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# FARMING.

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ROBERT ROBERTSON, NAPPAN, N.S.

### ...LEADING TOPICS FOR THE WEEK...

Experimental Fruit Shipments. New Stockyards Proposed for Toronto. Australian Frozen Meat Trade. The Manitoba Wheat Combine. Increased Government Assistance to the Fruit Trade. Swine Exhibit at the Winter Show. The Guelph Fat Stock Show. The Experimental Union. Fruit Growers' Convention. Sheep Breeders' Association. Hereford Breeders' Association. Bee-Keepers' Convention. Market Review and Forecast.

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**Improved Yorkshire Swine.**  
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WRITE FOR CATALOGUE

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Also Young Stock in the above varieties.

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## 1898

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Rail Stations: Stallingborn, 3 miles distant, and Great Grimsby 7 miles.  
Telegrams: "Dudding, Keelby, England."

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Dowsby Hall, Folkingham, Lincolnshire, England

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J. E. Casswell

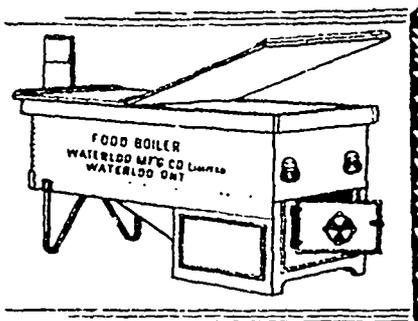
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Laughton, Folkingham, Lincolnshire, Eng.  
This well-known flock has been established more than 100 years, and the pedigreed Lincoln long-wooled rams and ewes have been noted throughout the Colonies and South America for their size, symmetry, and lustrous wool. Ewes from this flock have always passed from father to son, and have never been offered for sale. Mr. J. E. Casswell's grandfather, Mr. G. Casswell, of Laughton, was the first breeder in the county to let his rams by public auction. At Lincoln Ram Fair, 1853 and 1857, Mr. J. E. Casswell made the highest average for 70 rams. The rams of 1856 were all sold privately for export. During the last two years the following amongst other noted sires have been used: Hakewell Concorde and Baron Rigby, for each of which very high prices have been refused; Laughton Major, Laughton Style, Laughton Choice, No. 5; Ashby George, 60 guineas; Judge, 95 guineas; his son, Laughton Justice Lincoln, 200 guineas; Lincoln, 150 guineas; Welcott, 70 guineas; Lincoln, 75 guineas; and his sire, Laughton Riby. Shire horses, Short-horn bulls, and Dorking fowls are also bred. Inspection and correspondence invited. N. B.—Laughton Choice won and at the Royal and a pen of 5 takes by him won 1st at Royal Darlington. Visitors met by appointment. TELEGRAMS: Casswell, Folkingham, England.

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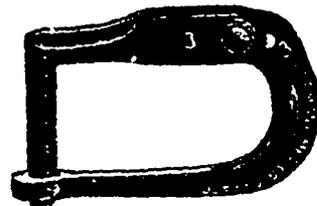
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# FARMING

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DECEMBER 21ST, 1897.

No. 16.

## FARMING

AN ILLUSTRATED WEEKLY JOURNAL DEVOTED TO FARMING AND THE FARMER'S INTERESTS.

Published every Tuesday by

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## TOPICS FOR THE WEEK.

### A Merry Christmas to You.

FARMING greets its many friends and patrons at this season of the year and sincerely hopes that they may be abundantly blessed with the good things which come on such festive occasions. "Tis more blessed to give than to receive" should be our motto, and in gladdening the hearts of others our own hearts will be gladdened. If this be our motto, every Christmas festivity will be as a bright gem in our lives, that will make life more joyous as the years go by. Not even an editor can be truly happy without some of these bright oases looming up amid the weary drudgery of his sanctum. So kind friends, be joyous and happy and greet those around you with a smile, for in so doing you shall bring rays of sunshine into many a gloomy heart. A Merry, Merry Christmas be thine.

### RENEW! RENEW!

Christmas comes but once a year, and so does the renewal of your paper. The one will give you as much pleasure as the other, and we can assure you that to renew your subscription by sending us two new subscribers for FARMING will be one of the best Christmas boxes you can make us. Just try it this holiday season, and see how easy it will be for you to give yourself a Christmas box by sending us new subscribers. Examine your address label, and if your subscription has expired make arrangements to renew at once. Look up the splendid values we are giving in our clubbing lists. Our premium lists contain some splendid holiday gifts.

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London Weekly Free Press	1.00	1.75
London Weekly Advertiser	1.00	1.40
Ottawa Semi-Weekly Free Press	1.00	1.60

These are all particularly low offers, but we would make special mention of our offer to send FARMING and the Canadian Magazine for one year for the low price of two dollars and fifty cents. This is Canada's greatest magazine, and we should like to see it in the home of every farm

er. It contains what is best in Canadian literature and thought, and no young Canadian should be without it. Try it for one year.

We have also made special arrangements with the publishers of the *Canadian Magazine* to offer that splendid production for four new subscribers for FARMING, at \$1 per annum. This offer is made specially for the readers of FARMING. Four new subscribers can be got very easily if you only make the effort.

### Increased Government Assistance to the Fruit Trade.

More extended efforts are to be made next year towards developing the export trade in tender fruits. The Dominion Department of Agriculture will spare no pains nor reasonable expense to get the fruit on the English market in good condition. At the fruit growers' meeting Prof. Robertson said that he had been authorized by the Minister of Agriculture to state that refrigerator cars would be provided by the Government to Montreal for all fruit sent in carload lots, provided that the Department were notified in time that such shipments were to be made. A competent person would be stationed at Montreal to arrange for the transshipment of fruit from the cars to the vessels, and an agent in England provided who would assist in disposing of the fruit to the very best advantage. The Government will also erect or secure a cold storage warehouse at Ottawa, in order to experiment still further along the line of packing and preparing fruit for shipment, in order to find out the exact requirements. The knowledge obtained from the past season's work, though valuable, is not sufficiently conclusive to be thoroughly relied upon.

With the increased assistance on the part of the Government, the fruit-grower will be in a position to make much larger shipments than were made last season. With larger and more regular shipments, more attention will be directed to the trade, and more consumers reached in a shorter space of time.

### Experimental Fruit Shipments.

A large share of the time of the Ontario Fruit Growers' Association, held last week, was given up to considering the returns from the experimental shipments of fruit sent to England, and in discussing plans for future shipments. The report of the secretary, Mr. S. Woolverton, who acted as agent for the Dominion Government in selecting, packing and sending forward the experimental shipments, showed that ten different shipments were made during the fruit season. The returns from these shipments, though showing a loss in some cases, were, on the whole, very satisfactory, and the experience gathered from the season's operations will be of inestimable value in the future. There was considerable loss on the first two or three shipments, but the later experiments returned a good profit in nearly every case. Some varieties of Canadian pears, such as the Crawfords and Bartletts, seem to meet the needs of the trade in every particular. The returns from these netted from 72 cents to \$2.92 per bushel case. The former prices were realized upon the earlier shipments when the fruit did not arrive in good condition. The prices realized for tomatoes netted from 30 cents to \$1.70 per bushel case, for peaches from 54 cents to \$3.60 per bushel case, and grapes from 30 cents to \$2.65 per bushel case. The large margin between these figures is accounted for by some of the shipments arriving in very poor condition.

The substance of the report is that our Canadian pears suit the tastes of the British consumer as well as the French varieties, and if sent over in proper condition will meet a ready market; that tomatoes have succeeded very well, and if a smaller sized variety is sent forward a good business can be done in this line; that grapes have been almost a complete failure; that peaches afford great possibilities for both loss and profit, and that early apples will bring the top prices if only the right varieties are sent over.

One of the chief causes of failure in some shipments was that the temperature at the cold storage warehouse at Grimsby and on board the vessels was kept too high, ranging from 40 to 45 degrees. The temperature during some of the later shipments was as low as 35 degrees, and much better results were obtained. Another cause of failure was the bad ventilation, both in the manner of packing and on board the vessels, and in neglecting to cool the fruit before packing.

In addition to the experimental shipments sent over under the direction of the Government from Grimsby, Mr. Geo. E. Fisher, of Burlington, sent over a number of shipments of small fruit on his own account with very good results. The first shipments were made of pears. These, after lying in Montreal for a day in the sun, reached Liverpool in good condition and sold well. Mr. Fisher's experiments go to prove that cooling the fruit to a low temperature before packing is absolutely necessary. As a proof of this, ripe Bartlett pears, that were too ripe even to send to Toronto, had been thoroughly cooled, packed, and sent to England. The returns from these were satisfactory. Two different lots of cooled and uncooled fruit had been sent over, the former sold for 115. and the latter 95., the fruit being the same in each case.

Mr. Fisher's experience, coupled with that gained from the shipments sent over under Government auspices, is very valuable indeed. It should stimulate further efforts in developing our export trade in Canadian tender fruits. The requisites for developing this trade are a well-selected quality of fruit, a system by which all fruit can be properly cooled before being packed; a complete cold storage system that will admit of the fruit being kept at not more than 35 degrees from the time it is packed till it reaches the British market, and arrangements made for selling the fruit to the best advantage when landed. With these requirements provided, the future of the Canadian fruit trade is assured.

### New Stockyards Proposed for Toronto.

Stockmen who have been in the habit of coming to Toronto with stock will be pleased to know that there is a move being made towards improving the stockyard accommodation here. In many ways the present stockyards are inadequate, and not sufficiently up to date to meet the growing needs of the live stock trade of the province. What is wanted are stockyards conveniently located, and so arranged as to give the best possible facilities for unloading and handling stock of all kinds. This is absolutely necessary if Toronto expects to hold her own in connection with the Canadian live stock trade.

The latest development in the situation is the forming of a union stockyards company for Toronto. This company is well under way, and the organizer, Mr. J. H. Durie, recently sent a letter to the mayor outlining a scheme by which the company will build and operate stockyards in the city. It is proposed to locate the new stockyards

in the vicinity of the Dundas street bridges, at a point convenient to both lines of railways. The yards will be properly equipped, and capable of meeting all the necessities of the trade. The company propose to pay the city the sum of \$10,000 per annum for thirty years on condition that the city close the western cattle market, and accept as the city market the new yards provided by the company, the city to have the right to take over the new cattle market at the expiration of the contract period at an appraised value.

The proposition seems a fair one, and if the interests of the city and of the shippers of live stock are fully protected in the agreement there is no reason why the offer of the company should not be accepted. The control of the stock in the company would be held by Toronto citizens, but in order to give those connected with the trade outside of Toronto an interest, arrangements will be made to sell a portion of the stock outside of the city.

In every city where a large number of live stock are handled the best possible accommodation should be provided. Toronto, Winnipeg, and Montreal are the chief Canadian points for shipment and transshipment of live stock. At Toronto and Montreal the stockyard accommodation is not what it should be. Especially is there strong ground for complaint in connection with the stockyard accommodation at Montreal, where live stock are transhipped to Great Britain. The yards there are totally inadequate for the needs of the Canadian export live stock trade, and something must be done towards providing better accommodation or we shall see our live stock export trade finding an outlet through other channels.

#### The Manitoba Wheat Combine.

The hand of the manipulator seems to be getting a hold upon the Manitoba wheat trade. There is considerable grumbling on the part of farmers against the grain and elevator combination which seems to control the wheat trade of that province to a large extent. This discontent would be wider spread than it is if it were not for the fact that prices have been good this year. Even as it is, meetings are being called at different points to discuss the situation, and the parties controlling the combine would do well not to go too far in their endeavors to manipulate the wheat output of the Prairie Province.

The elevator regulations now in force are claimed by many to be an advantage to the wheat trade, as they serve to facilitate the handling of the grain throughout the country by establishing storage warehouses at different points. At elevator points, however, the farmer is not allowed to load his grain directly on to the cars. This is something the producer objects to, and which is one of the strong grounds for complaint. The great objection to the combine seems to be that it savors so much of the speculative element now rampant at Chicago, and which is one of the greatest curses of the present century. The Manitoba farmers would do well to "nip it in the bud," and not allow their interests to be jeopardized by the speculative manipulator.

