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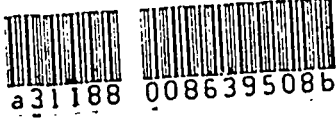
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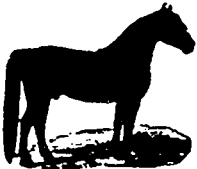
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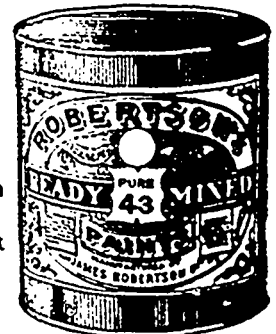
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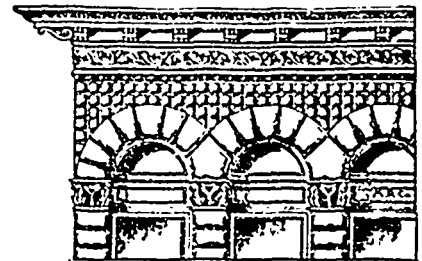


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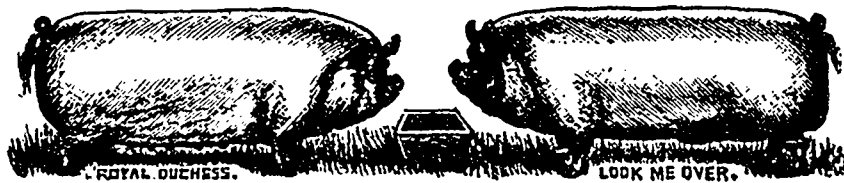
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FARMING

VOL. XVII.

SEPTEMBER 26th, 1899.

No. 4

Exhibiting and Judging Live Stock

Now that the smoke of the battle has cleared away and the strife in the show ring for 1899 is over, it may be well to enter into the retrospective a little and find out just where we are at. The contests in nearly all classes of live stock at this year's shows have been very keenly contested, more so than for several years back, especially in the cattle, sheep, and swine classes. So much so has this been the case that the most despicable practices have been resorted to, in a couple of instances, in order to gain favor in the prize ring. And, indeed, we may well ask: "Where are we at?"

The contemptible action of the manager of the Miller & Sibley herd, and apparently of those in charge of the herd of a prominent Canadian breeder, in forcing back the milk into the udders of their Jersey cows before taking them before the judges at the Toronto Fair cannot be too strongly condemned. When exhibitors at any show resort to such practices they should be prohibited from ever entering a show ring—at least until they have learned that honesty in the show ring is just as necessary and is as much looked for as in any business transaction.

The action of the Industrial Fair Board, as reported in last week's FARMING, in withholding the prize money won by the Miller & Sibley herd and in restraining them from exhibiting at the Industrial Fair for one year, will be generally commended. But what seems strange is that no punishment has been meted out to the other breeder implicated. Those responsible for the action referred to in this case were either innocent or guilty. If the latter, why was not the same punishment meted out to the Canadian firm as to the American firm, whose manager admitted the wrong-doing? If the Canadian breeder was totally innocent of the charge made against him it is only fair to himself and to the public that the fact should be made known.

It is somewhat strange how this affair is developing. In a letter to the president of the Industrial Fair Association made public last week Messrs. Miller & Sibley state that they were greatly shocked on learning that one of their employees had resorted to the practice already referred to, and would forego all prize money, honors and success unless they were justly entitled to them. While we have no desire to question their sincerity in this matter, yet it seems strange that they should have as the manager of their large and valuable herd a person who would stoop to such methods. Their manager is not a novice in the business of managing a Jersey herd, and it is hardly reasonable to suppose that his visit to the Industrial Fair a few weeks ago was the first time when milk had been forced back into the udders of their cows before taking them into the show ring.

This particular instance, to which we have referred at some length, however, suggests a thought that it might be well to consider for a moment. Just how far an exhibitor should go in fitting and fixing his animals for the show ring and how far the judges should be governed by such preparation in awarding prizes is open to question. Is an exhibitor who has a superior animal constitutionally speaking to be put down in the prize list because another animal inferior in other ways, but specially fitted for the show, takes the eye of the judge and is placed first? Every one will

admit that a certain amount of fitting is necessary not only for the show ring but in order to make an attractive exhibit for visitors, but how far its influence should extend in awarding the prizes is another matter. Certain it is that a well-fitted animal looking sleek and nice, and not a hair turned the wrong way, will take the eye of the judge and unless it has some very glaring defect otherwise will not be passed over carelessly by him.

While we believe that a certain amount of fitting up is necessary, still we are somewhat inclined to the view that of late years there has been a little too much fitting and fixing for the judge's eye rather than for the visitor to the Fair. In this we do not think the exhibitor is so much to blame as the judges. If the judges are in any way influenced in making the awards by the finish, or way an animal is fitted for the show, it is quite natural for the exhibitor to cater to this influence, and to strain every point in order to have his animals make a distinct impression upon the judge. While there may be no great objection to this so long as legitimate and fair methods are adopted, yet there is always the temptation to go a little too far along this line. Besides, there is a possibility of an injustice being done to the exhibitor of a superior animal, who may not have the taste or the means at his disposal to fit his animals as the others do. In other words, it may tend to shut out all but the professional exhibitor from the show ring, and to make it very difficult for the ordinary farmer, who becomes possessed of some high-class stock, to get a first place in the prize list.

The Apple Trade

By Major James Shepard, Queenston, Ont.

Having had forty years' experience as an apple grower and twenty-four years' practical knowledge of the packing and handling of the fruit, I have naturally taken much interest in the discussion that has taken place in Parliament and in the press lately concerning the export apple trade. From Prof. Robertson's evidence before the select committee on the subject it is clear that a great part of the trouble in the export trade arises from bad handling. If one will observe the way in which apples are handled in many cases by the railway and steamship companies, we might well wonder that they came through as well as they do. On that part of the subject, however, I cannot speak from experience. Prof. Robertson says the great trouble arises from lack of skill, lack of care and lack of honesty in packing. Every experienced dealer will admit that this is true, and I shall briefly note my observations under these headings.

First—lack of care—as to which farmers and packers are both to blame. Farmers do not take care of their trees, do not trim, do not manure, do not spray, in fact, outside of a few districts, they look on the apples as a sort of side crop, that may or may not yield something and consequently take no interest in the orchard. The result is that in poor years, when prices are good, they have no apples, and when there is a crop their sample is so poor that the dealers come and run over the fruit and reject two-thirds of it. In many cases the picking is carelessly done; boys are set to pick, often with a bag slung over the back, and the fruit is turned out into barrels or in a pile. The farmer will scold

the boys for knocking or throwing the mangold wurtzels about, but he allows them to work their own sweet will with the apples. Then the packers come in a hurry, take no trouble to see that the apples are properly sorted or to settle them in the barrels, and often leave them lying around the orchard for weeks before shipment.

Then comes lack of skill, and this is entirely the fault of the dealers. Mr. McMillan was right when said in Parliament that the dealers did most of the packing, and were to blame if the work was improperly done. The first thing to be got rid of is the idea that everybody knows how to pack apples properly. It requires time and experience to acquire this knowledge, and every farmer's son or workingman in the country is not capable of taking charge of the work without some training and instruction. But we find that many buyers ignore this, and hire some local man to buy and pack apples, and the result is poor sorting, slack barrels and open heads. Prof. Robertson, in his evidence before the Agricultural Committee, says that apples packed by the same man and in the same locality are often found, on arrival in Europe, to be uneven, some being slack and wet, while others are tight. When one knows the way in which many apples are handled, this does not seem strange. For instance, some are packed just as they are picked from the tree, others are placed in piles in the orchard, often in the sun, and left for a week or two; some are taken into the barn or shed and packed there. Often apples are packed in the orchard, and left lying around for a week or two before shipment. These different ways of handling account, in many cases, for a difference in the condition of the fruit on its arrival in the markets of Europe.

As regards lack of honesty, both the farmer and the packer are to blame. It always seems strange to me that while farmers expect to carefully clean their wheat, barley and other grains, and properly sort their potatoes before taking them to market, when it comes to fruit everything goes, literally speaking, and when the buyers start to sort their apples they naturally grumble and find fault. Then the dealer is not honest when he sends careless, inexperienced men to do the work, who run over the farmer's fruit, scattering and destroying what they do not take. The packing season is very short, and the work must be done expeditiously, but that is no excuse for the waste and destruction that goes on in many orchards, especially when there is a good crop.

Taking the figures given by Prof. Robertson along with others that I have been able to analyze, we are safe in concluding that not more than one-third of the apples shipped across the Atlantic from this province arrive in good condition and are classed as tights, another third are classed as slack and slightly wet and the remainder as slack and wet. The prices would average about thus: When the tights sold for sixteen shillings, the slightly wets sold for twelve shillings and the remainder for seven. Consequently, if we ship this season 150,000 barrels of apples at the average price in London of four dollars per barrel, the gross value would be \$600,000, providing they all arrived in first-class condition. But under present modes of packing and shipping,

The first class would sell for.....	\$200,000
The second class would sell for.....	150,000
And the remainder for.....	87,000
<hr/>	
Making a total of.....	\$437,000

or a direct loss to Ontario farmers of over 27 per cent. or nearly \$170,000, on the season's business. It seems too bad that over one-quarter of the value of the production of our orchards exported should be lost between the grower and the consumer, but I am sure that every experienced dealer will allow that I am well within the mark when I make the above calculation.

As in other human affairs there are many things about the apple export trade not understood by the dealers, and if we are to stop this great waste and put the business on a proper basis we must have both in the grower and the dealers more care, more skill and more honesty. Our

apple trade has a great future both in our own Northwest and in Europe and it is the duty of the Government to see that this great industry is not ruined by the ignorance or dishonesty of either producer or dealer. If the Government would take hold of the matter, purchase a few hundred barrels of fruit in some good apple section, have them properly packed under the same conditions as those ordinarily prevailing, and then follow them up and note on their arrival in London the effect upon the selling price of the different treatment they had received, something in the way of definite and practical knowledge would be available. Private firms can hardly be expected to take this trouble, and if they did would naturally want to retain the information gained for their exclusive advantage.

It is no use expecting that a revolution can be brought about in the trade at once, but if the same intelligence and enterprise that have made it possible to export other lines of farm products which are far more perishable were brought to bear on the export apple trade we should soon see the trade assume the position among our export industries that its importance demands. Ontario grows the best apples in the world. We have large areas suitable for apple culture, and it is greatly to be deplored that from 25 to 50 per cent. of our apple crop should be rejected by the packers as culls and at least 30 per cent. of the remainder lost in transport. It must be a very profitable business that can stand such losses and still survive.

Cheese and Butter-Makers' Association

Next Annual Convention in Ingersoll,
Jan. 31st and Feb. 1st.

The Board of Directors of the Cheese and Butter Makers' Association of Western Ontario, met at London on September 13th, to arrange for the next annual convention of the association. There were present Messrs. T. B. Millar, president, London; John Brodie, secretary-treasurer, Mapleton; Geo. H. Barr, Sebringville; Geo. E. Goodhand, Milverton; James Morrison, Brantford; W. W. Brown, Attercliffe Station, and T. E. Nimmo, Ripley. The secretary reported that the town of Ingersoll had invited the association to hold its next annual convention in that town and had made a grant of \$50 towards the prize list for an exhibit of dairy products, and also the use of the Town Hall together with light and heating free for the meeting. On motion the directors unanimously decided to accept the invitation and to hold the second annual convention of the association at Ingersoll on Wednesday and Thursday, January 31st and February 1st next. The exhibit of cheese and butter will be made a special feature of the gathering, when \$150 will be given in cash prizes.

