's Bearded, which is first and second this year, was third in both tests last year.

WINTER WHEAT.

Five varieties.	Yield per acre.	
	Co-operative tests.	At O. A. C.
Dawson's Golden Chaff.....	34.9	45.7
Golden Drop.....	34.4	47.0
Early Red Clawson.....	32.0	43.0
Bulgarian.....	31.4	41.2
American Bronze.....	31.3	37.9

PEAS.

Four varieties.	Yield per acre.	
	Co-operative tests.	At O. A. C.
Prussian Blue.....	25.9 bush.	75.1
White Marrowfat.....	25.0 "	67.6
Canada Cluster.....	25.0 "	87.4
Dauphin.....	21.0 "	62.0

Prussian Blue has done exceedingly well at the Guelph Farm this year, and is well known over the Province as one of the best varieties grown.

OATS.

Four varieties.	Yield per acre.	
	Co-operative tests.	At O. A. C.
Siberian.....	52.4 bush.	75.1
Poland White.....	52.0 "	67.6
Joanette.....	51.0 "	87.4
Golden Giant.....	45.0 "	62.0

Of this variety of grain, Mr. Zavitz has the following to say:—

"There is a greater demand for oats than for any other class of experimental material which we send out. Last year we had 175 complete results, this year 105. Siberian White Oat, which was imported from Russia five years ago, is at the head of the list among 105 experiments. It was at the head of 175 experiments last year. It is also at the head of the list of white varieties which have been grown here for the last five years. Eighty-one varieties have been grown here for five years, of which I suppose four-fifths are white, and the Siberian is at the head. It also came out head in the large plots on the farm.

The Poland White is early, and is a very heavy oat. It is thicker than the Siberian, and stands second on the list.

Joanette holds the same relative position as last year. It stood third in point of yield in 105 experiments last year, and it stands third this year. It is a black oat, and was imported from France by this Station. It is at the head of all other varieties among the 81 grown here for five years.

In co-operative experiments Joanette did well on low land, where it is apt to grow a great deal of straw. On clay and light lands it will not do so well, and some experimentalists say the results from the Joanette are entirely unsatisfactory, and they would not grow it any more, while others speak in the highest terms of it.

The Golden Giant is an oat which, perhaps, has been boomed the most. We sent it out this year for the first time. It is one of the leading varieties, and stands second among the twenty-seven new sorts we introduced three years ago, and grew this summer for the first time.

Joanette is apt to shell a good deal, and should be cut on the green side. White Poland is not quite so apt to shell in our experience. The Joanette is the thinnest-shelled oat we have in the list of eighty-one varieties. We took one hundred grains of each variety, shelled them, weighed the shells and weighed the kernels, and found there was no thinner-shelled oat than the Joanette.

RESULTS.

The greatest care was taken in selecting varieties and seed. We consider it better to send out small quantities of really good seed of special quality than larger quantities of inferior seed. I wrote to quite a number to whom grain was sent in 1891, asking them what results they had reaped from the experiment, and have received a large number of very satisfactory replies. One man says he has now 30 bushels of Herison's Bearded; another has fifty bushels of Hungarian barley, seed of which was sent out in the spring of 1891; another has 100 bushels Flying Scotchman oats and 100 bushels Poland White, started from small lots; another has 45 bushels Poland White and 60 Joanette; another has two and a-half acres of Poland White; another man has 105 bushels; another man is growing Joanette right along this year, and considers it one of his most profitable crops; another has eight bushels Siberian; another has 50 bushels Pringle's Champion spring wheat; another 50 bushels Joanette; another ten bushels Herison's Bearded, weight 63 lbs. to the bushel.

A number of valuable addresses and papers were delivered by prominent agriculturists, and as a number of these will be published in full at a later date, we will merely give a few extracts and the following synopsis of the proceedings.

A DISCUSSION AROSE

as to how the interest taken in the Union by farmers could be increased. At present there is on each delegation to the Farmers' Institutes a member of

the Union, and it was suggested that instructions should be given to this Union delegate to advocate the claims of the Experimental Union at the Institutes attended by them. A motion in accordance with this idea was submitted and carried unanimously.

SHEEP AS PROFITABLE FARM STOCK.

As Mr. John Harcourt was unavoidably detained from the meeting, his paper on "Sheep as Profitable Farm Stock" was read by his brother. He considered sheep-raising as one means by which, during the present hard times, a profit could be made without much hired help. They are but little trouble to care for, except at lambing time, and are easily pastured—indeed, can pick up their living where other animals would die. Sheep give good returns for good care, and with better feed and more careful attention more profit could be made. The point was raised as to the advisability of keeping sheep in a warm place, and the essayist asked for the experience of others on this point.

Mr. Mason did not think warm stables advisable. The main thing was to keep the sheep dry. The depression of the present year had rather discouraged sheep breeders, but he thought that Canadian breeders would ultimately come out all right, as they raised good stock. He had sold lambs in Buffalo this year for the lowest price that he had in thirty years.

Mr. E. Lunn was much in favor of keeping sheep in a warm barn, and cited his own experience in proof of his statements. An interesting and lengthy discussion then followed on this question.

BEE-KEEPING IN ONTARIO.

Mr. R. F. Holtermann read a paper on "Bee-Keeping in Ontario," which will appear in an early issue. In the discussion which followed, the following points were brought out: The lightest honey is raised on high land. Undulating soil extends the season. Asite near the lake shore has same result, for the bloom opens later by lake and earlier further back. As a rule, the further north the better the honey. A man to be successful in bee-keeping must be an enthusiast in his business, and use push, pluck and perseverance. Less skill is required in working for extracted honey than for comb honey. In extracted honey it is necessary to watch the bloom closely, so as not to mix the honey from different flowers.

HOW TO IMPROVE THE FINANCIAL CONDITION OF THE FARMER.

The address on the above subject, which Vice-Chancellor Mulock was unable to deliver through illness in his family, was read by Mr. R. F. Holtermann.

This paper was most interesting in many respects and very practical. He did not treat the subject in relation to its connection with any tariff legislation, but showed how each farmer could improve his financial condition for himself, and gave much valuable information gained from results achieved on his own farm.

First, he said that farming was a science and not a game of chance, and that the first question of each farmer should be, "How can I increase the production of my farm?" In answer to this, he said the farmer must increase the means of fertilization by underdraining, proper cultivation, and a thorough system of manuring.

He then explained his system of adding nitrogen to his soil by plowing under leguminous plants, such as clover and peas, and showed, by reference to his own field, the great advantage to be derived from this system of manuring. There is no profit in endeavoring to cultivate more land than can be properly manured. The successful agriculturist must be able to make a practical application of scientific knowledge. The farmer should also have some definite policy in his work, and make some department of the farm a specialty.

Mr. Mulock then gave a few remarks of caution as to what farmers should avoid if they would succeed.

It is false economy for a farmer to over-work himself, and in order to avoid this he must form habits of regularity, and, if possible, keep ahead of his work. The successful man must be temperate in his habits. Another pitfall is debt. "A man in debt is caught in a net." He must also avoid all bubble schemes. The prudent man must avoid litigation; it is a luxury in which no farmer can afford to indulge. He must also adopt business methods in connection with his calling, and should keep a full account of his business transactions. In conclusion, he said that all farmers should keep themselves abreast of the times by means of farm journals and newspapers. He urged them all to give their hearty support and sympathy to this farmers' college, which was doing so much to advance the interests of the farmers.

In the discussion which followed, Mr. Dryden said that farming for glory was not a favorite pastime in Canada. Gain was the objective point of everyone. The object of every farmer must be to obtain the greatest possible results by the most economic methods, though parsimony must be avoided. What the farmer needed was access to the best markets of the world, and such instruction as would best enable him to produce the most from his land. No man should be a mere copyist, and no one can succeed by careless, slipshod or old-fashioned methods.

Prof. Shuttleworth considered that Mr. Mulock had endeavored to teach two lessons: first, the nec-

essity of the study of agricultural science; second, to reduce agriculture to business principles.

#### THE FEEDING VALUE OF STOCK FOODS.

Prof. Thos. F. Hunt, Professor of Agriculture in the University at Columbus, Ohio, delivered an address on the feeding value of stock foods. He commenced by saying that the old proverb, "Know thyself," expresses a great truth, but in addition we should know the things with which we deal. In the feeding of animals we should know, first, the animal with which we have to deal; second, the feed with which we are feeding the animal; and third, the relation existing between the two. In this knowledge lies the secret of successful stock raising. He then described the composition of the animal, and the quality and relationship of the different parts of the animal which gives the animal its value as butcher's meat. "We seek," he said, "to produce an animal with as small a quantity of bone as is consistent with health and strength, and as large an amount of fat and muscle as possible." Professor Hunt then described the chemical composition of the animal's body and the food consumed, and showed why one kind of grain might not be a complete food. He pointed out that a well-balanced ratio must be maintained between the digestible nitrogenous and carbonaceous nutrients of the food, and also why this ratio would vary with the age of the animal or the purpose for which it was being fed. He gave advice as to what it was necessary to feed and what to avoid, describing the chemical composition of the various foods, and tracing the results of their consumption, showing what part of the animal's body was improved by the different kinds of food. He showed that the value of a food depended not only on its composition, but also on its digestibility and palatability; indeed, this last requisite was a very important one, for if we wished to fatten an animal quickly we must tickle its palate, and thus induce it to eat sufficient food to both keep up the animal's vigor and to add to its weight. This was one reason why it was advisable to vary the food, and so nurse the appetite of the animal. He pointed out that a well-balanced ratio must be maintained between the constituents contained in the different foods supplied, so that no one element would preponderate unduly, as by this the cost of food per pound of increase would be increased. In closing, Prof. Hunt said: "Success in feeding is dependent upon many factors, only a few of which I have been able to touch upon. When we know all about life, and not till then, will we arrive at perfection in the art of cattle feeding. But when we see the great results from the little that we do know, we see hope for great gains in the future."

The subject was handled in an exceedingly able manner, and was listened to with close attention. At the close of the address many questions were propounded concerning statements brought out in the address, to which he gave satisfactory answers. A lively discussion arose, particularly on the advisability of feeding roots to cattle and sheep, in the course of which Professor Hunt said that the proportions of water to dry matter in the feed of sheep should not exceed two to one, and that for cattle it might be increased to four to one.

#### THE SOCIAL CONDITION OF THE FARMER.

Prof. C. C. James, Deputy Minister of Agriculture, spoke on the "Farmer as a Member of Society." No member of society had so been held up to ridicule as the farmer. But this was chiefly due to an erroneous idea of the true meaning of the word "society," and an utter lack of the appreciation of social standing. The lack of social surroundings incidental to farm life was blamed by many as the cause of the continual influx into the cities of farm-bred young men and women. Even if this was the case the remedy was to a great extent in the hands of the farmers themselves, and farm life should be made more attractive to the young in order to counteract this tendency.

He dealt with this subject under the heads of moral progress, social progress and material progress. The encouragement of the tendency towards smaller farms and more intense farming would bring the farmers closer together, and in many ways would have an influence for good on the farmer's condition. The improvement of the roads means social progress, for they bring farmers closer together, closer to markets, schools, churches and public halls. He next described the farmer's home. A model farm house should be healthful, comfortable, cheerful and attractive.

Professor James next touched on the farmer's table, which, he said, should be supplied regularly with food wholesome and fresh, varied in character and well cooked, fresh, plain and wholesome, with plenty of fresh vegetables and fruits from the farmer's garden and orchard. He then urged all farmers to be very careful in regard to the character of the farm help employed, for the farmers' sons often received their first lessons in vice from the men employed on the farm. The farmer's library should contain the best agricultural journals, as well as a city paper and local newspaper. He closed an able paper by saying that while the farm, the roads, the home, the table, the reading and the meetings all play a very important part in the social life of the farmer, after all, much depends upon the sentiment, feeling and inclination of the farmer himself. His ideal should not be to make money alone, but should be to do something to add to the general wealth and happiness of the community as a whole.

#### APPLE CULTURE IN ONTARIO.

Mr. W. W. Hilborn read a paper on apple culture in Ontario, pointing out the mistakes generally made both in choosing varieties and in the handling of young trees in a very practical manner. Among the mistakes commonly made he enumerated the following: Too many varieties; sowing grain in the orchard; allowing cows and horses in the orchard; the professional pruner. The farmer should stimulate growth early in the season, cultivate soil often and shallow. He very strongly urged the claims of the fruit garden.

Both in attendance and the interest manifested in the proceedings, as well as in the amount of valuable information contained in the papers, the annual meeting of 1893 was in every respect the most successful that has been held by the Union, and will have a good effect upon the work to be accomplished during the coming year.

#### Entry Fees.

At this season, when breeders are so generally completing and forwarding for registration the applications for colts, calves, lambs and pigs of 1893, the question may be suggested, Can I afford to spend money for recording my young stock? Will the hard times and slow sales of well-bred stock at current low prices justify the expenditure for entry fees?

There is no question as to the importance and necessity for registration of sires and dams whose get or produce will be sold for breeding purposes.

The breeder who has no higher ambition than that of raising cattle, sheep and hogs for the butcher, or horses for work on the farm or street, may question the wisdom of paying out money for entry fees. Such breeders seldom raise good enough stock to exhibit at the fairs, and there would be but little encouragement for making profitable sales of the same if otherwise advertised.

The progressive breeder, however, endeavors to improve the quality of his stock from year to year, and adopts the well-known and successful methods of advertising the same through the leading live stock and agricultural papers and by some exhibits at the fairs. Never question the great benefit resulting from registration. A breeder may occasionally fail to receive better than butchers' or shippers' prices for recorded stock, but such cases are the rare exception, and in nine out of ten cases the fault is with the breeder and not the market. The best prices have in the past and will continue in the future to be paid for recorded animals of good breeding and individual excellence, and a failure to record will result in a failure to make a profitable sale to an intelligent breeder.

A bull, stallion, boar or ram worthy of recognition as a sire on a farm devoted to the breeding of improved stock has an increased value, as the result of registration, of from five to one hundred times the amount of entry fee necessary to register the same.

There is no question but that the patrons of the various herd, stud and flock registers have a right to demand economy on the part of the officers of the pedigreed record associations, and to expect that the surplus funds should be intelligently used in creating a better market for the breed represented. Some of the lines of work, that in the opinion of the writer are deserving of the attention of the officers of the Herd and Stud Book Associations, will be represented in another article in the near future.

#### Illinois Sheep Breeders' Association.

The annual meeting of the Illinois Sheep Breeders' Association, held in Springfield, January 3rd, was not largely attended, the meeting of the State Board of Agriculture in an adjacent hall, for the purpose of opening bids for the permanent location of the Illinois State Fair, proving a greater attraction to many. The following officers were elected: President C. I. Pulliam, Chatham; Vice-President, W. T. Potts, Jacksonville; Secretary-Treasurer, Jno. G. Springer, Springfield. Executive Committee—Hon. David Gore, Carlingville; S. E. Prather, Springfield; R. J. Stone, Stonington; Harry Cass, Buffalo, Hart.

After a general discussion, the following points seemed to be conceded:—Rams under one year should not be used, because their offspring are nearly always weak. Yearlings will get as many and as strong lambs as older ones, if not required to serve too many ewes.

The best time to have lambs come is in January and February, if prepared to take care of them, otherwise at a later period when the weather is milder.

Lambs should be sent to market in June and July, weighing about seventy pounds, and should bring about \$6.00 each, though at present this price is not realized.

Feed hay, second growth clover preferred, oil meal and bran, or hay, oats and ground corn will be found excellent.

Unequal feeding will cause spots of good and bad wool; impure quarters, and feeding too much corn, will cause loss of wool; regular and plenty of feed is required to make wool.

"Free wool" advocates were largely in the minority.

## STOCK.

### The Diagnosis of Tuberculosis in Cattle.

We take the following interesting extract from the North British Agriculturist:—

"Tuberculosis appears to increase in prevalence amongst cattle, and especially among dairy stock, undoubtedly depending upon their being closely housed, one infected animal thus spreading the disease to those in near proximity with it. Statistics in this and other European countries indicate that 10 or 20 per cent. of the bovine race suffer from this serious disorder. Of the cows killed in Edinburgh in 1891 under the Pleuro-Pneumonia Slaughter Order, 20 per cent. were found on *post-mortem* to be affected. Bulls, steers, and young cattle of both sexes, being attacked in much less proportion than housed adult cows, confirms the conclusion that contagion is the prime cause of the complaint, or, in other words, demonstrates that the tubercle bacillus is transferred from the infected to the sound. Some authorities still adhere to the view formerly entertained that the disease is hereditary and transmissible from the male parent, or from the female during pregnancy. Howsoever produced, in view of limiting its prevalence and preventing its being communicated from cattle to man, as it is apt to be with infected milk, it is very important that bovine tuberculosis should be discovered in its earlier stages. But during its earlier progress, and especially when it attacks the deeper-seated glands or organs, its presence is determined with difficulty. The most careful auscultation and percussion may detect no definite evidence in the lungs of cattle, which are the site of about 80 per cent. of the attacks, and yet in such unsuspected cases *post-mortem* examination frequently discovers disease which may have been slowly developing for weeks or even months.

"In the current number of the Journal of Comparative Pathology and Therapeutics, Professor M'Fadyean has a very valuable paper on the 'Diagnosis of Tuberculosis in Cattle.' He premises that the essential condition of the disease is the presence of the bacilli. These bacilli occur in the local lesions; but although in certain stages they are transmitted in the blood stream from the primary lesion to other parts, it is scarcely possible to find them in the blood. The Professor has made a series of experiments which demonstrate that, even in cases of general and serious tuberculosis, bacilli are not present either in the blood or in the milk. They are not discoverable when such blood or milk is examined under the microscope, or by the still more effective test of inoculation into the peritoneum of guinea pigs or rabbits, in which tuberculosis of the abdominal organs is thus set up in five or six weeks. But although the milk of cows, even when suffering from advanced general tuberculosis, does not exhibit bacilli, they are found tolerably abundantly when the udder itself is the seat of disease. These investigations and conclusions confirm the recent observations of Bang, Nocard, and other continental authorities.

"Microscopic examination of the expectorated sputum of human consumptive patients usually discovers bacilli; but in the great majority of cases of tuberculosis in cattle, even when the lungs are extensively diseased, Professor M'Fadyean and other careful investigators fail to find bacilli in the mucus mopped from the walls of the pharynx by a small sponge on the end of a probang. This absence of the micro-organisms in the throat secretion of infected cattle is explained by the Professor to result from the bovine disease 'very seldom assuming the destructive form exemplified in pulmonary phthisis of the human subject. It is very rare to find extensive softening of lung tissue with the formation of actual cavities in tuberculosis of cattle, and except in that form of the disease, it is probable that the expectorate never contains tubercle bacilli in large numbers.'

"Where the diseased structures can be reached, as in tuberculosis of the udder or of the pharyngeal or pre-capsular glands, puncture with a hollow exploring needle, as advised by Principal Walley, will bring out diseased matter which, microscopically examined, will afford safe diagnosis. But owners are apt to object to this little operation, and it is, of course, valueless where the disease affects deep-seated or inaccessible organs.

"Ordinary clinical examination, Professor M'Fadyean states, 'is almost valueless for the detection of tuberculosis in its early stage.' The temperature even in cases that have continued for months is often unaffected, or is affected so slightly as to be of no diagnostic service. Physical examination of the chest or abdomen often give no evidence of considerable disease in these organs, although such disease is subsequently disclosed in *post-mortem* examination. Tuberculosis in the udder or superficial and accessible lymphatic glands may be tolerably early discovered during life, but disease, even when extensive, if in deep-seated glands, can seldom be detected.

"In evidence of the futility of clinical examination to discover tuberculosis in its earlier stages, Professor M'Fadyean presents an analysis of the examination of 1,600 cows in the Edinburgh dairies in 1892:—In only four cases was there any notice-

able enlargement of the superficial groups of lymphatic glands (supra-mammary excluded), and only some six or seven cows were in such poor condition as to be open on that ground to suspicion of tuberculosis. About fifty cows were the subjects of inflammation of the udder, or gave evidence of having suffered from that some time previously. In the majority of these cases, the history and the physical characters of the inflamed gland were regarded as sufficient to indicate that the disease was not tuberculosis. The small proportion of cases discovered in this inspection cannot, however, be accepted as evidence that these cows were healthy; but having regard to the 20 per cent. of tuberculosis found (as above mentioned) in the Edinburgh dairies when the extensive slaughter for pleuro-pneumonia was made, it merely testifies to the inefficiency of clinical examination in discovering tuberculosis in its early stages.

Although not absolutely certain, tuberculin presents the most successful method of diagnosing tuberculosis in its early stages in cattle. Some- what varying opinions as to its value are expressed by continental experimenters. Professor M'Fady- yeau obtained permission to try its effects on seventy-five animals, chiefly cows, most of them having been condemned for slaughter in 1891-92 on account of having been in contact with pleuro- pneumonia. Only in three or four of these animals, it is stated, could any known physical, clinical, or bacteriological examination have detected tuber- culosis. The temperature was taken morning and evening, and on the subsequent day, when doses of .25 to .33 centimeters of tuberculin were injected, and the animals were killed next day, or shortly thereafter, and the carcasses carefully examined. Taking a rise of temperature from the normal to 103° or over as evidence of tuberculosis, the tuber- culin gave a right indication in fifty-one, and a wrong in twenty-four cases. The Professor thus states his conclusions:—"I have no hesitation in saying that, taking full account of its imperfections, tuberculin is the most valuable means of diagnosis in tuberculosis that we possess. The discovery of tubercle bacilli is, of course, the only means of arriving at a positively certain diagnosis; but that means, for reasons already set forth, has an ex- ceedingly restricted sphere of application in veteri- nary practice. Without tuberculin, even the sharpest and most experienced practitioner is powerless to detect tuberculosis in its early stages; with it he will find it possible to detect the majority of cases, even when the lesions are very slight. It is probable that by using the tuberculin test twice, with an interval of some days between the injections, the proportion of errors in diagnosis would be very small.