#### Australian Frozen Meat Trade.

A strong combination has been formed in Queensland, Australia, to control the frozen meat trade of that colony. The larger share of the frozen beef exported to England from Australia comes from Queensland. Nearly all the leading exporting companies which have been operating in this trade heretofore have combined, and this combination will control all the frozen meat exported to England from that colony. It is hoped by this plan to overcome many of the disadvantages in the trade due to so many small firms competing with one another. This combination will put in the very best cold storage equipment on board the vessels, and will have at the port of landing in England cold storage warehouses into which the meat will be put as soon as it comes off the vessels. When the trade was in the hands of a number of agents these provisions were not

made, and frequently the cargo, when landed in England, was allowed to remain on the wharves or in some dock warehouse, where it quickly spoiled. With these disadvantages overcome, and with the power to control the supply, a more prosperous era is looked for in connection with the Australian frozen meat trade.

#### Everybody Pleased with "Farming."

Mr. J. H. Scriver, editor and manager of the *Weekly Star*, Hastings, Ont., writes:

"FARMING is, without exception, the best value for the money of any journal published. It is what every farmer should have and study next to his Bible to make a success of his farming."

W. E. Richardson, Hazeldean, Ont., writes:

"Have been receiving FARMING for the past year, and would not be without it for any money."

#### Winter Buttermaking.

The Canadian trade in fresh-made winter creamery butter is beginning to assume considerable proportions. Since the inception of the winter dairying movement in 1892 the business has made a steady growth. At the present time nearly all the larger cheese factories in Ontario have either put in plant for making butter during the winter months or are contemplating doing so. Besides, the majority of the summer creameries that heretofore only made butter during the summer months are now running during the winter as well.

Last winter the export trade in winter creamery butter was better than ever before, and the prospects just now are that reasonable profits can be made by exporting during the present winter. From 18 to 19 cents are being paid for fresh creamery for the export trade at Montreal. At these figures it should pay farmers well to produce milk during the winter. Promoters of this trade should remember that if they wish to build up a profitable winter butter trade with Great Britain a regular supply must be sent over. Spasmodic efforts will not avail anything.

#### NOTES AND IDEAS.

During the Institute meetings farmers should avail themselves of the facilities offered them of acquiring information regarding the latest and most modern methods of carrying on the business of the farm. None of us are too old to learn. The person who thinks he has reached the top of the ladder should take heed lest he fall.

The Australian butter export trade is now in full swing. Butter sent to England from Australia last October realized as high as 100s. per cwt. Some later arrivals have realized as high as 104s. If the Australians can realize these figures after such a long sea voyage, surely Canada, which is so much nearer the market, can send over a quality of butter that should command higher figures.

A striking example of unjust discrimination is to be seen in the exorbitant rates charged by the British railways for carrying home-made products, as compared with the rates for carrying foreign products shipped into England. In the case of timber, the rates for the carriage of home timber are 100 per cent. higher than those on foreign timber. Sugar from Hamburg *via* Hull to Manchester is charged 15s. 3d. per ton; English sugar, from Hull to Manchester, is charged 15s. 10d. per ton. Is it any wonder that the English manufacturer complains of the strong competition from foreign countries?

Hog cholera kills a million dollars worth of hogs in Minnesota alone every year. The loss to Iowa is proportionately greater as there are more swine there, and it is the same in other States. How thankful Canadians should be that our more rational mode of feeding pigs frees us, in a large measure, from this dread disease. Of course, cases do occur in those counties where large quantities of corn are grown and fed, but if farmers would re-

port at once when cases do occur, losses would be very much reduced. Too often they try to hide it with the result that the disease spreads, and the loss to all parties is much greater.

The Chicago horse and fat stock show seems to have got into a disgraceful muddle in regard to its finances. As the case now stands, there is an indebtedness of \$31,000. To offset this there is a guarantee of \$15,000 from the Chicago Citizens' Committee, and it is claimed that the owners of the building where the show was held have retained \$10,000 more than their share. The courts will have to be appealed to to straighten matters out. It would have paid the Chicago people tenfold to have paid the expenses of the Executive Committee of the Ontario Fat Stock and Dairy Show to Chicago and return, in order to get a few pointers on running an exhibition of this kind. There are some things which even the dwellers in the big windy city do not know.

#### CANADA'S FARMERS.

##### Robert Robertson, Nappan, N.S.

Mr. Robert Robertson, who has recently assumed the duties of Superintendent of the Experimental Farm at Nappan, N.S., is one of Canada's most progressive young farmers. From what may be called an obscure beginning he has by his own energy and by that characteristic spirit to do what he had to do with all his might, attained to his present important and responsible position.

Mr. Robertson was born at Howick, Que., thirty-nine years ago. At the age of twelve his father died, leaving a family of seven children in comparatively poor circumstances. Mr. Robertson being the eldest, upon him devolved largely at this early age the responsibility of his father's business. He was compelled to give up his studies at the Howick elementary school where his early education had been received, and to devote all his time to the farm. However, being of an observing nature, and studiously inclined, the really practical side of his education was not neglected, and to-day, when scarcely forty years of age, Mr. Robertson is well fitted to become a leader in agricultural matters.

As a farmer, Mr. Robertson's efforts have been particularly successful. His splendid farm of 325 acres at Compton, Que., and which he has now rented, is one of the finest in the Eastern Townships. In 1891 his farm at Howick won the first prize in the county competition, and also the silver medal, given for the best farm in the province. In competition with it at that time was the farm which won the gold medal after Mr. Robertson had removed from Howick to Compton. Mr. Robertson's thoroughly practical training has been demonstrated by his skill as a plowman. He competed in plowing matches when only fifteen years of age, and when twenty-six it was with difficulty that he could get a match open to him. Twenty-six fists, five seconds, and one third prize comprise an almost unparalleled record of his skill in this particular line. During recent years Mr. Robertson has trained a number of the young men in his locality who are now some of the best plowmen in his native province. For several years he managed successfully the Provincial Model Farm at Compton, which position he resigned when he purchased his present farm.

As a breeder of Ayrshires, Mr. Robertson has perhaps won his greatest reputation. His herd of imported Ayrshires was one of the best among the many splendid herds of that breed for which the Province of Quebec is noted. His ability as an Ayrshire judge was fully recognized by the breeders who heartily endorsed his appointment to superintend the selection of "Ayrshires" for the World's Fair. The unqualified success of the exhibit of Ayrshires from Quebec at that time amply justified his appointment. Mr. Robertson has also been an extensive breeder of Devon cattle, Clydesdale horses, Leicester sheep and purebred pigs, and his success in these particular lines is indicative of his versatile knowledge as a breeder of purebred live stock.

Mr. Robertson has made several importations of Ayrshire cattle and Clydesdale horses. He has been successful in winning a large number of prizes at the leading fairs in Canada. His most notable winnings are those won at the World's Fair. His stock has always commanded the highest prices, and the high merit of his herd was shown by the exceedingly good figures obtained when his entire stock was disposed of on October 28th last previous to his removal to Nappan, N.S.

To Mr. Robertson has come a larger share of public honors than usually come to a man of his years. The public positions which he has filled in the past and the one which he now occupies have never been of his own seeking. In every case the position has sought the man, and in every case the man has been equal to the task which lay before him and has performed his work both intelligently and skillfully. Mr. Robertson's wide experience as a thoroughly practical farmer and breeder of purebred live stock eminently fits him for the important position he now holds, and we may expect the very best results from his superintendency of the experimental farm for the Maritime Provinces.

## THE PROVINCIAL WINTER SHOW.

## Swine.

The number of entries in the various classes were a fourth more than they were last year. The entries were, as a rule, well fitted. So well fitted were some of them that the only use we could suggest for them would be a visit to the rendering tank. However, as fat pigs, they showed the amount of flesh they were capable of laying on. The bacon pigs were a revelation to many, especially the style of a pig the packers wanted. Any thoughtful man looking at the prize pen of ideal singers, could not help coming to the conclusion that what he wants to do is to grow this class of pigs, and to fatten them.

**Berkshires.**—In the section for barrows, nine months and under fifteen, J. G. Snell, of Snelgrove, had the only entries; they were good ones, and would have stood strong competition. In the section for barrows, six months and under nine, J. G. Snell had the first three winners; fourth place went to T. A. Cox, Brantford, for a good entry that many thought should have been placed higher.

The Snelgrove herd again furnished the winning sow under fifteen months. She was a little longer and fatter than the two good entries of Geo. Green's, of Fairview, which took second and third places. T. A. Cox had a good fourth. In fact, the entries in the Berkshire class were the best they have been for some years, and the competition was therefore exceedingly keen, and many a good animal came low down on the list.

Thirteen entries made up the ring of sows six months and under nine. Geo. Green had out six fine sows, three of them all out of one litter, being the pigs that swept the boards at the fall fairs under six months. He was awarded first, third and fourth places in these three. Out of this strong ring, second and fifth places went to two good entries of J. G. Snell's.

J. G. Snell was awarded first and second for his two entries, for sow or barrow, under six months. Out of a strong ring of six entries, Cox captured third place with a good entry, and fourth and fifth went to Geo. Green.

Green secured first for pen of three, the offspring of one sow, with the three sows that won in the section under nine months. In the pens of bacon pigs, Green was placed first and third with Snell second.

**Yorkshires.**—The call for barrows under fifteen months brought out six good hogs, two each shown by J. E. Brethour, Burford; J. Featherston, Streetsville; and H. Deddels, Kossuth. This was a strong class, one of the strongest on the ground. Last year Deddels had rather the best of it, but this year Brethour had out a magnificent lot of pigs, and captured first and third places. Second and fourth prizes went to Featherston's two entries, and fifth place to Deddels. Four pigs answered the call for barrows under nine months. Two good ones, shown by J. E. Brethour, were placed first and third. Some good judges would have reversed the awards in these two pigs. The one that was placed first was a thick, short-nouted pig, heaviest in the front end; the other was an exceedingly even pig, lengthy, deep, and evenly built, with a

little longer nose, but, after all, one with really less waste. This pig was only seven and a half months old, and tipped the scales at 330 lbs. Deddels had a good second, and fourth place went to Featherston. Sows over nine months and under fifteen months were another strong class. Here the entries of Brethour were placed first, second, and fourth, while Featherston's entries carried off the third and fifth places. Six entries made up the ring of sows six months and under nine. Here Deddels had a capital entry that was placed first, Brethour second, A. Frank & Son, The Grange, third. In the section for barrow or sow under six months, there were six entries. Deddels was awarded first and Brethour second and third places. Brethour showed two pens in the section for three pigs, the offspring of one sow, and secured first and second awards; third went to Featherston. The best three bacon pigs were found in the Burford herd, second in the Kossuth herd, and the third best came from Streetsville.

**Chester Whites.**—Wm. Butler & Son, Dereham Centre, had out a good lot of well fitted pigs, so also had Thos. George, Mount Elgin; and R. H. Harding, Thorndate. George had the best barrow over nine months, and under fifteen months. Harding had the second best, and the third was found in Messrs. Butler's herd. The best barrow six months and under nine was shown by Messrs. Butler, second by R. H. Harding, third by D. DeCourcy, Bornholm, fourth by George. Messrs. Butler led again in sows over nine months and under fifteen months with a well developed, finished sow; they were also awarded fifth place for a good entry. Second place went to a capital entry of DeCourcy's. George received third place, and fourth went to the entry made by Harding. The best sow under nine months and over six was found in Harding's entry. De Courcy had the second best, Butler third and fourth. The call for barrow or sow under six months brought out a very strong ring of nine entries. The red ribbon went to DeCourcy's entry, the second, fourth, and fifth to Gideon Snyder, Jarvis, and third place to Messrs. Butler. DeCourcy had the best three pigs the offspring of one sow. Gideon Snyder had the second best pen. In the section for three best bacon pigs Messrs. Butler won first place, Harding second.

**Poland Chinas.**—Two good pigs were out for the prize for best barrow under fifteen months and over nine. First place went easily to W. & H. Jones, Mount Elgin, for an exceedingly well finished entry. W. M. & J. C. Smith had in a good entry, though perhaps a little staggy, with which they secured second place. Messrs. Jones had two half brothers to the winner in the preceding section in the ring for barrows under nine and over six months, and were awarded first and second places.

The ring of sows under fifteen months and over nine was made up of four entries. The competition was sharp for first place, but it went to a good entry of W. M. & J. C. Smith's and the second and third went to two good sows, full sisters to the barrow of the same age of Messrs. Jones'.