Trade with Jamaica

There has been some little interest shown of late in the public press and elsewhere in regard to increasing trade between Canada and the Island of Jamaica. Many optimistic statements have been made in regard to this trade and its future development; yet, when we come to examine the facts in connection with the existing trade conditions between the two countries, the outlook is not quite so hopeful as we could wish. The long distance both by water and rail, and the absence of any direct line of steamers from a Canadian port, except one steamer a month from Halifax, make the number of our food products which can be sent to that island very limited indeed. The Canadian products for which there is a fair market in Jamaica are. Fish, flour, cheese, butter, potatoes, canned goods of all kinds, oats, hay, boots and shoes, carriages,

bicycles, etc., while the products which Canada could take in return in any large quantity would be sugar, oranges, and bananas, supplemented by cocoanuts, pineapples, coffee, ginger, tobacco, and allspice.

From this it will be seen that any extended trade de-

velopement between these two countries is quite a long way off, unless a direct line of steamers is established between St. John, N.B., and Jamaica. This would reduce the present ocean route by over 500 miles, and railroad freights by the same distance, and save five days in time, and reduce freight time to less than shipping through New York.

contract with the planters; and the banana trade is principally in the hands of the Boston Fruit Co.

Mr. Ventresse is very enthusiastic about future business in fruit by direct line to St. John, N. B. He has visited nearly all the leading wholesale fruit dealers in Canada and speaks very encouragingly as to the outlook for trade. There is no direct trade in fruit between Canada and Jamaica. All the oranges that come here pass through the middleman's hands at New York and Boston. Mr. Ventresse hopes before he returns to arrange matters so that oranges will be sent direct from the grower in Jamaica to the dealer in Canada. If this is done the fruit will come through quicker and in better condition, and the dealer here will be surer of the quality of the fruit he is getting. By this means a trade in Jamaica oranges should be established that will be of great advantage to the Canadian consumer, and he will not be eating Jamaica oranges under the delusion that they are Florida oranges because they are repacked and shipped from New York in boxes with printed Florida wrappers, to the great disadvantage of Jamaica.



A Jamaica Banana Market

Mr. A. Byron Ventresse, of Darliston, Jamaica, a Canadian by birth, but who has been a resident of the island for the past ten years, where he has a farm corresponding to our idea of a cattle ranch, which also produces oranges, is on an extended visit to Canada in the interests of the trade we have outlined. In a recent interview Mr. Ventresse gave some valuable information in regard to trade relations between the Dominion and the land of his adoption. Canadian flour has never been properly handled in the Jamaica market. A large consignment was sent down a few years ago and sold at auction; then a smaller lot was sent, over a year ago, and received no better treatment, in fact, might as well have been so sold; and to-day a barrel of Canadian flour cannot be bought. A good firm to handle only Canadian goods has never been established, and such seems to be a reasonable and intelligible solution for permanent and extended trade relations. The consumption of high grade flour is limited, but a profitable and increasing trade could be established. There is an immense consumption of canned goods, of which Canada supplies practically nothing. A small quantity of cheese and butter goes from the Maritime Provinces, but as the common people do not know butter from oleo, and as there is no law to prohibit the importation of the latter product, good butter is placed at a decided disadvantage. Nearly all the fish imported comes from Canada, and that is about the only line of trade that occupies an important place just now.

Turning to the other side of the question, we find that the two products for which a considerable direct trade might be worked up in Canada, are oranges and bananas, with something in sugar; but, as Mr. Ventresse points out, the bulk of Jamaica sugar goes to Great Britain under

are very crude. The only grain crop grown, or that can be grown, is corn, which forms the stable grain for horses, but large quantities are imported. Cattle, horses and other stock are allowed to run on the fields winter and summer and do not get any special care or feeding except the working stock. Some idea of the ordinary Jamaica cow may be gathered from the fact that it takes from ten to fifteen cows to supply a gentleman's house with milk and butter. It is a good cow that gives three quarts of milk at a milking, and they are only milked once a day. The calves always suckle the cow. They are hard to raise and sometimes farmers lose 90 per cent. of their calves in the rearing. The Texas ticks are very troublesome. The only remedy used is to paint the animals with oils, etc. Dipping has not been used to any great extent. Of late years some little attention has been given to breeding. Several Herefords have been imported for improving beef stock, Holsteins for dairy, and the Indian cattle for working purposes. Jamaica raises all the horses and mules she needs, but a great many are sired by imported stock. All poultry is sold alive on the Jamaica markets, and brings about 18c. per lb. live weight at Kingston. The great enemy of the poultry on the island is the mongoose like a ferret in size and shape and a grey squirrel in color. It is also an enemy to all ground birds, of which there used to be a great variety.

Fruit at the Industrial Fair

By John B. Pettit, Fruitland, Ont.

No person who had the pleasure of visiting the Industrial Fair at Toronto could go away without entertaining the thought that Canada is a favored land, that her soil is rich and productive, and that the climatic conditions are favorable to the bringing to perfect maturity of all kinds of fruits, vegetables, and grains, and every other product of the agriculturist. Besides the general spirit of progressiveness that seemed to pervade the whole exhibition, the most excellent display in the horticultural building pointed

to the fact that Canadians are an enterprising people, and that they have a grand and promising future before them.

In spite of the fact that in most sections of the Dominion, and more especially in Ontario, where the greatest quantity and variety of fruit is produced, the season has been anything but favorable to the perfect maturity of the same, the exhibit was very large and of most excellent quality. No other display can do so much toward advertising the fertility of the soil and favorable climate of a country as an exhibition of horticultural products, and many visitors who came from the Southern States of the American Union, from South America and from European countries, gazed with wonderment at the exhibit, astonished to see any fruit at all, let alone such a grand display as a sample of what could be produced in what they supposed was a country continually bound in snow and ice.

Besides the private exhibits in competition for prizes, there was a long table devoted to all kinds of fruit from some of the Provincial Experimental Stations. Thousands who visited the fair and viewed this display were surprised to learn that there are so many different varieties in each kind of fruit. As an instance, Mr. M. Pettit exhibited 102 varieties of grapes from the Wentworth Experimental Station; Mr. W. H. Dempsey, 140 different varieties of apples from Bay of Quinte station; Mr. R. L. Huggard, 89 varieties of pears from East Central station and Mr. J. Mitchell had 40 varieties of plums from Georgian Bay station. Then there were many varieties of peaches sent from the different stations. Another exhibit on this table was 120 large bottles of fruits preserved in their natural state in acids, the work of Mr. Linus Wolverton, M.A. Many of these were on exhibition at the World's Fair in Chicago in 1893 and some of them will be sent to Paris next season. Then Mr. A. Gilchrist, of Toronto, had several jars of different varieties of fruit that had been preserved twenty-one years and are still in perfect condition.

Side by side with this table was another big exhibit of the Ontario Government, one that was viewed and discussed by thousands and could not but be a most excellent educator to all who saw it. This was a display of sprayed and unsprayed apples under the charge of Mr. W. M. Orr who for some years has held the position of Superintendent of experimental spraying. These apples were taken from the thirty orchards throughout Ontario where the Government carried on the experimental spraying last spring, representing Keene, Elmira, Alliston, Markham, Milford, Mildmay, Paris, Wellington, Caledon East, Shelburne, Palmers'ton, Listowel, Clanbrassil, Tottenham, Southampton, Prince Albert, Thornbury, Demorestville, Havelock, Chesley, Tavistock, Omeme, Colborne and Beamsville. This was, as has been said, a large exhibit and when the sprayed and unsprayed samples of the same variety were viewed together it proved to be a striking object lesson. The unsprayed specimens were mostly wormy and more or less scabby while the sprayed samples were larger, plump and mostly clean in every respect. No better exhibit could have been thought of as a practical educator, and Mr. Orr and Mr. Pettit were on hand to give all information possible concerning the good work that is being carried on, and from the great interest that was taken in this display it was seen that orchardists generally are waking up to the necessity of resorting to spraying if fruit of good quality is expected in the future.

Such exhibits of the products of agriculturists do much to advertise our promising country and we trust that every effort will be exercised to have a large and excellent display of Canadian fruits, vegetables and cereals at the Paris Exposition in 1900. It would be a great inducement to emigrants from all nations and Canada would profit therefrom.

First American—Bicycles and automobiles. What show has the horse here in Paris? You seldom even see him on the boulevards.

Second American (who has just dined)—No; he's in the soup.—Chicago News.

Bovine Tuberculosis

It is somewhat refreshing after so much has been said and written in regard to tuberculosis in cattle in its relation to the public health to read a paragraph like the following from so well known a medical authority as the *Medical Record* of New York:

"Bovine tuberculosis has been known to stock breeders and owners from time immemorial, but the knowledge of its nature was so vague that no efforts were made either to prevent or cure the disease. The present war against consumption in all its forms has naturally aroused interest in this phase of this subject, and in consequence within the past few years much light has been thrown upon animal tuberculosis and the danger of its communicability to man. It seems more than probable that the risks attending the consumption of meat infected with tubercle bacilli have been considerably exaggerated; if this is not so, what then is the explanation of the fact that although since the middle of the present century meat has been a much more common article of diet than was the case in the first half of 1900, yet within the fifty years just gone by tuberculosis has not only shown no increase but on the contrary has steadily decreased. This happy result is doubtless greatly owing to better sanitation and more healthy hygienic surroundings; but if the meat of infected animals is so deadly as many would have us to believe, it appears reasonable to expect that the disease would be widely spread by it."

Those who do not take extreme views on this question and are anxious to see it controlled and stamped out by reasonable and effective methods must heartily concur with the above statement. When our leading veterinary authorities and others interested in this subject adopt similar views and get down to common-sense methods of dealing with the question, as we are pleased to say many of them are now doing, greater and more effective work will be done along the line of stamping out the disease or at least in getting it under control.

It seems to be the most foolish thing imaginable to attempt to stamp out tuberculosis in cattle by advocating a general slaughter of all affected animals as some of those in authority in this country seem inclined to do. Such a plan only serves to antagonize the breeder and cattle owner at the start and without his co-operation nothing of a permanent nature can be accomplished. Much more can be accomplished by adopting more reasonable and rational methods which are not directly antagonistic to the breeder's interests. As we have already stated we are glad that those who understand this question are coming to view it after a more rational fashion, as we believe that a great deal more can be done to check the effects of the disease if those concerned adopt more reasonable methods in dealing with it.

The journal referred to draws attention to a point that is worth considering. There can be no doubt that a great deal of the tuberculosis found in cattle to-day is due to unhealthy and unsanitary surroundings. The same holds good in connection with the disease in the human family, and why not with the bovines? There are a great many stables where cattle are kept, and especially cows which supply milk to large cities, that are anything but sanitary and conducive to the best health of the animal. Some effective work could be done in educating farmers and others who keep cattle as to the evil effects of badly ventilated and unsanitary stables upon the health of the animal that would tend to remove the conditions conducive to the development of the bacilla causing tuberculosis and to lessen the danger of its spreading. This is along the line of reason and would meet with no objection from any cattle owner who is interested in his own welfare and that of the community around him.

Our Market Review and Forecast is right up-to-date. Be sure and read it.

Canada Central Fair

Nothing plays havoc with a great agricultural fair like a day or two's rain. It not only materially reduces receipts but takes away all the brightness and pleasure alike out of exhibitors and the few visitors who brave the storm. A bright, clear day is both conducive to large receipts and to the best enjoyment of the fall fair, and the exhibition that is so unfortunate as to strike a couple of days of wet weather during the best week of the show is certainly placed in an unenviable plight. Such, unfortunately, were the conditions which the management of the Canada Central Fair this season had to face during the best part of last week, the principal one of the show. The fair opened at Ottawa on Sept. 11th, and closed on Sept. 23rd. During the first week splendid weather prevailed, but as this was not the important week of the fair the crowds were not overly large; but during the second week, when every department of the show was complete and everything in good shape, the rain came on and continued for nearly two full days, lessening the number of visitors and making the grand stand performances very unsatisfactory. On Thursday and Friday better weather prevailed, and the old time crowds were on hand, but as so much time had been lost they were not sufficient to bring the attendance up to that of a year ago.

The show itself was on the whole a good one, and up to the standard of former years. The new main building, which was well filled with most attractive exhibits, greatly adds to the general appearance of the grounds. It is indeed well adapted for the purpose intended, and reflects credit upon the management. With a few exceptions every department was well filled, and people who were prevented from going because of the weather certainly missed seeing a very complete and up-to-date agricultural exhibition. From the somewhat condensed report which follows, the quantity and quality of the exhibits in the various lines may be gathered. As at Toronto and London a number of extra pens had to be erected to accommodate the live stock.