"Intimately connected with the diagnosis of tuberculosis is the danger of infection through ordinary milk, concerning which the Journal presents a contribution by Veterinary Surgeon St. Friis, Copenhagen. He states that it is firmly established that the milk of cows affected with udder tuberculosis must in all cases be considered infectious, since it always contains tubercle bacilli. It has further been found that not only is the milk infectious in the tuberculous quarter of an udder, but also the milk from the apparently healthy quarters of a cow affected with mammary tuber- culosis may contain tubercle bacilli. Lastly, it has been certainly proved by a number of cases that the milk of cows suffering from a more or less advanced tuberculosis may be infectious, but to a much smaller degree."

"In order to determine whether the ordinary milk of Copenhagen was affected with tubercle, samples were bought several times a week from retail dealers. Five to ten centimeters from forty- six samples, yielded from forty-four herds, com- prising ten to eighty cows, were inoculated into the peritoneum of eighty-four rabbits and four guinea pigs. Before reaching the Professor's laboratory, some samples had been contaminated with septic bacteria from the hands of the milkers or imperfectly cleansed vessels, and fatal septi- cemia killed thirty-seven of the rabbits and the four guinea pigs in two to four days. Such milk might not have been injurious when swallowed, but septic bacteria are not a very safe addition to the food, especially of infants. The forty-seven surviving rabbits were killed in forty-two to fifty- four days, and six of them inoculated with four of the samples of milk showed characteristic tuber- culosis lesions. The four herds which yielded the im- pugged milk were forthwith examined, and in all were found one or more animals exhibiting unmis- takable tuberculosis. The worst cases, moreover, were discovered in those herds which had furnished the milk producing in the rabbits the most extensive lesions and the most numerous tubercle bacilli. St. Friis urges that this inoculation of rabbits, which for such experiments he prefers to guinea pigs, should be adopted by owners or sanitary authorities, as a means of testing the freedom of milk from tuberculous infection. By sub-dividing the herd into lots of three or four, and testing the mixed milk, the process would be simplified, for such dilution does not seriously impair the action of the bacilli. The milk of any suspected subject would be inoculated separately. In the event of the disease being thus detected, affected animals should be summarily got rid of, the premises cleansed and disinfected, the herd at intervals of ten to fourteen days professionally examined, and the rabbit inoculation test repeated."

**Mr. W. S. Hawkshaw's Shropshires.**

One of our staff visited the flock of Mr. W. S. Hawkshaw, Glanworth, Ont., and was shown an exceedingly fine flock of Shropshires, consisting of one hundred and twenty yearling ewes, all of which are in lamb. Fifty were sired in England, the re- mainder are in lamb by the imported stock now on the farm, which is a sheep of excellent quality both in carcass and fleece. The entire flock, both rams and ewes, are imported, selected in per- son by Mr. Hawkshaw from the best English flocks, the majority being descended from the flocks of Bowen Jones, T. S. Minton, Wm. Mansell, Wm. Thomas, and Mr. Harding. The fifty ewes which were served in England are in lamb to a sheep bred by Mr. J. Bowen Jones. He is closely related to the ram which Mr. Thomas paid Mr. Jones \$1,000 for, and is of equal quality, both of fleece and form, but is not as large. The ewes, all yearlings, are a splendid lot, their average weight being over 150 lbs., not at all in high condition. Their consti- tution and form are excellent, and they are well covered with fleece of good quality. They are very even throughout, no poor ones among them. They are due to lamb in March, which will insure an ex- cellent development of young stock for the summer and autumn trade. There are no grade sheep on the farm; in fact all are imported Shropshires of su- perior quality.

Mr. Hawkshaw's sales last year were very heavy. All his ewe lambs are sold, and he is only wintering three ram lambs. During the last three years he has imported nearly three hundred sheep, and has made it a rule never to buy a poor one. The latest importation, which was made last autumn, consists of one hundred and fifty, all ewes but one, not a single cull among them.

Mr. Hawkshaw is a capital judge and a good buyer. We know he is an honorable, capable man, and bespeak for him liberal patronage, for we know he will deal fairly with all who buy from him.

**Studs, Herds and Flocks.**

**MR. CHAS. CALDER'S SHORTHORNS.**

In this issue Mr. Chas. Calder, Brooklin, Ont., advertises Shorthorn bulls for sale, also Shropshires of both sexes. Mr. Calder's herd of Shorthorns was founded about twenty-five years ago by the purchase from Mr. John Miller, Brougham, Ont., of a heifer; from this animal has descended a large, useful herd. The bulls used ever since this purchase, and for many years before, have been pure Shorthorns of good families; individually, each has been of the strong, vigorous, thick-fleshed type. For the last twelve or fifteen years imported Cruickshank bulls have been used. From 1885 until 1892 Victor Royal =2750= was principally used. This bull was bred by E. Cruickshank, Lethenty, Aberdeen, Scotland; he was a tremendously large, thick- fleshed, rugged bull of the Victoria family. He is the sire of a lot of useful cows and heifers now in the herd. The stock bull at present was bought from Mr. A. Johnston, and is of extra quality. Taken as a whole the herd is a useful one; the animals have never been highly fed. The bulls offered are six in number, varying in age from ten to sixteen months; three of them are excellent quality, large, thick-fleshed and vigorous. Mr. Calder also owns a fine flock of Shropshires; each animal in the flock is either imported or bred directly from imported stock.

**INGLESIDE SHORTHORNS.**

Mr. D. D. Wilson, of Seaforth, whose farm is within one mile of his town office, has recently dipped quite deeply into importing and breeding Shorthorns.

Many of our readers will remember the two ex- cellent bulls, bred by Mr. Duthie, Collynie, which were included in the importation Mr. Wilson made two years ago, and which succeeded in carrying second and third in an exceedingly strong ring of yearlings at Toronto in 1892. Doubtless the success of his first instalment has encouraged him to make the still more extensive importation in 1893.

Ingleside Farm, the seat of Mr. Wilson's breed- ing operations, as before intimated, is close to Sea- forth. The soil is naturally productive. The draining and good cultivation, and extensive cattle feeding, have made this one of the most pro- ductive farms to be seen anywhere. While too many farmers are lamenting upon the shortage of last season's crops and scarcity of feeding material, Ingleside has enough and to spare. Turnips had yielded bountifully, the roots were both large and of good quality. This crop, we were informed, yielded over 800 bushels to the acre, while the ensilage was one of the best samples we have yet seen. The corn crop had been extremely heavy, and the quantity of ears to be seen in the ensilage showed that it had eared well, and the crop was well matured. The sort sown was Essex Dent (Accli- mated Dent, as it is known in some localities). Mr. Wilson appears to be highly impressed with the good qualities of this sort, both as regards weight of fodder and the quantity of ears it produces, and to judge by that we saw he is right, for we have only once seen as good a sample. Mr. Wilson's foreman was of the opinion that, if anything, the corn was too mature when cut, as there were traces of mould in one or two places, which he attributed to its not heating quickly enough after putting in the silo. This silage had been cut quite short, and such a mass of succulent rich feeding stuff we have seldom seen; in the cut ears there was only the slightest trace of acidity, while the fragrant aroma

was sufficiently appetizing to tempt the palates of the newly imported Shorthorns, which showed their appreciation, Oliver Twist like, by asking for more.

With such a quantity and choice of feed, cattle feeding is being pushed, and the available space in the extensive buildings is taxed to the utmost to find room for all occupants, for beside the Short- horn herd there are steers purchased, steers that have been bred on the farm before the Shorthorns were introduced, and steers, the get of the two ex- cellent bulls before mentioned; and here an object lesson is pictured in early maturity, as Mr. Wilson had already sold one of the steer calves shown at Guelph for \$50, which is more than any of the two- year-old steers in his barn are worth to-day.

But we must hasten to speak of the Shorthorns, and here Prime Minister deserves first mention, for he is not only a choicely bred bull, but his winnings during the last two show seasons testify to his individual merit. His dam is of the noted Upper Mill Lady family, which has furnished so many prize-winners for Ontario in past years. While the three top crosses contain the names of the most richly bred bulls, Prime Minister is sired by the Crocus Sitty- ton-bred bull Chesterfield, dam by the great bull Field Marshal, that has done so much to popularize Aberdeenshire Shorthorns in England, the third cross being Heir of Englishman, that made the name for the Upper Mill herd.

Prime Minister is a capital red with good coat of hair, he is a bull of wonderful substance and scale, carries an immense quantity of natural flesh, and is remarkably smoothly finished in his hind quarters, with well filled twist. And better than all, he has already proven himself a success- ful sire; his calves from all kinds of cows show great feeding adaptability. His stable companion, Defiance, was sired by the noted bull Gravesend, his dam being by Vermont, two of the best Sitty- ton breeding bulls of late years. Defiance was a successful show bull in his yearling form, but an accident which happened while unloading him dur- ing the show campaign disabled him for a time and threw him back. He has now recovered, and is as active and serviceable as ever; his calves are an excellent lot. Among these is a roan bull of thirteen months, from imported Early Bud, a cow of Mr. Wilson's first importation, sired by the Sittyton-bred bull Strongbow; this cow is particu- larly rich in Sittyton blood, and is one of the Kinnellar Rosebuds. Of the two reds, a bull calf by Defiance, out of Diamond 18th, of the Sittyton Lovely family, is very promising. He is a thick, smooth youngster, that some breeder will do well to place at the head of his herd. Yet another, and a right good one, is a red bull sired by Prime Minister, from Diamond 17th, also of the Sittyton Lovely family. This is a bull calf that, unless something goes far astray, should be heard from at future shows.

The recent importation includes six heifers and two bulls: four heifers, calved in 1892, from the Upper Mill herd, the two best belonging to Mr. Marr's ce- lebrated Missie family; these are a red and a roan, and are very promising. The other two, although hardly as highly finished, are of that thick, fleshy type, unit- ing substance and quality, that has made the Aberdeenshire Shorthorns so popular among feeders. It looks just now as if Mr. Wilson is in luck, for all four of these heifers are in calf to Mr. Duthie's yearling bull Pride of the Morning, that was champion at Aberdeen show last summer. A beautiful pair of heifer calves are Spicy 14th and Rose of Antrim 4th, both bred by Mr. Duthie. The former belongs to the Sylph tribe, of which Sitty- ton has bred a goodly number, while the latter is superbly bred, her top crosses running through a string of the most noted Sittyton bulls, such as would satisfy the most ardent seeker after Cruick- shank blood.

One of the newly imported bulls is Royal Sailor, bred by W. S. Marr; he was sired by the Sittyton bull Sea King, running through a list of the most illustrious sires used at Upper Mill. Royal Sailor is a grand young bull, he possesses wonderful sub- stance and is very smoothly finished, and looks as though he would make a bull of immense scale; such ribs, loin and quarters are seldom seen.

Rantin Robin, calved November, 1892, was bred by Mr. Duthie. He belongs to the Mary Ann of Lancaster sort, that has furnished so many good ones. The four top crosses are Roan Robin, Field Marshal, Achilles, Revenue, all of the best and most noted bulls bred and used at Sittyton. Ran- tin Robin is a bull of great length and depth, wonder- fully smooth, level quarters, uniting substance, quality and high finish in the most prominent degree, but our readers must wait until they see him, as he is difficult to describe. We hope to give a fuller description of several of the individuals in this herd later on, and those who may find it con- venient to pay Ingleside a visit, we promise them a rich treat.

**A Profitable Crop.**

Mr. John McMillan, Weston, Ont., sold George Keith, Esq., Toronto, \$1,365 worth of Alsike clover seed, and retained seven bushels for his own use, making a total value of \$1,420 from a crop of thirty- two acres. The total export from Toronto this season up to date has been about twelve thousand bags, an average of about \$30.00 per bag, making a total of about \$360,000. Mr. Keith's sales have been principally in Great Britain and Germany.

### Our Scottish Letter.

Some discussion has arisen since the great Fat Stock Shows, on the significant fact that the champions of the Aberdeen-Angus breed have invariably been heifers, while the chief demand in the best markets is for steers. The fact was commented on in the report of Smithfield Show, which appeared in the Scottish Farmer, and an English correspondent of the same journal, "Belvoir," in a well-written letter in to-day's issue of the same paper, gives details of weight at Smithfield which fully bear out his contention that the Shorthorn has little or nothing to fear from the advance of the Aberdeen-Angus breed. Taking bullocks under two-years old only, he found that seven of the black Polled sort weighed 80 cwt. 3 lbs. (the English cwt. contains 112 lbs.), or an average of 10 cwt. 1 qr. 20 lbs. apiece, while nine Shorthorn bullocks of the same age weighed 113 cwt. 2 qrs. 25 lbs., giving an average of 12 cwt. 2 qrs. 15 lbs. This undoubtedly tells well in favor of the Shorthorn, and although it is an ancient truism that figures can be made to teach anything, we hardly think any possible manipulation of the figures before us will teach any other lesson than that which appears on the surface. The best steers seen at Smithfield were the cross-breeds from the Aberdeen-Angus and the Shorthorn. There was nothing to show that any particular form of the cross was more successful than the other. Sometimes the direct cross did best, the produce of a pedigreed Shorthorn bull and a pedigreed Aberdeen-Angus cow, but more frequently the best type of steer was a grade Shorthorn from an Aberdeen-Angus cow. One of the finest steers shown was Pudgy 2nd, bred and owned by Mr. James Bruce, Inverquhomery, Longside, Aberdeen. He was first at Birmingham, and again at Smithfield, and there was no Aberdeen-Angus blood in him. He was a grade Shorthorn, four crosses from a West Highland dam. A grand ox he is, and some of the characteristics of his maternal ancestor, who came from the West, were easily traced in him. Mr. Bruce has been conducting an experiment of this kind for some time, and will register the heifers with the requisite number of crosses in the Shorthorn Herd Book. This method of breeding is interesting, and will be followed by many with every wish to see it succeed and render important service in the breeding of cattle. Belvoir remarks that an Aberdeen-Angus heifer in full training is the perfection of a beef animal, but there are indications that some English feeders still doubt the commercial value of the breed. Possibly, however, the desire of Belvoir may yet be fulfilled, and the unquestioned supremacy of the breed made manifest by a pure-bred Aberdeen-Angus steer winning the championship at the great Christmas shows.

A good shipment of horses was made to Canada during the past week by the well-known importer, Mr. William Wallace, Dunbar, Ont. He took with him three Clydesdales and two Hackneys; the former being got by such famous sires as Sir Everard 5353, Eastfield Stamp 6723 and Duke King 5723, while the Hackneys were bought from Mr. Riddell, and are good examples of the nag breed. One of the Clydesdales, Clan Algie, was bought from Mr. William Taylor, Park Mais, Paisley, and a remarkably well-bred horse he is. Eastfield Stamp was a great big, massive son of Darnley, which bred good stock, but unfortunately did not leave very many foals. He was first at Glasgow when a two-year-old, and at Kilmarnock when three years old. In many respects he resembles his sire more, perhaps, than any other of his sons. Mr. Wallace's shipment is composed of big, heavy horses, and with a good passage they should leave him a little money.

Great activity prevails in the Clydesdale market. Many of the best horses are already under hire for 1894; indeed, I don't know that there ever were as many before in the same position at so early a date. As was to be expected, in view of the slackness of trade, prices are a little back, and owners are easily dealt with.

Dairy questions are more and more becoming the main questions for farmers. The supply of sweet milk to our large towns is a splendid source of revenue to farmers within a radius of ten miles of the centre of demand. In a recent lecture, one of the foremost dairy farmers in the Glasgow radius stated that £35 per annum was a fair revenue from one cow in a dairy of from fifty to seventy cows. The dairy farmers in the vicinity of Glasgow are heavy feeders, and take all out of their cows that may be in them. Possibly other farmers are not so sore on the cattle in their charge, but the Glasgow farmers have heavy rents to pay and work hard. The women folks have the heavy end of the burden, and within the radius specified the hour for rising in all weathers, on all days, summer and winter, is 3 a. m. This is tough work, and many a one succumbs.

SCOTLAND YET.

## FARM.

### Potato Contests.

BY JOHN S. PEARCE.

I notice a report of Freeman's potato contest in the Dec. 15th issue of your valuable paper. In that report I notice that the yield per acre of the most successful competitor was 347 bushels, the second was 100 bushels, and that of the third was 147 bushels. This seems to me to be an extremely wide difference, and it has occurred to me that the third competitor might have had as good a crop, or possibly better crop, without any artificial fertilizers whatever. In fact, the same may well be said of the first and second.

As you do not give the conditions upon which this prize award was based, nor the rules and regulations under which these potato contests were grown, one is entirely in the dark and unable to form an intelligent opinion upon the subject. It has occurred to me that such contests, to be of any value to the readers of the FARMER'S ADVOCATE, should be conducted upon the same plot or field, or series of fields if you like, and under the supervision of a competent and reliable individual, and one entirely disinterested. If Mr. Freeman's fertilizer is superior to any other fertilizer or barn-yard manure, let him put it in open competition against any other fertilizer or manure. Let Mr. Freeman offer \$50, or any other sum he likes, to be awarded to the largest yield of potatoes per acre, to be grown with Freeman's fertilizer or any other fertilizer, barn-yard manure or home-made fertilizer.

This last-named article is something that every farmer can make on his own premises, and, Mr. Editor, I think it is your duty to tell your readers how to make this home-made article, or get some of your numerous and intelligent contributors to do so, for it can be done. Also tell your readers about how many tons of valuable fertilizer they allow to go to waste or run into the streams and rivers. Tell them what percentage of the manure in their stables is in liquid form and goes to waste. Also tell them how to save this. Tell them of the hundreds of tons of valuable fertilizer for potatoes that is sold by their wives and others for a bar of soap and shipped out of the country in car loads. Whose fault is it that seven-eighths of our farmers are not growing as much per acre as their fathers and grandfathers were, and why is it that they are not?

Then there is another defective part in your report. You do not tell us how many bushels per acre Mr. Mullock, Mr. Hodgins and Mr. Peck grew without this fertilizer, with the application of ordinary manure, and also how many bushels per acre they grew without any manure or fertilizer of any kind, for without this what value is the report of this potato contest? Possibly they might have grown as many bushels, or more, without any fertilizer at all. I noticed when attending the annual meeting of the Experimental Union at Guelph, the other day, that the result of some of their experiments with fertilizers showed that the extra yield per acre did not pay the cost of the fertilizers.

I do not wish to be understood as condemning fertilizers, but they must be used with judgment and some degree of intelligence. I am anxious to call farmers' attention to the waste of fertilizing element that is going on all around them. Neither do I wish any one to think that this has been written in any spirit of fault-finding, but rather as a friendly criticism and to bring out the facts. Let us have more light on this matter.

[In our next issue we hope to be able to give our readers more information regarding Freeman's potato contests. We were conscious that the data given was meagre, but it was all we could obtain at the time. We have written to the parties interested, and hope they may be able to give us "more light".]

### The Water Supply.

On many farms there is a lack of pure water. Live stock must have an unlimited supply of this all-needed element. It should be always within their reach. On many farms the animals have to be driven longer or shorter distances to a water hole or running brook, where the ice is chopped, and they are allowed to drink, freeze and shiver, at the expense of food and to the sure loss of the owner. The stronger animals often stand over the drinking hole for some time, thus depriving the others of a drink, or keeping them at bay until they are half frozen. Many of the best farmers have so arranged their stables that water can be supplied the animals at will; this is done by building a cheap trough to run the entire length of the stalls. This trough is kept full, either by hand-pumping, by windmill or by gravitation; the latter is the easiest and often the cheapest plan. Mr. William Sharp, 184 Hamburg Ave., Toronto, Ont., owns a driller with which he bores and tubes wells, and does his work in such a way that many of the wells sunk by him are flowing, that is, they overflow, often with considerable force. When once sunk they are everlasting, and, as they are tubed with iron to the top, or even above the ground, the water cannot become contaminated in any way, but must always run on fresh and pure. This sort of well is destined to supersede the old-fashioned sort. They are superior in every respect.

## OUR PATRONS' EXPERIENCE.

### What the Readers Say.

SIRS.—I look upon the FARMER'S ADVOCATE as a journal ranking among the first for information upon topics connected with agricultural science. J. HOYES PANTON, Professor of Natural History and Geology, O. A. C., Guelph, Ont.

GENTLEMEN.—It is always a pleasure to me to recommend your valuable magazine to farmers, who certainly get better value for their dollar in subscribing for it than for any similar paper I know of. JAMES FLETCHER, Dominion Entomologist and Botanist, Ottawa.

GENTLEMEN.—Your paper is just what I want, and I now with pleasure enclose One Dollar for subscription of same for one year. JOSEPH MCKEEMAN, Box 11, Glamis.

SIRS.—The ADVOCATE is the only publication of all I take that is preserved. Every farmer should take it. HON. ROBERT REED, Belleville.

SIRS.—I have no hesitation in saying that I consider the FARMER'S ADVOCATE a good, reliable and very cheap agricultural paper. It certainly furnishes its readers a great variety of correspondence and vigorously written editorial matter on general agriculture, dairying, stock raising, fruit growing, and other things in which the farmers of this country are deeply interested. I often wonder how so much very useful information can be provided for \$1.00 a year. JAMES MILLS, O. A. C., Guelph.