Though only a ring of three, sows under nine months and over six months

were a very strong class, and a third judge had to be called in. W. M. & J. C. Smith were given first and third places, and W. & H. Jones second. Messrs. Jones showed two fine sows farrowed the 20th day of June, weighing 250 and 229 pounds, in the class for sow or barrow under six months. It was a strong class and they had to be content with second and third places, while first went to Messrs. Smith. Messrs. Jones secured the red for best pen of three pigs, the offspring of one sow, also for best three bacon pigs, while Messrs. Smith were placed second for the former, and second and third for the latter.

**Suffolks and Essex.**—Jos. Featherston, Streetsville, had the only entries for barrows and for sows under fifteen months and over nine months, also for sow or barrow under six months, and for best three bacon pigs. In the section for barrow six months and under nine, A. Frank & Son, The Grange, gave him sharp competition, and won first and fourth places from him. In the section for sows six months and under nine, Featherston had the two best pigs and Messrs. Frank only secured third and fourth places. They also secured second place for three pigs, the offspring of one sow, first and third going to the Streetsville herd.

**Tamworths.**—The exhibitors of this most useful class of pigs were: Norman Blain, St. George; A. Elliott, Galt; and Thomas George, Mt. Elgin. The number of entries were larger and much better than they were last year. George was placed first and second for barrows over nine months and under fifteen, and Elliott third and fourth. There were four barrows under nine months and over six shown. They were good ones, and George secured first and fourth, Elliott second, Blain third.

The call for sows nine months and under fifteen brought out only four entries. George was placed first and second, Blain third. Mr. Blain's sow was a typical one and some good judges thought she should have stood higher. Six entries were in the ring for sows six months and under nine. Elliott's entries were given the red and blue and one of Blain's the white. George had the only entries for sow or barrow under six months, and also secured the pen of three pigs the offspring of one sow, Elliott making a good second. George had the only entries for bacon pigs.

**Duroc Jerseys.**—The exhibitors of these pigs were Wm. Butler & Son, Dereham Centre, and Tape Bros, Ridgetown. There were only three nice smooth entries out for barrows nine months and under fifteen, and Messrs. Tape won the red and blue ribbons, the white going to Messrs. Butler. The tables were turned for barrows six months and under nine. Messrs. Butler won the first two places with even fleshed, smooth pigs, Tape Bros. being third. Tape Bros. had the two best pigs in the section for sows nine months and under fifteen; third place went to the Dereham Centre herd. Messrs. Butler had the best sow six months old and under nine, Messrs. Tape the next best two. Tape Bros. had the two best entries for sow or barrow under six months, Messrs. Butler the next two. Tape Bros. showed the best pen of three pigs the

offspring of one sow; Messrs. Butler were given the blue ribbon. Three entries were made for bacon pigs. The three pigs shown by John Park & Son, Burgessville, were given the red, Tape Bros.' pigs won the blue, and third place went to Messrs. Butler.

**Grades and Crosses.**—W. M. & J. C. Smith, Fairfield Plains, had the only entry for barrow nine months and under fifteen. The call for barrows under nine months brought out a strong ring of nine entries. J. G. Snell, of Snelgrove, won first place with a good pig; second place went to N. Blain, of St. George; third place was awarded to a nice pig shown by Tape Bros. Best sow nine months and under fifteen months was shown by E. & N. Parks, Oriel, W. & H. Jones, Mt. Elgin, were placed second. Sows under nine months were a ring of five good entries. The red went to Tape Bros., the blue to J. G. Snell, and the white to H. Deddels.

**Sweepstakes.**—There was a large ring out for sweepstakes, and it was captured by J. G. Snell.

**Bacon Pigs.**—The special offered by the Ingersoll Packing Co. for best six lean singers was won by O. J. Benedict, Mt. Vernon; second place was taken by Thos. A. Good, Brantford.

The special offered by F. W. Fearman, Hamilton, for five hogs that will meet the requirements of the packing industry as ideal singers suitable for export trade was won by J. E. Brethour, Burford, with five Yorkshires, which the judges said were a perfect type of bacon hogs. Second place was won by Wm. Butler & Son, Dereham Centre.

## THE ONTARIO BEEKEEPERS' ASSOCIATION.

The annual meeting of the Ontario Beekeepers' Association was held in the County Court House, Hamilton, on December 7th, 8th, and 9th. There was a fair attendance of members and delegates from affiliated societies, the programme placed before them was a good one, and the meetings were highly interesting and profitable.

The president (Mr. J. K. Darling, Almonte) in his address, referred to the very varied results of the season and the general shortage in the honey crop.

No complaints nor cases of adulteration had been reported during the year, owing, no doubt, to the efficient work of the Inland Revenue Department at Ottawa. In regard to this it is somewhat gratifying to learn that since the Act came in force, not one of the adulterated samples has ever been traced to a bee-keeper. He considered that a standard for the specific gravity of honey was much needed, but the fact that the percentage of water found by analysis in pure and ripened honey varied so much, renders it a very difficult matter indeed.

The work of the association must be along the line of education, teaching those who wish to keep bees how to care for them, and the masses in regard to the use of honey, thereby increasing our home market.

Referring to the dairy export trade of the province and what the dairy men had accomplished during the last few years, he considered that the bee-

keepers of Ontario have no right to feel discouraged.

A very free discussion followed on the subject of unripened honey, the attending evils, and the possibility of finding and fixing the standard of the percentage of water to be found in the ripened and marketable grades. On motion, a committee was appointed to look after this matter, to collect samples of honey capped in the hive, find the percentage of water in them, and report at the next annual meeting.

The paper of Mr. J. W. Sparling, Bowmanville, on the "Management of Apiaries in Spring," was to the point and showed his acquaintance with the subject. Mr. Sparling believes that spring management should commence the previous autumn; to a great extent its success depended on the condition in which the bees were put in winter quarters. Plenty of stores, young queens, and early setting out were strongly advocated in the paper and in the discussion which followed.

Professor Shutt, of the Central Experimental Farm, Ottawa, was listened to with special attention, his subject being on the relative values of comb foundations.

Prof. Shutt has during the past three years been conducting a series of experiments along these lines. His results show that the bees seem rather to prefer the heavier grades, utilizing a much larger percentage of the wax supplied than in the lighter grades.

Mr. John Newton's paper on "Outline Work during the Extracting Season" was a very practical one. He considers it best to use the strongest and best colonies for the production of comb honey, and that a lower grade can be used to advantage for the production of honey for extracting. By allowing it to remain in the hive until ripened and capped both the body and flavor are improved. This paper called forth many valuable hints and suggestions on the management and production of extracted honey.

The value of the solar wax extractor for rendering the cappings and separating the honey from them was favorably commented on; by keeping the basket and the drip pan clean, and shaded from the rays of the sun, the color and flavor of the honey is protected.

Combs, when extracted, should not be put back in the hives until evening, as they will interrupt the work of the colony by attracting the bees and causing them to remain in the hive until they have cleaned out the dripping combs. It is better to have a special set of combs for the surplus, and not to interchange with the brood chamber. Combs kept free from pollen are little troubled with the bee moth.

A paper by Mr. W. T. Cogshell, West Graton, N.Y., on "Our Apiaries," was well received and considered. Mr. Cogshell commenced beekeeping in 1892 and has now thirteen apiaries.

"Harvesting Comb Honey" was a subject very carefully dealt with by Mr. J. B. Hall, Woodstock. Among the essentials for success in this department he would count, bees—strong colonies of them, and of the right strain and giving them full sheets of comb foundation.

Mr. W. M. Orr, Provincial Superintendent of Spraying addressed the as-

sociation on his line of work, and of the injury done to beekeepers by farmers and fruit growers sometimes spraying when the trees are in full bloom, thereby poisoning the bees, though the law strictly forbids spraying at such time under penalty. He referred to the interest taken in the matter by the Hon. John Dryden, the Minister of Agriculture. Mr. Orr also alluded to the San Jose scale which has been spreading to such an alarming extent among the orchards of this country.

The association passed a resolution requesting the government to make a strict inspection of nursery stock and fruits sent into this country, and in this way to prevent, as much as possible, the further importation of the pest.

A resolution of thanks to the Hon. John Dryden was also passed for the interest he had taken in the Beekeepers' Association, and for instructing the sprayers not to spray the trees when in bloom.

Mr. C. W. Post's paper at last annual meeting was re-read and profitably discussed.

The question drawer and the discussion arising in answer to the questions was by no means the least interesting part of the programme. Carniolan versus Italian bees was decided in favor of the former, and blind full sheets of foundation comb were preferred to only starters. As a result of a question and discussion re the exporting of honey to Great Britain, the association passed a resolution endorsing the action of the government in appointing a man to look after our agricultural products there.

The officers for the ensuing year are: President, M. B. Holmes, Athens; Vice Pres., W. J. Brown, Chard; 2nd Vice-Pres., J. D. Evans, Islington; Sec'y, Wm. Couse, Streetsville.

Mr. R. F. Holerman was last year recommended and Mr. John Newton, of Thamesford, was this year added as being proper candidates for the situation of apiarist at the Dominion Experimental Farm, Ottawa.

The association adjourned to meet in Guelph in 1898.

#### AGRICULTURAL AND EXPERIMENTAL UNION.

The annual meeting of the Experimental Union began with the annual supper at the college on the evening of December 8th. The morning of the next day was spent in visiting and examining the different departments of the college. The business of the Union began with the afternoon session. There was a goodly attendance of ex-students and visitors. In the absence of the president, D. Z. Gibson, B.S.A., Willow Grove, through sickness, Robert Harcourt, B.S.A., was appointed chairman. The secretary's report showed that the work of the Union had been very successful during the past year. Under the head of new business Prof. Reynolds suggested that a new line of work be taken up by the Union; this was soil physics. He suggested that samples of the first nine inches of the surface soil should be sent to the college from several points in the province for the purpose of comparing the effects of different methods of cultivation, of different crops, soils and weather conditions on the soil

moisture. Later a committee, with Prof. Reynolds as convenor, was appointed to take up this work.

The president's address was read by the chairman. In it reference was made to the more prosperous outlook before the agriculturist at present. He said that between eighteen and nineteen hundred successful experiments had been conducted and reported. Even if unsuccessful, the training in experimental work would be beneficial to the experimenter. He also referred to the increased grant which was obtained last year, it is now \$1,200, and he believed the members of the Union were giving good returns for the money spent in carrying on their work. This year there were 2,835 experimenters.

Mr. C. A. Zavitz, B.S.A., gave his report on the crop experiments conducted by the members of the Union during the past year. The following is a condensed summary of these experiments. Five varieties of oats were experimented with. The Oderbrucker produced the greatest yield (51 bushels per acre), but from the reports the Siberian would be better for general purposes. The former was a little weak in the straw.

Peas: Four varieties were tested. Early Britain gave the best average yield (23.8 bush.), except at the O.A.C., where White Wonder did the best.

Spring Wheat: The Wild Goose wheat gave the best yield (22.2 bush.), but Herison Bearded was the best all-round wheat.

Winter Wheat: Dawson's Golden Chaff gave the best yield (33.9 bush.). The objections to the milling qualities of this wheat are not well founded.

Barley: Mandscheuri gave greatest yield and best all-round barley (38.9 bush.).

This year for the first time experiments with beans, rye, buckwheat, grasses and clovers were sent out to be conducted by ex-students.

Beans: California Pea gave the best yield (18.7 bushels).

Japanese Buckwheat gave best yield which was 36.5 bushels per acre.

Potatoes: Pearl of Savoy gave the best yield (280.3 bushels). This variety also possessed the best cooking qualities. Stray Beauty was the earliest variety.

Mangels: Evan's Improved Mammoth Saxlog and Simmer's Improved Mammoth Long were the two best red varieties, the average yield was 31.1 tons. Carter's Champion Yellow Intermediate was best among the yellow varieties, and considered the best all-round mangel (34.2 tons per acre).

Turnips: Purple Top Mammoth gave the greatest yield (36.1 tons), but Heartley's Brown Top was considered the most profitable to grow.