Horses.

There was a very good show of horses at Ottawa. Not by any means the great quantity brought out at Toronto, but in some of the classes there were a better lot out than even at Toronto. In light-legged road horses, carriage teams and high steppers, as well as horses under the saddle, Toronto far excelled, largely because the dealers made a great display there of horses fitted for sale. Here these classes had some very good animals, and several of the Toronto prize winners, but had neither the quantity nor the general quality of the Toronto show. In heavy horses Ottawa had rather the best of it. The winners in the Clyde class of stallions were not down, but instead the Eastern men from the provinces were out with a fine lot of animals, and the classes were better filled than at Toronto. This was more especially the case in the Canadian-bred classes, which at Ottawa were full of animals of fine quality, many of these good enough to have won in any show ring in Canada. Of Shires and Percherons there were very few shown—practically they were out of the running altogether. The heavy classes were Clydes and their grades almost altogether. Here they have still retained the old fashioned general purpose class, one very puzzling to the judges and annoying to the exhibitors, and the latter made some grumbling, as when a heavy animal got a ticket the owner of a lighter rival would feel hurt and go into details of the uselessness of that prize animal to "go for the doctor." Consequently he proceeded in forcible language to "go for the judge."

Thoroughbreds.

The Russell and District Stock Improvement Society had out three thoroughbreds and got first, second and third. A rich, golden chestnut, Sleight of Hand, by Uncas, was preferred to the dark bay, June Day. The latter has had his day of first prizes, and in the past has

bred as fine a lot of half-bred colts as ever came on the Ottawa ground. Lately he has been in the neighborhood of Winchester, Ont. Gold Fox, from London, owned by Dr. O'Neil, V.S., was also out. He was second at London, and is a good, deep-ribbed animal. He was thrown out on veterinary inspection but this proved to have been a mistake as the class is to be rejudged. Fred. B. was placed third and Sleight of Hand got the gold medal for stallion and his get, bringing out a lot of yearlings colored and built like the sire. There were no mares shown in the class.

Carriage Horses.

This class was headed by Shelby Chief, a fine dark dappled bay 16.3 hands, nine years' old, weighing in full flesh 1,450 lbs., and clean legged as a thoroughbred. He is owned by Alex. Blyth, Ottawa. Second place was given to King Chief, a rangy bay, claimed by his owner to be seven-eighths thoroughbred and one-eighth Morgan. He is like a good goer and stands high with good legs, more like a big good roadster than a carriage type. He is owned by John McCandlish, Ottawa. Dr. McCashan, Bainsville, had the winning two year-old. For brood mares W. C. Edwards, M.P., Rockland, had the winner with Norman; F. Wilson, of Cumberland, second for a well made grey, and third for her foal. There were full classes in the young geldings and fillies and many of these were shapely half-bred animals. For teams, Walter W. Cunningham, Ottawa, had first with a brown and a bay with white markings; R. Beith, M.P., second with a pair of high steppers. The former were also built much after hackney models and were a very gay team. For single carriage horse ten were out, mostly bays. M. H. Cochrane, Compton, Que., was first with a beautiful animal and second for span 15½ and under. These were rich in hackney blood and moved like clock work. The Anglo Saxon Tea Co. had a single low down driver good enough to win first place, second going to F. Bayne, Ottawa. For the special gold medals in this class E. S. Skead, Ottawa, captured both with five pairs of harness horses, the dark bays being very good movers. For farmer's team for the Ottawa district Melville Bleeks, Munster P.O., Carleton Co., had the winning team. They were bays and fairly good actors.

High Steppers.

In the high steppers, R. Beith, M.P., Bowmanville, had the first prize and gold medal for a fine pair, winners at Toronto. E. S. Skead, Ottawa, was second, and the Anglo-Saxon Tea Co. third. For the single high stepper, E. S. Skead was first with a beautiful dark bay, a great mover. Four-in-hand class was won by R. Beith, while in the class for tandems M. H. Cochrane was first and Robert Beith second. They both had fine turn-outs and the driving was much admired by large crowds. For coach horses there were but four prizes offered and but three entries. J. D. Forth, Glen Buell, was first with a big bay, a fine large horse and with good legs. Abram Miller, Arnprior, second, and A. McKibbin, Merrickville, third.

Hackneys.

There have been a larger number of Hackneys out, but those that were forward represented the leading breeders of the Dominion. M. H. Cochrane, Compton, Quebec, had a fine lot out. His is one of the oldest Hackney studs on the continent. R. Beith, M.P., had his fine string out and D. & O. Sorby sent a good contingent. R. Beith's Squire Rickell was the only aged horse shown. Sorby's Woodlands Performer is a bigger horse, thick-bodied and heavy, he was put first of the three year-olds. The Russell and District Stock Co. were second with one from the Bowmanville stables. They had also the first prize two year-old while Cochrane had a light roan yearling, a very good mover. In three-year-old fillies R. Beith had first and in two-year-olds Queen Louise won for Mr. Cochrane while Beith got first for yearling filly. There was a good lot of Hackney mares. After long deliberation "Miss Baker" was given first and championship. She is a very sweet

mare with beautiful head and neck and grand knee and hock action. She was imported by M. H. Cochrane and is now owned by D. & O. Sorby, Guelph. R. Beith's Clarinda was second, and third went to the Compton stables. R. Beith had first and second for a pretty pair of foals and Sorby third. The gold medal went to R. Beith for the old horse Squire Rickell. M. H. Cochrane won the harness special with Marjorie by Maxwell, a brown mare much admired, and the saddle special with Lady Isabel by Hayton Shales. This mare won in Philadelphia, Boston, and Toronto two years ago.

Standard Bred and Roadsters.

In this class Hawley Chimes, the Toronto winner, was again first. He is by Chimes, dam by Mambrino King, and has a race record as a three-year-old of 2.23 $\frac{3}{4}$. He is owned by A. T. Mackie, Pembroke, Ont. Second went to Alex. McLaren, Buckingham, who has the bulk of the winning stock in this class. His stable is specially strong in the mares. He won first for brood mare and foal, first for year-old filly, and second for two-year-old; also second for foal. He has a fine lot of young trotting stock, and won also for sweepstakes mare. There was not much to record of special interest in young stallions. A. Pettypiece, Ottawa, got a second for a two-year-old. Dr. Church, Carp P.O., had the winning two-year-old filly. In the class for roadsters Alex. McLaren was again well to the front. He had almost a clear lot of firsts in mares and fillies, except in the yearling filly class, which was won by Joseph Kerr, Templeton. For the teams a span of dark bays, with flowing tails and lots of speed, were first in their class. They were entered by John Hutton, Ottawa. For smaller roadsters Clifford Sifton had a pair of blacks which got a red ribbon. In the contest for gold medal there was a very close contest, but the bays won the prize. Alex. McLaren got the medal for the best single roadster.

Saddlers and Hunters.

There were no gaited saddlers shown. Those before the judges had a thoroughbred look, and were well schooled generally. M. H. Cochrane won for the open class with a beautiful actor. In the hunters' heavyweights he got second for a chestnut son of Wiley Buckles, a big, fine horse. First in this class went to E. S. Skead, Ottawa. Wat. Cunningham had the winner for the lightweights, with C. D. Graham, Ottawa, second. W. C. Edwards, M.P., Rockland, had a couple of yearlings which won first and second, and Thos. Nixon, Manctick, had the best two-year-old in the class. There were but few ponies shown.

Clydes.

The turn out of Clydes and Clyde crosses was the best of the year. The Eastern Township men were on hand with a lot of fine horses well brought out. Amongst these Robert Ness had a lot of recently imported ones. The local men of the Ottawa Valley had some very nice things out, quite the best they have ever shown. From the west D. & O. Sorby came with their winning mares and fillies which did not get as many ribbons as at Toronto. In the aged class Robert Ness was first with his imported horse, Durward Lily, 8 years old, by Sir Everard. He is thus a half-brother to Baron's Pride. He is a fine, big horse, weighed 2,212 lbs. on Kilmarnock public scales as he was leaving Scotland. He was much admired and won the sweepstakes for his owner and the gold medal as the best horse in the class. Second went to Bowles & Armstrong, Springhill. For three-year-olds R. Ness got first and second. The second prize horse has Hackney action, is such a flash mover that he shows all his iron shoes. He is a bright bay with white blaze and three white socks, is called Full of Fashion, by Prince of Kyle, dam Braid, a noted prize mare, by Knight Errant, g.d. by Old Timer. He was bred at Milton, near Kirkcudbright and by many was an expected winner. Lord Chancellor was put before him. He is hardy in the finish shown by his rival; has heavier bone, but after a heavy season in the Gatehouse District and a trip across the Atlantic is not in the bloom expected. He has size and quality, is by Baron's Pride (9122), dam by Prince of Keith, by Prince

of Wales, granddams by Macgregor and Coiswell. Both these colts are royally bred and should help the Clydes in Canada. Third went to the Russell Stock Co. For two-year-olds R. Ness had again first and second. The first went to a Baron's Pride colt of great promise. His owner thinks him the best horse of his age in America. He is called Bravado, and his dam was by Cairnbrogie Stamp, (4274).

In yearling stallions Prince Patricia won for D. and O. Sorby, and got the gold medal for the best Dominion bred stallion on the ground. In brood mares there was a sharp contest, Robert Ness winning from D. & O. Sorby, with C. H. Barber, Gatineau Point, third. Sorby won with Princess Alexandria in the three-year-olds, but in the two-year-olds W. R. McLatchie, of Gatineau Point, won with a sweet filly in fine bloom, beating the Sorby winner at Toronto and London. This filly of Mr. W. R. McLatchie is very well made and moves nicely, has barely the weight of bone of her rival, is better colored, and about as pretty an animal as was in the grounds. She ran a close second for the sweepstakes medal, but was beaten by Sorby's big mare Sunlight, a World's Fair winner. In yearlings, James Bowman, Guelph, had the winner, a well-made one, Ness second and Sorby third. For teams Sorby had the winners in Sunlight and Dinah McKay. The former a very heavy mare, the latter finer in the bone and lighter as became her fewer years. Second went to McGengle Bros., Ormstown, for an imported mare and daughter. The team in the Canadian bred class was a good, well matched one, and weighed just 1,900 each. They were nicely matched and were owned by Thomas Birkett, Ottawa. For stallion and three of his get, Wm. Allen, Hull, was the winner with the bay horse Meridian.

The Canadian-bred Clydes were the best that have been seen this year in any show ring. While the stallions were not equal in all respects to some seen at Toronto, the class as a whole was superior. While not the sweepstakes winner, one of the most noticeable things in the class was a yearling filly by Prince of Quality, dam by Self Esteem. She is a nicely-colored bay, and is shown by W. R. McLatchie, Gatineau Point. She was first in her class. In aged stallions Thos. Good, Richmond, was first with a big-bodied bay by Jock Elliott, dam Belle of Richmond. McGengle Bros., Ormstown, were second with a compact dark brown, a good mover, but not so upstanding as the first horse. Third went to A. Spratt, Johnston's Corners. In three-year-olds the Russell District Society were first with a good one, well built, of good Clyde type. In two-year-olds there was a close contest, but eventually W. H. Hartin, Twin Elm, was placed first, and the Russell District Society second. J. R. Robinson, Manier, third. In yearlings John Clark, Ottawa, was first, A. Moffatt, Harboard, second, two promising colts. In brood mares McGengle Bros. were first with a well-built mare, a bay with white markings. In three-year-olds F. Richardson, Billing's Bridge, won, as also in the two year-old class. For best female W. H. Hartin, Twin Elm, got it with a very blocky mare. For the special prize given for the best Dominion-bred heavy draught stallion any age, D. & O. Sorby got the ticket with the yearling Prince Patricia shown in the other class, but foaled in Canada. There were few French Canadians shown, only one on the grounds, a light grey, and only one black Percheron, but the general purpose class had a lot of entries and amongst them a few very good animals.