DEAR SIRS.—Any person or organization in the Dominion that is interested in agricultural matters must wish the FARMER'S ADVOCATE well. There are a number of journals published in the Dominion of good standing and reputation, and that are unexceptionable in every respect; we must all wish them prosperity, but none of them take the place of the ADVOCATE. It is adapted to every family in the country, and not the least valuable of all its good qualities is the fearless independence with which it denounces anything in the shape of humbug and deception. This was a feature given to it by its late much-esteemed founder. JULIUS L. INCHES, Secretary for Agriculture, New Brunswick.

SIRS.—The FARMER'S ADVOCATE, both in the Provinces of Ontario and Quebec, as well as the western edition in Winnipeg, is a strong farmers' and breeders' paper, filling a great want in the Dominion. Our department always get it bound for reference. It is well and capably edited, giving reports of all associations promptly and well. HENRY WADE, Secretary Agriculture and Arts Association.

### What the Advertisers Say.

DEAR SIRS.—We beg to say that we consider the ADVOCATE entitled to be credited with a great many of our best sales made in Canada. We have shipped animals to every province through our advertisement in your paper. Fifty-six years' experience has taught us that the leading paper is worth all those that follow. JOHN MILLER & SONS, Importers and Breeders of Clydesdales, Shorthorns and Shropshires, Brougham.

SIRS.—I have been a continuous advertiser in the ADVOCATE during the whole of the past seventeen or eighteen years; not because I have always found that it paid me exceedingly well to do so. Indeed, I think it quite out of the question to do any considerable amount of business in the pure-bred stock line without advertising in the ADVOCATE. Much as I have found it to my advantage to advertise with you in the past, I find it still more so at present. ARTHUR JOHNSTON, Breeder and Importer of Shorthorns and Clydesdales, Greenwood.

SIRS.—I have advertised in your valuable paper for the last few years; am very much pleased with the result, receiving enquiries from all parts of the Dominion, and even United States. Even with the dull times, have no reason to complain of sales made. I consider the money expended in advertising in the ADVOCATE is well spent. ROBERT NESS, Importer and Breeder of Clydesdales, Shires, English and French Coachers, Stallions and Ayrshire Cattle, Howick, P. O.

GENTLEMEN.—It is a decided pleasure to express our experience in advertising with you during the last nine years. In starting our business we advertised quite largely through the leading daily and weekly papers of the Dominion, and after watching closely and tabulating as far as possible the ADVOCATE shows an advantage of 70 per cent. over all other papers, and 90 per cent. better than the majority. We believe there is no means by which we can speak to the farmers of Canada so well as through the columns of the ADVOCATE. Wishing you a continuance of your success, we are, SIRS, THE WORTMAN & WARD MFG. CO., London, Ont.

SIRS.—I think the ADVOCATE the best advertising medium for the farmer, breeder or stock dealer. The little card that we have in it has brought a great number of enquiries for young stock, and among them a number of buyers. I think the money spent for advertising in the ADVOCATE a good investment. D. BIRRELL, Importer and Breeder of Scotch Shorthorns, Clyde Horses and Cotswold Sheep, Greenwood, Ont.

SIRS.—In the year 1890 we gave your book a trial ad. of three months, the results of which more than surprised us. The same ad. remains there yet, which is the best proof that we are well satisfied with the book and the money invested in it. HAMILTON MICA ROOFING CO., Manufacturers of Patent Mica Roofing Material, Hamilton, Ont.

GENTLEMEN.—Last fall we decided to do away with all agents and sell our goods direct to the farmer at greatly reduced prices. In order to make this important change known to the farmers throughout the Dominion, we selected the ADVOCATE, and our small ad. with you for one month has brought us wonderful results, and we are daily crowded with letters of inquiry, and, better still, with plenty of orders. We want every farmer in Canada to hear the good news. WATSON MFG. CO., Ayr.

GENTLEMEN.—We find that the FARMER'S ADVOCATE is head and shoulders above any other paper as an advertising medium. We have tried them all; yours pay us best by all odds. W. H. MARCON, Secretary Steel-Briggs-Marcon Seed Co., Toronto, Ont.

GENTLEMEN.—I have carefully noted the returns we received for money spent in advertising, and have concluded that that spent with the FARMER'S ADVOCATE pays us well. We received very much better returns from your paper than from any other; in fact, I believe your paper benefits our business more than any or all the others with whom we spend money. R. Y. MANNING, Manager Wholesale Grange Supply Co., 126 King St. East, Toronto, Ont.

SIRS.—Enclosed you will find a cheque for thirty-five dollars (\$35) for advertising in the ADVOCATE. Please acknowledge receipt. We must say we have had more enquirers through advertising in it than any other paper. HON. THOS. BALLANTYNE & SON, Breeders of High Class Scotch Shorthorns and Ayrshires, Stratford.

**Fertilizers.**

Among thinking, intelligent farmers of the present day perhaps there is no subject that is being more widely discussed than "How to Best Keep up the Fertility of the Farm." That the old, reckless method of cropping the land heavily with grain, and then selling it all, or almost all, off, and keeping little or no stock, has almost entirely disappeared, no one will deny; yet, still, even the men who have for years fed the greater part of their grain and hay on their farms, and who have adopted new and improved implements with which the more perfectly to carry out their tillage operations, feel that the ground is slipping from under their feet, that their crops are, as a general thing, becoming beautifully less, and that unless they take some further steps towards increasing, or at any rate maintaining, the fertility of the soil, they will in a few years find themselves in a sorry plight.

The question before these men, then, is, In what way can we best preserve and add to the fertility of our lands?—a question that may be answered in several ways. For example, more coarse grains, mill feed and oil cake may be bought and fed on the farm, and so the output of stable manure increased; or green crops, such as clover, buckwheat, rye, turnips sown broadcast, etc., may be grown and plowed under; or, lastly, artificial fertilizers may be purchased and used on the farm.

Now, in our opinion, each of these three methods has its advantages and disadvantages. In the first case, many farmers have not accommodation for feeding nearly enough stock to supply them with the manure needed by their farms.

In the second case, green manuring, with the exception of clover, can only be carried out to a very limited extent, as it entails a good deal of labor at what are very often very busy seasons; and, again, it really only supplies one constituent to the soil to any great extent, viz., nitrogen. And in the third case, the commonest objection is that it costs too much, with, however, very frequently the remark added that "they (artificial fertilizers) are no good anyway, they are only made up of sand and dirt. It is to this latter method that we propose to draw our readers' attention, and while we are well aware that, metaphorically, it is shaking a red rag at a bull to suggest artificial fertilizers to most farmers, still a few notes on the subject of commercial fertilizers, and our experience with them this last season, may interest some of your readers. And let me say here that I have often wondered why it is that Canadian farmers, as a general thing, have such a rooted antipathy to fertilizers. It is well-known that the English farmer simply could not get along without them, while in Scotland, the birthplace of scientific farming (mark the word), and the home of the most successful agriculturists the world has ever seen, very often the sum spent in artificial manures is very much in excess of the amount paid in rent and taxes, for the canny Scot knows well that "if you do not feed the land, the land will not feed you;" and so he spends his hundreds of pounds on nitrate of soda, sulphate of ammonia, superphosphates, bone and basic slag, while his cousin in Canada trades his ashes from the stoves off for a few bars of soap, and would hold up his hands in horror at the thought of spending \$100 for fertilizers for his 200-acre farm. And probably some of my readers will fling down their papers with the remark that I am another crank, when I say that I firmly believe the day is not far distant when artificial fertilizers will be used almost as freely in Canada as they are in England; nevertheless I do believe it, although a very few years ago I did not. I have watched closely for the last decade the trend of events in Canadian agriculture, I have heard men declare that while manure was a good thing it would never pay to buy it, and I have since seen those very men buying manure by the carload from the Street Railway stables in Toronto, shipping it out by train twenty miles, and then drawing it two miles to their farms. I have heard a large dairy farmer declare, with regard to silos, that he would give up his cows before he would go to canning feed for them, and I have since heard that man declare that the silo was indispensable to every dairymen. And I reiterate now my firm conviction that in a few years the Canadian farmer will no more dream of putting in his turnips without sowing from four to six hundred pounds of superphosphate to the acre with them than his Scotch or English confrere would to-day, and my experience this past season with bone phosphate, manufactured here in Canada, convinces me that the sooner the change I predict takes place the better for Canadian turnips.

J. Y. O.

**A Canadian Packing House.**

BY MR. JOHN HALLAM, TORONTO, ONTARIO.

Owing to the constantly declining prices of wheat and barley, the attention of Canadian farmers is being rapidly directed to dairy and cattle products. The wonderful success and extent of the cheese production is inducing the Dominion and Provincial Governments to use praiseworthy efforts to accomplish similar gratifying results with butter, in which direction much improvement has already been made, both as to quantity and quality. The great extension of these two industries has created a similar increase in the number of cattle and hogs fed. The increase is largely in excess of the requirements of the population.

The profitableness of the dairy and cattle industry must largely depend upon the prices obtained for the cattle and hogs which are raised in conjunction with it. The home market will soon prove utterly inadequate for the consumption of animal products. Even under the exceptionally favorable conditions which Canadian cattle and sheep were formerly admitted into Great Britain, the disposal of live stock there was attended with so much risk and expense that it was thought that some cheaper means of transportation must be found. The withdrawal by the British Government of the preferential terms of admission for Canadian cattle on foot has emphasized the necessity for such a change.

Many believe that a great improvement in the price of cattle and their products would be effected by free trade with the United States. Such expectations have no foundation in fact, as is evident from the following statement taken from the Official Report of the Bureau of Statistics at Washington, for the year ending June 30th, 1892:—

The total value of animals and their products exported from the United States to foreign countries was.....	\$183,875,439
Of which there was exported to Great Britain.....	121,507,081
The Dominion Trade and Navigation reports show, for the year 1892:—	
Imports into Canada from the United States and entered for home consumption and duty free.....	\$5,225,400
Animals and their products dutiable.....	1,268,316
Total.....	\$6,493,806
Exports from Canada to the United States, animals and their products.....	\$3,935,924

From this it will be seen that Canada purchased from the United States a much larger value of these products than it sold to that country. The trade in animal products between the two countries could be very largely increased, if it was not for the excessive duty paid on live animals and their products: Canadian lambs under one year old, 75c. per head; sheep and lambs over one year old, \$1.50 each; cattle less than one year old, \$2 each; cattle over one year old, \$10 each.

The success which has attended the beef and pork packing business in Chicago and other places is almost incredible. In 1892 the United States sold to foreign countries, besides supplying their own market, of hog products for human food—bacon, hams, lard and pork, 1,225,538,352 pounds, valued at \$85,116,566, averaging a little over 7c. per pound. They also sold beef products—fresh, canned, cured and preserved, including rendered tallow, 468,522,760 pounds, valued at \$34,436,169, averaging a little less than 7c. per pound.

The demand for animal products seems to be unlimited. Canada should have a share of this growing and prosperous trade. She is exceptionally well situated for growing cattle, hogs and sheep.

To develop this trade, and centre it in Toronto and Winnipeg, will require men of ample means, with enterprise and brains, so that the farmer can feed more hogs, and give a constant supply to the packing houses.

The farmer should raise cattle and fatten them to meet the requirements of the home and foreign markets. To make this business successful in Canada, the packing houses must have a constant and increasing supply of hogs.

The statistics of live stock in Canada are very scanty and unreliable. The latest statistical information concerning live stock in the Province of Ontario is as follows:—

Cattle.....	2,025,000
Sheep.....	1,927,000
Hogs.....	1,070,000

Number of animals slaughtered for home consumption and sold to foreign countries in the Province of Ontario:—

Cattle.....	450,000
Sheep.....	620,000
Hogs.....	955,000

It is of the utmost importance that farmers should see the necessity of increasing their live stock. It would be much more profitable than growing wheat and barley at the very low prices now prevailing. Besides, it would give the land a much needed rest from the exhausting process of constantly growing wheat and barley. The manure would enrich the land and make it more productive. By this means the farmer would be enabled to grow a rotation of crops, and not depend upon any one crop for his living.

It is quite clear from the foregoing that for the surplus of animals and their products, Canada must look to Europe, and especially to Great

Britain, for its market. For this country the great objects to accomplish are, the cheapest possible methods of preserving and curing for home and foreign markets, and the quickest and most economical means of transporting to the markets of the world. These are the ends which capitalists and railway companies should try to accomplish for the Dominion of Canada, for, as sure as the sun shines at noonday, there is in this country an extensive, progressive and profitable field waiting the energy and enterprise of those who have the pluck to enter and take possession of the promised land. The establishment of packing houses in Toronto and the Northwest, with ample capital, employment of the best skill and latest improvements, is a step in the right direction that will not only conduce to the advantage of farmers, but to the general prosperity of the country.

**QUESTIONS AND ANSWERS.**

**Legal.**

**TRESPASS.**

MR. C., Muskoka:—"In the year 1888 I sold to A the hemlock bark growing on my farm, and the agreement expressly provided that A should have five years to take it off. The five years are now expired, and only a part of the bark has been taken away. Has A the right to take it away now or at any future time?"

Under this agreement we think A can not now, after the expiration of the five years, take the bark, and we think he would be a trespasser if he entered on your farm to do so.

SUBSCRIBER, Guelph, Ont.:—"How many holidays is a man entitled to when hired by the year, and are Sundays holidays?"

The holidays include Sundays, New Year's Day, Good Friday, Easter Monday, Dominion Day, Christmas Day, and the days appointed for celebration of the birthday of the reigning Sovereign and Thanksgiving Day. Whether a servant is entitled to all or any of these days as holidays depends entirely on the nature of the hiring, and of the work required to be done; generally a man on a farm is bound to perform on holidays, including Sundays, the usual work of necessity which should be performed on those days.

LOCHEIL FARMER:—"Twelve years ago B and C gave to A a promissory note payable twelve months after date. The debt for which the note was given was owing from B to A, and C signed the note as a surety for B. The note was not paid at maturity by B, but the interest was paid, and A gave B further time to pay it, and the time for paying has been extended from time to time till now. C has not been before called upon to pay the note, and he has not been consulted about extending the time for payment, and he has himself never paid anything on account of the note either for principal or interest; in fact, C thought the note had been settled for years ago. C is now being sued. 1. Is C legally liable? 2. What should C do?"

1. C is not liable. A had no right to extend the time for payment without getting C to assent to it, and besides as against C more than six years have elapsed since the note became due, and he not having acknowledged the debt or paid anything on account of it, the action against C is barred by statute. 2. C should consult a lawyer and enter a defence at once, or a judgment will be entered against him.

SUBSCRIBER:—"I purchased at an auction a cow which I have since discovered was some months before found by a veterinary to have tuberculosis, and the owner knew that the cow was diseased. Can I recover damages from the person who sold the cow to me, and to what amount? Can I make him take the cow away from my place? Can I recover damages from him if the disease breaks out in my herd?"

Although you may appear to suffer a hardship, we are of the opinion that you can neither recover any damages nor compel the seller to take the cow away; and if you feared the spread of the disease among your herd, the diseased animal should have been at once removed. The law is that unless there be some fraudulent misrepresentation or warranty given at the time of the sale, then the purchaser must be taken to rely on his own judgment; and if he does so rely on his own judgment, he must take all risks.

You have not said that there was a warranty given or that any misrepresentations were made to you by the seller, and we have assumed there was none.

**PURE-BRED STOCK.**

C & D:—"I purchased from A, by letter, a sow pig, and paid the money for it. A represented by advertisement that his stock was registered, and by letter to me agreed to furnish me with the registered pedigree and the certificate of registration. I received the pig, but have not received the pedigree or certificate, and although I have written to A several times, I can get no answer or satisfaction. Kindly let me know whether I have a legal remedy, and how to proceed?"

You have a legal remedy against A, by action for damages, and the damages recoverable are all the loss which you have sustained by reason of A not having delivered the pedigree and certificate at the time he should have done so.

## DAIRY.

## Annual Convention of the Eastern Dairymen's Association at Peterboro.

The 17th Annual Convention of the Dairymen's Association of Eastern Ontario was held at Peterboro, on Jan. 3rd and 4th. These annual gatherings are usually very successful, and contribute largely to promote, develop and improve the great dairy industry of this Province. They furnish an opportunity for dairymen to come together and compare methods and acquire knowledge of the best practices in all branches of the business, besides stimulating—through the enthusiasm which such a large gathering brings—those interested in the trade to greater zeal and more determination to make it a success. The array of speakers is always the best to be had, and, consequently, a profitable as well as a pleasant time is usually looked forward to.

With respect to the meeting at Peterboro, it cannot be considered an unqualified success. The addresses delivered were of the highest order, and were full of facts, truths and food for the dairyman and farmer, but the attendance was exceedingly small, considering the importance of the organization and the large dairy interests of eastern Ontario. It does seem a shame that such capital addresses as were delivered at Peterboro should be heard by only about 125 dairymen and others, and that practical men should be under the expense of coming from Ottawa, Guelph, Toronto and other places to waste their energies on so scanty a crowd. Surely someone has blundered, and there must be something seriously wrong in the working of the organization controlling the convention. If the meeting had been properly advertised, and the attention of dairymen drawn to the importance of the gathering, there is no doubt but what the hall would have been crowded and the convention a success in every particular. An association that receives \$2,750 from the Government to carry on its work should see that such an important branch of its work as the annual convention should be a success.

Without appearing at all dictactic or showing a spirit of fault-finding, it may not be amiss just here to point out in what respects the arrangements seemed to be lacking, and it is hoped that our eastern friends will take in good part what is said, as it is given with the view of stimulating them to do better, and to make the work of the Association of more value to the dairymen of the eastern portion of this Province.

The mere fact of sending out a limited number of post cards with the announcement of the Convention and the list of speakers is not at all sufficient to secure a crowd. A definite programme should be published and the meeting "boomed" through the press, as a number of people only hear of such gatherings in this way. The action of the managers in announcing that such men as Prof. Roberts, of Cornell University, and ex-Gov. Hoard, would deliver specially prepared addresses (these men were conspicuous by their absence) is an advertising scheme that should not be countenanced by so important an organization as the Dairymen's Association of Eastern Ontario, or by any honest man. The arrangement for each day's proceedings was poor—in fact, there was no definite arrangement at all. Everything was run "hap-hazard." The speakers themselves did not know when their turn was to come, and the curiosity of the audience seemed to be aroused as to what was coming next. It is hoped that the management of this Association will endeavor, in the future, to make their annual meetings more of a success in point of attendance, interest and arrangement of programme.

## THE FIRST SESSION

of the Convention began at 10 a. m., in the Opera House, with President Bissell in the chair. Among the noted dairymen present from a distance were: D. Derbyshire, Brockville, President O. C. Association; R. G. Murphy, Elgin; G. G. Publow, Perth; J. M. Drummond, Keene; James Whitton, Wellman's Corners; J. T. Warrington, Belleville; W. S. Cook, Belleville; Wm. Eager, Morrisburg; A. W. Grant, Montreal; D. Ewing, Cobourg; J. S. Pearce, London; J. A. Ruddick, Woodstock; Prof. Dean, Guelph; J. B. McEwan, Brockville; C. Richardson, St. Marys; E. J. Madden, Newburg; A. Pattullo, Woodstock; J. W. Wheaton, London, Secretary W. O. D. Association.

THE PRESIDENT read his annual report, which was largely complimentary to the dairymen for their able response in sending cheese to the World's Fair, and congratulatory in reference to the splendid success of Ontario cheese at Chicago, which would help us in years to come. What is wanted now is to stir up the farmers, so that all will do as well as the best are now doing in the way of making the most out of their cows, by caring properly for the milk and in providing suitable food, so that the best possible results will follow to all those engaged in the business. He thanked the Hon. Jno. Dryden, Minister of Agriculture, for his able assistance to the Association, and was especially thankful for the establishment of the Dairy School at Guelph, which would enable our cheesemakers to thoroughly equip themselves for better work. He complimented very highly Prof. Robertson for his excellent management of the cheese exhibit at the World's Fair.

## SHORT, PITHY ADDRESSES

were then made by D. Derbyshire, J. T. Warrington, A. W. Grant, and James Whitton, dealing chiefly with the better education of the farmer, the success at Chicago, and the market for Canadian cheese.

Prof. Dean, Guelph, who had just arrived, was called upon and urged the adoption of a certain standard for each cow in the quantity of milk she gives. He said that a number of the dairymen in eastern Ontario had set up a standard of 3,000 lbs. of milk per cow. This was too low and should be doubled. A cow should give at least 6,000 lbs. of milk every year, or make 250 lbs. of butter. A great many cows will do this if they get the proper food and have the right training.

The President's report was then adopted, and the standing committees appointed.

## THE AFTERNOON SESSION

began at 2 p. m., when Instructor G. G. Publow presented his fourth annual report, which was full of facts and suggestions that would be helpful to the cheesemakers. He had spent 147 days in testing milk and giving instructions during the season of 1892.

After finishing his report, Mr. Publow answered a number of questions put to him by the cheesemakers present.

Prof. DEAN then gave a valuable and interesting address on "Science in the Dairy." He distinguished very accurately between theory and practice as applied to the dairying business, and said that he found that for everything every man had a theory. Nearly all the improvements and advances in dairying were due to the application of science. He cited the development in the process of taking the cream from the milk, gradually coming up from wooden pans to the present almost perfect system. A dollar owned by a man who was both a scientific and a practical man would produce much more than it would in the hands of one who was neither, or who possessed only one of these qualities. Prof. Dean also considered the question of breeding and feeding dairy cows, the proper care of milk and the method of testing it. He touched lightly on the matter of cheese making and the methods to be pursued.