Corn: Cloud's Early Yellow produced the greatest weight, but it was too late in ripening for many districts. Mammoth Cuban was next, but it was too late for northern districts. Wisconsin Early White Dent was reported as the best all-round variety. It produces a heavy yield and is comparatively early. Compton's Early proved the earliest variety and best suited for northern counties. Evergreen Sweet was the best of the varieties of sweet corn. From the reports of trials in which the corn was fed in a green state there did not seem to be much difference in the feeding value of the sweet corn and our common corns.

Green fodders: mixtures of several kinds were tried, a mixture of 1½ bush. oats and 1 bush. peas per acre gave the greatest amount of green food.

Grasses and clovers: those who tried this experiment reported most favorably of Meadow Fescue as a desirable grass to grow. Lucerne was the best clover, but required careful handling, while being made into hay.

Dr. Goldwin Smith, of Toronto, gave a short address, and afterwards five minute addresses were made on the subject of important features in connection with successful farming under present conditions, by the following ex-students: Messrs. C. A. Kiel ('84), Chatham; T. Lloyd Jones ('97) Brantford; G. A. Brodie, B.S.A. ('89), Bethesda; J. A. Campbell ('77), Simcoe; and W. W. Cooper ('93), Kuppen. Mr. J. B. L. Campbell, Prescott, sent a short paper on the subject. A lively discussion followed, during which Prof. Creelman called attention to the comparatively short lives that farmers have, as shown by statistical tables, and attributed it to the neglect of proper care of the health. A nominating committee was appointed and the meeting adjourned.

The second day's meetings were good ones. The vice-president, Mr. George Harcourt, B.S.A., Toronto, occupied the chair. The treasurer's report was received and showed the finances of the union to be in a satisfactory condition. The nominating committee then made their report and the following officers were elected for the ensuing year: President, George Harcourt, B.S.A., Toronto; vice-president, H. L. Becket, Hamilton; secretary and editor, C. A. Zavitz, O.A.C.; treasurer, H. L. Hutt, O.A.C. Committees were also appointed for the prosecution of experimental work during the year.

Mr. Rogers reported the result of the dairy experiments carried on during the year by members of the union. The report showed that valuable work had been done. One experiment showed that the cooling of cream immediately after separating tended to produce butter of a better quality. S. P. Brown, Birnam, led in the discussion on this paper and made a number of real good points.

Mr. Zavitz then finished his report on the grains grown during the year, a synopsis of which is given with the first part of his report above.

Mr. Geo. McKerrow, superintendent of Farmers' Institutes in Wisconsin, then gave an interesting address on "Economic Cattle Feeding." It was one of the best addresses on this subject that we have had the pleasure of listening to; it was so practical, yet scientific but easily understood by all. We hope to give this paper at an early date to our readers.

At the afternoon session Mr. F. C. Harrison reported the result of his experiments with foul brood. He had obtained samples from almost every country in Europe, and found the pest the same in all cases.

He tried to find out the vitality of the germs, and found them very tenacious of life. He had exposed them for days in different ways, under about the same conditions as would be found in the bee hive. He found that diffused light, or light as found in an ordinary room or in the bee hive, would not kill the germs, nor would frost.

He had kept the germs for eighteen months, and when put on a suitable medium they had given a good growth. Six hours of direct sunlight on a bright summer day would kill them.

In Europe eucalyptus oil, creolin, and camphor gum have been fed to the bees in the food with some indication of success. He had tried these substances on the germs in various ways, and was satisfied that they would have no effect direct on the germs in a hive. He had not tried feeding these substances to bees where foul brood existed, because the law in Ontario is very stringent on this point, and all foul brood must be destroyed. It cannot be kept even for experimental purposes.

Professor Hunt reported on the work of the Horticultural Committee. Four leading varieties of strawberries (twelve plants each), four leading varieties (six plants each) of raspberries, black raspberries, blackberries, currants and gooseberries had been sent out to a number of experimenters throughout the province. So far returns were meagre, as it takes some time to get started. Some good reports from the strawberries have been sent in, and another year should show some good work.

Dr. Mills gave a short address on the experimental fruit stations throughout the province, with a word of explanation as to the special work each station was doing. In a few years a lot of useful information will be expected from these stations.

Mr. Macoun, from the Experimental Farm, Ottawa, gave an interesting talk on the experimental work as carried on at the farm. Just now they are getting ready the three-lb. samples of seed for distribution to farmers. The object in distributing this seed is to introduce new and valuable seed to the farmers, and only tried and proven varieties will be sent out. It enables the farmer to get a start in new varieties that he perhaps could not otherwise obtain. The three-pound package, if carefully handled, should yield from one hundred to one hundred and twenty pounds of seed from the first sowing.

Mr. Macoun is specially interested in forestry. He is surprised that more is not done to ornament the homes of our country by planting trees and shrubs. He believed the home should be made as attractive as possible, and that this would help to keep the boys on the farm. He strongly urged the ex-students to take up the work of forestry and set the example in this respect. An interesting discussion followed Mr. Macoun's talk.

Mr. L. G. Jarvis gave an instructive talk on "Dressing and Shipping Poultry." He made a strong protest against selling diseased fowl. He had a number of cross-bred fowl nicely dressed on the table beside him, and thus gave a practical illustration of what he was talking about.

Mr. W. R. Graham, Bayside, led the discussion on Mr. Jarvis' paper, and threw out a number of very valuable pointers for poultry men. Mr. Graham spoke in a convincing way, and showed that he knew what he was talking about.

Mr. Thos. A. Duff, Toronto, then gave a short humorous address. He couldn't understand why poultry questions always seemed to amuse an

audience at Farmers' Institute meetings, because it was one of the best paying industries in the country. It deserved more attention on the part of the farmer. He maintained that hens without a male bird running with them would lay seventeen per cent. more eggs.

Mr. J. E. Meyer, Kossuth, also spoke on the poultry business. This discussion brought the programme to an end, and the meeting was closed.

FRUIT GROWERS' CONVENTION.

The thirty-seventh annual meeting of the Ontario Fruit Growers' Association, was held in the town of Waterloo, December 15th and 16th. The attendance was only fair, but the meetings were very interesting and exceedingly profitable.

The report of the treasurer was presented, and showed a balance on hand of \$262.00.

A discussion then followed on promising new varieties that were worthy of being more extensively grown, also of old varieties that might be discarded for better varieties. A lively discussion took place over the value of the Keifer pear. Quite a number declared it to be a good pear, especially for canning. The Japan plums came in for a share of the discussion, and were generally recommended. Several growers said the Japan plums were inclined to grow late in the fall the year they were planted, but that the second year they would ripen their wood at the proper time. The Abundance and Wickson varieties were well spoken of. Prof. Taft, of Michigan, thought the Wickson a most promising variety, it was large and of good quality, and was one of a dozen that they thought worthy of more extensive cultivation.

Mr. W. M. Orr's report on experiments in spraying fruit trees was a most instructive one. Experiments were conducted in twenty nine orchards, in twenty three counties. The Bordeaux mixture was generally used. This is: copper sulphate, four pounds, fresh lime, four pounds; and water, forty gallons. To this was added, four ounces of Paris green for the Codling moth. The attendance at the meetings amounted to nearly 3,000, which is 60 per cent. better than last year, correspondence was ten times greater, showing that a much greater interest was taken in the subject.

The results attained were very satisfactory, in some cases the full 100 per cent being obtained, in others the results were not as good because of rain falling immediately after the spraying was done. As showing the benefits of spraying Mr. Warner's orchard, at Trenton, is a good sample. The percentage of clean fruit is as follows:

	Spray'd.	Un-spray'd.
Northern Spy	76	5
Snow	75	0
Wealthy	90	20
Baldwin	90	10

The spraying of twenty five trees in Mr. Warner's orchard increased the value of the fruit to the extent of \$100. In another place sprayed Maiden's Blush sold for \$4.00, and unsprayed for 75c. a barrel. Spraying certainly increases the percentage of clean fruit, the specimens are also larger, brighter, better flavored, and of superior keeping qualities. Cost of spraying is about two cents per tree.

Prof. Fletcher said 90 per cent. of the spraying that was done was not done as it should be. To be successful a nozzle was required that would make a fine spray. Many of them made coarse spray that did not answer. There was a difference between spraying and drenching a tree. We must give more attention to spraying. Some men say they have no time for spraying. In answer, he said, you may just as well say you have no time to make money. Spraying only costs a few cents a tree, and as illustrating the profits, in addition to the one given above, he gave another. A man sprayed twenty nine trees, and it was worth to him this year \$75.00. The simple reason why so many people will not spray their trees is that they are lazy. There is no danger of poisoning the apples if the spraying is done at the proper time. The apple cannot absorb the arsenic of the paris green. Anyway, if the poison was absorbed it would quickly destroy the apple. If there were any arsenic on the outside of the fruit it is in so small a quantity that it cannot be seen with the naked eye, a good lens would be required to see it. The statement made by some people that the buyers will not buy the fruit if they know it to be sprayed is only an excuse to cover laziness.

The Nominating Committee made their report just before the morning session broke up, and the officers for the ensuing year are: President, W. E. Wellington, Toronto; vice president, W. M. Orr, Fruitland; Sec.-Treas., L. Woolverton, Grimsby. Directors: Division 1, W. A. Whitney, Iroquois; 2, R. B. Whyte, Ottawa; 3, Geo. Nicol, Kingston; 4, W. Boulter, Picton; 5, Thos. Beall, Lindsay; 6, E. C. Beeman, Newcastle; 7, M. Pettit, Winona; 8, A. M. Smith, St. Catharines; 9, J. S. Scarff, Woodstock; 10, J. A. Morton, Wingham; 11, T. H. Race, Mitchell; 12, A. McNeil, Windsor; 13, G. C. Caston, Craighurst. Auditors: A. H. Pettit, Grimsby; Geo. E. Fisher, Burlington.

The discussion of Mr. Orr's paper was continued at the afternoon session. Spraying during the winter was advisable, or then all the spores on the twigs could be destroyed. It can be done any time during the winter when most convenient, but the best time is towards spring, when the vitality of the tree is reviving.

Professor Taft, of Michigan, strongly advised spraying during the winter, for during the summer new leaves are constantly coming out, and spraying would need to be done constantly to keep all the leaves sprayed. He recommended spraying the gooseberry for mildew three or more times; first, before growth started, use copper sulphate solution then; second, when the leaves were half opened out; and third, when the fruit was set. The latter applications should be the Bordeaux mixture.

Mr. J. Tweedle reported an experiment, the object of which was to ascertain if a cold rain had any effect on the setting of fruit if it occurred when the trees were in flower. Parts of trees that were in bloom were sprayed, or rather, drenched with as cold water as he could get, at different times, for three days. He found no difference in the amount of fruit that set.

The balance of the afternoon session was taken up with the reports of the

trial shipments of fruit to the English market. Mr. L. Woolverton made the first report. He explained the plan followed in making the trial shipments, and gave the results and lessons drawn from the season's trade. On the whole the results have been very satisfactory, and lessons have been learned that will make it possible to ship next season with much greater success. One thing they did find out, and that is, that it will not be profitable to ship second grade goods to England.

Mr. Geo. E. Fisher, of Burlington, told how the Burlington people had made shipments on their own account, of the difficulties they had met with, and the lessons they had learned. He very strongly recommended cooling all fruit before packing it. He picked and packed fruit in the morning until the day began to get warm, then he quit packing it and spread out all the fruit picked the rest of the day in a cooling room that he had built. Here it remained and cooled over night, and was packed the next morning along with the early picking. He believed that a large share of his success in shipping this year was due to this treatment, and to a well ventilated shipping case. The Burlington people had made more money out of their shipments to England than out of those sent to Montreal. Mr. Fisher showed a new plan for strengthening packing cases without disfiguring them. His plan was to lay in a strip of hoop iron on the end pieces before the sides were nailed on; this prevented the ends from splitting and allowing the case to fall to pieces, as the sides were often of two pieces.

Prof. Robertson said that there had been some complaint from fruitmen that they could not get their fruit into the cold storage chambers on the boats, and that butter was always given the preference. He explained that the contract with the steamship companies was that butter was to have the preference. This was because at the time the contract was made butter was the only article that was asking for cold storage. The government had reserved space for two car-loads of trial shipments of other substances, and a portion of this could have been obtained had application been made for it. He had himself ordered American butter out of the cold storage compartment and put in a consignment of Burlington fruit.