Cattle

Beef Breeds—Shorthorns.

The exhibit of the beef breeds of cattle, though not larger than has before been seen on the Ottawa grounds, was one of extra good merit. In Shorthorns Capt. T. E. Robson had his herd which has been winning at the previous fairs in Toronto and London and they were opposed by R. S. Nicholson, of Sylvan, who had from Toronto gone to Quebec and met again Capt. Robson's herd here at Ottawa. Topsman, the big red winning bull, was again first, and had also the sweepstakes. Nicholson was second. The decision at Toronto in the yearling class was reversed.

James Leask, who won there, had to be here content with second place. Mr. Nicolson was awarded first for a thick, sappy roan carrying a great wealth of flesh. In the prize list there is no class for cows as is the rule with other first-class shows. The cows and three-year-olds are grouped together and as a consequence exhibitors have more to do in the class. In the cows Robson won with his three-year-old heifer and an unplaced cow. In two-year-old the class was like steps of a stair—the smaller not an animal to be despised, but as much smaller than the rest as to indicate they were not in the same list. The Greenway red and white heifer from Manitoba was again the winner. And the very good light roan yearling though showing a bit of patchiness about the tail head was good enough to win the championship for the females though she was not so neat and nice as the Captain's heifer calf, a beautiful red Queen of Lonans. She is a little dandy, so small and sweet with her seven months, is as neat as if she were a cow in miniature. For aged herd as well as the special for young herd under two years old Capt. Robson was again first while Mr. Nicolson had the first place for best herd of four calves under one year old, bred and owned by the exhibitor. These latter were specials given by the Dominion Shorthorn Breeders' Association given for animals recorded in the Dominion Shorthorn Breeders' Herd Book. These prizes amounted to \$100.

Galloways.

Next to the Shorthorns came the Galloways in numbers and quality. Indeed in some of the classes the Galloways were quite as good specimens of the breed as were the Shorthorns. They were more uniform in quality and style. D. McCrae had the best of the cow and heifer classes, and won all the firsts for females. He was weak in bulls, but has a grand one, Lord Wedholm, now in quarantine, and pronounced by the stockmen who visited quarantine to be the best Galloway bull even seen on this side of the water. Mr. John Sibbald, Annan, won for aged bull with Canadian Borderer, and also first for yearlings, while Mr. McCrae had the best bull calves shown. He also won the gold medal for best herd, and the sweepstakes with his two-year-old heifer, "Maid Minnie," by College Boy and from Violet of Tartreoch, a prize-winner in Scotland when shown by John Cunningham.

Herefords.

The white faces were forward from the herds of H. D. Smith, Compton, Que., and W. H. Hunter, Orangeville. The former had first and sweepstakes for the two-year-old bull, "Mark Hanna," bred in the United States, while Mr. Hunter had first for his imported aged bull. The cows were a large class, and Smith got first, second and third, putting Hunter out of the class. The whole lot of the cows were patchy. First place went to the three-year-old, the sweepstakes winner at Toronto, and second to a cow unplaced there, but which deserved her present position. In calves Hunter was easily first and second, and got second for his herd. He claims his cows looked thinner because of being good milkers and making big calves. The gold medal went to Smith for best herd.

Polled Angus.

James Bowman, Guelph, had this class to himself, and had the lot he showed at Toronto and Quebec. He had also some animals shown in the fat classes for which he got third place, showing against all ages. His old bull "Kyma's Heir" is bred from winners in Scotland, imported while Prof. Brown was at the head of the Ontario College Live Stock, when he brought out some good ones, better than have since been seen at the O.A.C. His heifer calf Belle 3rd is an extra good specimen of the "bonnie blacks."

Devons.

The Devons shown were all from the herd of W. J. Rudd, of Eden Mills, and are those shown at Toronto and

London. He has had for several years little or no competition in this breed.

Fat Cattle.

In fat stock James Leask, Greenbank, had a lot of prizes, and they were mostly for well-bred Shorthorn grades, and many the get of his old bull Moneyfuffel Lad. They were good meaty animals and brought out in fine bloom.

Ayrshires.

There was an excellent exhibit of Ayrshires. All the best of the Montreal herds were not forward but there was enough to make very interesting competition, and when the herds were called six faced the judges. W. W. Ballantyne, of Stratford, and Alex. Drummond, of Montreal, who, if they did not please everybody, gave very general satisfaction to the expert onlookers. There were very few dark colored animals on the grounds. The white with brown spots and marks about the head and neck were very common. In aged bulls Wm. Wylie, of Howick, Que., had first for his bull "Silver Prince," a grandson of old Silver King—and he was a close runner-up for the sweepstakes which however, went to Robt. Ness for his recently imported yearling bull bought from Mr. Mitchell, of Barcherkie, Kirkcudbright, Scotland. He is a gay bull with strong upright horns, a good head, broad between the eyes and with good crest. He is mostly white in color with brown cheeks and brown blotches on the neck, is better quartered than his older rival and is a very promising bull. In the yearling class Greenshields was second with a similar type. R. Reid, of Hintonburg, third with a darker colored animal, and J. C. Yuill, Carleton Place, fourth. In the two-year-old class Stewart & Son, Menie, Ont., were first with a light colored bull with good dairy points, R. Reid being second and E. N. Greenshields, of Danville, Que., third. In bull calves W. Wylie was first, R. Ness, second, and Greenshields again third; while for young things under six months the latter had both first and third, with Reid second and D. Benning fourth.

In cows there was a grand show, one of the best ever seen on the Ottawa grounds or, indeed, in any show ring in Canada. Greenshields captured first and third, with Stewart in between with the blue ribbon and Wylie with fourth place; but next to these were a grand lot of cows that were unplaced but would have made by no means mean winners in good company. Stewart had first for three-year-old heifer, Wylie second and the same exhibitor had first and fourth for two-year-olds. Ness had second in the two-year-olds and fourth in the three-year-olds, while Greenshields had the two third tickets. Yearlings lined up twenty-two animals, one of the grandest classes in the show. They were all much alike in color—few had much brawn and the judges had no easy task in placing the winners.

In calves R. Ness had first in the older ones and second in the younger class, with Wylie second in the former and third in both. Greenshields had the red ticket for young calves. For the dry cow class, three years and over, R. Ness had first, with J. C. Yuill second and third. W. Wylie with the two-year-old heifer Nellie Osborne 2nd, won the sweepstakes diplomas for best female any age. This gave him a good lead for the winning of the gold medal herd prize, Greenshields coming second and R. Ness third. For the young herd under two years old R. Ness got first and Wylie second. This was a very good show; seven young herds lined up before the judges, every one of which had great merit. The whole show of Ayrshires was a very good one.

Grade Dairy Cattle.

The most of the animals shown in this class had Ayrshire points very strongly marked. John G. Clark, Ottawa, had a fine lot that showed also the dairy Shorthorn type crossed with Ayrshire. He won a good many of the prizes, closely pressed by Robert Ness, of Howick, Que., who showed a grade herd that would have done no discredit to an Ayrshire show-ring. In fact many of them were quite good enough to win in a good class. In other cattle

Senator Drummond, of Montreal, showed a nice little herd of Kerry cattle, the short-legged, red-headed Irish bull being a particularly good specimen. He shows altogether nine head of these cattle. They are kept at Huntleywood Farm, near Montreal, and were quite an addition to our breeds of dairy cattle.

Jerseys and Guernseys.

These were hardly up to the mark of former years. There was but one small herd out of the former breed and a couple of odd animals. The experience of the Jerseys in Toronto this year made most of the breeders glad to get home. While they were not at all to blame in the matter of loss, they felt, as all cattle men did, the feeling of shame that so many rarely valuable animals should be lost in the way they were. Here the awards went to R. & W. Conroy, Deschene Mills, Aylmer, Que. He showed a very fine old cow, Dilwa—30515, now fourteen year old and carrying her years well. She is a very deep-ribbed cow, with a beautiful vessel. Another nice three-year-old cow, a light squirrel grey in color, with a white band about her nose, is Heiress of Prospect—116423. Their old bull is dehorned, a dark fawn-color, three years old, and is by old Ida's Rieter. Another, a two-year-old bull, is not much to look at, but to such an experienced eye as that of Mrs. Jones he is the best of the lot and worth going many miles to see. He is called Saint Lambert of Deschene—52671. E. N. Fleming, of Toronto, won for yearling bull, while James Arthurs, London, had second place on an old bull. In Guernseys there was a much better display. E. N. Green-shields brought out two good herds to compete with Butler & Son, Dereham Centre, and they got the bulk of the awards. In cows, while a very superior animal from the Isaleigh Grange farm was first, Butler had a couple good enough to be second and third. Green-shields had the gold medal for the herd and diplomas for best male and female any age.

Canadian Cattle.

The little black Canadian cattle had representatives of three herds, and some fair animals were shown. L. Thorn, Repentigny, Que., was first for herd and A. Denis, St. Norbert, second. James Dugas, St. Jacques de Sach, had also a few animals in the prize list, but the class, as a whole, were small, and the young animals especially did not show up well as against the other dairy exhibits.

Holsteins.

The black and white were out in force. G. W. Clemons, of St. George, again won with his aged bull and had first for a three-year-old cow and for herd. C. D. Gilroy & Son, Glen Buell, were first for three-year-old bull, for two-year-old and yearling heifer and for best female any age, also first for young herd and second for old herd. A. & G. Rice, Currie's Crossing, had first for yearling bull and no less than eight second prizes, including young herd. Clifford M. Keeler, Green Bank, had first for bull calves, both classes, first for aged cow and first and second for heifer calves. John Drummond, Parry Sound, had the second prize bull and the third prize bull calf. The Holsteins were well brought out, and, while not equal to the Ayrshires, they made a good dairy class exhibit.

Sheep.

There was a very good exhibit of sheep, and so many were brought out that additional pens for both sheep and pigs had to be built after the animals were on the grounds.

Cotswolds were shown by A. J. Watson, Castleberg, Ont., with his imported and Canadian-bred lot. He had some good Royal winners in the shearing and ram lamb classes, bred by R. & W. T. Garne. A. Denis, of St. Norbert, Que., had a few, and won some seconds and thirds, while Alf. Denison, Metcalfe, had the second-prize shearing ram.

Leicesters.—J. M. Gardhouse, Highfield, and John Kelly, Shakespeare, were in the prize list, with the former having rather the best of it, beating the veteran exhibitor of Canada in this breed.

Lincolns.—Gibson & Walker, Ilderton, were first with a very good lot, mostly Canadian-bred, while A. Denis, St. Norbert, had a couple of thirds for animals that looked much like his Cotswold type, though perhaps hardly as well covered on the head.

Southdowns had Senator Drummond, Montreal, W. E. and G. L. Telfer, Paris, and R. Shaw & Son, Glandford, all with very good flocks of the pretty little gray-faced beauties. Telfer had rather the best of the deal, while both the others had good flocks and were close up in the prize list.

Shropshires were perhaps the best of any of the breeds. They were in the largest numbers and best quality. The lot lately imported by Robert Millar, Stouffville, and shown by the Folly Farm, of Abington, Montgomery Co., Penn., were winners for the best pen and for shearing ram, and first, second and third for shearing ewes. John Campbell, Woodville, came closely up in all the classes, and won many firsts. A. Hagar, Plantagenet, had also some prizes.

Oxfords, Hampshires and Suffolks were shown together, the former breed by Smith Evans, Gourock, and the Hampshires by John Kelly, Shakespeare. The former had the best end of the awards and the pen prize.

Dorset Horns.—M. A. Empey, Napanee, had the best of the awards in this class. James Bowman, Guelph, had a couple of seconds, and J. A. Richardson, South March, had also a few prizes. This class as a whole was not equal to the London exhibit.

Merinos.—Robert Shaw & Son, Glandford Station, was first in these, with Duncan Cumming, Russell, showing a few, but he was only able to get minor prizes.

There were not many fat sheep shown, and the honors were even between the long and short wool lots. For the former *Lincolns* were shown by Gibson & Walker, and for the latter Robt. Miller with Shrop wethers, and John Campbell won prizes. Wm. Secker, Dunbarton, also came in for first, and W. E. & J. L. Telfer had some nicely finished *Southdowns*.