MR. G. H. BENSLEY, Instructor and Inspector for Peterboro, Northumberland, and parts of Hastings and Prince Edward Counties, reported that he had tested 3,318 samples of milk, and found that only eleven had been tampered with. The offending persons had been properly dealt with.

MR. J. B. McEWAN read an exhaustive paper on the subject of "Dairy School Work," in which was contained a great number of valuable hints and suggestions for cheesemakers.

MR. A. PATTULLO, editor of the Sentinel-Review, Woodstock, and President of the Oxford Dairymen's Association, was called upon by the chairman and made a very interesting address. He dealt chiefly with the early history of the dairy industry in Oxford County, and made reference to the importance of the industry to-day that had originated from so small a beginning. He spoke in admiration of the good work being done by the Agricultural College, Guelph, and the Experimental Farm, Ottawa, and urged the importance of cleanliness in the dairy. He also touched on the importance of developing the home market for dairy products, and of having good roads.

He was followed by J. W. WHEATON, Secretary of the Dairymen's Association of Western Ontario, who spoke briefly in reference to the good work that the dairymen are doing for this country, and referred to efforts being put forth by the Western Association to reach the patron of the cheese factory. He showed that upwards of 9,000 patrons and dairymen had been given practical information in reference to all branches of dairying, through local meetings and local conventions held under the auspices of the Western Association last winter.

## THE EVENING SESSION

opened at 7:30 p. m., with Mr. James Kendry, mayor of Peterboro, in the chair. The Mayor, Mr. Wm. Cluxton, Mr. M. A. Sanderson, and Police Magistrate Dumble, all spoke, making reference to the importance of the dairy industry, and regretting that the citizens of Peterboro were not able to do more towards welcoming the convention to the city, which was due to the season of the year and the lack of time.

MR. J. A. RUDDICK of the Experimental Farm, Ottawa, spoke on the question of winter dairying in Ontario. He said that in 1891-2 there were only two winter creameries in operation in Ontario; there were now 21, five of which were operated as Government dairy stations. During the week ending December 22, these five Government stations had produced 7,800 pounds of butter.

MR. J. S. PEARCE, London's well-known seedsmen, and one of the judges of the butter exhibit at Chicago, referred in terms of regret to the rivalry which existed among the factories, and thought that some amicable understanding should be arrived at among them which would lead to co-operation and assistance in the manufacture of cheese. He said that as far as the exhibits of butter at the Fair were concerned, those from the United States were ahead of Canada.

MR. C. C. JAMES, M. A., Deputy Minister of Agriculture, was heartily welcomed by the audience when he rose to speak. He said that no ques-

tion so important as the cheese industry had been brought before the Canadian public during the past ten years. It would become us to be modest over our success, however. Speaking of the splendid triumph achieved by Ontario at the Chicago Exhibition, he said that although Canada had taken so many more prizes, the United States had really learned more about cheesemaking than we had, from the exhibits made there. In this country, however, whatever diversity of opinion there might exist on other questions, there was no difference in regard to cheese. This was a platform on which the whole people was united, and it was one in which there were no politics.

Prof. ROBERTSON made one of his characteristic speeches, full of good advice, on the question of dairying. He said that it was because so many farmers had no definite plan of work in view that there were so many failures. It was only he who pursued a fixed, intelligent method, and who never floated with the tide, who found himself in the vortex of financial security. If he allowed himself to become lost in the mists of uncertainty, he was certain to go niggardly poor to the end of his life. He pointed out the benefit to the farmer of the experimental institutions which had been established by Government. To give these advantages their full worth, however, the farmer must wake up and take a pride in his occupation. He must not consider his occupation anything but the most noble. In addition to this, he must show persistent effort. The World's Fair should have taught him something in this direction. Prof. Robertson then dwelt at some length on the Canadian dairy exhibit at Chicago, and the prominence it would give Ontario in the eyes of the world.

The Association re-assembled at 10 o'clock, President Bissell in the chair. Mr. C. C. James, M. A., opened the proceedings with a capital address on dairy statistics. He based his remarks on figures furnished during 1892 by 43 cheese factories in Ontario, which went to show that in the seven months from April to November, of that year, 300,000 pounds of milk less than in 1892 had been used at these factories. This was owing to the unfavorable weather, and the lack of pasturage, and the question he asked his audience was whether it was possible by any crop-growing to keep up the supply of milk when the pasture was bare. Was the farmer going to be able in any way to control matters that such an enormous shrinkage in the cheese output as had occurred in 1893 would not again take place? It was on this point that the farmer was going to absolutely succeed or make a partial failure. Every dairyman should look ahead and have a supply of succulent fodder to tide his cows over this dry season.

PROFESSOR SHUTT dealt with the value of Indian corn as a fodder. It was this which had been more instrumental than anything else in making dairying what it was. By its means winter dairying was not only made possible, but was made a financial success. It was a good, succulent and cheap fodder, and enabled the dairymen to keep up the flow of milk for two and even three months beyond the usual period, and its value when the pasture was used up was readily apparent. Of all the coarse and bulky fodders it afforded the largest amount of cattle food per acre. But not only was it a cheap crop; it likewise cleaned the land, and was of immense value in this respect to farmers who grew grain. Professor Shutt divided fodder for cattle into two classes—(1) wheat, rye, linseed meal, bran and others of similar nature, which were called concentrated fodder, because of the large proportion of albuminoids they contained; and (2) the coarse and bulky fodder, as grass, clover, straw, etc. Both of these classes, he said, must form a part of every cow's rations. The bulky fodder was as necessary for the cow's digestive organs as the concentrated, because the stomach required a certain amount of distension. The combination, however, must be a proper one, as neither possessed to the requisite extent the necessary constituents of the other. He placed corn at the head of the coarse fodders. It was relished by the animals, and it was succulent if preserved in silos. He emphasized the value of succulency in fodder, as it was chiefly instrumental in making the milk flow. It was due to the succulency of the grass in June, he said, that the flow of milk was so great then. In speaking of the cheapness of corn as a fodder, the Professor said that four tons of it were about equal to one ton of hay. Sixteen tons of corn would, then, be equal to four tons of hay, and sixteen tons of corn could be grown on an acre, whereas the yield of hay was two tons to the acre, so that twice the amount of fodder to the acre could be grown by raising corn instead of hay. The speaker then gave particulars regarding the planting and cutting of corn, and the nature of the ground most suitable for growing it. It should not be planted too thickly nor in heavy soil, but rather in light clay. The early glazing state was the best period at which to cut it.

Prof. ROBERTSON then touched briefly on the points made by Mr. James, and urged the necessity of overcoming unfavorable climatic conditions by means of a reserve supply of succulent fodder. He then read a letter from Mr. E. D. Tilson, Tilsonburg, regarding the severe drought of the summer, and the manner in which it was surmounted by the use of ensilage. Mr. Tilson had 20 tons of ensilage left over from last year, and fed 40 cows on it during the summer. During July and August

the pastures were about burnt up, but he managed by means of this old ensilage to keep his cows in good condition, with a very little falling off in milk, which was caused more by the horn-fly than want of succulent feed.

AT THE OPENING OF THE AFTERNOON SESSION

the report of the Nominating Committee was adopted. The officers for 1894 are as follows: President, T. B. Carlaw, Warkworth; First Vice-President, John McTavish, Vancamp; Second Vice-President, E. J. Madden, Kingston. Directors—District No. 1, Edward Gower, North Gower; District No. 2, Wm. Eager, Morrisburg; District No. 3, Richard G. Murphy, Elgin; District No. 4, James Whitton, Wellman's Corners; District No. 5, M. E. Sanderson, Selwyn; District No. 6, Henry Wade, Toronto. Auditors—Morden Bird, Sterling, and J. R. Dargavel, Elgin.

PROF. ROBERTSON then delivered an admirable address on the winter dairy movement in Ontario. Before plunging into his subject he made some interesting general reflections. He expressed the conviction that dairy farming was the farming which should be pursued in Ontario. He spoke of the splendid advantages offered and the high plane of civilization which existed in this province. He attributed this excellent state of affairs to the prosperity and material comforts enjoyed by the people, and to maintain and increase this condition of things this prosperity would have to continue and increase. To obtain more of the comforts of life the farmer would have to produce what would bring him the widest margin of profits. Wheat crops at one time had been profitable, but the increase of the production and the decrease in its use had made it no longer so. The trend of consumption now was towards animals and animal products, and accordingly the farmer, wherever he could produce these well, should do so. In Canada the conditions for their production were most favorable. The climatic conditions were good, and fodder could be easily and cheaply produced. Prof. Robertson then pointed out how the cheese industry had been of such incalculable benefit to the farmer—how it had furnished them with money which they otherwise would not have obtained. He pointed out what a still greater benefit it would have been had this cheese money been twice as large as it was, and he insisted in clear and logical arguments that this increase to twice the amount could be obtained by means of winter buttermaking in the cheese factories. He said that a great risk was run in the cheese manufacture of pushing it too far; there was also a risk of a fall in prices, but with the winter butter business there would be something to fall back upon. The question of whether this winter industry was practicable was gone into, and Prof. Robertson proved, evidently to the satisfaction of his audience, that it was practicable. He said he had proved that it was so to himself by working the problem out in the concrete. He had established three factories in Ontario, which made \$12,000 last winter. The cost of adapting the cheese factories for this purpose during the winter he placed at a little over \$1,000. He produced figures from the establishments already in operation to show not only that these winter butter factories would pay, but that they would put more money than that simply obtained from the sale of milk in the pockets of the farmers. The skim milk could be fed swine and calves, and money would also be obtained from these sources. If then, the Professor argued, one out of every ten factories in the province were utilized in this way in the winter, it would net over \$600,000. He combatted the idea that this industry was hostile to the cheese industry. It would make cheesemaking more profitable. He then went into the needs of winter dairying, the proper management and feeding of cows, and the way to handle the milk. In concluding, he said that the business of agriculture in Canada was daily becoming to him a question of more serious import. The whole stability of the country was staked on it, and would be jeopardized if farming was not conducted on better paying principles. It was a question which concerned every Canadian—him and his children and his children's children, and it should be the duty of all to adopt any possible combination of conditions which would render this great industry permanently secure and beyond the possibility of being adversely affected.

Mr. James spoke briefly on the possibilities and advantages of our home market, and showed how at present this market was not supplied in dairy products to one-tenth of the demand.

The usual votes of thanks were then passed, and the Convention adjourned.

A Bit of Dairy Help.

BY MRS. J. H. BUCKBEE.

During the past summer we had a hard milker whose teats were so short it was thumb and finger work. I thought one day of the answer of "Bobby Peel" to the manager of the cotton mills, when asked why his spindle was never stopped for repairs: "Chalk your bobbins." I had no chalk, but I took a box of corn starch to the stables, and tried that. It proved a boon to me, as by rubbing a little on my hands I could grip without the teats slipping out of my hands. I also found it useful when milking any cow in the warm weather.

POULTRY.

Poultry on the Farm.

BY MRS. IDA E. TILSON, WEST SALEM, WIS.

I once heard a discouraged farmer say fowls were no more likely to give a profit than a poor soil was to yield anything except white beans. Some poultry investors have realized excellent profits, and what man has done, man can do again. If a poulterer has continued ill-luck, may not this be in his make-up rather than the fault of his flock, surroundings or business? Perhaps he proposes beginning at the very top of the ladder, instead of rising in the natural and usual way by step after step. If so, he secures expensive stock, and unaware that "scrubs" often stand experimenting and poor care better than do choice birds, which have long been tenderly handled and comfortably housed, he places his new purchase in some old hen house, uncleaned and unrepaired for years.

Probably he over-feeds at first, but when all his neighbors have seen and admired the birds, and the latter lose novelty, then rats, lice, lack of shade and shelter, sour, sloppy puddings, excess of grain feeding, and irregular care bring their usual destruction. Or having heard \$100 a year can be cleared from 100 hens, he estimates 1000 biddies will net \$1000, as a man did whose friends sent him to talk with me. I could not convince him of the greater danger from disease, nor of the extra business ability required to manage so many.

The time spent on a small number is our own and seldom counted in, but a large flock frequently necessitates a considerable outlay for hired help. If we first study the dispositions and needs of fowls, we can, with enlarged knowledge, increase numbers, houses and general facilities. The man above mentioned soon abandoned his extensive "chicken business." As Carlyle says, "Experience takes dreadfully high school wages, but he teaches like no other." Although our own experience is the best teacher, another's experience often gives us a great start up the hill of knowledge, and puts money in our pockets. Not long ago a lady wrote asking me with how many hens she, a novice, should begin. I advised her to take not over fifty, and better, only twenty-five. I myself began with seven tough old fowls, that had perhaps "been in the family for years"—at least none here knew their ages, nor had before taken much interest in poultry. Though an incubator furnishes the business way of raising broilers, I do not use nor deem one necessary in the farm poultry-yard, where but one or two hundred chickens are desired; he who needs an incubator might, according to my observation, profitably take lessons first of old hens in the management of chicks, because the mere hatching is really the easiest and briefest part of chicken culture.

This year I set nine hens on 110 eggs, securing seventy-three chicks, of which I raised sixty-nine. An acquaintance, a novice, did so well as to hatch sixty-nine chicks out of a hundred-egg incubator, but lost many of them subsequently. Other persons fail because they make poultry culture only a "side show." We must understand its importance and mix it well with our other business, else the latter will rise to the top, and our poultry sink to the bottom. Some people think they cannot do anything till they have the best kind of a house. I know those who succeeded with very poor conveniences, and it is difficult to get the "best house" all at once anyhow. A carpenter cannot tell about it unless he is also an experienced poultryman, and poulterers themselves have differing tastes, purposes and ideas. No one can really know what he wants his poultry house to be till he uses it, and finds out his needs by observation and experience. I have made several changes in my buildings, and should add others if sure they would return expense. When the best things are not possible, the best may always be made of what we have. Don't wait until your fingers are pinched with cold before you batten cracks, tighten loose windows, and otherwise improve the old quarters. My houses are just enjoying on their outsides a fresh coat of red paint, which will add somewhat to their warmth and their freedom from insects.

I lately saw a Canadian poultry article, the writer of which said, if he lived down in Indiana or Illinois he should believe all he read about overcrowded poultry quarters in winter, and their lack of ventilation, but at his latitude just a few fowls could not keep each other warm, and soon froze, even in a practically air-tight house. Probably he would approve the plan I have before recommended of a small, snug room as a lodging, with an open shed more cheaply built and added to secure enough space for daily exercise. We often have weather twenty degrees below zero here, but the only house I can entirely close is that double boarded with sawdust between. Sawdust, though apparently solid, is really porous and permits a little circulation of air. Air poisoned by too

many breaths is the coldest of the cold, and warms less readily than that purer. Into my paper-lined house had to be introduced a hollow wooden tube, four by six inches, running up perpendicularly from within ten inches of the bottom, and extending about two feet above the roof. This tube acts as a chimney, and sometimes has draft enough to take up bits of down. It helps change of air without striking the fowls, and does so whether I am present or absent, awake or asleep, and whether the weather is stormy or pleasant. Not only is impure air chillingly uncomfortable, but it starves the lungs, empties the egg-basket, and gives our fowls slow death. Now, I think such a tube would be an improvement, even to my sawdust-walled house. Under the shed attached to this latter house—a shed large enough for storage purposes, too—stand a large barrel of fine road dust and seven barrels of lovely gravel—winter provision. We paid three dollars for a man and team that drew from a bank seven miles away, the gravel, which I trust will last two years, however.

In fact, there is but little good luck anywhere which does not consist in the wisdom to see what should be done, united with the wit and energy to do it. If every poulterer joins the "Try, try again" brigade, and gives his fowls a sort of tender, constant, motherly care, he need not fear they will be like one crop here this year—"small potatoes and few in a hill."

Cross-bred and Pure-bred Fowls.

BY W. J. STEVENSON, OSHAWA, ONT.

In visiting some of the best farms to-day, we will find comfortable stables and houses for every living thing on the place, but poor Biddy, she is left to her own resources, to find her food wherever she can, and roost on a pole under a shed, or on a limb of a tree. Now, if these same farmers will ask their wives or daughters for a statement of the last year's amount of business done by these same neglected hens, it will give them something to figure on. And I will venture to say that the result of a careful consideration will be a "new hen-house" and an improved flock of fowls for the coming season. How many times we hear the farmer say, "Oh, bother the hens!" but, nevertheless, that same man likes a well-filled egg basket for market on Saturday. How it helps when money is scarce! Many a woman knows that if it were not for her hens she would do without many an article of wearing apparel, as well as those for house use. To secure good results we must have good, healthy birds, as near pure-bred as possible. One cross is all right, but go no farther if wishing good success. After about twenty years of experimenting with crosses and pure-bred, my conclusions are these:—You will get a heavier bird for table use from crosses, but for a general purpose one a pure-bred every time. We all have our favorites. For myself I prefer Golden Laced Wyandottes for the farm yard. I have found them good layers, coming to maturity early, easy keepers and quiet in disposition. Now, I do not wish to boom this breed, but speak from experience and a wish to get as many as possible interested in doing better for their fowls in future. Now, readers of the ADVOCATE who are interested in this, let us during the coming winter start a query column (to which I know the editor will agree), where questions may be asked and answered by practical persons. I will do my utmost for its success. We can learn from each other, avoid mistakes and help new beginners. What say you all?

A Poultry Note.

BY MRS. J. H. BUCKBEE.

It almost seems superfluous to say a word about poultry in the face of such writers as Mrs. Tilson (whom I and my hens love), but realizing so much benefit from the experience of others, I wish to give my own in regard to the breaking up of old crockery for grit for fowls, given to us last spring in the ADVOCATE. I place an ironwood block in an old tin pan, put the chipped bits on the block and cover with a newspaper, then tap away with a hammer, and there is no danger of splinters flying in the eyes. Burn the paper, as fine pieces adhere and render it unsafe to lie round.

To Prevent Hens Eating Eggs.

To prevent hens eating their eggs, a trouble so general during the winter season, and so difficult to cure after the habit is once acquired, on the Experimental Farm at Brandon the use of dark nests has effectually put a stop to this bad habit. They are made about four feet long by one foot square, with a nest in each end and the opening, just large enough to admit a hen, in the centre—the box elevated two or three feet off the floor.



### Adventures of Sherlock Holmes.

THE MAN WITH THE TWISTED LIP.

BY A. CONAN DOYLE.

Isa Whitney, brother of the late Elias Whitney, D. D., Principal of the theological college of St. George's, was much addicted to opium. The habit grew upon him, as I understand, from some Polish freak when he was at college, for having read De Quincey's description of his dreams and sensations, he had drenched his tobacco with laudanum in an attempt to produce the same effects. He found, as so many more have done, that the practice is easier to attain than to get rid of, and for many years he continued to be a slave to the drug, an object of mingled horror and pity to his friends and relatives. I can see him now, with yellow, pasty face, drooping lids and pin-point pupils, all huddled in a chair, the wreck and ruin of a noble man.

One night—it was in June, '89—there came a ring to my bell, about the hour when a man gives his first yawn, and glances at the clock. I sat up in my chair, and my wife laid her needlework down in her lap and made a little face of disappointment.

"A patient," said she. "You'll have to go out."

I groaned, for I was newly come back from a weary day. We heard the door open, a few hurried words, and then quick steps upon the linoleum. Our own door flew open, and a lady, clad in some dark-coloured stuff, with a black veil, entered the room.

"You will excuse my calling so late," she began, and then, suddenly losing her self-control, she ran forward, threw her arms about my wife's neck, and sobbed upon her shoulder. "Oh, I'm in such trouble!" she cried; "I do so want a little help."

"Why," said my wife, pulling up her veil, "it is Kate Whitney. How you startled me, Kate! I had not an idea who you were when you came in."

"I didn't know what to do, so I came straight to you." That was always the way. Folk who were in grief came to my wife like birds to a lighthouse.

"It was very sweet of you to come. Now, you must have some wine and water, and sit here comfortably and tell us all about it. Or should you rather that I sent James off to bed?"

"Oh, no, no. I want the Doctor's advice and help too. It's about Isa. He has not been home for two days. I am so frightened about him!"

It was not the first time that she had spoken to us of her husband's trouble, to me as a doctor, to my wife as an old friend and school companion. We soothed and comforted her by such words as we could find. Did she know where her husband was? Was it possible that we could bring him back to her?

It seemed that it was. She had the surest information that of late he had, when the fit was on him, made use of an opium den in the furthest east of the City. Hitherto his orgies had always been confined to one day, and he had come back, twitching and shattered, in the evening. But now the spell had been upon him eight and forty hours, and he lay there, doubtless among the dregs of the docks, breathing in the poison or sleeping off the effects. There he was to be found, she was sure of it, at the "Bar of Gold," in Upper Swandam-lane. But what was she to do? How could she, a young and timid woman, make her way into such a place, and pluck her husband out from among the ruffians who surrounded him?

There was the case, and of course there was but one way out of it. Might I not escort her to this place? And, then, as a second thought, why should she come at all? I was Isa Whitney's medical adviser, and as such I had influence over him. I could manage it better if I were alone. I promised her on my word that I would send him home in a cab within two hours if he were indeed at the address which she had given me. And so in ten minutes I had left my arm-chair and cheery sitting-room behind me, and was speeding eastward in a hansom on a strange errand, as it seemed to me at the time, though the future only could show how strange it was to be.