He explained the cause of failure in a number of shipments and explained how they were remedied. A better ventilated case was wanted. He explained what the government proposed to do next season, and threw out a number of suggestions in regard to the export trade of tender fruits. Grapes were practically given away. An interesting experiment was tried on one hotel table. Canadian grapes were placed on the table, the first day those who tasted them spit them out and left them. Fresh grapes were supplied every day, and before a week was over they were all eaten up clean. It will take time to establish the demand for our grapes.

A most profitable discussion followed on the best manner of packing and on packing cases. Prof. Robertson showed several California packing cases also some French returnable wicker ones.

There was a very large attendance

at the evening meeting. The president's address was given and in it he called attention to the excellent financial condition of the association. The growth in membership had been good and the prospects of the fruit grower were much brighter than ever before, seeing that there was a splendid opening for their fruit in England. He wished to call the attention of fruit growers to the unlimited market there is in our own Northwest. It was one we should look after more closely than we have done. He called attention to the improvement in the *Canadian Horticulturist*. It is now 48 pages instead of 40.

An important feature of their work for several years back has been the encouragement of the formation of affiliated Horticultural Societies, and it was at the invitation of the affiliated society in Waterloo that they had the pleasure of the present meeting.

Prof. Robertson gave an interesting and instructive address on "Foods and Their Value." It was most thoroughly enjoyed, and well illustrated by colored charts.

Prof. Taft, Horticulturist of the Michigan Experiment Station, gave a most instructive talk on "The Nursery and Orchard Legislation in Michigan." Every nursery man must take out a license and give a certificate with each lot of fruit sent out that it has been inspected. The Michigan people are fighting the San José scale and other pests, and are determined to have clean orchards.

At the forenoon session of the second day Prof. Saunders gave a most valuable paper on "Methods of Maintaining the Fertility of the Land in Orchards." He gave the approximate amount of nitrogen, potash and phosphoric acid that the wood, leaf and fruit of the various fruits grown in Canada removed from the soil, and then showed how they might be supplied to the land in the best way.

He strongly recommended growing clover in the orchards to plow down in the spring, and as a cover crop.

Prof. Taft endorsed what Prof. Saunders had said about cover crops.

Mr. E. D. Smith presented a motion that the association urge the Federal Government to continue the trial shipments of fruit next season, and that larger quantities be tried; that the thanks of the association be tendered the Government for what they have done, and to Mr. Geo. E. Fisher and his Burlington friends for their plucky experiments in shipping fruit to England. The motion was carried.

Mr. Bouker, Picton, called attention to the market for Ontario fruit in our Northwest, and named a committee to wait upon the Joint Traffic Association to secure a uniform rate on shipments from Ontario; also a reduction in the freight rate, which at present is almost prohibitory. This met the approval of the meeting, and was decided upon.

At the afternoon session Mr. W. M. Orr gave his report on the work of inspection in connection with the San José scale. His report shows that this dread pest has obtained an extended footing in the orchards of Ontario, and that it had been introduced on fruit trees imported from New Jersey, where it is very prevalent.

Prof. Fletcher spoke along the same

lines, and urged that something should be done by every fruit grower to stamp out this pest, or it would drive all the fruit men out of business inside of five years. The San José scale attacked all kinds of fruits, shrubs and bushes, as well as the trees. It was worse than this—it attacked all deciduous trees, and threatened the extermination of all our forests, parks, etc. The only trees it did not touch were the cedars and pines. No treatment had so far been successful in killing it, but fruit growers should try every means in their power to destroy it, and not wait for the Government to do something for them.

The bill on the San José scale, recently introduced into the Local Legislature, was then discussed clause by clause.

At the evening meeting Mr. H. H. Groff, of Simcoe, gave an address on "Hybridizing," and a few notes on the "Canna and Gladiolus."

Prof. Hutt, of the O. A. C., spoke on "Chrysanthemum Culture," and Mr. Jas. Lockie, of Waterloo, gave his experience with cacti.

Mr. R. B. White, of Ottawa, gave an interesting paper on "Annuals for the Amateur's Garden."

The Spramotor Co., London, made a nice exhibit of their well-known and superior spray pumps at the entrance to the hall.

#### DOMINION SHEEP BREEDERS' ASSOCIATION.

The annual meeting was held at Brantford on the evening of the 7th of December. There was a good attendance of breeders. The president, James Tolton, Walkerton, occupied the chair and gave his annual address. In it he referred to the successful year's work just finished. Through the recommendations of expert judges there has been more satisfactory and capable judging at the local shows than ever before.

The association had made an effort to secure a change in the tariff regulations in the interests of the industry, but nothing very material was accomplished, nor, in his opinion, could anything be accomplished under existing circumstances, save that influence might be brought to bear on the United States Government to secure freer access to their markets. Some action had been taken with a view to getting a portion of the trade with the Argentine Republic in purebred stock, for breeding purposes, and he thought this should be carefully followed up.

There were 332,335 less sheep in Ontario in 1896 than in 1895, and 50 per cent. less exported. Why was this? he asked. He thought something should be done to encourage farmers to keep more sheep.

The committee appointed on securing better judging at the local fairs, recommended the employment of young men as much as possible. Mr. J. C. Snell recommended the employment of graduates from the college as far as possible, and paid a high tribute to the ability of those students he had examined. It was also suggested that a list of competent judges be prepared, who could go anywhere to judge at a certain rate per day and expenses.

Mr. Mortimer Levering, La Fayette, Ind., gave an interesting and profitable

address on the requirements of the home and foreign wool markets.

Mr. Yapp, of Brantford, spoke on the export sheep trade. The demands of the old country are changing; what was wanted now was a lighter sheep, one of about 60 to 70 lbs. South American sheep are taking the place of our sheep in the English market. They send good wethers, while the most of our shipments are old ewes, and this reduces the price of the good ones we do send. The farmers were losing more money than they were aware of by not castrating their lambs.

Expert judges were appointed by the representatives of each breed.

The officers for the ensuing year are: President, D. G. Hamner, Brantford; Vice President, Alex. W. Smith, Maple Lodge; Secretary, F. W. Hodson, Parliament Buildings, Toronto; Directors: Cotswolds, Wm. Linton; Leicesters, A. W. Smith; Dorsets, R. H. Harding; Lincolns, J. T. Gibson; Hampshires, John Kelly; Merinos, W. M. Smith; Oxfords, Henry Arkell; Southdowns, John Jackson; Shropshires, R. Gibson. Representatives of the Association to Fair Boards: Toronto, James Russell, F. W. Hodson; Ottawa, Joseph Yuill; Montreal, H. D. Smith; London, R. H. Harding and A. W. Smith.

#### HEREFORD BREEDERS' ASSOCIATION.

The seventh annual meeting was held in Brantford on the 7th of December. The meeting was not a very large one, and in the absence of the president, H. D. Smith, of Compton, Que., Mr. A. Rawlings, Forest, Ont., was appointed chairman.

A letter was read from the president, in which he stated that the Hereford business of the past year was the best he had known since he began breeding these useful animals.

The secretary reported the registration of 209 animals during the year.

The following officers were elected for the ensuing year: President, H. D. Smith, Compton, Que.; Vice President, Alf. Stone, Guelph; Secretary-Treasurer, H. Wade, Parliament Buildings, Toronto.

#### GUELPH FAT STOCK SHOW.

The Guelph Fat Stock Club has added another very successful show to their record. When the members of the club found that the Provincial Winter Show was to go to Brantford, they bestirred themselves and determined to have a successful show of their own. A very liberal prize list was made up, which brought out a very creditable show of cattle. Guelph is situated in the heart of a great stock raising district, and the number and quality of the animals shown sustained the boast of the people of the Royal City that they have the best stock raising district of Ontario.

About sixty head of fat cattle were shown, and it can be safely said that the average quality of the animals present was much superior to the average quality of those shown at the winter show at Brantford.

The various classes for cattle were well filled, especially the grade ones. In the class for pure bred two year old steers, The F. W. Stone Estate showed

a well-finished Hereford steer, that would have made a good mate to the one shown at Brantford. Alfred Stone, Guelph, had forward the first prize heifer; he also showed two good specimens of the Sussex cattle. Capt. T. C. Robson, of Ilderton, showed a number of well-finished ripe animals. Glamis Gentle, his first prize cow, was in fine shape. J. Fried & Son, Roseville, had forward a number of very superior entries. Their two year old heifer, Oxford Rose, was a perfect model of a butcher's beast.

In grade cattle, F. W. Oke, Stewart Bros., A. & F. Bolton, W. & J. Loree, J. & W. Parkinson, J. Fried & Son, and others, made good entries. The different classes were well filled and competition was keen.

The sweepstakes prize, consisting of a purse containing twelve sovereigns, brought out a ring of seven entries. They were: a yearling grade steer, A. & F. Bolton; a yearling purebred steer, M. Wilson, Fergus; a two year-old grade steer, F. W. Oke, Alvington; a two-year-old purebred steer, Stone Estate; a two year-old purebred heifer, J. Fried & Son, Roseville; a two-year-old grade heifer, Stewart Bros.; and a three-year-old purebred cow, Capt. T. Robson. They were all good ones, but the knowing ones soon settled on Oke's steer and Fried's heifer as the two best. The heifer was a thick fleshed evenly covered animal, the quarters were well carried out and well let down, and she handled nicely. The steer was also a good one; a little rougher, and not quite so good in the quarters. The judges split on these two, and a third man was called in, who decided in favor of the heifer. At the annual banquet of the Fat Stock Club Dr. Mills presented Mr. Fried with the purse of twelve sovereigns his heifer had won.

Some good judges thought that Mr. Fried's heifer would have been more than a match for the winner at Brantford. Such was not the case. Had the two been placed side by side the championship would have been with the sweepstakes white steer of Brantford.

There were about one hundred and twenty-five sheep present. Quite a number of them were only in nice condition, others again were in fine shape, and would have given good account of themselves had they been at Brantford. John Rutherford, Roseville, showed a large number of sheep, and all of them were well-fitted. He captured a good share of the prizes. Mr. A. J. Watson, Castlederg, showed some good Cotswolds, and besides other prizes, captured the one for the heaviest ewe or wether on the grounds.

Other good exhibits were made by Herbert Wright, who showed a lot of good sheep; T. C. Douglas, Galt; R. Moody, J. Brown, G. & R. Laird, G. & W. Parkinson, and others.

There were only some forty-eight pigs shown, but most of them good ones. One very large hog attracted considerable attention, he weighed over 900 pounds.

The exhibition of dressed poultry was much superior to that shown at Brantford.

The show of poultry, in connection with the fat stock, was a most creditable one. Mr. Thomas A. Duff, of Toronto, was the poultry judge.

# The Ontario Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, and of the Farmers' Institute System of the Province of Ontario.

## THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees:—Cattle Breeders', \$1; Sheep Breeders', \$1; Swine Breeders', \$2.

### BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the Swine Breeders' Association this includes a copy of the Swine Record.

A member of the Swine Breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the Sheep Breeders' Association is allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale, are published once a month. Over 20,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine Breeders' Association.

The list of Cattle Breeders will be published in the first issue of each month, of Sheep Breeders in the second issue, and of Swine Breeders in the third issue. Members having stock for sale, in order that it may be included in the BUT LIST, are required to notify the undersigned, by letter, at least seven days before the date of issue, of the number, breed, age and sex of the animals. Should a member fail to do this, only his name and address will appear in the next monthly issue. The data will be published in the most condensed form.