Pigs.

Never before had such a grand display of pigs been on the Ottawa fair grounds. We in Canada perhaps come as near the old land in our pigs as in any other branch of live stock. This year the best and only the very best gleaned from the other shows came to Ottawa. Berkshires led the list with George Green, Fairview, far in front. R. Reid & Co., Hintonburg, Ottawa, had the next place, with Jos. Featherstone, M. P., and A. J. Watson, Castleberg, with an odd one or two. In the *Yorkshires*, one of the grandest classes in the show, J. W. Brethour, Burford, was first, with Featherstone second, and J. G. Clark, Ottawa, also a winner. Chester Whites had Reid & Co., H. George & Sons, Crampton, and Clark in the awards, but the class was not as strong as the preceding one. Tamworths were most numerous and had the largest number of exhibitors. Some disclaim much against this long-nosed, slab-sided, red-haired grunter, but for the bacon hog it is a breed that is spreading fast into all parts of the country. Reid & Co. had several awards with H. George, Crampton, and J. A. Richardson, South March, and R. & W. Conroy, Aylmer, Que., all having good animals forward. *Luroc Jerseys* were the last class in the list and they had many out. Tape Bros., Ridgetown, were first, with J. G. Clark, Ottawa; Reid & Co., Hintonburg; J. W. Slack & Son, Ottawa, and Hardman, of Hardman's Bridge, also showing. The pigs were judged for bacon type and the awards seemed to give general satisfaction.

Poultry and Fancy Stock.

As was the case at London there was a much larger exhibit of poultry than other years. Especially were the utility breeds out in larger force than usual, including Plymouth Rocks, Wyandottes and Light and Dark Brahmas, all of which are of interest to farmers. The birds in these classes were as a rule of good size, and both old and young birds were well represented. The breeders in the Ottawa

section have not had the drought experienced farther west and were therefore able to get their young birds in good shape. The quality all through was good, there being in many cases only the prize-winning birds at other fairs shown. The number of turkeys, ducks and geese was double that of other years and very good in quality as well. The superintendent in this department, Mr. E. H. Benjamin, is deserving of credit for his efforts in making up so fine an exhibit.

There was a large and good exhibit of pigeons. George Ward & Co., Ottawa; H. B. Donovan, Toronto; W. T. McBride, Cote St. Paul, Montreal, all figured prominently in the prize lists. There was a fair show of peacocks, rabbits and other fancy stock. The regular classes in the department were the ones securing most attention from the visiting public. In Brahmans, Thorpe & Scott, London, and Sage & Garside, of the same place, were the chief exhibitors in dark colors, while the lights had a more varied lot of exhibitors, Hugh Wyatt, London, being first. A. P. Mutchmin, Ottawa, had a good share of prizes in several varieties, as had also Dr. A. W. Bell, Toronto. There was a large display of barred Plymouth Rocks. G. W. Miller, London, getting some firsts, with Devlin & Jacques, Ottawa, and I. Mackenzie, Ottawa, with good birds. The show of Buff Rocks was not equal to that at London. There was a fine show of Wyandottes. In Hamburgs W. H. Reid, Kingston, and V. Fortier, St. Therese, Que., had a fine lot of birds, while in pencilled Hamburgs I. W. Neilson, Lynn, did well with his exhibit. C. J. Daniels, Toronto, had some fine Polands. G. S. Oldewg, Kingston, won in several classes, more especially in Bantams.

Dairy Products.

There was a fair exhibit, though there was a much smaller exhibit of cheese than one would expect to see at Ottawa, so near some of the leading dairy sections in Eastern Ontario. The exhibit of butter was, comparatively speaking, considerably larger than that of cheese. The large refrigerators built for this exhibit were pretty well filled, there being a large increase over the number shown last year. A good many Quebec creameries exhibited, and the quality of their exhibit was very good. The judge, Mr. J. W. Hart, Superintendent Kingston Dairy School, pronounced the quality of creamery butter made in the Ottawa section as being especially fine owing to the cows having plenty of grass. And what was somewhat unusual the private dairy pound prints were better in quality than the creamery prints, but the dairy 25 and 50-lb. tubs were not uniform in flavor.

The sweepstakes cheese far out-classed every other cheese shown in point of quality. The colored cheese was a little high flavored. The quantity shown was not up to other years, but the quality, on the whole, as reported by the judge, Mr. A. F. MacLaren, M.P., was very much superior to that of other years. Miss Mary Morrison, Newry, Ont., carried off the sweepstakes prize. Other leading winners were: R. Elliott, Dunrobin; F. J. Irvine, Antrim; John Stewart; A. A. Ferrier, Oseda; D. Cumming, Russell; and A. D. Perry, Camden East. In the creamery butter section the chief winners were; I. Wenger, Ayton; H. W. Farry, Compton, Que.; Lennoxville Creamery Co.; W. & P. McLary, Compton, Que.; David Moir, Almonte; and J. D. Malcolm, Sheffield.

The accommodation provided was good if all the exhibits in this department had been placed in the dairy building. As it was the honey, domestic exhibits, etc., were placed in this building and shut out several dairy supply exhibits that had to go to other parts of the grounds. Two dairy supply firms were located at the farthest end of the machinery hall and one in the carriage building. If the dairy building were given up fully to the dairy and its interests the exhibits at Ottawa, in this line, would have formed a most attractive exhibit. An exhibit of unusual interest in this line was the radiator butter-maker, a combined separator and churn lately imported from Sweden.

It will take the milk directly from the cow and convert it into butter in fifty-five seconds. With all this improvement in dairy appliances, etc., we hope our fair managers will soon come to understand that the dairy industry of this country is a growing one and is constantly requiring increased accommodation.

Fruit, Vegetables, Etc.

The horticultural building was one of the most attractive on the grounds, and it is a pity it could not be placed more centrally. There was a splendid array of flowers nicely arranged, the whole making a very fine display. The apples were smaller in quantity than other years, though the quality was fair. The vegetables were about the same as last year in both quality and quantity.

Central Experimental Farm Exhibit.

Without doubt one of the most tasty and attractive exhibits on the grounds was that made by the Central Experimental Farm, Ottawa. This exhibit was located in a special building near the main entrance which it occupied in conjunction with an exhibit of North-west grains made by the Canadian Pacific Railway. The exhibit was designed and arranged by Mr. W. H. Hay, accountant at the farm. Mr. Hay is an adept at a thing of this kind and never stops half way. It was he who designed and arranged the splendid exhibit made by the Farms at Omaha last year and which won first place. The Ottawa exhibit consisted of an array of grains and grain in straw, fruits, pumpkins, potatoes, tomatoes, etc., so arranged as to give pleasure to the eye and to attract attention of the visitor at once. In addition to this a number of very striking cartoons designed by Mr. Hay were hung along one side of the building. One illustrated some of the farmer's worst enemies, such as injurious insects, for which remedies could be secured at the Experimental Farm. Another showed the value of spraying. A third illustrated the value of clover as a fertilizer in a very striking way. On the same field part of the land had been sown to clover, which was plowed under and gave a yield of fifty-five bushels of oats per acre, while on the other part where there had been no clover, only forty-six bushels per acre was secured. Another cartoon illustrated the value of ensilage and named some of the varieties of corn which gave the best results. These were the Champion White Pearl, New White Cap, Yellow Dent, Canadian White Flint, Longfellow, Angel of Midnight, Mammoth Cuban and Cloud's Early Yellow. Another illustrated Canadian dairy exports for 1898 which were in value \$17,572,263 for cheese, and \$2,046,686 for butter, and still another the value of our egg exports for the same year which was \$1,255,304.

CORRESPONDENCE

Works all Right.

To the Editor of FARMING:

In reply to your letter for information in regard to the blower cutting box I would say that it does its work all right. I have used it one season with the best of satisfaction in regard to its work. The fans that elevate the ensilage are attached to the drive wheels, thus causing the drive wheels to run very fast. That is the only thing I have to find fault about. I will answer the questions in rotation as you ask them.

(1) Yes. (2) Twelve-horse threshing engine. (3) No, not with this engine; never used anything else. (4) We elevate thirty feet; I think it would blow it forty. (5) In my opinion, the blower is ahead of the carrier; everything goes into the silo regardless of a windy day, but not so with the carriers unless they are covered on top, as the wind will blow the leaves or light stuff around. Ours is a 13-inch throat box. Mr. Thom, of Watford, makes a 16-inch box, but I do not know how it works. No doubt it will feed faster.

I have a round silo 29 feet high and 12 feet across, and, with three teams to draw in and nine men, we can fill it in one day.

WM. ELLIOTT.

Springbank, Ont., Aug. 22, '99.

The Horse Power will do for Hay or Straw

To the Editor of FARMING:

Our blower elevator has given us good satisfaction. We use steam power and have found no difficulty in getting enough power to operate the blower satisfactorily. We elevate 25 feet and could go higher if necessary. We consider the blower to be far ahead of the carrier elevator. For elevating hay or straw an ordinary horse power will do. We ran ours all last winter with a wind-mill power for about 100 head of stock, cutting all the hay and straw required.

R. & J. RANSFORD

Clinton, Ont.

Elevates Fifty Feet High

To the Editor of FARMING:

Your communication of the 18th inst. to hand in regard to blower elevator cutting box for handling ensilage.

I may say that the cutting box as far as its work is concerned has given me every satisfaction and I now can run it easily with a 14-h.p. engine, elevating the corn fifty feet high at the rate of fifteen tons per hour. There are three different sizes built by the Wilkinson Plough Co., Ltd., and mine is the largest size. I can say nothing, but think they would run with much less power. As far as comparing carriers with pneumatic delivery, the carriers are not in it. I may also say that for cutting straw or hay, if properly handled, the blower will make a first-class job.

JOHN WATT.

Toronto Junction, Ont., Aug. 26, 1899.

Wind Power not Satisfactory

To the Editor of FARMING:

In reply to yours of 18th inst. to E. P. Lee, re ensilage cutter, I would say:

(1) The blower ensilage cutter with the fans on the main wheel has given us perfect satisfaction in every respect. The cutter with *separate* blower did not give satisfaction.

(2) Power. For cutting ensilage we use a 14 or 16-h.p. steam engine. For straw, etc., we use a 14' Canadian Air Motor windmill.

(3) We have found no difficulty in getting sufficient power.

(4) Our silo is 22' and I am confident the machine would elevate to 40'.

(5) The blower ensilage cutter compares with the ordinary carrier as does the self-binder with the old style of harvesting with a sickle.

The machine we use is a "Climax A," made by "The Wilkinson Plough Co.," and has a capacity of 20 tons per hour. Our experience is that if the speed is maintained—in which there is no difficulty—it is impossible to choke the elevator. The wind power is not good, being very unsteady. This fall we intend to place our cutter under the carrier of the separator when we thresh and blow the cut straw back into the barn. This we calculate to do with the same force of men as required in threshing, with the exception of an extra engine and engineer.

Any other information in my power to give will be willingly given to any of your subscribers.

H. G. LEE.

Consecon, Ont., Aug. 21, 1899.

Of Great Help in Cutting Straw

To the Editor of FARMING:

In reply to yours of 15th about the blower, I would say that I have used a Thom's, of Watford, the last two years, and it has given every satisfaction that I could desire.

I have used an ordinary engine to run the blower. It does not take as much power to run it as in threshing, and I have had no difficulty in getting power to elevate the ensilage. I elevate the ensilage 30 feet and am confident it could be done at 50 feet.

When it is windy with the carriers there is a lot of waste, as the wind blows the ensilage out, but with a blower there is none of that. There is very little to go wrong about a blower compared to a carrier, and less work in taking it from one place to another.

I have also used the blower for cutting straw at the stack and blowing it into the barns, which is a great help, as the straw is light compared to the ensilage. I do not think it would elevate the straw as high.

ALEX. FAILL

Stratford, Ont.