But there was no great difficulty in the first stage of my adventure. Upper Swandam-lane is a vile alley lurking behind the high wharves which line the north side of the river to the east of London Bridge. Between a slop-shop and a gin-shop, approached by a steep flight of steps leading down to a black gap like the mouth of a cave, I found the den of which I was in search. Ordering my cab to wait, I passed down the steps, worn hollow in the centre by the ceaseless tread of drunken feet, and by the light of a flickering oil lamp above the door I found the latch and made my way into a long, low room, thick and heavy with the brown opium smoke, and terraced with wooden berths, like the fore-cabin of an emigrant ship.

Through the gloom one could dimly catch a glimpse of bodies lying in strange fantastic poses, bowed shoulders, bent knees, heads thrown back and chins pointing upwards, with here and there a dark, lack-lustre eye turned upon the newcomer. Out of the black shadows there glimmered little red circles of light, now bright, now faint, as the burning poison waxed or waned in the bowls of the metal pipes. The most lay silent, but some muttered to themselves, and others talked together in a strange, low, monotonous voice, their conversation coming in gushes, and then suddenly tailing off into silence, each mumbling out his own thoughts, and paying little heed to the words of his neighbor. At the further end was a small brazier of burning charcoal, besides which on a three-legged wooden stool there sat a tall, thin old man with his jaw resting upon his two fists, and his elbows upon his knees, staring into the fire.

As I entered, a sallow Malay attendant had hurried up with a pipe for me and a supply of the drug, beckoning me to an empty berth.

"Thank you, I have not come to stay," said I. "There is a friend of mine here, Mr. Isa Whitney, and I wish to speak with him."

There was a movement and an exclamation from my right, and, peering through the gloom, I saw Whitney, pale, haggard, and unkempt, staring at me.

"My God! It's Watson," said he. He was in a pitiable state of reaction, with every nerve in a twitter. "I say, Watson, what o'clock is it?"

"Nearly eleven."

"Of Friday, June 19."

"Good heavens! I thought it was Wednesday. It is Wednesday. What do you want to frighten a chap for?" He sank his face on to his arms, and began to sob in a high treble key.

"I tell you that it is Friday, man. Your wife has been waiting these two days for you. You should be ashamed of yourself!"

"So I am. But you've got mixed, Watson, for I have only been here a few hours, three pipes, four pipes—I forget how many. But I'll go home with you. I wouldn't frighten Kate poor little Kate. Give me your hand! Have you a cab?"

"Yes, I have one waiting."

"Then I shall go in it. But I must owe something. Find what I owe, Watson. I am all off colour. I can do nothing for myself."

I walked down the narrow passage between the double row of sleepers, holding my breath to keep out the vile, stupe-

fying fumes of the drug, and looking about for the manager. As I passed the tall man who sat by the brazier I felt a sudden pluck at my skirt and a low voice whispered, "Walk past me and then look back at me." The words fell quite distinctly upon my ear. I glanced down. They could only have come from the old man at my side, and yet he sat now as absorbed as ever, very thin, very wrinkled, bent with age, an opium pipe dangling down from between his knees, as though it had dropped in sheer lassitude from his fingers. I took two steps forward and looked back. It took all my self-control to prevent me from breaking out into a cry of astonishment. He had turned his back so that none could see him but I. His form had filled out, his wrinkles were gone, the dull eyes had regained their fire, and there, sitting by the fire, and grinning at my surprise, was none other than Sherlock Holmes. He made a slight motion to me to approach him, and instantly, as he turned his face half round to the company once more, subsided into a doddering, loose-lipped senility.

"Holmes!" I whispered, "what on earth are you doing in this den?"

"As low as you can," he answered, "I have excellent ears. If you would have them thrown in your lot with me, I should be exceedingly glad to have a little talk with you."

"I have a cab outside."

"Then pray send him home in it. You may safely trust him, for he appears to be too limp to get into any mischief. I should recommend you also to send a note by the cabman to your wife, saying that you have thrown in your lot with me. If you will wait outside, I shall be with you in five minutes."

It was difficult to refuse any of Sherlock Holmes' requests, for they were always so exceedingly definite, and put forward with such a quiet air of mastery. I felt, however, that when Whitney was once confined in the cab, my mission was practically accomplished; and for the rest, I could not wish anything better than to be associated with my friend in one of those singular adventures, which were the normal condition of his existence. In a few minutes I had written my note, paid Whitney's bill, led him out to the cab, and seen him driven through the darkness. In a very short time a decrepit figure had emerged from the opium den, and I was walking down the street with Sherlock Holmes. For two streets he shuffled along with a bent back and an uncertain foot. Then glancing back at me, he straightened himself out and burst into a hearty fit of laughter.

"I suppose, Watson," said he, "that you imagine that I have added opium-smoking to cocaine injections and all the other little weaknesses on which you have favored me with your medical views."

"I was certainly surprised to find you there."

"But not more than I am to find you."

"I came to find a friend."

"And I to find an enemy."

"An enemy?"

"Yes, one of my natural enemies, or shall I say, my natural prey. Briefly, Watson, I am in the midst of a very remarkable inquiry, and I have hoped to find a clue in the incoherent ramblings of these sets, as kindness has done before now. Had I been recognized in that ten minutes I could not have been worth an hour's purchase, for I have used it before now for my own purposes, and the rascally Lascar who runs it has sworn to have vengeance upon me. There is a trap-door at the back of that building, near the corner of Paul's Wharf, which could tell some strange tales of what has passed through it upon the moonlight nights of the summer."

"What? You do not mean bodies?"

"Aye, bodies, Watson. We should be rich men if we had a thousand pounds for every poor devil who has been done to death in that den. It is the vilest murder-trap on the whole riverside, and I fear that Neville St. Clair has entered it never to leave it more. But our trap should be here!" He put his two forefingers between his teeth and whistled shrilly, a signal which was answered by a similar whistle from the distance, followed shortly by the rattle of wheels and the clink of horses' hoofs.

"Now, Watson," said Holmes, as a tall dog-cart dashed up through the gloom, throwing out two golden tunnels of yellow light from its side lanterns. "You'll come with me, won't you?"

"I can be of use."

"Oh, a trusty comrade is always of use. And a chronicler still more so. My room at The Cedars is a double-bedded one."

"The Cedars?"

"Yes; that is Mr. St. Clair's house. I am staying there while I conduct the inquiry."

"Where is it, then?"

"Near Lee, in Kent. We have a seven-mile drive before us."

"But I am all in the dark."

"Of course you are. You'll know all about it presently. Jump up here! All right, John, we shall not need you. Here's the key. Look out for me to-morrow about eleven. Give her her head! So long, then!"

He flickered the horse with his whip, and we dashed away through the endless succession of sombre and deserted streets, which widened gradually, until we were flying across a broad balustraded bridge, with the murky river flowing sluggishly beneath us. Beyond lay another dull wilderness of bricks and mortar, its silence broken only by the heavy, regular footfall of the policeman, or the songs and shouts of some belated party of revellers. A dull wraith was drifting slowly across the sky, and a star or two twinkled dimly here and there through the rifts of the clouds. Homes drove in silence, with his head sunk upon his breast, and the air of a man who is lost in thought, whilst I sat beside him, curious to learn what his new quest might be which seemed to tax his powers so sorely, and yet afraid to break in upon the current of thoughts. We had ridden several miles, and were beginning to get to the fringe of the belt of suburban villas, when he shook himself, shrugged his shoulders, and lit up his pipe with the air of a man who has satisfied himself that he is acting for the best.

"You have a grand gift of silence, Watson," said he. "It makes you quite invaluable as a companion. 'Pon my word, it is a great thing for me to have someone to talk to, for my own thoughts are not over pleasant. I was wondering what I should say to this dear little woman to-night when she meets me at the door."

"You forget that I know nothing about it."

"I shall just have time to tell you the facts of the case before we get to Lee. It seems absurdly simple, and yet, somehow, I can get nothing to go upon. There's plenty of thread, no doubt, but I can't get the end of it into my hand. Now, I'll state the case clearly and concisely to you, Watson, and maybe you may see a spark where all is dark to me."

"Proceed, then."

"Some years ago—to be definite, in May, 1884—there came to Lee a gentleman, Neville St. Clair by name, who appeared to have plenty of money. He took a large villa, laid out the grounds very nicely, and lived generally in good style. By degrees he made friends in the neighborhood, and in 1887 he married the daughter of a local brewer, by whom he has now had two children. He had no occupation, but was interested in several companies, and went into town, as a rule, in the morning, returning by the 5.14 from Cannon-street every night. Mr. St. Clair is now 37 years of age, is a man of temperate habits, a good husband, a very affectionate father, and a man who is popular with all who know him. I may add that his whole life has been a success, as far as we have been able to ascertain, amounting to 488 lbs., while he has 4220 standing to his credit in the Capital and Counties Bank. There is no reason, therefore, to think that money troubles have been weighing upon his mind."

"Last Monday Mr. Neville St. Clair went into town rather earlier than usual, remarking before he started that he had two important commissions to perform, and that he would bring his little boy home a box of bricks. Now, by the merest chance, his wife received a telegram upon this same Monday, very shortly after his departure, to the effect that a small parcel of considerable value which she had been expecting was

waiting for her at the offices of the Aberdeen Shipping Company. Now, if you are well up in your London, you will know that the office of the company is in Fresno street, which branches out of Upper Swandam lane, where you found me to-night. Mrs. St. Clair had her lunch, started for the city, did some shopping, proceeded to the company's office, got her packet, and found herself exactly at 4.35 walking through Swandam lane on her way back to the station. Have you followed me so far?"

"It is very clear."

"If you remember, Monday was an exceedingly hot day, and Mrs. St. Clair walked slowly, glancing about in the hope of seeing a cab, as she did not like the neighborhood in which she found herself. While she walked in this way down Swandam lane she suddenly heard an ejaculation or cry, and was struck cold to see her husband looking down at her, and, as it seemed to her, beckoning to her from a second-floor window. The window was open, and she distinctly saw his face, which she described as being terribly agitated. He waved his hands frantically to her, and then vanished from the window so suddenly that it seemed to her that he had been plucked back by some irresistible force from behind. One singular point which struck her quick feminine eye was that, although he wore some dark coat, such as he had started to town in, he had on neither collar nor necktie."

"Convinced that something was amiss with him, she rushed down the steps—for the house was none other than the opium den in which you found me to-night—and, running through the front room, she attempted to ascend the stairs which led to the first floor. At the foot of the stairs, however, she met this Lascar scoundrel of whom I have spoken who trusts her back, and, aided by a Dane, who acts as an assistant there, pushed her out into the street. Filled with the most maddening doubts and fears, she rushed down the lane, and, by rare good fortune, met, in Fresno street a number of constables with an inspector, all on their way to their beat. The inspector and two men accompanied her back, and, in spite of the continued resistance of the proprietor, they made their way to the room in which Mr. St. Clair had last been seen. There was no sign of him there. In fact, in the whole of that floor there was no one to be found, save a crippled wretch of hideous aspect, who, it seems, made his home there. Both he and the Lascar stoutly swore that no one else had been in the front room during the afternoon. So determined was their denial that the inspector was obliged to give up the search, and to believe that Mrs. St. Clair had been deluded when, with a cry, she sprang at a small deal box which lay upon the table, and tore the lid from it. Out there fell a cascade of children's bricks. It was the toy which he had promised to bring home."

"The discovery, and the evident confusion which the cripple showed, made the inspector realize that the matter was serious. The rooms were carefully examined, and the results all pointed to an abominable crime. The front room was plainly furnished as a sitting room, and led into a small bedroom, which looked out upon the back of one of the wharves. Between the wharf and the bedroom window is a narrow strip, which is dry at low tide, but is covered at high tide with at least four and a-half feet of water. The bedroom window was a broad one, and opened from below. On examination traces of blood were to be seen upon the window sill, and several scattered drops were visible upon the wooden floor of the bedroom. Thrust away behind a curtain in the front room were all the clothes of Mr. Neville St. Clair, with the exception of his coat. His boots, his socks, his hat, and his watch—all were there. There were no signs of violence upon any of these garments, and there were no other traces of Mr. Neville St. Clair. Out of the window he must apparently have gone, for no other exit could be discovered, and the ominous blood-stains upon the sill gave little promise that he could save himself by swimming, for the tide was at its very highest at the moment of the tragedy."

"And now as to the villains who seemed to be immediately implicated in the matter. The Lascar was known to be a man of the vilest antecedents, but as by Mrs. St. Clair's story he was known to have been at the foot of the stair within a very few seconds of her husband's appearance at the window, he could hardly have been more than an accessory to the crime. His defence was one of absolute ignorance, and he protested that he had no knowledge as to the doings of Hugh Boone, his lodger, and that he could not account in any way for the presence of the missing gentleman's clothes."

"So much for the Lascar manager. Now for the sinister cripple who lives upon the second floor of the opium den, and upon Neville St. Clair. His name is Hugh Boone, and his hideous face is one which is familiar to every man who goes much to the city. He is a professional beggar, though, in order to avoid the police regulations, he pretends to do a small trade in wax vestas. Some little distance down Threadneedle street upon the left hand side there is, as you may have remarked, a small angle in the wall. Here it is that the creature takes his daily seat, cross-legged, with his tinstock of matches on his lap, and, as he is a piteous spectacle, a small rain of charity descends into the greasy leather cap which lies upon the pavement beside him. I have watched the fellow more than once, before ever I thought of making his professional acquaintance, and I have been surprised at the harvest which he has reaped in a short time. His appearance, you see, is so remarkable that no one can pass him without observing him. A shock of orange hair, a pale face disfigured by a horrible scar, which, by its contraction, has turned up the outer edge of his upper lip, a bull-dog chin, and a pair of very penetrating dark eyes, which present a singular contrast to the color of his hair, all mark him out from amid the common crowd of mendicants, and so, too, does his wit, for he is ever ready with a reply to any piece of chaff which may be thrown at him by the passers-by. This is the man whom we now learn to have been the lodger at the opium den, and to have been the last man to see the gentleman of whom we are in quest."

"But a cripple!" said I. "What could he have done singlehanded against a man in the prime of life?"

"He is a cripple in the sense that he walks with a limp; but, in other respects, he appears to be a powerful and well-nurtured man. Surely your medical experience would tell you, Watson, that weakness in one limb is often compensated for by exceptional strength in the others."

"Pray continue your narrative."

"Mrs. St. Clair had fainted at the sight of the blood upon the window, and she was escorted home in a cab by the police, as her presence could be of no help to them in their investigations. Inspector Barton, who had charge of the case, made a very careful examination of the premises, but without finding anything which threw any light upon the matter. One mistake had been made in not arresting Boone instantly, as he was allowed some few minutes, during which he might have communicated with his friend the Lascar, but this fault was soon remedied, and he was seized and searched, without anything being found which could incriminate him. There were, it is true, some blood-stains upon his right shirt-sleeve, but he pointed to his ring finger, which had been cut near the nail, and explained that the bleeding came from there, adding that he had been to the window not long before, and that the stains which had been observed there came doubtless from the same source. He denied strenuously having ever seen Mr. Neville St. Clair, and he swore that the presence of the clothes in his room was as much a mystery to him as to the police. As to Mrs. St. Clair's assertion that she had actually seen her husband at the window, he declared that she must be either mad or dreaming. He was removed, loudly protesting, to the police station, while the inspector remained upon the premises in the hope that the ebbing tide might afford some fresh clue."

"And it did, though they hardly found upon the mudbank what they had feared to find. It was Neville St. Clair's coat and not Neville St. Clair, which lay uncovered as the tide receded. And what do you think they found in the pockets?"

"I cannot imagine."

(TO BE CONTINUED.)

THE QUIET HOUR.

The Person of Christ.

"Go a little deeper," said the wounded soldier of Napoleon's body-guard, as the surgeon was probing to find the ball lodged in his breast: "go a little deeper, and you'll find the emperor."

In the study of Christian evidences, we now go a little deeper and touch the heart of the whole body of Christianity—the PERSON OF CHRIST. Here is the focal centre of all Christian evidence; when we reach and touch that heart, feel its divine throbbing, and know its divine love, our intellectual doubts vanish, and we are constrained to confess: "Truly this is the Son of God."

The universal verdict concedes to Christ at least a grandly complete manhood. Pilate stands as the typical judge, saying, as he points to Jesus, "Behold the Man." Christ seems to represent humanity in a very special sense, as a man, and, in its ideal perfection, as *the* man.

It is a grand fact that even the long test of nineteen centuries, and the close, severe, searching and microscopic criticism of these days, cannot find any flaw, not to say vice, in the Christ. Nearly two milleniums have passed since Jesus was moving among men. Whatever praise or blame, friends or foes attached to Him in those days, we are able at this remote time to form a fair judgment of His character and career. And the question rings out, "What think ye of Christ." Has any one ever dealt a successful blow at the blessed One, whom the reviling tongue calls "the Christian's idol"? Point out one vice, one real blemish, in that character or life! Examine as with microscopic eye, but the more minute the examination the greater the disclosure of beauty.

Here is the ideal of manhood, in mind as well as body. He left all ideals behind, in his reality. We think no more of the Roman notion of heroic virtue, the Greek notion of culture; in presence of Jesus, these fade as stars grow pale at morning. "Whether realized in fact, or regarded only as an ideal, the conception of Jesus is the greatest miracle of the ages." This humble Nazarene taught the race a new law of progress, viz: self-oblivion. And since that cross was set upon Calvary, every grand step of advance for the race has been "from scaffold to scaffold, and from stake to stake." He led the way in helping men to live, by Himself dying, and the ideas He embodied have been ever since "fighting their way against the original selfishness of human nature." There is that in the PERSON OF CHRIST which has won almost involuntary homage from even sceptical minds.

The existence of Jesus Christ is the pivot upon which turn the history and destiny of the world. This one man, born in poverty and bred in obscurity; without rank, wealth, culture, or fame; who was hated by the influential men of church and state, and died as a criminal, by their united verdict; even whose tomb was the loan of charity, to save His body from being flung over the walls to the accursed fires of Topheth. This one man somehow sways the world! We date our very letters and papers, not "Anno Mundi"—the year of the world—but "Anno Domini"—the year of our Lord. Even creation is forgotten, as the epoch from which all is to be reckoned, since that babe was born in Bethlehem of Judea—as though all history had a new birth then. What shall I do then with Jesus? How ever I may account for His existence or explain His character and career, whatever I think of His words and works, as divine or human, He is Himself the miracle of history! Science and philosophy vainly try to account for Him or interpret Him. He stands absolutely alone in history; in teaching, in example, in character, an exception, a marvel, and He is Himself the evidence of Christianity. It is, therefore, no wonder that the Word of God is full of this wonderful personage. In the British navy yards, where all the cordage, from the huge hawser down to the finest strands, has braided into it a peculiar scarlet thread, you cannot cut an inch off without finding it marked. So everywhere, woven into and through the Word you may find the scarlet thread—and beginning anywhere, preach the blessed Christ.

One of the most sublime facts in connection with this wondrous PERSON OF CHRIST is the strange hold that He has upon the millions of believers at this remote age. After eighteen centuries have passed, a large proportion of the human race, the most intelligent and the most lovely, can say of Christ, "Whom having not seen we love." Millions are living for Him, and would die for Him. They believe that this unseen presence inspires their faith, hope, love, life; that with this unseen Saviour they hold daily communion; they go through the valley of tears, leaning on His arm; and fear not the shadow of death, cheered by His smile. This fact is absolutely without a parallel—look back through the centuries and see the blood of Christian martyrs flowing in torrents, while they kiss the hand that, in slaying them, opens the door to Him.

A public life of three and a-half years, ending with a death of shame at thirty-three; yet to-day swaying a world's history and destiny! Simple as was His speech, even yet His words move and mould the world. With an indifference to the lapse of time which reminds us of the indifference of the telegraph to the stretch of space—at this remote

day, His simple word melts millions of wills into His. He says, "Follow me"! and on through flood and flame, over land and sea, move the true hosts of God's elect, in obedience to His word.

The voice of truth and duty calls on you, in tones of thunder, to choose this day what you will do with Jesus. You cannot, dare not, be indifferent to the issue. He is or He is not "the way, the truth, the life." If He be, then better you had not been born, than to wander from this way, deny this truth, forfeit this life.

—[Selected from "Many Infallible Proofs."]

MINNIE MAY'S DEPARTMENT.

MY DEAR NIECES:—

We have bidden a cheerful good-bye to the old year, for we regarded it in the light of a friend; it gave us storm and sunshine, joy and sorrow, life and love, aspirations and hopes, and the fullest freedom and opportunities to be our own best and truest selves. And we are all the better and braver for the strife, though we have not always come off victorious. The new year in all the freshness of its youth lies before us: the same aspirations, the same hopes, the same opportunities for doing good animate us. The greatest happiness comes from the greatest giving, and if we cannot give gold we can give love and kindness, both of which are dear to the human heart. In our journey through life we can lighten many a load by word and deed, and make the hearts of our fellow-toilers light by timely assistance or friendly advice. The Greeks made green grass the first element of a lovely landscape. Let us make love and unselfishness the first element of our lives, beginning in our own homes, where trials arise daily, and by slow degrees it will add fresh interest, broaden our understanding and sympathies, and soon we will feel we are doing what we can to make life better for ourselves as well as others. To those neices who, from choice or necessity, have gone amongst the noble army of toilers, let me extend a word of sympathy. After their bright home holiday, the routine seems doubly hard. But let not dull routine daunt you. Do not be an automaton. By faithfulness you may hold a position for a lifetime, but this is not all. You can make of a position what you will. A faithful clerk is a stepping-stone to success. Master the details of your work. Leave nothing unlearned regarding your employment. Never answer private letters during business hours, nor receive your friends while working at your desk. Though nothing will be objected to, it is not right. The time is not your own, and you must not expect privileges denied to men. And these digressions interrupt business, and you cannot concentrate your energies upon work readily after such interruptions. Take all the sleep you can at night, and let no social enjoyment interfere with it. You cannot bring a clear head to business next day if not sufficiently rested. Dress neatly and wear no jewellery. Do not draw your pay before it is due, nor spend it in advance. Look after your health and give a certain amount of every day to exercise and fresh air. Select your associates. Girls are too often careless of their companionship, and are always judged by it. No matter where you are be respectable, and that and all it implies will always command respect.