F. W. HOUSON, Secretary.  
Parliament Buildings, Toronto, Ont.

## THE DOMINION SWINE BREEDERS' ASSOCIATION.

### Berkshires.

- |  |  |
|--|--|
| Anderson, A. V. .... Wyoming.  | Lanton, W. .... Aurora.                  |
| Arnell, H. .... Arkell.  | Lloyd, E. A. .... Stouffville.           |
| Ash, W. R. .... Essex.   | Martin, E. E. .... Canning.              |
| Bennett, H. & Son. .... St. Williams.  | Martin, R. G. .... Marysville.           |
| Brien, E. .... Ridgetown.  | Meyer, John. .... Kossuth.               |
| Bonnycastle, F. & Son. .... Campbellford.  | Moody, R. .... Guelph.                   |
| Boucher, G. .... Meadowdale.   | Mullen, J. A. .... Cypress River, Man.   |
| Bow Park Co. .... Brantford.   | Murray, G. H. .... Brighton.             |
| Boynton, P. W. & Son. .... Dollar.   | Morgan, E. H. .... Stanbridge Sta., Que. |
| Brown Bros. .... Springsville.   | Mutch, I. F. .... Pilot Mound, Man.      |
| Brown, F. W. .... Portage la Prairie, Man.   | McAllister, W. .... Varna.               |
| Bruce Bros. .... Gormley.  | McBeth, R. S. .... Oak Lake, Man.        |
| Burgess, R. L. .... Burgessville.  | McCreary, J. .... Treherne, Man.         |
| Caldwell Bros. .... Orchard.   | McDonald, J. N. .... Morganston.         |
| Campbell, D. .... Norwood.   | McEwen, J. .... Kerich.                  |
| Clark, H. G. .... Brampton.  | McEwen, J. .... Glendale, Man.           |
| Collyer, F. J. .... Welwyn, Assa.  | McGill, J. A. .... Neepawa, Man.         |
| Cox, T. A. .... Brantford.   | McGregor, J. .... Manitow, Man.          |
| Coxworth, S. .... Whitchy.   | McKenzie, R. .... High Bluff, Man.       |
| Cullen, J. E. .... Lakefield.  | Qitt, J. R. .... Moorefield.             |
| Davis, H. J. .... Woodstock.   | Park, J. G. .... Carnuff, Assa.          |
| Dickenson, W. .... Mildmay.  | Parlee, M. H. .... Sussex, N.B.          |
| Decker, C. R. .... Chesterfield.   | Pearson, S. J. & Son. .... Meadowvale.   |
| Doran, J. .... Seaforth.   | Pettit, A. C. .... Freeman.              |
| Duch, W. J. .... Mouspath.   | Pettit, W. G. .... Freeman.              |
| Dunbar, J. .... St. Mary's.  | Pineo, W. W. .... Waterville, N.S.       |
| Dymont, S. .... Barrie.  | Playfair, A. W. .... Baldur, Man.        |
| Edwards, W. C. .... Rockland.  | Pomeroy, A. L. .... Compton, Que.        |
| Elder, J. .... Virdeau, Man.   | Purves, T. .... Pilot Mound, Man.        |
| Evoy, H. W. & Son. .... Bar River.   | Reel, K. & Co. .... Hintonburg.          |
| Ewing, J. B. .... Dartford.  | Robinson, J. R. .... Manion.             |
| Fahner, C. .... Crediton.  | Rogers, G. F. .... Plumus, Man.          |
| Ferguson, J. I. .... Smith's Falls.  | Ronson, J. W. .... Ancuta.               |
| Fisher, W. W. .... Hemmiller.  | Roper, J. .... Chatham, P.E.I.           |
| Gaffield, N. C. .... Castleton.  | Ross, A. W. .... Douglas.                |
| Gardner, F. A. .... Britannia.   | Russell, F. .... Cedarville.             |
| Garbutt, T. C. .... Clarendon.   | Russell, J. A. .... Precious Corners.    |
| Gibson, R. .... Delaware.  | Shaw, A. J. C. .... Thamesville.         |
| Gibson, W. T. .... Galt.   | Shaw, J. H. .... Simcoe.                 |
| Golden, J. H. .... Marchfield, P.E.I.  | Semple, J. R. .... Brule, N.S.           |
| Graham, D. A. .... Parkhill.   | Shannon, T. .... Cloveidale, B.C.        |
| Greig, A. .... St. Jacobs.   | Shibley, W. J. .... Harrowsmith.         |
| Green, G. .... Fairview.   | Shrigley, J. .... Allandale.             |
| Greenway, Hon. Thos. .... Winnipeg, Man.   | Siefert, J. H. .... North Bruce.         |
| Greenwood, T. .... Douglas, Man.   | Siprell & Carroll. .... Bornholm.        |
| Hall, A., Jr. .... Ayr.  | Small, A. J. .... Melburne.              |
| Hart, A. .... Hampstead.   | Smith, J. & Sons. .... Duntroon.         |
| Hauser, I. .... Weisenberg.  | Snell, J. C. .... Snelgrove.             |
| Hanley, J. C. .... Read.   | Snell, J. G. & Bro. .... Snelgrove.      |
| Hawkins, D. .... Woodville.  | Snyder, T. .... Jarvis.                  |
| Haycraft, W. J. .... Agincourt.  | Spears, T. .... Oak Lake, Man.           |
| Henderson, W. C. .... Ready.   | Thomson, G. .... Bright.                 |
| Hill, G. .... Delaware.  | Thompson, J. .... Uxbridge.              |
| Holdsworth, R. L. & Son. .... Port Hope.   | Tierheller, E. E. .... Mount Elgin.      |
| Jeff, E. & Son. .... Bond Head.  | Totter, A. B. .... Montzomery, Assa.     |
| Ker, J. G. .... Fulton.  | Teasdale, T. .... Concord.               |
| King, W. .... Carnduff, Assa.  | Trigger, C. W. .... St. Thomas.          |
| Kitching, J. .... Corwhin.   | Vance, R. .... Ida.                      |
| Kipp, E. A. .... Chilliwick, B.C.  | Watt, J. & W. H. .... Salem.             |
| Kitson, W. .... Burnside, Man.   | Webster, R. A. .... Andrewsville.        |
| Lane, H. .... Mount Mellick, P.E.I.  | Wrigley & Fox. .... Turgoon, B.C.        |
| Lang, R. I. .... Oak Lake, Man.  | Wylie Bros. .... Cardinal.               |
| Leatherdale, E. .... Morlen, Man.  | Yuill, I. & Sons. .... Carleton Place.   |
| Lemon, S. .... Kettleby.   |  |
| Bowman, W. R. .... Mt. Forest. 7 boars; 3 sows; all ages.                                      |  |
| Dunn, E. .... St. Ives. Boar, 5 months.  |  |
| Johnston, A. .... Greenwood. 20 sows; a few boars.   |  |
| Lloyd, E. A. .... Stouffville. 3 sows; 3 boars, 5 months.                                      |  |
| Patterson, W. .... Churchill. 5 sows, 11 weeks; 2 sows, 5 months; 5 boars and 3 sows, 6 weeks. |  |

### Yorkshires.

- |  |   |
|--|---|
| Bowman, W. A. .... Bludale, N.Y.         | Howe, V. .... North Bruce.                  |
| Bray, J. .... Longburn, Man.             | Hood, G. B. .... Guelph.                    |
| Brethour, J. E. .... Hurford.            | Hume, A. & Co. .... Burnbrae.               |
| Cousins, J. & Sons. .... Harrison.       | Hurlburt, B. J. .... Clymer, N.Y.           |
| Carruthers, C. J. .... Cobourg.          | Hurley, J. M. & Son. .... Belleville.       |
| Clark, J. G. .... Ottawa.                | Hyde, G. A. .... Shakespear.                |
| Clark, W. .... North Wiltshire, P.E.I.   | Martin, R. G. .... Marysville.              |
| Crockett, G. A. .... York, P.E.I.        | McKnight, J. S. .... Epping.                |
| Darling, I. A. .... Morganston.          | Parlee, M. H. .... Sussex, N.B.             |
| Davis, C. G. .... Freeman.               | Pike, J. .... Lucust Hill.                  |
| Day, N. .... Powles' Corners.            | Ross, A. W. .... Douglas.                   |
| Deddes, H. .... Kossuth.                 | Johnston, J. .... Little Rideau.            |
| Dool, E. .... Hartington.                | Keutch, J. E. .... Rockwood.                |
| Durance, J. .... Seaforth.               | May, W. A. .... Creemore.                   |
| Edwards, E. .... North Wiltshire, P.E.I. | Mayloney, F. A. .... Chapra, Que.           |
| Empey, M. N. .... Napanee.               | Scott, F. W. .... Highgate.                 |
| Featherstone, J. .... Streetsville.      | Sni h, H. D. .... Compton, Que.             |
| Gier, G. .... Grand Valley.              | Taylor, J. & H. .... Richmond Station, Que. |
| Gilroy, C. J. & Son. .... Glen Buell.    | Terrill, A. .... Wooler.                    |

### Yorkshires—Continued.

- |   |  |
|---|--|
| Graham, C. .... Pomeroy, Man.   | Thompson, S. J. .... Carberry, Man.    |
| Greenfield, J. M. .... Danville, Que.   | Wilkinson, J. T. .... Chilliwick, B.C. |
| Gies, A. .... St. Jacobs.   | Wilson, Mrs. A. J. .... Pittsfield, O. |
| Honey, R. .... Brickley.  | Wilson, W. C. .... East Oro.           |
| Huffman, W. R. .... Mount Forest. 12 boars, 6 sows; all ages.                   |  |
| Hord, J. & Son. .... Parkhill. Boar and sow, 5 months; 1 boar and sow, 6 weeks. |  |
| Master, J. F. .... New Dundee. 6 boars and 10 sows; 2 to 5 months.              |  |

### Tamworths.

- |   |   |
|---|---|
| Bate, E. H. .... Brighton.  | Hallman, A. C. .... New Dundee.         |
| Bell, J. .... Auber.  | Hoover, P. R. & Sons. .... Green River. |
| Brandow, A. W. .... Walsingham Centre.                                    | Laurie, A. J. & A. .... Wolverton.      |
| Brownridge, J. T. .... Ashgrove.  | Livingston, I. A. .... Granton.         |
| Blain, N. M. .... St. George.   | Majr, W. A. .... Whitvale.              |
| Caldwell Bros. .... Orchard.  | Morrison, R. O. .... Hilton.            |
| Carter, E. .... Hayham.   | Nichol, J. C. .... Hubrey.              |
| Creighton, J. C. .... Hawley.   | Norse, C. .... Hunter Bay.              |
| Dawson, F. .... Collingwood.  | Odeh, M. H. .... Argyle.                |
| Donaldson, J. .... Dewittville.   | Rewell, R. .... Longwell.               |
| Elliott, A. .... Galt.  | Richardson, J. A. .... South March.     |
| Elliott, W. T. .... Pond Mills.   | Simmons, J. H. .... Chatham.            |
| Fahner, C. .... Crediton.   | Smith, N. .... Brantford.               |
| Fulton, J. Jr. .... Brownsville.  | Wash, G. .... Onslow Centre.            |
| Golding, H. .... Thamesford.  | Wash, G. .... Guyon, Que.               |
| Holland, J. .... Gullen.  |   |
| Hord, J. & Son. .... Parkhill. 2 boars, 5 months; small pigs.             |   |
| Master, J. F. .... New Dundee. 6 boars and 4 sows; 3 to 5 months; 3 sows. |   |
| North, G. .... Marden. Stock all ages, both sexes.                        |   |

### Chester Whites.

- |  |                                  |
|--|----------------------------------|
| Austin, W. R. .... Sapperton, B.C.   | Golding, H. .... Thamesford.     |
| Bennett, G. & Pardo. .... Charing Cross.   | Glover, H. W. .... Nottawa.      |
| Brooks, P. & Son. .... Brantford.  | Gummer, G. A. .... Colborne.     |
| Butler, W. & Son. .... Dereham Centre.   | Herron, H. .... Avon.            |
| Cairn, J. .... Guelph.   | Harding, R. H. .... Thorndale.   |
| Christie, J. .... Winchester.  | Morse, J. .... Amherst, N.S.     |
| Clute, H. J. .... Somerset, N.S.   | McEachern Bros. .... Argyle.     |
| DeCoursey, D. .... Hutchins.   | McLeod, R. .... Dugald, Man.     |
| Denison, J. R. .... Denton's Mills.  | Patch, C. W. .... Bromo, Que.    |
| Everett, W. W. .... Chatham.   | Patch, F. H. .... Bromo, Que.    |
| Fahner, C. .... Crediton.  | Vance, F. .... Emerson, Man.     |
| George, E. D. .... Putnam.   | Warfield, J. .... Owen Sound.    |
| Gies, A. .... St. Jacobs.  | Wilson, P. .... Franklin Centre. |
| Chalk, J. H. .... Carleton. 30 head, 2 to 4 months.  |                                  |
| Clark, J. B. .... Blenheim. Sow, 10 months; sow, 6 months; 4 sows, 5 months; boar, 5 months. |                                  |