The Exhibition Number

To the Editor of FARMING:

Your Exhibition Number was certainly a creditable production. It was more, it was an honorable production, and in this regard differed greatly from the specials of some other Canadian publications that boast of their independence. FARMING's special number was not a mere illustrated "write up" of some half dozen of its best paying advertisers, to the neglect of the others less able to pay for large space, and to assist at getting up illustrations of their stock and buildings.

FARMING's special while it contains many handsome illustrations representative of scenery and industry in all parts of Canada, was singularly clear of methods calculated to swell its advertising columns, and it is this spirit of independence and absence of class management that I like in FARMING all the time.

Many of the farm papers are run mostly in the interest of its advertising columns, but I am glad to admit that there is at least one—the only weekly agricultural paper in Canada—that is singularly free from this specious method of editing and managing a farm paper.

But I have to regretfully admit that there was one feature of the special that I did not like. It was certainly but one speck—a drop, but "the constant drop of water wears away the hardest stone." I refer to the cartoon on the last cover page. This cartoon reflected on the United States—something which breeders of purebred live stock in Canada cannot afford in their stock papers, for the stable reason that the United States people are our very best customers, and were it not for our American trade in purebred stock of cattle, sheep and swine, the Canadian live stock interest would not stand on the high pedestal that it stands on to-day.

Barring this cartoon—unfortunate only as it appears in a paper published in the interests of Canadian breeders and which may cause some irritation—I have nothing to say but praise and congratulations to the editor and publishers for this splendid Exhibition Number, which if well distributed at the leading fairs cannot help but be a source of pride to our farmers and of profit, I hope, to its enterprising publishers.

J. A. MACDONALD.

King's Co., P.E.I., Sept. 19th, 1899.

The 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.

VOL. II.

No. 50

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

Annual Membership Fees:—Cattle Breeders' \$1; Sheep Breeders', \$1; Swine Breeders', \$1.
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' Associations 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 10,000 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, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 9th of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue. The data will be published in the most condensed form.

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

FARM HELP EXCHANGE

Help Wanted.

A good man wanted for general farm work. Good wages. (Waterloo County.) Apply with references to this office. 2

Man wanted, experienced in mixed farming, and thoroughly good stockman. Must be able, honest and reliable, skilful and pushing. Wages \$12 to \$20 and permanent position if satisfactory. (Victoria County.) Apply with references to this office. 2

Wanted, a married man to do teaming and other work on a 60 acre dairy and fruit farm. R. A. Lehmann, Orillia P. O. 2

Wanted—Two men, married or single, for general farm work. Must be thorough farmers and good hands with cows and horses. L. F. Bogart, Gasport, Ont. 2

Wanted—About Nov. 1st, experienced farm hand, one capable of leading the work and taking charge subject to owner's instructions; must thoroughly understand the care of live stock. Single man preferred. Address with references to John Duff, Myrtle, Ont. 2

Wanted—A working manager to take charge of a 640 acre farm, 4 miles from Melita, Manitoba. For particulars address Jos. Brimson, Manager Port Arthur Fish Company, Port Arthur, Canada. 2

Wanted—A strong boy about 14 to learn farming in the Northwest. Must have some knowledge of horses. Apply with references to this office. 1

Situations Wanted.

Position wanted as manager of a poultry farm by one who has had experience in feeding and breeding for egg production, early maturity and fattening for market. Apply with references to this office. 2

The Production of Bacon for the British Market.

The great expansion of dairying in Canada of late years has, as a natural sequence, brought about a corresponding increase in swine breeding and feeding in this country. Almost contemporaneously with this development of the swine industry came into existence a change in the type of the hog most in demand both for shipping purposes and for home consumption. The big, fat, thick hog, which it was once the aim of every breeder to produce, had to give way to a pig of quite a different build, one possessing plenty of length, greater depth than formerly, with a corresponding decrease of width of back, lighter in the shoulders and with less weight of jowl; all these characteristics being accompanied by a less amount of fat interspersed with the lean meat.

This change in the conformation of our hogs was brought about by the efforts of our pork packers to secure a market in Great Britain for our surplus bacon. At first the consignments consisted of bacon and hams from the old style of pig, as there were none then of the kind now so popular to be obtained in this country. It was soon found, however, that the British taste desired meat of a leaner nature, and so some enterprising breeders and some of our pork packers took steps to meet this demand by importing animals of the type which the British bacon curers pronounced the ideal ones for their purpose.

The importation of these pigs gradually worked a revolution in the conformation of the swine in this country, especially in Ontario, which province was the first to receive the benefit derived from this change. The thick, fat hog has now pretty well fallen into disrepute everywhere, and, except for the lumber shanties, its fat carcass is no longer in demand, and is subject to a heavy discount in the markets when it is placed on sale.

At first the advent of these new

breeds (new, that is, to Canada) was not heartily welcomed. It is true that there was a pretty steady demand for them, but it was, in the beginning, rather the demand which always arises for something new than the recognition of the value of these pigs to this country. Then again, there was the determined opposition of breeders of old-established breeds to overcome, who could see no merit of usefulness in the new type of hog. Time, however, wrought wonderful changes, and now we see these same breeders devoting their best efforts and with considerable success, to mould their pigs into the style called for by the packers, while the agricultural press and teachers and lecturers on swine breeding all dwell on the importance of breeding only such pigs as conform to the requirements of the packers.

The consequence of all this co-operation is seen in the great increase of our export trade in bacon with Great Britain. Our bacon is fast displacing the Danish in the markets of the Old Country, and would do so much more rapidly if Canadian feeders took care, in the first place, to feed only the right kind of hog, and next, to feed only such food as will make firm bacon of the best quality. The method of feeding and curing employed in Britain secures for the home-grown bacon considerably better prices than can be obtained for ours. There is no reason, however, why we should not, by employing better methods, get as good prices for our product as the British feeder does. While many Canadian feeders are quite up-to-date in this respect, too many are careless about their swine, as regards the type of pigs, the feed given them, and the proper time to finish them for the market.

It is with a view of assisting such that this article has been prepared. It aims to give practical, well-established facts about bacon hogs and the feeding of the same. Some of the most prominent pork packers in Ontario have written special articles on the subject, and, in connection with these articles will be found numerous illustrations of desirable and undesirable types of bacon hogs, and of the products of the same. It is hoped that a study of these may show the enquirer what type of pig he should handle and what he should avoid.

THE TYPE OF PIG REQUIRED.—The type of pig which the bacon curers engaged in the export trade to Great Britain find the most profitable in their business, is one of great length and depth, light in the shoulder and jowl (which are cheap cuts) not too wide in the back, and carrying its width evenly along from shoulder to tail. This ensures a deep, long ham instead of the

thick short one which used to be so general. The back and belly should run in as straight lines as possible. This, with the depth of side, enables the curer to produce the famous Wiltshire bacon or sides, so called from the particular way it is cut, which form of bacon is so esteemed in Great Britain at the present time. When a feeder gets a pig of this type he will find, provided he feeds it suitable food, that he will get a "fleshy hog" as opposed to a "fat" one. Fat hogs are not desired and all that exceed one and a half inches in thickness of fat on back will net a lower price than such as are within that standard. The most desirable weights for bacon hogs are from 160 to 190 pounds, or thereabouts, which weights can be reached when the pig is six to eight months old. And here is a point where the interests of the feeder and bacon curer are quite identical, for pigs up to those weights give a larger increase of weight for the amount of food consumed than those fed to reach heavier weights.

BREEDS WHICH APPROXIMATE TO THIS TYPE.—As it is the pork packers who have to consult the tastes of British consumers, they are the best judges of what breeds are most serviceable to produce pigs of the required type. Accordingly, we find that they recommend the use of Yorkshires and Tamworths as being pre-eminently fitted for the production of bacon hogs, while Berkshires of the newest type and Chester Whites are also suitable. The other breeds are not so well fitted at present, but, as said above, breeders of these breeds are strenuously endeavoring to bring their pigs into line, and sows of these kinds when crossed with boars of a more developed bacon type, produce good bacon pigs that are easy feeders. For feeding purposes, cross-bred swine and grades generally give better results than the purebred. Among the crosses that have given especial satisfaction are the Yorkshire-Berkshire and the Tamworth-Berkshire.

As a corroboration of the packers' recommendation of Yorkshire grades as being what is wanted, it may be added that Armour & Co., Chicago, purchased 150 pigs of that breeding in Canada, slaughtered them at their establishment, and sent the bacon from them over to England, where it sold readily at a substantial advance over bacon made from hogs bred and fed in the United States.

THE MOST SUITABLE FOODS FOR BACON HOGS.—Here we meet with our first difficulty. We know the type of hog whose carcass will give the cuts sought after by the British consumer, and our packers know exactly how to cut them up, but we are still somewhat in the dark as to the best and most economical foods for producing a nice lean, breakfast bacon. There have been several experiments in pig feeding it is true, at our Experiment

Stations, but all of these, till quite lately, have been in the line of determining which foods produce the greatest gain at the least cost, irrespective of the quality or firmness of the meat. Investigations are now, however, proceeding which we hope will, in time, determine the rations which will give us bacon of the quality and flavor desired, and the respective cost of each different kind per pound of increased gain. Prof. Day, of the Guelph Station, has already given us the results of his first experiment in this line which will be found below.

Although we cannot at present state definitely the most suitable food for bacon hogs, yet there are certain foods which have invariably given good results, and, in the present state of our knowledge, it will be perfectly satisfactory to use them until more definite information is available. On the other hand, it is possible to point out certain rations which it would be well for all feeders for the British markets to avoid, inasmuch as their use has resulted in soft, flabby bacon which is not wanted, and the continued production of which will kill our market in Great Britain instead of extending it, as can easily be done by employing the right methods.

FOOD FOR THE YOUNG PIGS.—As with other animals, one of the principal points is to give the young pigs a good start in life. Their first meals are taken through the sow, and, therefore, the latter should be fed nourishing and succulent feed, which should be given in liberal quantities as soon as all danger of milk fever is past. Skim-milk, bran, shorts, ground oats, barley and peas form an ideal ration, but peas should not be fed too heavily at first. It has been stated on authority that each sucking pig at two weeks old takes three pounds of milk per day from its mother. This shows the necessity of feeding her well if she and the youngsters are to do their best. As soon as the little ones show an inclination to drink for themselves, some milk and shorts should be put in a place where the sow cannot get at it. Later on chopped oats can be added. After weaning the pigs, which is best done when they are about eight weeks old, they should be given skim milk or buttermilk with shorts or a mixture of ground grains, and be allowed plenty of exercise. At this age green clover is valuable for promoting the growth of lean flesh. This can be either fed in their exercise lot, or they can have the run of a small clover pasture and pick it for themselves, which is the best plan. Each pig will take about one-third of a gallon of skim-milk with the grain mixture. As they grow the latter must be gradually increased, but the milk allowance need not be altered unless there is plenty of milk to spare. Water can be added to make the required bulk. They should never be fed more than they can eat clean, and their feed must not be allowed to get

offensive before it is given to them. In the winter time cut clover hay, steamed or soaked for three hours or more, goes a good way towards taking the place of green clover. When swine are fed on grain only, and are confined in pens, getting very little exercise, the usual result is that they get off their feed and oftentimes lose the use of their limbs. Even if these results do not occur, the meat they put on is not the lean, fleshy kind which ranks highest in the Old Country bacon markets. It must be remarked here, however, that skim-milk or whey, when fed to hogs in confinement, appears to counteract the evil results so generally found. Prof. Day points this out in the report of his late experiment. Where hogs are confined they should have an allowance of sods where they can readily get at them. A mixture of wood ashes and salt, at the rate of one bushel of ashes to six pounds of salt, is another good condiment. A composition recommended by Mr. Theodore Louis is as follows: Six bushels charcoal, broken up into pieces the size of a hazelnut; six pounds salt; one bushel wheat shorts thoroughly mixed, and sprinkled with a pailful of water in which one and a quarter pounds of copperas have been dissolved.