"The purest treasure mortal times afford  
Is spotless reputation; that away,  
Men are but gilded loam or painted clay."

MINNIE MAY.

P. S.—The prize article on "Home Nursing" will be published in next issue.

Consideration for Others.

We too often commit the great, though natural, error of thinking persons of no importance to us. No persons can be unimportant as long as they live amongst us, for we are liable to be affected for good or ill by them. We are so bound up in interests with them as one of the human family, that what hurts one hurts all, and we suffer or enjoy as our neighbors do. How often it has happened that a beggar has brought to a city some infectious disease that has carried off thousands, the disease perhaps contracted by filth, and the enforcing of cleanliness and sanitary precautions upon him might have prevented it. It is a terrible form of admonition, but is it not a just one, considering we are one family and ought to cherish one another? We cannot change the arrangements by which we live and breathe, so we must act by them. Let no one say or think another is of no importance; the poorer classes tell powerfully upon the highest, and everyone, according to his gifts, is continually operating for good or ill upon all around him.

It is odd enough that a sheep when dead should turn to mutton, all but its head, for while we ask for a leg or a shoulder of mutton we never ask for a mutton's head. The flesh of a calf is transmitted into veal, that of the hog into bacon and ham; while the sports of the chase usually result in game. But there is a fruit which changes its name still oftener. Grapes are so called when fresh, raisins when dried, and plums when in a pudding.

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES:—

We offer a prize of \$1.00 for the best original fairy tale, a 1 communication to be in our office by the 15th of February. The prizes awarded for the best answers to puzzles in 1893 are as follows: 1st prize, Josie Sheehan; 2nd, Henry Reeve; 3rd, Geo. W. Blythe; 4th, Addison and Oliver Snider; 5th, I. Irvine Devitt. UNCLE TOM.

Amusing Parlor Games for Winter Evenings.

BY HENRY REEVE, HIGHLAND CREEK.  
THE EYE OF ISIS.

This is played by taking newspapers and placing them over a clothes horse, and cutting holes large enough and high enough for a person to look through. Several go behind the screen, and the company then guess, if they can, who the owners of the eyes are; they seldom are able, and the mistakes made are ludicrous.

THE HUNTSMAN.

This game is one of the liveliest winter evening's pastimes that can be imagined. It may be played by any number of persons above four. One of the players is styled the "Huntsman," and the others must be called after the different parts of the dress and accoutrements of a sportsman; thus one is the coat, another the hat, whilst the shot, dog, gun, and every other appurtenance belonging to a huntsman is represented. As many chairs as there are players, excluding the huntsman, should next be ranged in two rows back to back, and all the players seat themselves, and being thus prepared the huntsman walks around the sitters and calls out the assumed name of one of them; for instance, "Gun!" when the player gets up and takes hold of the coat-knits of the huntsman, who continues his walk and calls out the others one by one. Each must take hold of the player before him, and when they are all summoned, the huntsman sets off running round the chairs, the other players holding on and running after him. When he has run round two or three times he shouts out "Bang!" and immediately sits down on one of the chairs, leaving his followers to scramble to the other seats as best they can. The one left standing has to pay a forfeit. The huntsman is not changed throughout the game unless he gets tired of his post.

TIDDLEDY-WINKS HOPSCOTT.

A variation of Tiddledy-winks. A cloth mat is provided, on which is printed a hopscott diagram, and each player endeavors to jump his Tiddledy-wink from one square to another, until he succeeds in passing through each and back to the starting point, the first to do so winning the game.

"THEY CAN DO LITTLE WHO CANNOT DO THIS, THIS, THIS."

This game is played thus:—The party seat themselves in a circle; the first person then takes a stick in the right hand, and knocking the floor says, "They can do little who cannot do this, this, this," then passing the stick from the right to the left hand, presents it to the next person. Many think the catch is in the number of knocks, or in the words spoken, when it is merely in taking the stick in the right hand, and passing it with the left hand to the next person. A forfeit must be paid for each mistake.

THE GAME OF CONCERT.

This play is commenced by the company selecting a conductor. The players then seat themselves in a semi-circle, and to each is assigned an imaginary musical instrument, with instructions how to play on it. The conductor next orders them to tune, and then makes believe to wave a baton; he hums a lively air, in which all join, imitating by voice and gesture the instrument on which they are supposed to play, such as the violin, the flute, the cymbals, etc. After he waves his phantom baton, when all cease playing, and he calls "solos," all are now attention, and he makes believe to play on a particular instrument, imitating its sound and motion. Hereupon the person who is supposed to hold that instrument is bound to instantly join him in the tune and gesture; failing to do so, a forfeit is the result. A forfeit is also incurred when any instrument comes in at the wrong time. The object in this game is to make as much noise as possible.

GAME OF CROKINOLE.

This resembles the popular old English game of squalls, and is a game of skill, but is easily understood, and its leading features can be learned in two or three minutes by anyone. The game consists of a large, circular, polished board divided into three parts by concentric circular lines; in the centre is a small hole, and around the inner circle are placed a row of small posts. Twenty-four small polished discs accompany the board, and the game is to shoot or slide the discs across the board by a snap of the finger, the object being to drive the opposing players' discs away from the centre, and at the same time place one's own as near it as possible. Any number from two to eight may play, and each may play for himself, or sides may be chosen. Great interest and amusement can be got from this game.

THE ORDER OF THE WHISTLE.

The candidate for admission to this order must not have seen the game before. Blindfold him and go through with such mock initiation as your imagination may suggest, the most important part of which will be to put upon him a cloak, from the back of which must hang a short string with a small whistle at the end. Then tell him that only one thing remains to be done to make him a member. He must ascertain who has the whistle, and after sounding it once, unblind him and let the fun begin. Some one at his back uses the whistle; he turns to seize it, and of course carries it to someone else to sound. And so the sport goes on.

GAME OF NIP AND TUCK.

A large flat board, with a circular hole at either end, is held on the laps of two players. Each player is furnished with a small, round stick. A little wooden disc is placed at the centre of the board, and at the call of play each player endeavors to put the disc through the hole nearest his opponent. The game is most exciting and affords scope for the display of considerable skill, besides occasioning any amount of sport for on-lookers.

THE PARSON'S CAT.

The first player says the cat is (say) amiable. The next calls the cat awful, and so on, each person mentioning a quality beginning with the letter a. The game grows very amusing as the players exhaust the a's, and presently some one will fail to think of a quality beginning with that letter. He must pay a forfeit unless the next player fails too, for when two in succession are unable to find a word, the next letter is taken up; and in this way the game goes through all the letters, if desired.

A GOOD CARD GAME.

The dealer gives each player four cards and puts four more, faces up, on the table. The player to his left can take from the table any card which matches one in his hand—that is, a two-spot takes a two-spot, a queen takes a queen, and so on. The pair he lays aside towards the game. If he cannot match, he must put one from his hand with the four cards on the table. And so the game goes on, each player taking a turn, a new deal being made as often as the hands are exhausted. The one who has the most cards is the winner.

THE CHRISTMAS TREE GAME.

A large flat board, with a handsomely engraved and colored representation of a Xmas tree, covered with gifts printed on it stands against the wall at a convenient height. The players are provided with feathered darts, which they throw at the tree. Every dart striking a present on the tree counts so much for the player making the shot, while unsuccessful shots count against the players. The player who succeeds in getting the greatest number of and most valuable presents wins the game.

Besides the above collection of games, there are many good card games, chief among them being "Game of Nations," "Game of Dr. Fusby," "Game of Authors" and "Peter Coddle's Trip to New York." Parlor Croquet is also a good game, and is played like the outdoor game of the same name. Many an evening can be pleasantly passed with the old favorites, "Dominoes," with which several games can be played. Checkers is a good game of skill, and can be played with pleasure and profit. There are numerous other games which might be described, but the above list should furnish any household with endless amusements for the long winter evening.

Under the Mistletoe.

Grandmama, in your frame on the wall,  
Beautiful maid of the long ago,  
Stately and slender, blonde and tall,  
With the pinched in waist and the foot so small,  
Prithce tell for I fain would know  
What did you on that Christmas-side  
When great, great grandpapa made you bride?  
Handsome, and courtly, and debonaire,  
With his powdered queue and his Roman nose,  
As richly dark as his bride is fair,  
He rests a hand on your straight-backed chair  
To whisper to you, I suppose  
To whisper again as in long ago  
When he kissed you under the mistletoe.  
Say, beautiful bride, in the antique dress,  
Say, beautiful bride, in your bridal white,  
Did you let him gaze on your loveliness,  
Till lifted eyes did your heart confess?  
As you led the dance on your wedding night?  
Did he press your hand as he bent to say  
Sweet words as the lovers do to day?  
Ah! courtly groom of the vanished year,  
Beautiful bride of the days long fled,  
Dust, but dust are your hopes and fears,  
Cold your kisses, and dried your tears;  
But I hang here, over your head,  
A sprig of such Christmas-mistletoe,  
As you kiss beneath, in the long ago,  
As you kiss beneath, in the long ago,  
Grand Home-keeping.

Puzzles.

PRIZE PUZZLE.

1-CHARADE.

Once on a time a naughty boy  
A FOUR did catch. Ah, me!  
To him it seemed to cause much joy,  
But 'twas a shame to see  
What he did do. Of petroline  
He got a ONE, full quite,  
And poured it SIX the FOUR, and then  
Hesly got a light,  
"I set him off," he cried in glee,  
But ere he had begun,  
FIVE saw and said, "I'll quench your light,  
And TWO you of your fun!"  
And thus did FIVE, but THREE how mad  
This naughty boy was he.  
For TOTAL of this story, you  
May go to Uncle T.

ADA ARMAND.

2 ENIGMA.

My shape it is queer, great roughness I bear,  
For I am subject to much wear and tear;  
I'm used by the subjects as well as the Queen,  
I'm a help to the teacher, and with the student I'm seen;  
And although I do come from an animal's back,



BEFORE THE CONCERT.

Mr. G. Washington White—"Fo' de Lawd's sake! gen'lemen, you-all's makin' so much noise chunin', an' a chunin', dat I kyan't ye'ar myself chune no mo'. I'm just bleeged to take dis yer fiddle out inter der chicken coop to chune it."



AFTER THE CONCERT.

Mr. G. Washington White (to partner of his joys) "Yah-yah! Mandy, dar's yer Christmas pot-pie! Dat wuz de most melodjous chunin' eber I did yah-yah-yah!"

You cannot have comfort if me you do lack;  
And now if my name appears not unto you,  
Just think, for I am divided into two.

THOS. W. BANKS.

3 RIDDLE.

How truly precious are my FIRST  
No mortal man can tell,  
Though, truth to tell, they're often lost,  
And sometime given away,  
You suffer on the couch of pain,  
With care and grief oppressed,  
Would freely give his all away,  
Could he possess my NEXT.  
The blossoms of my lovely WHOLE  
Adorn the gay pasture,  
And none of Flora's beauties race  
A brighter livery wear.  
 Cousins, whatever your lot in life,  
Or rank, or name may be,  
For ever may my valued WHOLE  
Belong to you and me.

AGATHA PRUDHOMME.

4 CROSS WORD ENIGMA.

In the "Christmas" just gone by;  
In the "happy hearts" so light;  
In the "lovely azure" sky;  
In the "frequent smile" and bright;  
In the "quiet evetime";  
In the "mind at peace" and ease;  
In the "pretty sparkling" rime;  
In the "glittering frosty" trees;  
In the "heart with ruddy glow";  
In the "home where comfort lies";  
In the "youthful spirits" flow;

In the "honor" which we prize,  
In these lines you may descry,  
If you only read them right,  
Something that will help you pass  
Many a pleasant winter night.

ADA ARMAND.

Answers to December 15th Puzzles.

- |                  |                |
|------------------|----------------|
| 1 Without.       | 7 C I R C L E  |
| 2 Panorama.      | 8 I C A R U S  |
| 3 Inanition.     | 9 R A R E S T  |
| 4 Charity.       | 10 C R E A T E |
| 5 Forsaking.     | 11 L U S T R E |
| 6 This, his, is. | 12 E S T E E M |

Names of Those Who Have Sent Correct

Answers to December 15th Puzzles.

Josie Sheehan, I. Irvine Devitt, Agatha Prudhomme, Joshua Umbach, A. R. Borrowman, Ada Smithson, Thos. W. Banks, Geo. W. Blyth, Henry Reeve.

The Duty of Sympathy.

We often limit sympathy to pity or appreciation of the condition of those who are in mental or physical pain. But in every-day experience we have quite as much reason to sympathize with those who are happy and complacent as with their opposites, and much more frequent occasion. And our failure to sympathize with those who are happily situated is as much a cause of friction in the home as our hardness of heart would be were our friends in trouble.

For example, you are sitting at your sewing, and you are tired. You ought two hours ago to have put down your work and gone out to take a walk in the fresh air. But you had resolved to finish a certain garment, or to do a certain amount, and you forced yourself to continue till your nerves were worn to the raw edge. Presently your son came rushing home from school, on fire with a piece of news he wished to give you. There was to be a match on Saturday afternoon on the common between the academy nine and the factory nine, and your Ben, who was a splendid pitcher, was to be in it. As he poured out the story you listened coldly, not a shade of his eager enthusiasm reflected in your unresponsive countenance; and when a pause came, you said, "Ben, all that is very well, but you forgot to wipe your feet when you came in; and you must not leave your books on the lounge; go and put them in their proper place."

Your boy went, chilled as truly as though he had received a liberal dash of cold water full in the face. You had failed in sympathy, and missed a precious opportunity of being your boy's comrade. It is a pity when a boy has no comradeship with his mother—a pity for mother and son.

Your young daughter attended a pleasant party the other day in a very charming house. When she described it in the gushing and efflorescent fashion natural to girls you listened in an absent and preoccupied way, and plainly showed that you took no interest in the affair. If Irma seek another confidante than her mother, if, in some crisis of her life, she accept unwise counsel, it may be that the blame will lie at your door.

To sympathize truly is a talent worth cultivating. It implies genuine affectionate altruism, real care for others in whatever capacity others need help. To the neighbor bearing, perhaps, a weary load of anxiety, to the friend breaking down under apprehension or financial pressure, to the servant in your kitchen, sympathy will be precious. It may be given as fully to the student glowing under college honors, to the lover radiant at receiving the longed-for "yes" from the object of his devotion, to the merchant on the highway to success, to the author whose book is successful, to the glad-hearted wayfarer whose ship has just come in—*Harper's Bazar.*

Whatever we may be left to guess about the nature of sleep, the fact that it is a necessary part of our existence is abundantly evident, and the more uninterruptedly we enjoy the peaceful oblivion, the greater is the amount of reunited strength and vigor we derive from it. It is during the hours of sleep that the electric battery of the nervous system becomes replenished with invigorated powers, and the body with renewed vital force. To enforce the full immensities of refreshing slumber, two things are especially requisite—a regularity as to the time of its indulgence, which always should commence an hour or two before midnight, and the most rigid abstinence from hearty suppers. "An hour's sleep before midnight is worth two after," and the maxim is easily to be verified and tested.

"In sleep, the mind finds a resting head,  
And the body a most comfortable bed."

# CROSS-CUT SAWS.

The famous Stanley Blade, Lance Tooth, Cross-cut Saws lead them all. There is no better tempered and no faster cutting saw in the world to-day. Every blade is warranted. If your dealer does not keep the Stanley Blade then take no other, but send direct to us for one or more saws. We pay freight to all Ontario stations when your order reaches \$10 or upwards. Our prices are as follows:—

5-foot Stanley Blade	.....\$2.50	Without handles
4-foot one-man saw	.....2.00	
6-foot " "	.....3.00	Handles.

Patent Saw Handles, 25c. per pair extra. In addition to the ordinary cross-cut saw, as above, we have

## One-Man Stanley Blades.

These one-man cross-cut saws have also the lance teeth, and our prices are as follows:—

3-foot one-man Stanley Blade complete, with handles, price each	.....\$1.90
4-foot one-man saw, each	.....2.00
4-foot " "	.....2.25

For 75c. we will mail, to any address, the well-known Whiting Cross-cut Saw Set, the only perfect set yet produced.

Terms—Cash with the order. Write for Catalogue to

## STANLEY MILLS & CO

WHOLESALE HARDWARE MEN,  
Hamilton, Ont.

SPECIAL OFFER.—Send us 25c. in stamps and we will mail you a gold-plated ladies' brooch with mother-of-pearl setting. 7-y-om

## GREAT DISPERSION SALE

—OF—  
**SCOTCH - SHORTHORNS**

On WEDNESDAY, FEBRUARY 14,  
At one o'clock, on  
**GLEAR SPRING FARM**

Two and one-half miles west of Sunderland Station, on the Midland Division of Grand Trunk Railway.

The herd consists of 32 females and 3 bulls, descended from two of Mr. Arthur Johnston's best families of Shorthorns (Stamfords and Crimson Flowers); topped by the best imported Scotch bulls. Hopeful (55993), the stock bull in the herd for the past five years, is still active, and a sure getter. Weight, 3,000 lbs.; heart girth, 9 feet 6 inches. No consumption about him—only the consumption of food.

Send for catalogues. TERMS.—Eleven months' credit on approved notes. No reserve.  
**JOHN SMITH, WM. SHIER,**  
Auctioneer, Sunderland, Ont.  
2-b-om Brampton.

All Stock Raisers use  
**Dick's Universal Medicines**  
Dick & Co., P. O. Box 482, Montreal.

## FARMS FOR SALE!

I have several improved and unimproved farms for sale for very small payment in cash, balance to be paid by delivery of half the crop each year. Prices moderate; land first quality, within 100 miles of Minneapolis, in good, settled neighborhoods, with schools, churches and towns near. No such opportunity to buy such farms has ever been offered before. Not on frontier but in centre of Minnesota. For particulars address—

**A. G. WILCOX,**  
130 Temple Court, MINNEAPOLIS, MINN.  
1-c-om

FOR SALE. Three imported Yearling Bulls, bred at Kinellar, including one each of the "Mina," Golden Drop and Bessie families. Apply to **JOHN ISAAC,** Markham, Ont. 21-2-c-om

## D. & O. SORBY, CUELPH, ONTARIO,

—BREEDERS AND IMPORTERS OF—  
**FASHIONABLY BRED CLYDESDALES**

We always have on hand a large number of imported and home-bred Clydesdales (male & female) of good breeding & quality, which we will sell at lowest prices. Our specialties are good & well-bred horses and square dealing. Come and see us or write for particulars.

**BOLD BOY, (4257) (143)**  
IS AT THE HEAD OF OUR STABLE.  
330-2-y-om

**ROBERT NESS,**  
WOODSIDE FARM,  
Importer & Breeder of Yorkshire Coachers, French Coachers, Clydesdales, Shetlands and Ayrshire Cattle. Prices to suit the times. **ROBERT NESS,** Woodside Farm, Howick P. O., P. Q. 5-y-om



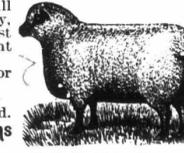
IF YOU WANT a well-bred Shorthorn Bull for use on grade cows, or a heifer to start a herd with, or some Improved Yorkshire pigs from imported sow Lady Lindsay [122], write **C. G. DAVIS,** Woodland's Terrace Farm, Freeman P. O. 1-y-om

**H. CARGILL & SON,**  
Cargill, Ont.  
**SHORTHORNS.**  
Two imported bulls are now at the head of our herd. Stock of both sexes and different ages from the best imported and home-bred cows now for sale. 11-1-f-om



**SCOTCH-BRED SHORTHORN BULLS**  
Scotch-Bred Heifers, Imported Shropshire Rams, Imported Ewes, Home-bred Rams, Home-bred Ewes.

**FOR SALE!**  
In any number. All of very best quality, and at the lowest prices. We want 500 recorded rams for ranches. Correspondence Solicited.  
**John Miller & Sons**  
Brougham, Ont.  
Claremont Station, C. P. R., 22 miles east of Toronto. 12-2-y



I HAVE FOR SALE AT REASONABLE PRICES  
**6 EXTRA SHORTHORN BULLS**  
(FIVE REDS AND ONE ROAN).  
From three to fourteen months old; sire, Ottawa Chief, bred by J. & W. Russell, and full brother to the champion heifer at World's Fair. They are from dams bred by J. & W. Watt's stock. Oxford-Down sheep of both sexes always for sale, both English and Canadian-bred. **HENRY ARKELL, ARKELL,** 10-1-y-om

**Craigieburn Stock Farm**  
(5 miles west of Stouffville and 25 miles north-west of Toronto, G. T. R.) **FOR SALE**—Eight choice young Bulls and six Heifers, sired by Guardsman (imp.) and Gay Lad. Gay Lad, got by the famous Young Abbot'sburn, is also for sale. Prices to suit the times, and correspond to book orders. Write at once for prices and catalogue. **G. BRODIE,** Bethesda, Ont. 2-2-y



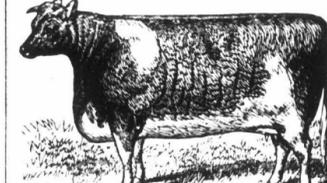
**SHORTHORNS, BERKSHIRES,**  
Shropshires, Plymouth Rocks & Bronze Turkeys. Write me for prices on the above. I have a grand litter of Berkshire Pigs now ready for sale. **H. CHISHOLM,** Montrose Farm, Paris, Ont. 18-2-y

## Shorthorn Bulls For Sale

I have six excellent bulls for sale at hard times prices. They range in age from ten to eighteen months. They are all sired by the imported Cruickshank bull Victor Royal 250. **SHROPESHIRE RAMS AND EWES** for sale; also some useful **SHORTHORN HEIFERS.**  
**CHAS. CALDER,**  
2-g-om BROOKLIN P. O., Ontario Co., Ont.