### Poland-Chinas.

- |   |   |
|---|---|
| Bate, E. H. .... Brighton.                  | Jones, W. .... Zenda.                       |
| Beingsner, F. N. .... Milkway.              | Meredith & Dunlop. .... Thorncliff.         |
| Bennett, J. .... South Huxton.              | Mcintosh, A. .... Westminster Springs.      |
| Brownlee, J. .... Shawville, Que.           | McMullin, R. B. .... Goldsmith.             |
| Clarke, W. .... West Lorne.                 | Rice, G. .... Carries.                      |
| Capes, H. .... Kerich.                      | Smith, W. M. & J. C. .... Fairfield Plains. |
| Curtis, C. H. .... Warkworth.               | Smythe, R. J. .... Fargo.                   |
| Drury, O. .... Fargo.                       | Snarey, B. & Sons. .... Coton.              |
| Fahner, C. .... Crediton.                   | Stritzinger, F. H. .... Fenwick.            |
| Fisher, W. W. .... Hemmiller.               | Willis, R. Jr. .... Glen Meyer.             |
| Holmes, C. W. .... Amherst, N.S.            | Webster, R. A. .... Andrewsville.           |
| Hord, J. & Son. .... Parkhill.              | Young, A. W. .... Tupperville.              |
| Irwin, J. I. .... Stewart.                  |   |
| McKay, J. F. .... Parkhill. Stock all ages. |   |

### Duroc-Jerseys.

- |                                    |   |
|------------------------------------|---|
| Atkinson, W. .... Wardville.       | Roberts, G. .... Hepworth Station.          |
| Baker, F. .... Amherst, N.S.       | Simpson Bros. .... Ridgetown.               |
| Berdan & McNeil. .... Strathbairn. | Snarey, B. & Sons. .... Coton.              |
| Fahner, C. .... Crediton.          | Semple, I. .... Tottenham.                  |
| Lee, J. .... Dunham, Que.          | Smith, W. M. & J. C. .... Fairfield Plains. |
| Martin, S. .... Edgar.             | Tape Bros. .... Ridgetown.                  |
| McCurcheon, H. .... Glencoe.       | Terhune, F. M. .... Brantford.              |
| Park, J. & Son. .... Burgessville. | York, E. J. .... Avinston.                  |
| Paul, J. .... Florence.            |   |

### Suffolks.

- |   |                                     |
|---|-------------------------------------|
| Frank, A. & Son. .... The Grange.                       | Featherstone, J. .... Streetsville. |
| Hord, J. & Son. .... Parkhill. Sow, 7 months; aged sow. |                                     |

### Essex.

- |                                     |
|-------------------------------------|
| Featherstone, J. .... Streetsville. |
|-------------------------------------|

### Victorias.

- |  |                          |
|--|--------------------------|
| Butler, W. & Son. .... Dereham Centre. | Fahner C. .... Crediton. |
|--|--------------------------|

## NOTES FROM FARMERS' INSTITUTE FIELD NO. 8.

Husbandman, John MacMillan, M.P., and Prof. Dean, O.A.C.

The field for the first week lay about Harwood and Grafton in West Northumberland; Wooler, East Northumberland; Frankford and Wallbridge, West Hastings. The average attendance has been 57 in the afternoon, and 295 in the evening. At most of the evening meetings the halls have not been large enough to accommodate the people. The Institute is becoming more popular every year, so say the officers of each one. Mr. MacMillan says that the Institute is the farmers' High School, and certainly the attendance and interest have been good so far in Division 8. It is noticeable that the secretaries and officers understand and do their work much better than formerly. A proper programme is prepared and adhered to,

whereas formerly it was a haphazard, happy-go-lucky method adopted. In the evening suitable music is provided, which tends to make the meetings pleasant and profitable. More local men take part. Mr. Allan, of Cobourg, gave an address on poultry at Harwood; Messrs. Kerr, McColl, and Watson, of Cobourg, spoke at Grafton. At Wooler, East Northumberland, the president is the youngest man in the chair that the delegation has ever seen. He is but a "stripling," yet he did credit to himself and to the Institute. The secretary is a young man, a graduate of the Dairy School in Guelph, who gave as neat an address on farm butter-making as one could hear anywhere. Mr. Geo. Carlow is a "noble son of a noble sire." Messrs. Phillips and Bate, the latter an ex-student of the O.A.C., gave excellent addresses on sheep culture, while Messrs. Douglas and Terrill told of the good qualities of the Ayrshire cow.

MARKET REVIEW AND FORECAST.

Office of FARMING, 25 Bay Street, Toronto, December 26th, 1917.

A combination of circumstances has recently made the business of Canada in the winter trade... the development of the business... the demand for... the price of...

Wheat

The big crop in December wheat, mostly raised by farmers in Ontario and Western Canada, has not been very successful... the price of...

Barley and Oats

The demand for... has been good... the price of...

Hay and Straw

The price of... has been... the price of...

Peas and Corn

The market for... has been... the price of...

Potatoes

Prices are the same as last week... the price of...

Butter

The price of... has been... the price of...

Eggs

At Toronto the supply has been fair and the demand good... the price of...

Cattle

The Christmas trade during last week was not quite so good as it would have been had the weather been more propitious... the price of...

Sheep

A great many legs are coming forward, and the complaint is that a large percentage of them are not fat enough... the price of...

Poultry

At Toronto the supply has been fair and the demand good... the price of...

poultry have arrived in England in good condition, and the receivers were so pleased with the quality and style of packing that they called at once for a case of green and brown turkeys... the price of...

Eggs

At the present time a number of shipments of fresh eggs are being sent to England from S. York, N. B., and I. C. Land... the price of...

Hay

There is very little demand for hay for export to Toronto, and sales are slow on the whole... the price of...

Cheese

The cheese market is not very active, and the price of... has been... the price of...

Butter

Receipts of creamery butter at Montreal show an increase during the week... the price of...

Eggs

At Montreal the market for... has been... the price of...

Cattle

The market for dairy and beef cattle is somewhat quiet, and sales in large lots are reported at from 12c to 13c... the price of...

Sheep

The price of... has been... the price of...

Poultry

At Montreal the supply has been fair and the demand good... the price of...

Cattle

The Christmas trade during last week was not quite so good as it would have been had the weather been more propitious... the price of...

Sheep

A great many legs are coming forward, and the complaint is that a large percentage of them are not fat enough... the price of...

Poultry

At Montreal the supply has been fair and the demand good... the price of...

Cattle

The market for dairy and beef cattle is somewhat quiet, and sales in large lots are reported at from 12c to 13c... the price of...



The ear drum and its connection.

It would like to see you completely before doing so... I have been deaf for many years... I shall take great pleasure in recommending them to any one affected like myself.

Write for Pamphlet giving many other Testimonials, showing benefit in cases of Catarrhal Disorders, Stinging and Itching Sounds, Discharge from Ears, Deafness, Numbness, or Thickened Membrane; stops Progress of Disorders, and Protects Sensitive Ears.

C. B. MILLER, Freehold Building, 60 Victoria St., Toronto, Ont. Sole Agent for Canada.

DEAFNESS

AND HEAD NOISES

Relieved by using

Wilson's Common Sense Ear Drums

They are safe, comfortable and invisible, have no wire or string attachments. Read this letter; it speaks volumes.

C. B. MILLER, Freehold Building, Toronto.

Dear Sir, Please send one of your little books to my friend, Mrs. ... I have suffered her to try a pair of your "Ear Drums" as some one has written to me and perfectly comfortable. I think she will be sure to take my advice, but I don't know if you will send one to her name as I had already lost it to another deaf friend. I have been deaf for many years, covered by scarlet fever, but your "Ear Drums" have helped me greatly. I shall take great pleasure in recommending them to any one affected like myself. (Signed) MRS. HARRIET HOAKE.

Write for Pamphlet giving many other Testimonials, showing benefit in cases of Catarrhal Disorders, Stinging and Itching Sounds, Discharge from Ears, Deafness, Numbness, or Thickened Membrane; stops Progress of Disorders, and Protects Sensitive Ears.

C. B. MILLER, Freehold Building, 60 Victoria St., Toronto, Ont. Sole Agent for Canada.

... the price of... has been... the price of...

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"Off to the Central"

will be a course in typing among Young Men and Women taking out our Province on Monday, Jan. 2nd, when the winter session of the

CENTRAL BUSINESS COLLEGE

of Toronto begins. Those who attend this monthly SCHOOL OF BUSINESS TRAINING will enjoy the best facilities to be found in Canada.

Typography, Bookkeeping and Business Practice, Shorthand and Typewriting their monthly reports. Students succeed to a certain extent. Good results guaranteed. Address: W. H. HIAW, President, Temple and Governor Sts., Toronto.

Stock Notes.

The progress of the stock market during the week of the 20th of December was... the price of...

"LITTLE GIANT" GRINDING MILL



J. A. McARTHUR & CO., 14 St. George St., Montreal.



"The Spramotor"

Certificate of Official Award: This is to certify that at the course of Spraying Apparatus, held at Toronto on April 2nd and 3rd, 1917, under the auspices of the Royal Commission of the First International Exhibition of Ottawa, in which three were the only competitors, the Spramotor, made by the Spramotor Co., of London, Ont., was awarded First Prize. H. J. HICKEY, Judge. M. FORTY, Judge. Catalogue and Price List on application. Agents wanted. SPRAMOTOR CO., Montreal, PA. 317, Richmond St., LONDON.

# Keep the House Warm

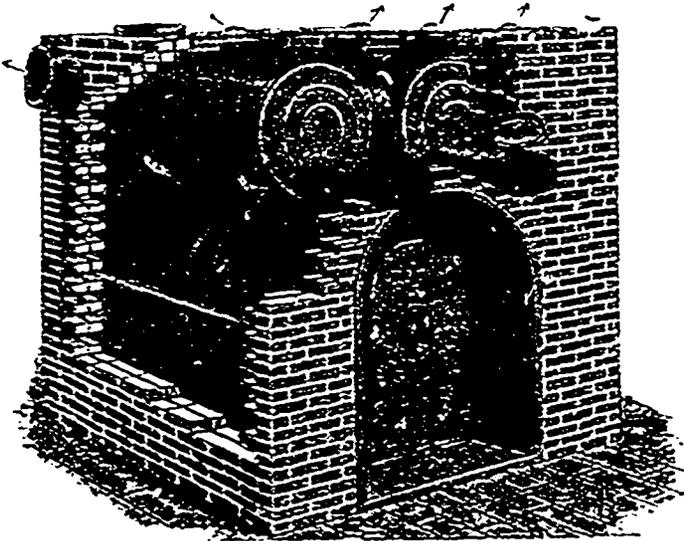
There need not be a chilly corner in any house warmed by our famous

## LITTLE OX WOOD FURNACES

They have either triple or double return flue radiators, giving them an immense fire travel; are very easy to clean and regulate; take 3-ft. rough wood, and COST VERY LITTLE.

LET US SEND YOU AN ESTIMATE.

They are either portable or stationary for brick setting.



BRICK SET.

The Gurney Foundry Company, Limited, - Toronto  
The Gurney-Massey Company, Limited, - - Montreal

# Live Stock Farm FOR SALE

IN TOWNSHIPS OF CALVIN AND LAUDER,  
DISTRICT OF NIPISSING, PROVINCE  
OF ONTARIO.

Lots 24 and 25, Con. 10, Township of Lauder  
Lots 8 and 9, Con. 1, Township of Calvin

Which contains 37 acres, more or less, of which about 90 acres of loam and clay are under cultivation, and on which all kinds of machinery have been used. The buildings erected are: Rack barn, 4x16 ft. frame, 13 ft. wall, with 9 ft. stone wall underneath, with stall room for 64 head, and also which water is supplied in iron pipes taken from a cistern in a creek, 1,400 feet distant; also a frame barn, 16 ft. wall 40x30; pig house 24x30; dwelling house, well finished and plastered 12x12; summer kitchen, 12x12; woodshed, 12x12 ft., and also, 12x12 ft. wall. There is a fine water power and valuable Misc mine on the property, and it is well watered, the Pecos Creek running through the property. For any one thinking of going into a stock farm this is a grand opening. Game and fish in abundance.

Post Office: Calvin, distance 3 miles; Matamoras, 10 miles; Eschsch, 6 miles.