FATTENING FOR THE PACKING HOUSE.—While the kind of food fed to the hog during the last few weeks of its life—the finishing off period—has very properly been considered as having a most important bearing on the quality of the flesh, it would seem, nevertheless, that, as regards the firmness or softness of the bacon, the character of the rations given previous to the fattening period has almost an equal importance. In fact, if we are to get "high class" bacon our pigs must be carefully fed from birth till they are handed over to the packer.

A strong and rather curious corroboration of the importance of feeding properly in the earlier life of the pig is found in Prof. Day's report on the experiments he conducted last summer at the Guelph Experiment Station. Corn and rape have both been denounced as foods tending to produce "soft" bacon. Here, however, we find them fed to pigs in the fattening stage (rape, of course, in conjunction with a grain ration, and in one case in conjunction with corn meal) not only without harm, but with the best results as regards "firmness" of the bacon. The explanation apparently lies in the fact that the pigs thus fed had, up to the time when they weighed 100 pounds or more, been receiving rations such as milk and mixed grains, together with plenty of exercise, and consequently their meat was firm before the corn and rape was fed to them. Further investigations will, no doubt, throw more light on this subject. In the meanwhile it will be well for feeders to use corn and rape but sparingly until their worth for

feeding is settled. The unsuitability of corn as a food for bacon hogs, when given as the principal or sole grain feed throughout the *entire* life of a hog, has been frequently demonstrated. Its deficiency in ash keeps back the natural development of the muscles, reduces the blood and some of the internal organs of the body, and causes weakness in the bones.

UNSUITABLE AND DOUBTFUL FOODS.—Among other grains which the feeder would do well either to let severely alone or use only in very small quantities until their worth for feeding has been thoroughly tested are beans, buckwheat, and rye. The first-named have been blamed as the cause of the considerable quantity of soft bacon that has passed through the packers' hands this last summer, and which gave Canadian bacon a temporary bad name in the Old Country markets. This may have been so, as a great many feeders in Western Ontario utilized their surplus bean crops in feeding their hogs. It must be borne in mind, in comparing results obtained from feeding bean meal in Great Britain, that their beans are of a different kind from those grown in most parts of Canada. As regards buckwheat, Prof. Robertson has shown by his experiments at Ottawa that buckwheat cannot always be the cause of soft bacon, even when fed alone, while, as regards increase of live weight, it is but slightly inferior to wheat, but it must be remembered that it is heating in character, therefore it is not advisable to use it to any great extent, and then only in conjunction with other and less heating grains. Rye, owing to the fact that so small an acreage of it is now grown in this country in comparison with other grains, has not entered largely into the feeding of hogs, but both rye-shorts and rye bran have been tested in Denmark, with the result that their use in any considerable quantity has been found prejudicial to obtaining the best quality of bacon. Rye itself, as regards the gain made in weight, has been shown by Danish experimenters to be equal in feeding value to barley, while, as regards its influence on the quality of bacon, Danish experiments also seem to be favorable. In view of the bad results obtained from its by-products, however, it would be well to refrain from feeding it too lavishly until our experiment stations have made further tests of its practical value.

There are other foods which, while their use in reasonable quantities is oftentimes beneficial to the health and well-doing of feeding hogs, are yet quite detrimental to the production of good, firm bacon when pigs in the final fattening stage have to depend on them too much for their sustenance and growth, such as rape, grass, and clover. As we have seen above, Prof. Day used rape in connection with meal as part of the ration fed to hogs

in the final stage, not only without bad results, but, apparently, to good advantage. It must not be forgotten, however, that the hogs had been "well grounded," so to speak, as the result of their preliminary feeding, and also that the grain portion of the ration was two-thirds of the whole. Some feeders make the serious mistake of feeding their pigs too "sloppy" a food, that is to say, too much water or swill is added to the grain. The Danes and Germans long ago found out the unsatisfactory results from thus doing, and therefore lay great stress on having the food just moist enough as to run easily into the trough.

Such in brief are the principal foods which our present experience has shown are either unsuitable to use or must be fed very sparingly until their worth for feeding purposes has been clearly demonstrated. It is quite possible that further tests may show them, under certain conditions, to be possessed of greater value for the production of bacon than has been hitherto ascribed to them.

WHAT TO FEED.—Prominent among grains serviceable in the final development of bacon hogs comes barley, which in Great Britain and Denmark is valued above all other kinds of grain for that purpose, the bacon resulting therefrom being very sweet in quality and ranking high in standard. It is possible that our barley, owing to the shorter time it takes in maturing its growth, may not have all the valuable properties of the Old Country barley, but nevertheless it has quite proved its suitability as a food for bacon hogs both when fed alone and in conjunction with other grains, such as peas, wheat, oats, corn and shorts. It has been shown, however, by Prof. Henry, of the Wisconsin Station, and others, that it is more economical to feed barley in combination with other grains than singly, the pigs tested preferring the combined ration to one of barley alone. In comparison with corn meal, eight per cent. more barley-meal was required at the Wisconsin Station to produce a given gain. The barley-fed pigs also drank about twice as much water as the corn-fed ones. In one trial it took 471 pounds of barley-meal to produce 100 pounds of gain. Danish experiments show that pigs fed barley throughout made a daily average gain of 1.10 pounds; those fed on corn throughout gained 1.14 pounds per day. When barley was substituted for corn, when the pigs reached 140 pounds in weight the gain was also 1.14 pounds per day, but when barley was fed at the 120 and 160 pounds limit the daily gains were only 1.09 and 1.10 pounds respectively. As in previous experiments, the carcasses of the corn-fed pigs were rated as poor in quality, and while 92 per cent. of those fed on barley alone came into classes 1 and 2, only 62 per cent of those fed corn throughout were qualified for those two classes, and 14 per cent.

came in class 4, which were sold at a discount.

WHEAT AND ITS BY-PRODUCTS.—Wheat has a high feeding value practically equal to corn, as regards the amount of gain in live weight, and the quality of meat produced is also good. It is only, however, during an era of low prices for that grain that it can be economically and profitably used for feeding purposes, but goose wheat, and frozen wheat, such as is sometimes obtainable in Manitoba, have been and can be put to good service in feeding swine. The pork produced from frozen wheat at the Ottawa Experimental Farm was rated higher than that made off peas; 15.46 pounds of increase in live weight were obtained there from one bushel of frozen wheat. It was thought at one time that wheat might be the cause of soft bacon, but Prof. Robertson has proved that such is not the case.

Of the by-products of wheat, the value of shorts or middlings as a food for both young and older pigs, is well known. Trials at the Missouri Station proved middlings superior to corn in the proportion of 108 to 100. A combination of the two was twenty per cent. more economical than the middlings alone. Like other milling by-products, shorts have a tendency to produce soft pork, and therefore, should never be fed except in combination with peas, barley, corn or other grains. If, however, skim-milk or whey is fed in combination with the ration of which shorts form a part, and, in addition, the hogs can get exercise, the quality and character of the bacon will not be affected. Bacon from pigs fed exclusively on shorts and bran is darkish in color, and as might be expected from the nitrogenous character of this ration, contains a large amount of lean meat. The Kansas Station in some tests found that bacon thus produced possessed a hard toughness when fried, and also shrank more than corn-fed pork when boiled.

Wheat bran has only about half the feeding value of shorts, and owing to its coarse, fibrous nature is not very suitable for very young animals, but can be used for growing pigs, and also to a slight extent, for animals in the fattening stage, its use tending to keep the bowels in good order. The feeding of too much bran results in a depreciation of the quality of the carcass.

PEAS AND OATS.—Peas, on account of the large amount of protein they contain, make an admirable adjunct to other grains in the feeding of swine. They are best fed ground, although they have given good results where they have been fed whole but soaked for some hours previously. On account of their "heavy" character they should not be fed alone but in combination with barley, oats, corn or other grains. When they are fed as the sole grain ration, both the fat and lean of the carcass is apt to be too hard.

Oats are very valuable for both growing and feeding swine, but should always be fed in connection with corn, peas or barley in order to get the best results.

SKIM-MILK, BUTTERMILK AND WHEY.
—Numerous experiments and practical work done by individual feeders have proved the great value of dairy by-products as part of the rations for fattening swine. There is practically no difference in the feeding value of skim-milk, buttermilk, or whey, when all three are fed in prime condition, except that, of course, the skim-milk will be richer or poorer according to the care taken to remove the butter-fat in the separator. Five pounds of skim-milk per head a day is an economical allowance in fattening swine over one hundred pounds in weight when mixed grains are fed. Where corn was fed, as in Wisconsin, the best returns were secured with not more than three pounds of milk to each pound of meal. Prof. Robertson has found that one pound of mixed peas, barley and rye is equivalent to 6.65 pounds of skim-milk. The protein and ash in the milk are what are needed to give strength to the bones and develop the muscles sufficiently. As stated above, Prof. Day has shown the marked influence of whey and skim-milk, not only in causing rapid and economical gains, but in producing a fine quality of bacon, even when no exercise is given to the fattening stock, and in counteracting the tendency to softness produced by the too lavish feeding of shorts. The average results of experiments at the Guelph and Wisconsin stations show that 785 pounds of whey are equal to 100 pounds of grain.

MOLASSES—Molasses have been lately brought into notice as a feed for fattening swine, owing to the results obtained by an experiment in Germany. All the pigs were fed a basal ration of three pounds of buttermilk and twelve pounds of whey per head daily. They were divided into three lots. Lot 1 received barley in addition to the basal ration; lot 2 were fed barley and molasses feed in the proportion of 2 to 1; while lot 3 received barley and molasses feed in equal proportions. Two pounds of the additional feed were fed daily at first, which was gradually increased to four pounds.

The average daily gain in weight of the three lots was practically the same, ranging from 1.05 to 1.11 pounds. When the carcasses were cut up, the fat was found firm and of the best quality. The cost of one pound of gain in live weight was 56 cents cheaper when the molasses feed and barley in equal parts were fed than when barley alone was given. The conclusions reached were that molasses could be advantageously fed to pigs over fifty pounds in weight.

POTATOES.—Cooked potatoes can be profitably used with grain for the production of bacon without fear of injuring the quality of the meat. This is

proved by both American and Danish experiments. From four to four and a half pounds of potatoes are equal to one pound of grain in pig feeding. Artichokes have the same feeding value as potatoes.

ROOTS.—Eight pounds of mangels or carrots, and about the same weight or a little less of sugar beets, equal in feeding value one pound of grain. This is the consensus of opinion of the Ottawa, Copenhagen, and several American stations. At Copenhagen the mangels were fed finely cut and raw, and even when one-fourth of the daily feed was given in the form of roots, no injurious effects were noticed on the quality of the pork. The increase per head in ten days on a ration half grain and half whey, or milk, was 7.6 pounds, whereas, when the grain was replaced by roots after the proportion of 1 to 10, the increase was found to be 8.3 and 8.6 pounds. When half the grain food was replaced by roots in proportion of 1 to 8 the growth of the different lots was pretty nearly the same, viz., 8.5 pounds for the grain-fed pigs, and 8.6 pounds for those fed roots, thus showing a small difference in favor of the latter. It must be noted that the pigs in this experiment had been fed roots previously, and consequently took them readily.

BONE MEAL AND WOOD ASHES.—In experiments conducted by Prof. Henry as to the advantage of feeding bone meal and wood ashes to fattening pigs in combination with corn meal, it was found that the effect of the bone meal and wood ashes was to save about 28 per cent. of the total amount fed to produce 100 pounds of gain live weight. Bone meal doubled the strength of the thigh bones, while ashes were only slightly inferior in value in this respect. The results show the great usefulness of bone meal and ashes, especially where much corn is fed to hogs. In these experiments the pigs had been well started in their development when the trial began. They were divided into three lots of two each. Lot one received corn meal with salt and water. Lot two received in addition hardwood ashes, while lot three was fed a spoonful of bone meal at each feed in place of ashes. In one of the trials, which lasted 112 days, two pigs consumed 10.5 pounds of bone meal and 7.5 pounds of salt, and during the same time two other pigs consumed 33 pounds of hardwood ashes and 8 pounds of salt. The earth in the yards in which the pigs exercised was covered with boards to prevent the animals rooting in it and eating it, as they would otherwise have done, especially those which had no bone meal or ashes to resort to, and, consequently, would have impaired the results of this experiment.