**WESTRUTHER PARK**  
Herd of Bates Shorthorns, consisting of Oxford and other families, has outgrown the place and must be reduced in numbers. Four yearling bulls and a number of females for sale, at lowest prices and on liberal terms. Farm a mile from the station.

**JOHN IDINGTON,** Stratford.  
**ARTHUR JOHNSTON,** Greenwood, Ont.



**(SEVENTEEN GRAND BULL CALVES)**  
Offers seventeen bull calves, now ready for sale. Besides two exceedingly good imported yearling bulls and an excellent lot of young cows and heifers, all of which will be sold at moderate prices. Send for Catalogue. Greenwood P. O. and Telegraph Office, Clarendon Station on the C. P. R., on Pelee Island, Ontario, on the G. T. R. Parties not calling in person on-shore, will receive a catalogue and catalogue on-shore, will receive a catalogue. 2-2-y-om

## Deep Milking Shorthorns

**MR. GRAINGER,** London, Ont., offers for sale some exceedingly good cows and heifers. (Fair Maid of Hullett 2nd, now at test at Chicago, is only a fair specimen.) Dams made thirty pounds of butter in seven days. Come and see them; they are good ones. 11-2-y-om

## SCOTCH-BRED SHORTHORNS FOR SALE

**6 Choice Young Bulls**  
And the Imported Cruickshank Bull

**ABERDEEN HERO,**  
Their sire. Also some nice  
**Young Heifers,**  
From one year old up.  
Prices to suit times.  
322-2-y-om **SHORE BROS.,** White Oak.



**Shorthorns, Coach Horses and Berkshires.** Our herd is headed by Daisy Chief=11108=, and was highly successful in the various Western Ontario fairs of the past season. A few choice young Bulls and Heifers for sale. Also registered Berkshires and a few extra choice Cleveland Bay mares and fillies, the get of Disraeli, Dalesman, etc. Write for prices, or come and see us. **A. J. C. SHAW & SONS,** Camden View Farm, Thamesville. 12-2-y-om

## IMPORTED SHORTHORNS.

My last importation of Scotch Shorthorns from the famous herds of William Duthie and W. S. Marr has arrived. I now offer for sale the two imported bulls Prime Minister and Defiance—the former a grandson of the famous Field Marshal and the latter sired by Gravesend. I have also three of my own breeding—a red and a roan by Defiance and a red by Prime Minister, all out of imported dams. They are the right sort. Prices reasonable. Farm on mile from station. **D. D. WILSON,** Ingleside Farm, Seaford, Ont. 1-1-om

## HOLSTEIN-FRIESIAN CATTLE

Netherland, Angie and Atris blood, along with others all of the best strains of producing blood. Write for particulars. Young Bulls and Heifers of the above tribes on hand. A grandson of Netherland Prince now for sale.  
**G. W. CLEMONS,**  
10-2-y-om **St. George, Ont.**

## THE GREAT MILK AND BUTTER HERD OF HOLSTEIN-FRIESIANS.

**SMITH BROS., Credit Valley Stock Farm,**  
CHURCHVILLE, PEEL COUNTY, ONT.,  
(24 miles west of Toronto).



This is the place to get stock of best quality at reasonable prices. We have seventy-five head, including prize-takers; best strains, cows and heifers, with large milk and butter records young bulls of superior quality. 8-2-y-om  
Send for catalogue.

## HOLSTEIN-FRIESIANS AND TAMWORTH PIGS.

Our herd of Holsteins is never so complete as now. Bargains in all ages and both sexes. We have young bulls fit to head the best herds in Canada. We have a choice lot of young Tamworth Pigs ready to book orders. Write at once for prices and catalogue.  
**A. C. HALLMAN & CO.**  
New Dundee, Waterloo Co., Ont.  
Shippery, St. Petersburg, G. T. R., and Ave. C. P. R. 12-2-y-om



## PRIZE-WINNING AYRSHIRES FOR SALE



**GURTA BH (118)**

Mine is one of the largest and most successful show herds in Canada. They are finely bred and of great individual merit. Bulls, heifers and cows always on hand for sale; also a few good Leicester sheep. Correspondence solicited. Visitors welcome. Address—

**THOMAS GUY,**  
1-2-y Sydenham Farm, Oshawa, Ont.

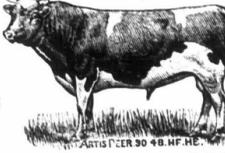
**HOLSTEIN-FRIESIANS**  
Of the Choicest Milk & Cream Strains.  
**J. W. JOHNSON,**  
1-2-y-om



**WOODROFFE STOCK AND DAIRY FARM.**  
Ayrshire Cattle and Yorkshire Swine. A choice lot of young Bulls of the richest milking strain now on hand. Correspondence solicited. Address, **J. G. CLARK,** Ottawa, Ont. 19-1-om

## SUNNYSIDE FRIESIANS

Choice animals, either sex, all ages, for sale at any time. Correspondence solicited. Address—  
**McDUFFEE & BUTTERS,** Stanstead, P. Q. 16-y-om



## SHROPSHIRES.

Foreign buyers are invited to visit the Wolf's Head Flock, as there is always a good selection of ewes and rams for sale, and we handle none but the best, and can supply select specimens for breeding or exhibition purposes, and residing in the centre of the Shropshire Sheep Breeding District buyers are assisted in selecting from other flocks. Write for prices or visit us before going elsewhere. Visitors met by appointment at Baschurch Station, G. W. R. Address, **J. & T. THONGER,** Wolf's Head Farm, Nesscliff, Baschurch, Shropshire, Eng. Telegram: Thonger, Nesscliff. 2-2-y-om



## STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

At the annual meeting of the American Shropshire Breeders' Association, Mr. Richard Gibson succeeded in obtaining the following prizes: \$50 for Western Fair, London; for \$50 Winnipeg; \$4 for special at Guelph Fat Stock Show, provided the sweepstakes whether is a Shrop, or a grade Shrop. Also a sum equal to 60% of the amount offered at the American Fat Stock Show, held at Chicago, 1894, and the same prizes at fat stock shows of 1895.

Now that winter has come, many horses and cattle will be injured by slipping. A strain causes lameness which, if properly attended to from the start, will soon be cured, but if left a hard shlimness often forms over a joint and a serious blemish results. *Dick's Liniment* should be applied as soon as any lameness is shown, while, if a Spavin, Curb or Kingbone has already formed, it can be cured with *Dick's Blisters*. Get *Dick's*, it costs only 50c.

Mr. Sydney Fisher, of Knowlton, Que., has drawn out attention to a mistake in our stock notes of Dec. 15, which stated that he had sold his Guernsey cow Vanessa. He says that he would not be tempted to part with her at all. She gave, in 35 days, 10,500 lbs. of milk, which tested, on an average, 4.25 per cent. fat by the Babcock Test. On making up his butter account for 1893, Mr. Fisher found that his 19 cows made just 300 lbs. of butter per cow, with 11 lbs. over on the herd. They are pure and high grade Guernseys with one half-bred Jersey. Besides this revenue, a number of calves were sold; also the skim milk of the herd was fed to some dozen hogs fattened during the year. The butter sold for an average of 28c. at the station, most of it in prints, which brought 30c. delivered in Montreal.

Thomas Alison, Galt, under date of Jan 3rd, 1894, writes: "In looking over your report of the fat stock show held at Guelph, on 6th and 7th Dec., I noticed the remarks you made in reference to the four-year-old maiden heifer Brazelet, fed by Thos. Russell, Exeter. Being the purchaser of the same, I thought a few remarks as to the way she dressed would be of interest to your readers. The live weight of the heifer was 1,700 lbs., and the dressed carcass weighed 1,160 lbs., being a percentage of 68 lbs. dressed beef to the hundredweight. She was a beautiful rich color, and very fine eating, although a little too fat for a good many. The front shank just weighed 10 lbs.; and my butcher knows that lots of cuts from 1 to 2 cwt. has as large a shank as this. Your remark as to her being wonderfully thick fleshed was correct. I might mention that the calf alone weighed 60 lbs. She was, altogether, the nicest animal I ever handled."

## MR. COCKBURN'S SALE.

Mr. W. B. Cockburn, of Aberfoyle, Ont., writes us under date of Jan. 11th, as follows: "I wish to extend the columns of your paper to extend my hearty thanks to the very many Shorthorn breeders of Ontario, and also from Manitoba, who attended my sale, and by their spirited bidding, considering the dull times on every hand, made my sale a grand success. I stood firmly by my intentions and had no side-bidders, leaving all the animals in the hands of the public, and I was somewhat sorry to be under the necessity of making three bids myself, the only animals I reserved." The following is a list of buyers and prices: 1, Daisy Deane, purchased by Archie Black, Corwin, \$415; 2, W. Impreg. Hallowell, by Jas. Lawrence & Son, Clearwater, Manitoba, \$225; 3, Louise Lorne 11h, by Robert Talbot, Exeter, \$100; 4, Lady Verbena 3rd, by Jno. McGowan, Alma, \$61; 5, Village Lily, by Jas. Lawrence & Son, Clearwater, Manitoba, \$200; 6, Daisy Green, by A. Black, Corwin, \$85; 7, Belle of Southey, by A. Black, Corwin, \$90; 8, Nonpareil Prize, by Jas. Grant, Shakespeare, \$150; 9, Belle Clyde, by W. S. Lister, Manitoba, \$90; 10, Wimple Bred, by Jno. Gibson, London, \$200; 11, Eugene, by C. Freestone, Stratford, \$200; 12, Miss of Northpath 11h, by W. C. Hargreaves, Puslinch, \$225; 13, Rose of Glenora, by W. S. Lister, Middle Church, Man., \$75; 14, Belle Bred, by W. Cockburn, Puslinch, \$150; 15, Goodhouse Chief, by John McGowan, Alma, \$100; 16, Belle Chief, by W. Cockburn, Puslinch, \$100; 17, Indian Warrior, by Jas. Lawrence & Son, Clearwater, Man., \$210; 18, Belle of Glenora, by W. S. Lister, Middle Church, Man., \$75; 19, Belle of Glenora, by W. S. Lister, Middle Church, Man., \$75; 20, Belle of Glenora, by W. S. Lister, Middle Church, Man., \$75; 21, Belle of Glenora, by W. S. Lister, Middle Church, Man., \$75; 22, Belle of Glenora, by W. S. Lister, Middle Church, Man., \$75; 23, Belle of Glenora, by W. S. Lister, Middle Church, Man., \$75; 24, Belle of Glenora, by W. S. 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STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate.

Mr. J. C. Snell is out with change of ad. in this issue, under the title of "Gold Medal Berkshires."

Mr. S. Coxworth, Claremont, advertises, in this issue, 20 choice Berkshire sows, all bred. See his advertisement in this issue.

Mr. D. A. Campbell, Mayfair, whose ad. commences in this issue, was very successful with his Lincoln sheep at the Chicago World's Fair. He succeeded in making a number of sales at satisfactory prices.

An exchange says:—Ranchmen in Wyoming are complaining that they can get no money for bronchos. One cayuse-raiser took seventy-five Wyoming horses to Omaha the other day to sell and was forced to accept \$100 for the lot, that being the only bid he received.

Mr. W. Thomas, Beam House, Shropshire, Eng., in renewing his ad. with us, writes:—"I have now for sale a number of excellent rams and ewes, bred in my celebrated flock, which has sent so many winners to the leading English shows, and where also was bred Mr. A. O. Fox's noted ram Blue Blood Yet, which piloted Mr. Fox's flock of Shropshires at the World's Fair." See Mr. Thomas' change of ad. in this issue.

A. Frank & Sons write us that they have six very choice young Improved Suffolk breeding sows for sale. They have all been successful prize winners at the late Fat Stock Show held in Guelph, and among them is the winner of the 2nd prize for best sow under six months at the Industrial Exhibition. Also one young imported Yorkshire boar, registered, and two fashionably-bred Shorthorn bulls, in color red with a little white, and sired by imported Cruickshank and Campbell bulls; they are choice animals.

Mr. Jno. Thonger, Wolf's Head Farm, Ness-cliff, Baschurch, Shropshire, Eng., writes:—"I hope trade will be a little better next season than it was last. It was one of the worst years English farmers have ever seen. We do not want another like it, but I am pleased to inform you that mutton sheep have gone up, and are selling better now than they have been for some time. Mr. Thonger, who is a member of the Sheep Breeders' Association branch in England, has been advertising in the ADVOCATE. We would advise Canadians who are in want of pure-bred sheep to write this gentleman for prices.

Mr. Robertson, of Howick, Que., says:—"All our cattle arrived home safe and well from the World's Fair. My own stock are looking better than they ever did. I receive a great many inquiries and make some sales. I have received many very good offers, but, for reasons of my own, do not wish to sell anything just now except yearling bulls, of which I have three. Have had 100 different offers of \$100 each for young females. I have two cows milking to-day that are yielding 100 lbs. per day. Nancie, the dam of Tom Brown, who calved March last, is now milking from 24 to 28 lbs. per day.

Mr. Jonas M. Webb, of the firm of John Thornton & Co., Princess Street, Hanover Square, London, Eng., under date of Dec. 21st, writes us:—"I arrived home by the Campania and found the old country somewhat recovered from the effects of the phenomenal drought of 1893, which will be long remembered. But we are having already somewhat of a reaction from the summer panic. An open winter, hitherto, has materially raised the price of grain. The root crops have not tined out the disastrous failures some expected to see them, and, indeed, the country north of the river Humber has not suffered so severely at all. But the south tells a very different tale, and hay is at a fearful price for ordinary stock raising. We have been busy with exports this month, sending Shorthorns, Jerseys, and several breeds of sheep to our friends abroad. Last week we sent 200 ram lambs and 100 ewe lambs to one Argentine breeder. They will in return, no doubt, materially assist in feeding and clothing us in the near future. Good wishes for 1894 to you and your readers.

Mr. J. Y. Ormsby, Manager, Isaleigh Grange Farm, Danville, P. Q., writes us as follows:—"Our stock so far is doing well in spite of the very cold weather we have had. We have made numerous sales of Guernseys, Shrops and Yorkshires; in fact, I never knew a better demand all round. Our last importation of shearing ewes, all safe in lamb, arrived in November. They are from the flocks of such breeders as Richard Thomas, Thos. Cartwright, etc. We have bred this fall, between pedigree Shrops and grades, over 320 ewes, and we have over 100 Shropshires ewes in lamb, and should have a grand lot of lambs to show next spring, as the youngsters will come in their breeding such good sets of blood as The Patriot, The Rector, Bonny Face, Blue Blood, Time Watch, etc. Our sales of Shropshires this fall have been all we could desire, the demand for lambs having been very fair. We have, however, reserved twenty choice ewe lambs and about the same number of ram lambs, as we wish to have a few shearing rams for our customers next year. Most of our Guernsey cows are in calf to our imported bull, Adventurer, winner of fourteen prizes before he crossed the Atlantic, and first and sweepstakes this fall at Montreal, Toronto, and Ottawa. In Yorkshires, we have been obliged to refuse several orders this fall, as we were sold out, and we are now booking orders for spring pigs, of which we expect a goodly supply, as we have a large number of sows in pig to our imported boars. The following are a few of our sales this fall: Guernseys. The 2-year old bull, Roseberry Duke, to J. C. McCorkill, Cowansville, Que.; the yearling bull, Isaleigh Duke, to Capt. Agnew, St. Agap's, Que.; the bull calf, Isaleigh Style, to M. A. Kennedy, Pembroke, Ont.; 1 boar to Fletcher Bros., Oxford Mills, Ont.; 1 boar to E. B. Switzer, Switzerville, Ont.; 1 boar to H. E. Sharpe, Ida, Ont.; 1 boar to C. Breault, St. Malo, P. Q.; 1 boar to L. G. Auclair, Notre Dame Saere Couer, P. Q.; 1 boar to V. St. Laurent, St. Anaclet, P. Q.; 1 sow in pig to Jas. McLaurin, Metcalfe, Ont.; 1 sow to Jno. Wadleigh, French Village, P. Q.; 1 sow to Jas. Gorman, Danville, P. Q.; 1 sow to A. & J. Blais, Glen Sandfield, Ont. Shropshires. 3 imported rams and 9 lambs to eight Ontario men; 1 imported ram and 32 lambs to twenty-two Quebec men; 2 imported ewes and 2 lambs to one Nova Scotia man.

ISALEIGH GRANGE FARM, DANVILLE, P. Q.

SPECIAL OFFERING. Four grand young Guernsey Bulls—one two-year-old, one yearling and two calves—all winners at the largest shows in Canada. Write quick and get prices.

IMPROVED LARGE YORKSHIRES.—Orders booked now for fall pigs. We have a grand lot of sows due to farrow in October and November. SHROPSHIRES.—A few ram lambs left; all the ewe lambs sold. Also a few choice COLLIE PUPS: Dogs, \$10.00 each; Bitches, \$7.00, from prize stock. Address, 9-y-om

J. Y. ORMSBY, Manager.

DISPERSION SALE

THE FAMOUS LANDSDOWN HERD OF HOLSTEIN - FRIESIAN CATTLE

WILL BE SOLD BY AUCTION, WITHOUT RESERVE, ON

Thursday, 8th February, 1894, at the Brown Bros.' Sale Stables, Cor. King and George Streets, Toronto

As is well known, this herd was selected to represent the Ontario Holsteins at the World's Fair, Chicago, where they took second herd prize. In 1892 they carried off the principal prizes at Toronto, Montreal and Ottawa, taking first herd at Toronto, medal and diploma at Montreal. In 1891 they did equally as well at Toronto and London. For individual merit and as a herd they have no equal in Canada, thus affording to purchasers an opportunity to secure the best ever offered in this country. Stock at Sale Stables for inspection by the fifth.

TERMS:—Eight months' credit on approved notes; eight per cent. discount for cash. Sale to commence at 12 o'clock. Send for catalogue with full description. GEO. ANDREW, Auctioneer. 349-b-om J. C. McNIVEN & SON, Proprietors, Winona, Ont., Can.



Champion Dairy Herd of Ayrshires at various government tests. Prize winners at the World's Columbian Exposition, Chicago. Write R. ROBERTSON, Howick, Que. 19-y-om

Prize-Winning AYRSHIRES FOR SALE.

I have at present one of the largest and best herds in Ontario, which has been very successful in the prize ring. They are deep milkers and of a large size. Bulls, cows and heifers for sale always on hand.

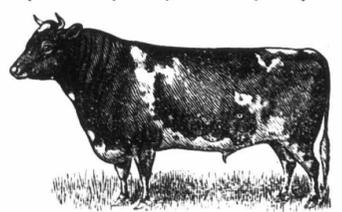
JAS. McCORMICK & SON, ROCKTON, ONT. 20-2-y-om

W. M. & J. C. SMITH, Fairfield Plains, Ontario.

—BREEDERS OF— First and Second Prize Ayrshires AT THE WORLD'S FAIR.

Merino Sheep, Poland China Pigs and Poultry. Stock for sale at reasonable prices. 2-2-y-om

DOMINION PRIZE HERD OF AYRSHIRES



We have the oldest established, largest and best herd of Ayrshires in Canada. Choice young stock for sale at liberal prices. Satisfaction guaranteed. JAMES DRUMMOND & SONS, Petite Cote, Montreal, P. Q. 8-2-y-om

GUERNSEYS

This is the Dairy breed for ordinary farmers. Large, vigorous and hardy, giving plenty of rich milk. Imported Bull Benefit, son of Vice-Pres. Morton's famous butter cow Bienfaitrice 17h, heads the herd.

Address: SYDNEY FISHER, Alva Farm, Knowlton, P. Q. 16-2-y-om

Ingleside :-: Herefords.

ANXIETY 4th, and THE GROVE 3rd Strains, Prize Winners for '94!

SPECIAL OFFERING OF CHOICE YOUNG BULLS, Calves of '92 and '93. Registered, and prices reasonable.

Address: H. D. SMITH, Ingleside Farm, G.T.R. Station. 18-2-y-om COMPTON, Que.

GLEN ROUGE JERSEYS

WILLIAM ROLPH, Markham, Ont., offers Twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right. 343-y-om

JERSEYHURST FARM, LOCUST HILL, Ont. ROBERT REESOR, importer and breeder of A. J. C. C. Jerseys of the choicest breeding, with the bull Jay St. Lambert 32813 at the head of the herd. Stock of all ages on hand and for sale. 16-2-y-om

SHROPSHIRES - FOR - SALE

My whole flock of 60 head of imported Rams and Ewes, a few home-bred Shearing Rams, and a choice lot of lambs of both sexes. Also a choice lot of young Yorkshire Pigs. T. H. MEDCRAFT, Sparta, Ont. 19-y-om

SHORTHORNS AND SHROPSHIRES.

For sale, seven young Shorthorn bulls, from 8 to 12 months old, got by Grand Fashion—1540—; also a choice lot of Yearling Ewes, due to lamb in March. All Stock Registered.