For terms and further particulars apply or address

JOHN MACKAY  
RENFREW, ONT.

oooooooooooooooooooo

## FARMERS, DAIRYMEN

And their Wives,

Drop us a post card, and get free our booklet on

"INDURATED FIBREWARE"

It costs nothing, tells all about Indurated Fibre Pails, Milk Pans, Dishes and Butter Tubs, and will put money in your pockets.

THE E. B. EDDY CO.  
LIMITED  
HULL, CANADA.

oooooooooooooooooooo

# Potash

is one of the three important ingredients of a complete fertilizer; the others are phosphoric acid and nitrogen.

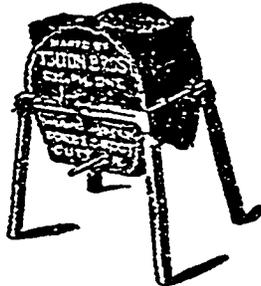
Too little Potash is sure to result in a partial crop failure.

## Free

An illustrated book which tells what Potash is, how it should be used, and how much Potash a well-balanced fertilizer should contain, is sent free to all applicants. Send your address.

GERMAN KALI WORKS, 93 Nassau St., New York.

# TOLTON'S NO. 1 DOUBLE ROOT CUTTER



The Latest and Best and  
The Only Double Root Cutter  
..... Manufactured

Patented September 26th, 1894.

### POINTS OF MERIT

- (1) To change from pelping to slicing is but the work of a moment.
  - (2) There are two separate wheels, one for pelping and the other for slicing.
  - (3) The united force of both wheels is always used in doing the work in either capacity.
  - (4) The hopper is between the wheels and having large lower pockets prevents choking.
- Soliciting your orders for the same, we are, yours truly,

TOLTON BROS., - Guelph, Ont.

Dr. LEAVITT'S  
CHAMPION  
...DEHORNING CLIPPER...

The most humane  
The quickest and best

YOU CAN MAKE MONEY by using this Clipper

-CIRCULAR FREE-

S. S. KIMBALL  
Agent for the Dominion  
577 CRAIG ST., MONTREAL, P. Q.

THE  
Toronto Engraving Co.  
BAY STREET, TORONTO, ONT.

= Live Stock =  
Engraving and Photographing  
A Specialty

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Our system of SHORTHAND can be learned in half the time required at any other. Investlg. 8 ft. It will Pay You. College of Commerce, St. Catharines, Ont.

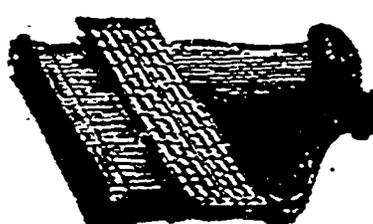
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A SMALL HERD OF  
PURE BRED REGISTERED  
AYRSHIRE CATTLE

Comprising 3 Young Cows in Calv.; 2 Young Bulls and 2 Heifers in Calv. will be sold by auction at Greengrove, Ont., on Wednesday, January 21st, 1908. For full particulars, apply to Box 38 Greengrove, Ont.

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## A Sounding Board



that does not warp or split.

A SYMPHONIC SLIDE  
that makes discords impossible and all transpositions easy—giving whole sweep of key-board for every key—and absolutely no dead strings in any chord.

A DOUBLE STRING,  
giving rich quality and great staying power to tone. There are some things which make the

# Apollo Harp

Call and examine, or write for Circular. the great favorite it is.

A. H. PUTNAM SOLE CANADIAN AGENT CONFEDERATION LIFE BUILDING TORONTO

THE ERTEL  
VICTOR

Automatic Folder.

THE STEVENS MANFG. CO.  
Branch: Windsor, Man. LONDON, ONT.

Double-Acting Perpetual Hay and Straw Press.

One reason why these Presses are the Best—is provided with a device self-regulating the tension reason caused by being dry and wet material in light and heavy charges, thus avoiding the constant annoyance of tightening or loosening the tension rods, also choking and straining both press and team.

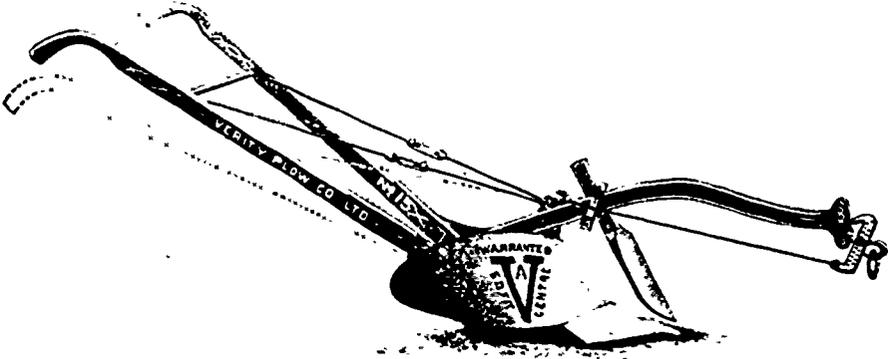
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is going on again as usual in spite of the disastrous fire that visited our works on October 26th last.

Newly secured premises, which we have just equipped with the latest machines and tools, in addition to our former steel plant and foundry, which were saved, enable us to turn out **Verity Ploughs and Scufflers** as expeditiously as ever.

New stocks of High Grade Raw Materials have been received, and with increased and better facilities for manufacture and inspection, our customers may look for a very high class of goods.

We make all styles and kinds of Ploughs, from a One-Horse Holding Plough to a Four-Furrow Australasian Gang Plough.



Verity, No. 15, One Horse Plough

## Verity Plow Co.,

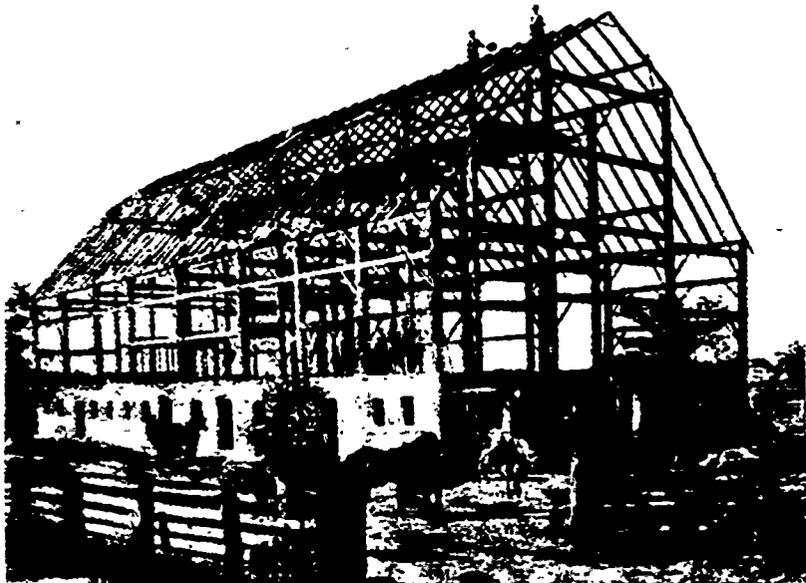
**BRANTFORD. (LIMITED)**

Sold by Massey-Harris Agents everywhere.

## THE Thorold Cement

High in Quality 56 Years in use.  
Low in Price

The Leading Cement for Building Bank Barns, Cement Floors in Stables, Silos, Culverts, Pig Pens, etc.



Mammoth Barn of Beswetherick Bros., near Hagersville, Ont. Floors for horses and cattle were put in this barn with **BATTLE'S THOROLD CEMENT**.

Has been tested in every capacity. Most perfect Cement made.

For full particulars address

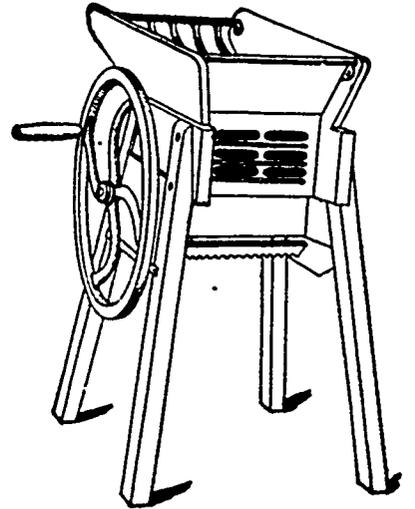
**ESTATE OF JOHN BATTLE,**  
THOROLD, ONTARIO.

# David Maxwell & Sons

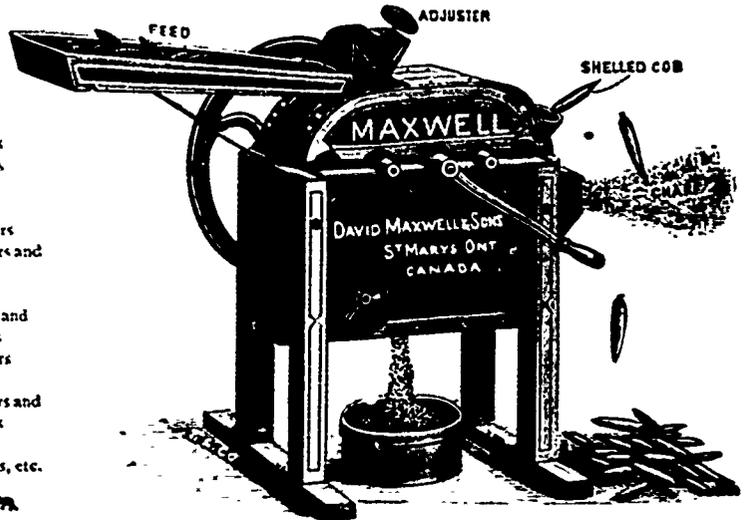
ST. MARYS, ONT., CAN.

Manufacturers of

## High Grade Farm Implements



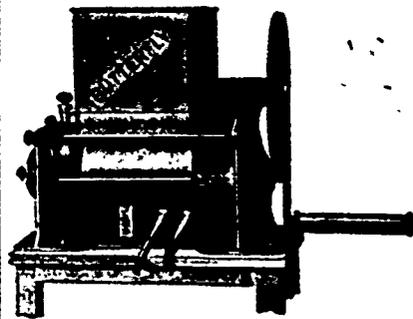
- Binders
- Reapers
- Mowers
- Hay Rakes
- Hay Loaders
- Hay Tedders
- Disc Harrow
- Scufflers
- Turnip Sowers
- Turnip Slicers and Pulpers
- Cider Mills
- Hand Straw and Corn Cutters
- Lawn Mowers
- Churns
- Wheelbarrows and Corn Shellers
- Iron Jacks
- Riding Plows, etc.



Agents wanted in all unoccupied territory.

Send for Catalogue.

## The Butterfly Hand Separator



It is the latest, best, simplest, and cheapest machine on the market.

Why pay a **HIGH PRICE** for an **INFERIOR** machine, when you can get a **SUPERIOR** machine for a lower price.

•••

No. 1, Capacity 250 lbs. per hour  
**\$75.**

No. 2, Capacity 350 lbs. per hour  
**\$100.**

## The Butterfly...

**Runs easiest. A child can run it. Easily kept in order. Requires very little oil.**

Write for agent's terms for county rights. They are being rapidly taken up. A quick seller and a sure winner.

Also general agent for the **IMPERIAL GAS AND GASOLINE ENGINE** As a power for farm use this engine has no equal. Reliable, simple and safe. Manufactured by the Cooper Machine Co., Limited. We are pleased to answer all questions.

**GEORGE C. PICKHARDT, GENERAL AGENT, 17 St. John St., Montreal**

**There is No Doubt About the MERIT of DEHORNING**  
It cuts both ways, does not crush. One clip and the horns are off close. Write for circular. **The Keystone Dehorner Mfg. Co., Picton, Ont., Can.**

**CANADIAN OFFICE, SCHOOL FURNITURE**  
FINE BANK OFFICE, COUNTY HOUSE & LIVING ROOM FURNITURE. OFFICE, SCHOOL, CHURCH & LIBRARY FURNITURE. **SEND FOR CATALOGUE**

**HATCH Chickens BY STEAM** With the **MODEL EXCELSIOR Incubator**  
Simple, Perfect, Self-Regulating. Thousands in successful operation. Lowest priced Best-class incubator made. **GEORGE H. STABLE, 114 to 122 S. 5th St., Chicago, Ill.**