W. G. PETTIT, 13-y-om Freeman P.O., Burlington Stn., G.T.R.

IMPORTED SHROPSHIRES

My stock was selected by myself, and consists of Shearing Ewes and Ewe Lambs from the leading flocks of England, and of the highest quality and breeding. Stock of all ages for sale.

C. W. GURNEY, Paris, - Ontario. 3-y-om

JOHN DRYDEN, BROOKLIN, ONT.

Makes a specialty of breeding choice SHROPSHIRE SHEEP

—AND— Cruickshank Shorthorns

Low down, heavy weights, thick fleshed and easy feeders. A few choice young bulls, good colors and good quality, are ready for immediate shipment. PRICES MODERATE. 1-y-om

SHROPSHIRES.

A fine selection of Shearing Rams and Ewes by Royal Uffington, also Ram and Ewe Lambs from imported ewes and sired by Royal Marquis. 170 head to select from. Address: J. & J. SMITH, Paris, Ont. 7-y-om

1881—SHROPSHIRES—1881

My flock is established since 1881. All my ewes are imported and selected in person from the most noted English flocks. A choice lot of shearlings and lambs sired by a Bradburn ram. Write for prices to

JAMES COOPER, Kippen, Ont. 11-2-y-om

SHROPSHIRES!

Having reduced my flock by recent sales, I have just returned from England with a fresh importation of a very choice lot of shearing ewes, all bred in England to a ram half brother of the ram that Mr. Bowen Jones sold to Mr. Thomas for \$1,000. I can now offer for sale over 100 imported shearing ewes as good as any I ever imported. W. S. HAWKSHAW, Glanworth P.O., Ont., 7 miles south of London. 2-y-om



THE - GLEN - STOCK - FARM. SHROPSHIRES, AYRSHIRES & LARGE ENGLISH BERKSHIRES.

We have a few good Ayrshire bull calves, 150 Shropshires, and also a choice lot of Berkshires, from 2 months upwards, for sale at reasonable prices. Visitors welcome. Write to

Whiteside Bros., 333-2-y-om INNERKIP, ONT.

BEAM - HOUSE - SHROPSHIRES

This is the Home of the Blue Bloods.

WM. THOMAS offers for sale Rams and Ewes from his famous flock, which has sent so many winners to our leading shows, and here also was bred Mr. A. O. Fox's noted ram "Blue Blood Yet," which so ably piloted Mr. Fox's flock of Shropshires at the World's Fair. Wm. Thomas will have several grand shearing rams for sale this next season, sired by his grand old sheep "Blue Blood," and also a grand lot of shearing rams by other noted sires; also about 150 splendid shearing ewes to select from. Foreign buyers always welcome. If not able to come and select for yourselves, write and obtain prices from WM. THOMAS, The Beam House, Montford Bridge, Salop. Railway Station; Baschurch, G. W. R. 2-2-y-om

LARGEST SHEEP EXPORTER.

1272 PEDIGREE SHEEP, including many Winners of all breeds, landed at Quebec without loss, July 26th, '92, by

E. GOODWIN PREECE

Live Stock Exporter, Shrewsbury, Eng. Who has thorough knowledge of all the best British flocks, herds and studs; great experience in shipping, and the privilege of obtaining choicest specimens of any breed for Show and Breeding. American Buyers supplied with SELECTED STOCK AT THE LOWEST RATES. Those visiting England conducted to inspect the leading stocks & compare merits and prices before buying; also assisted in selecting and shipping. FREE OF CHARGE (5 per cent. comm. paid by seller). Flock-book Certificate and all documents supplied. Highest references from leading American Importers supplied 1888, '90, '91, '92. All buyers should communicate. Information free. 16-3-om

To Stockmen & Breeders.

LITTLE'S PATENT: FLUID NON-POISONOUS SHEEP DIP AND CATTLE WASH.

For the destruction of Ticks, Lice, Mange and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, Sores, etc.

Removes Scurf, Roughness and Irritation of the Skin, making the coat soft, glossy and healthy. The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock.

"MAPLE SHADE" HERDS AND FLOCKS.

BROOKLIN, ONT., Sept. 4th, 1890. DEAR SIR, I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested. I have ever tried it; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders. JOHN DRYDEN.

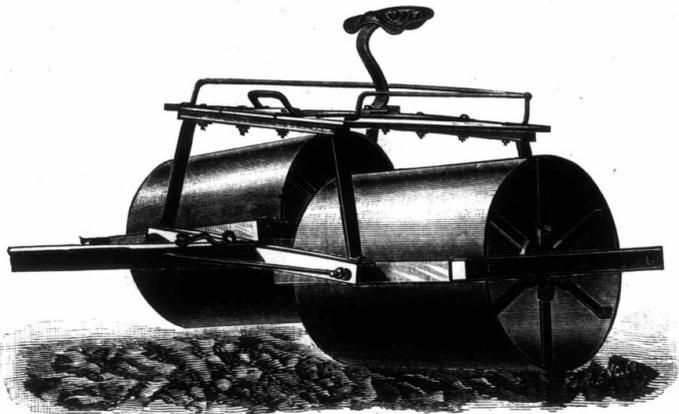
Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranchmen and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc. to ROBERT WIGHTMAN, DRUGGIST, OWEN SOUND, Ont. Sole Agent for the Dominion. 6-2-y-om

IMPROVED : LARGE : YORKSHIRES

The largest and most carefully bred herd of this breed of hogs on the continent. Fifty sows are being bred for the spring trade. Stock of all ages for sale. A specialty made of smoothness and uniformity of type. All stock shipped to order and guaranteed to be as described. Personal inspection solicited. J. E. BRETHOUR, Burford, Brant Co., Ont. 3-y-om



**The DALE PIVOTED LAND ROLLER (Patented)**



A steel roller, the drums of which oscillate on pivots, and adapt themselves to the unevenness of the ground. Its points of advantage are too many to enumerate. Some of them are: The bearings are the only wearing parts and are guaranteed to last from Ten to Fifteen Years, and can be replaced at a nominal cost. It rolls all the ground, no matter how rough. There is no axle shaft, no strain, and consequently no wear. It is easily oiled between the drums. The demand is steadily increasing. It is unanimously recommended by those farmers who have used it. Orders are now being booked for the spring trade. Description and price furnished on application to **T. T. COLEMAN, SOLE MANUFACTURER, SEAFORTH, ONTARIO.** 341-om

Patented Jan. 13, 1888.



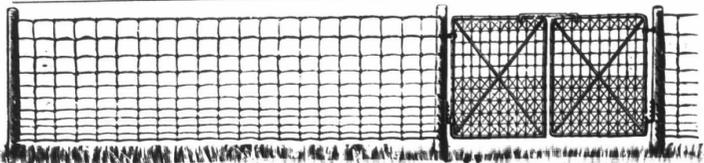
**Best Sleigh in the Market!**  
Because it is the lightest running, shortest turning; never cuts off; is always in line; no wearing of box or rack; no splitting of bolster or reach; never buckles; can be backed like a wagon; built of the very best material; strong and durable. 2-a-o

**THE : NICHOLS : CHEMICAL : CO.,  
CAPELTON, P. Q.,  
Manufacturers of Complete Fertilizers**

HIGHEST AWARD AT THE WORLD'S FAIR, CHICAGO.

For All Crops, All Soils, Canadian Climate.

Send for 1894 Catalogue, containing full particulars and many testimonials from reliable farmers. 2-2-f-om



**KEEP THE BOYS ON THE FARM!**

They may be dissatisfied and want a chance to start out for themselves. Let them have a chance to prove their ability while staying at home. Many farmer's sons have found such an opportunity, and are making money by selling Page Fence. Some of them have had such success that their fathers wish to take an interest with them. During the winter, when little farm work can be done, they go about their township showing the fence to their friends and neighbors, and taking orders for fence to be put in the spring, when the fence will be shipped from the factory ready to be stretched on the posts. There are still many townships unoccupied. Send for full particulars of fence and terms to township dealers. 2-a-om

PAGE WIRE FENCE COMPANY OF ONTARIO (Ltd.), Walkerville, Ontario.

**THE MARKHAM HERD**

Farm at Locust Hill Station, C.P.R. Registered Improved Large Yorkshire and Berkshire pigs. As we do not intend to exhibit, we will now sell a choice lot of show pigs of each breed. 17-y-om

**YORKSHIRE PIGS**

Of the best type and breeding. Pairs not skin for sale at all seasons. J. M. HURLEY & SON, Belleville, Ont. Box 42. 17-y-o

**J. G. MAIR, Howick, P. Q.**

BREEDER AND IMPORTER OF IMPROVED LARGE YORKSHIRES.

I am breeding from nothing but stock imported from the well-known herd of Sanders Spencer. At Montreal Exhibition, young stock of my breeding took all the highest honors. Orders now booked for fall litters. 18-2-f-om

**ISRAEL CRESSMAN, New Dundee, Ont.**

Importer and breeder of Large English Berkshires. Young Hogs always on hand; got by imported stock. 4-y-om

**H. J. DAVIS, Woodstock, Ont.**

Breeder of High-class Large Berkshire and Imp. Large White Yorkshire Swine, Short-horn Cattle. — A grand lot of young pigs ready for shipment of both breeds; also boars fit for service from prize-winning stock. Stock shipped to order. Satisfaction guaranteed. Young Bulls generally on hand. 8-y-om

**S. COXWORTH, CLAREMONT, ONT.**

Breeder and Importer of Berkshire Hogs.

Twenty young sows for sale, bred to my three stock boars, Highclere Prince, King Lee, and Champion Duke. Imp. Write for prices or come and see my stock, or station and Telegraph Office. — CLAREMONT, C. P. R. 8-y-om

**BERKSHIRES AND YORKSHIRES.**

Choice stock for sale at reasonable prices. Orders filled in rotation. Inspection invited. Write for prices. THOMAS WATSON, Springville, Ont. 21-2-y-om

**THE HOME OF THE BERKSHIRES.**

**J. G. SNELL & BRO.,**

Edmonton, Ont.

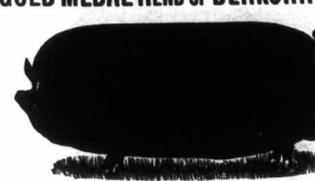


We have some very promising young boars for sale from 2 to 7 months old. Also 20 young sows, which we are now breeding to first-class boars. Come and see our stock, or write for description and prices. Our station is Brampton, G. T. R. and C. P. R. 24-2-tf-om

**C. R. DECKER, Chesterfield, Ont.**

A number of young boars fit for service; also some six weeks old (choice) and some choice sows in farrow mostly from imported boars. Prices reasonable. Call and see stock, or write for prices. G. T. R. Station, Bright, Ont. 15-2-y-om

**GOLD MEDAL HERD OF BERKSHIRES**



Young stock of both sexes and of various ages for sale. Come and see, or address—

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332-y-om EDMONTON, ONT.

**THE OXFORD HERD OF REGISTERED POLAND CHINAS**

Our herd of Improved Poland-Chinas won 36 first, 18 second and 6 third prizes in 1883, including the Herd prize at Montreal and Toronto, for best boar and two sows, any age. Stock, both sexes and all ages. Pairs and trios not akin and sows safe in pig for sale at all times. Correspondence solicited or inspection of herd invited. 15-y-om W. & H. JONES, Mount Elgin, Ont.

**CANADIAN BLACK BESS HERD**

Of Registered Poland-Chinas—A choice lot of young pigs for sale. Elected ribbon winner, at the head of herd, assisted by Rht's Chief, who weighs 1,000 pounds. Correspondence or inspection of herd solicited. J. J. PAYNE, Chatham, Ont. 8-y-om

**STOCK GOSSIP.**

In writing to advertisers please mention the Farmer's Advocate.

Swine Breeders' Meetings at Phillips House, Dayton, Ohio, Tuesday and Wednesday, Jan. 23 and 24, 1894. A number of valuable and instructive papers have been prepared to be read and discussed.

Mr. John Morgan & Sons, Kerwood, Ont., offer for sale in this issue two very fine young bulls, one of which was a winner at the great Chicago show. His herd is of the famous Cruickshank blood, and the animals are of individual merit. At the head of their herd is Lancaster Chief, by Indian Chief.

John Bell, of Amber, Ont., breeder of Tamworths, writes that his sales of hogs since June 1st, 1893, has been very satisfactory. We have received a detailed list, but will summarize for lack of space. He has sold to forty-five Ontario men sixty Tamworth pigs, consisting of 28 boars and 32 sows, 3 of which were pregnant when sold. To the province of Quebec he has sold to five men 5 boars and 6 sows, 1 of which was pregnant when sold. To Nova Scotia, 1 boar and 1 sow; to Manitoba, to four men he has sold 4 boars and 3 sows; to British Columbia, 1 boar and 1 sow; to U. S., he has supplied three men with 3 boars and 3 sows. Mr. Bell's Shropshire sales comprise 7 rams and 1 ewe to seven Ontario men.

**DOMINION LIVE STOCK ASSOCIATION.**

The annual meeting of the Dominion Live Stock Association was held at the Albion Hotel yesterday afternoon, Mr. T. C. Robson presiding, in the absence of the President. A long discussion took place upon the claim of Aikens & Flannigan for law costs, which the Association had undertaken to disburse, but had been unable to pay. A great number of resolutions and counter resolutions were proposed, but it was finally decided not to pay any further amounts on the claim out of fees, but any sums paid in to the Treasurer on that particular account be handed over to the claimant firm.

The much-vexed question of railway shipping rates occupied the meeting for some time, and as an outcome of the discussion the following resolutions were adopted:—

Moved by R. Stroud and R. Winters, and resolved, that the action of the G. T. R. be condemned in forcing the present shipping bill on the cattle trade throughout the country.

That the Executive Committee be instructed to take immediate steps towards having the G. T. R. shipping bill so changed as to give full compensation in case of damage by accident in transit.

That the committee appointed to wait upon the Government be instructed to wait on the railways first in reference to railway rates, and in case satisfactory rates cannot be obtained, that they lay the matter before the Railway Committee of the Privy Council to obtain redress.

The following officers were elected for the coming year:—President, T. C. Robson, St. Marys; First Vice-President, Thos. Crawford, Toronto; Second Vice-President, C. Coughlin, Montreal; Treasurer, A. J. Thompson, Toronto; Secretary, A. Gilchrist, Montreal; Committee—R. Bickelrude, Montreal; W. J. McClelland, Toronto; H. Bracken, Toronto; R. Stroud, Hamilton; W. Crealock, Toronto; J. Featherstone, M. P., Port Credit; T. Luddington, Woodstock; John Dunn, Toronto; D. Hamilton, Forest; W. W. Craig, Montreal; John Crowe, Montreal; and A. Rawlings, Forest.

The attention of the meeting was called to the large number of arrears of fees due, and various proposals to improve the situation were considered. Finally, it was decided that, in view of the fact that the finances of the Association were in good condition, all overdue fees be written off and that the year be started with a clean sheet. The present annual fee of \$5 remains unchanged.

The Association then adjourned to meet again at the call of the President, and at night the new Executive Committee held a protracted session.

**NOTICES.**

A. G. Hull & Son, St. Catharines, Ont., advertise, in this issue, fruit trees, ornamental trees, plants, roses, etc. They are a well-known firm, and will deal honorably with their customers. See their ad.

**AUCTION SALE OF SHORTHORNS.**

Mr. Wm. Shier, Sunderland, Ont., will offer by auction, on Wednesday, Feb. 14th, 1894, his entire herd of Scotch Shorthorns, consisting of 32 females and 3 bulls. See advertisement in this issue.

Our readers will find, in another part of this paper, an advertisement of the Record Double Tin Sap Spout, which has a large sale, in the United States, and by our illustration we have the pleasure of presenting it to our readers. This spout has commanded a very large sale, upwards of five million are already in use, and we are glad to present it to our readers as being something superior to that ordinarily in use by maple sugar makers.

The Western New York Horticultural Society are to hold their 33rd annual meeting, in the Common Council Chamber, in the city of Rochester, commencing on Wednesday, Jan. 24th, 1894, at 11 o'clock a. m. All interested in horticulture, fruit culture or rural improvements are invited to attend and participate in the proceedings. Fifteen interesting and instructive papers will be read and discussed by men of authority, also a large number of important questions are prepared for the question drawer. The Society has a membership of over 400 of the most intelligent cultivators of the State. Its meetings are yearly increasing in importance. The coming meeting will be of unusual interest, and a large attendance is expected.

**A NEW THROUGH SLEEPING CAR LINE FROM CHICAGO TO SEATTLE.**

Via the Chicago, Milwaukee & St. Paul and Great Northern Railways, has been established and first-class sleeping cars will hereafter run daily from Chicago at 10:30 P. M., arriving at Seattle 11:30 P. M., fourth day. This is undoubtedly the best route to reach the North Pacific Coast.

For time tables, maps and other information, apply to the nearest ticket agent, or address A. J. Taylor, Canadian Passenger Agent, C. M. & S. P. R. Y., 87 York St., Toronto, Ont.



**A FRIEND**

Speaks through the Boothbay (Me.) Register, of the beneficial results he has received from a regular use of Ayer's Pills. He says: "I was feeling sick and tired and my stomach seemed all out of order. I tried a number of remedies, but none seemed to give me relief until I was induced to try the old reliable Ayer's Pills. I have taken only one box, but I feel like a new man. I think they are the most pleasant and easy to take of anything I ever used, being so finely sugar-coated that even a child will take them. I urge upon all who are in need of a laxative to try Ayer's Pills. They will do good."

For all diseases of the Stomach, Liver, and Bowels, take

**AYER'S PILLS**

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A grand lot of Suffolk Pigs, all ages, for sale at prices to suit the times. A. FRANK & SONS, The Grange, four miles from Cheltenham Stn., C. P. R. & G. T. R.



24-2-y-om

TAMWORTHS FOR SALE

I have for sale a few choice Tamworth Boars, fit for service; also sows from four to seven months old. I am booking orders for spring litters. My breeding pens contain twenty typical Tamworth Sows and two Imported Boars, all of superior quality. I guarantee all stock sent out by me to be as represented.

1-y-om JOHN BELL, Amber, Ont.



ALSO NOW READY OUR SEED CATALOGUE FOR 1894.

There is something in this catalogue that every reader of the Farmer's Advocate should have. Send for copy. Address,

JOHN S. PEARCE & CO'Y, London, 1-a-om Ont.

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We can make it to your advantage to deal with us. Our stock is well grown, and will please you. Send postal to-day for our NEW FREE Catalogue and see what we will do. You save agents and other expenses by dealing with us at the Central Nursery.

2-2-d-o A. C. HULL & SON, St. Catharines, Ont.

Don't Lose Heart. PLANT FERRY'S SEEDS this year, and make up for lost time. Ferry's Seed Annual for 1894 will give you many valuable hints about what to raise and how to raise it. It contains information to be had from no other source. Free to all. D. M. Ferry & Co. Windsor, Ont.

400 - Helderleigh Fruit Farms Nurseries - 400 (Four Hundred Acres in Extent.) Established 1882.

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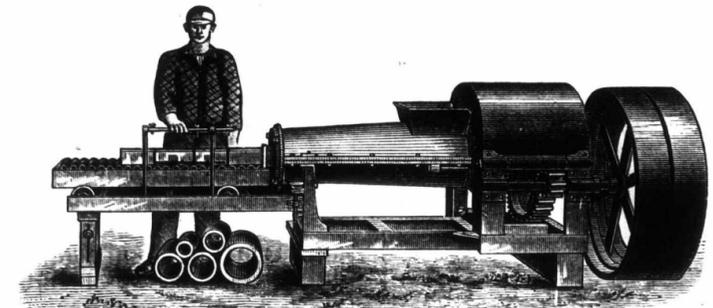
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Mrs. E. M. Jones' New Book, "DAIRYING FOR PROFIT," Tells the Whole Story.

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No. 2 machine makes tile from two and a-half to eight inches. No. 1 machine makes tile from two and a-half to twelve inches. Both sold on approval. Satisfaction guaranteed. A full line of Brick and Tile Machinery and Supplies, Kiln Hands, Kiln Doors, Grates, everything necessary for a first-class outfit. For full particulars address

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FOR STRENGTH, SAFETY, DURABILITY AND CHEAPNESS NOTHING CAN APPROACH THE LOCKED-WIRE FENCE AS BUILT BY INGERSOLL, - ONTARIO.

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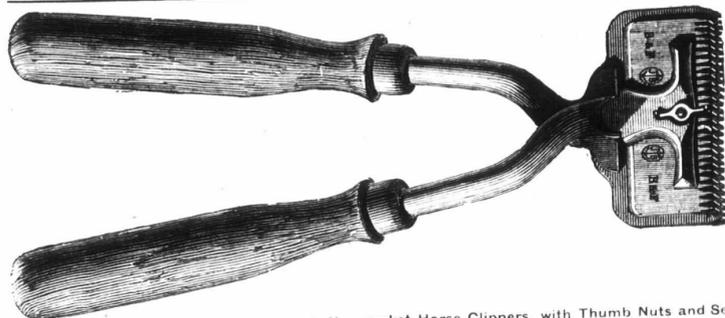


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With Gilt Dust-Proof Case, Chain and Charm.  
 A GOOD TIMEPIECE. -- A DURABLE WATCH.

A good Watch for every workingman in the world. Works of the greatest simplicity.



### DESCRIPTION:

The case is strongly made and carefully fitted to exclude dust. It is open face, with heavy, polished bevel crystal. The movement is covered with a practically dust-proof cap, giving double protection against the ingress of foreign particles. Movement is detachable from case by removing four nuts. Case is plated by a special process, and handsomely finished in gilt, closely resembling gold. Weight of watch complete, 4 1/2 ozs. Cut is an exact representation, three-fourths size.

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