When bone meal was fed 487 pounds of corn produced 100 pounds of gain; when ashes were given, 491 pounds of corn were required, while 629 pounds had to be fed to obtain the same gain

when neither bone meal nor ashes were given.

CHARCOAL.—In the corn-growing districts of the Western States corn cobs are made to serve a good purpose when reduced to charcoal and fed to hogs. Ordinary charcoal is also used by many. The method of reducing the corn cobs to charcoal is thus given by Theodore Louis: Dig a hole in the ground five feet deep, one foot in diameter at the bottom and five feet at the top for the charcoal pit. Take dry corn cobs and start a fire in the bottom of this pit, adding cobs so that the flame is drawn to the top of the pit, which will be thus filled with the cobs. Then take a sheet iron cover, similar to a pot lid in form, and over five feet in diameter, so as to amply cover the whole, and close up the burning mass, sealing the edges of this lid in turn with earth. At the end of twelve hours you may uncover and take out a fine sample of corn-cob charcoal. This charcoal can be fed at once if desired, but Mr. Louis prefers to take six bushels of it, or three bushels of common charcoal, eight pounds of salt, two quarts of air-slaked lime and one bushel of wood ashes, breaking the charcoal up well with a shovel or other tool, thoroughly mixing the various ingredients. One and a quarter pounds of copperas is then dissolved in hot water, and with a watering-pot sprinkled over the whole mass, which is again thoroughly mixed. The mixture is then put into boxes and placed where the pigs can get at it at their pleasure. It is not only excellent for the health of the pigs, but is considered by some as a preventive of hog cholera.

GAINS MADE ON VARIOUS FOODS.
—One of the latest experiments on combinations of feed for bacon hogs was that held in Wiltshire, England, a short time ago. The results are figured out on the cost of every twenty pounds of increase. Corn meal and separated milk, which cost 4s. 2d. or just 2½d. per lb., gave the best results as regards increase of weight alone. Next came corn meal and bran, costing 4s. 5½d.; corn meal alone, 4s. 6¾d.; corn meal and pea meal, 4s. 7½d.; corn meal and bean meal 4s. 11d.; barley meal and bran, 5s. ¾d.; barley meal alone, 5s. 1¾d.; barley meal and separated milk, 5s. 3d. The value of the foods used was as follows: Barley meal, £5 per ton; corn meal, £4 10s.; bran, £4; pea meal, £7 15s.; separated milk, 1d. per gallon.

The carcasses of the pigs were subsequently tested by experts and perfection being represented by 1000, were graded as follows: Those fed on barley meal and bran 990; on barley meal and separated milk 988; on barley meal alone 974; on corn and bran 964; on bean meal 951; on corn and milk 939; on corn alone 939; and on corn and pea meal 908.

The highest average in weight was made by pigs fed on barley meal and

separated milk, next to them coming those which had been fed on corn meal and milk. The barley-fed pigs in every instance showed a greater increase than those which had been given a ration of corn meal, either alone or in combination with other foods. A great many of the pigs fed corn and pea meal grew so slowly that the pigs were graded as small. The corn-fed pigs, as usual turned out too fat. Separated milk was found to be the most valuable food that could be added to corn or barley as regards increase of weight, decrease of shrinkage in the dressed carcass and improvement of the quality of the meat, being only surpassed in this latter particular by bran. Bran thus showed up better than in some experiments which have been conducted on this side of the water. It is not safe, however, to lay too great stress on the results of a single experiment, and it may be that the bran used was obtained from one of the old-fashioned grist mills and was thus more valuable than the general run of bran nowadays.

As regards an ideal pig food, the conclusions reached from these experiments placed the various rations in the following order: Barley meal and separated milk 903 (perfection being again represented by 1000); corn meal and separated milk 877; corn and bean meal 590; barley meal alone 519; corn and pea meal 486; corn meal alone 484; barley meal and bran 449; and corn meal and bran 404.

EXPERIMENTS AT OTTAWA.—The Central Experimental Farm, Ottawa, recently held a three-months' test of various feeds given to swine that were purchased for the occasion. The pigs were part Tamworth and part Berkshire. Nothing was known of the kind of feed given them before the test. The pigs numbered 44 and were divided into 11 lots of 4 apiece. Lot No. 1 received whole corn dry; lot 2, ground corn soaked for 30 hours; lot 3, the same with the addition of milk; lot 4, half whole corn, the balance equal parts of oats, peas, and barley whole and dry; lot 5, the same grains but ground and soaked; lot 6, the same as lot 5 with milk added; lot 7, whole oats, peas and barley in equal parts fed dry; lot 8, oats, peas and barley in equal parts by weight, ground and soaked for 30 hours; lot 9, the same with milk added; lot 10, half bran, the remainder equal parts of oats, barley and peas ground and soaked; lot 11, 1-5 clover, 4-5 peas, barley, oats and bran ground and soaked, the clover being soaked with the grain.

The pigs were shipped to the Wm. Davies Co., Toronto, and on their arrival alive were graded as follows: Lot 1, one light, one small and two straights; lot 2, three straights, one fat; lot 3, four fats; lot 4, three straights, one fat; lot 5, one straight, three fats; lot 6, three fats, one straight; lot 7, three straights, one fat; lot 8, three fats, one straight; lot 9, two fats, two straights; lot 10, one light, three fats; lot 11, two fats, two light small.

After the pigs were slaughtered Mr. Flavelle graded the carcasses thus, as regards fatness of the backs: All of lot 1 were of No. 1 quality; of lot 2, two reached No. 1 grade and two No. 2; all of lot 3 were classed as No. 2; lot 4 were equally divided between No. 1 and No. 2; three of lot 5 got no higher than No. 2, the fourth being No. 1; two of lot 6 were in the highest class and two in No. 2; all lot 7 were of first quality; only one of lot 8 was good enough for No. 1, the other three being seconds; lot 9 was equally divided between the two grades, but three of the pigs in lot 10 were only of second quality, the other coming in No. 1; all four in lot 11 were classed as No. 1. The prices that pigs would fetch were: Straights, \$4.62½ per cwt.; fats, \$3.75 and lights \$4.25.

A noticeable feature in this test was that the feeding of corn, except when milk was added to it, gave fairly satisfactory results all through. The best lots were Nos. 2, 4 and 7.

What part of a fish weighs most? The scales.

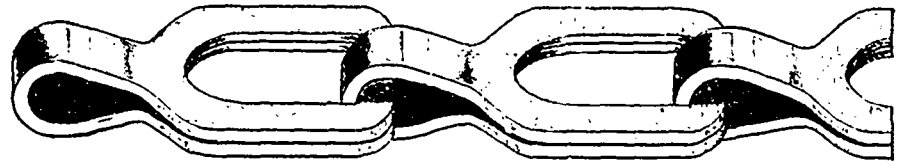
Farmers' National Congress.

The nineteenth annual session of this organization will be held in Boston, Mass., on Oct. 3-10 next. Among the speakers advertised are Prof. Robertson, Ottawa, who will address the meeting on "The Canadian Department of Agriculture," and Mr. C. C. James, Deputy Minister of Agriculture, Toronto, who will speak upon "Teaching of the Elements of Agriculture in the Common School." In addition to these two well known Canadians, addresses will be given by a number of American agriculturists. Ex-Gov. Hoard, of Wisconsin, is President of the Congress.

An English Method of Feeding Chickens.

After the first day, feed every two or three hours for the first week, gradually lessening the number of meals a day to three by the time the chicks are a month old. The first and last meals should be given as early and as late as possible in winter, it being necessary to

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This is because the form of the link, the exact size and shape of which are shown above, is such that the wear is distributed evenly over its entire end. The tearing surface is thus very large, and the chain will wear for years without becoming worn appreciably.

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These facts are well shown on a cow tie recently brought us for repairs. It was an ordinary No. 00 three-chain tie. One chain was wire, the other two American. One of the wire links was worn entirely through. The others were nearly as bad—a strong pull would have broken almost any of them. With the American chains, on the other hand, the wear was very slight, and hardly noticeable—three times this amount would not have weakened the chains seriously.

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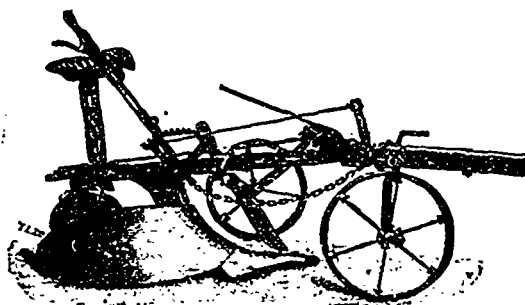
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give these two meals by lamp light. For the first day or two feed the chicks on any of the following, the more the food is varied the better :

1. Hard-boiled egg (the infertile ones removed from the incubator or from under sitting hens will do very well for this purpose), chopped fine, shells included, and mixed with an equal quantity of stale bread crumbs, the whole moistened with milk into a friable condition.

2. Coarse, dry oatmeal.

3. Stale bread alone, or moistened with milk or water.

After the first few days any of the following foods may be given :

4. Coarse oatmeal, dry or moistened with milk.

5. One-third oatmeal to two-thirds barley meal, scalded with boiling water, and mixed into a crumbly condition.

6. Five parts oatmeal to one of boiled rice, mixed as the last.

7. Boiled rice, mixed into a friable state with meal. This is a specially good food for chicken diarrhoea.

Accustom the chicks early to crushed wheat, afterwards giving them the grain whole. Bran is very indigestible and irritates the bowels, unless well scalded to soften it, then it forms an excellent bone-forming food. Animal food, chopped very fine, should be given in moderation from the first week. If the chicks are not provided with a grass run, green food must be supplied without stint. Onion tops, cabbage, lettuce, and nettle leaves are specially good.

Chicks do not eat much at a meal, but they eat often. Give them regularly as much as they will eat, then take up the remainder till the next meal. It is a good plan to keep a box of ground bone always accessible to the chicks. Sharp grit or sand should be scattered on the food, and a dry dust-box should be provided. Lime water added to the drinking water is beneficial. If there are any signs of leg weakness from rapid growth, put a teaspoonful of citrate of iron and ammonia in each quart of drinking water, or a few rusty nails will even answer the same purpose. The state of the droppings is a good test of health. When they are of a brownish color, capped with white, the chickens are thriving.

A lad delivering milk was asked what made it so warm. "I don't know," replied he, "unless they put in warm water instead of cold."

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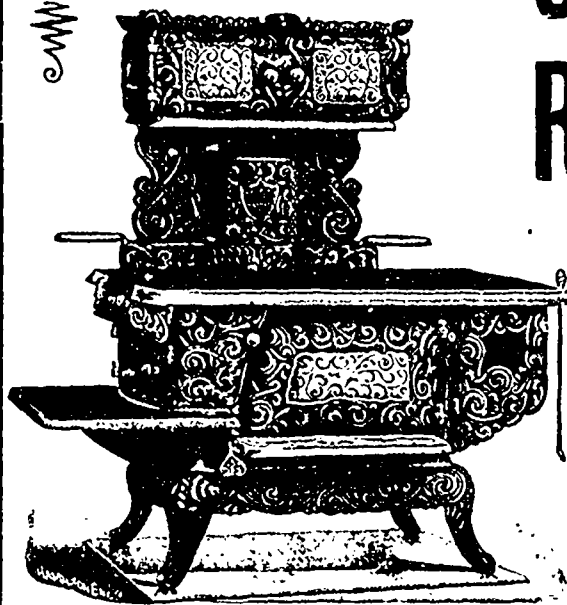
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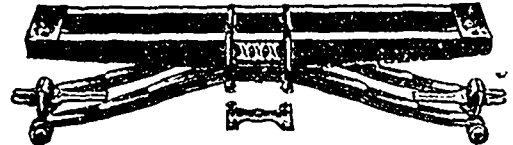
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The Farm Home

A Plea for the Small Kitchen.

By Megyra.

A kitchen, according to the dictionary, is a room in which to cook. If this be so, then, why have it large? If there be room for the stove or range, and the cook, why should we demand more? Very many writers speak ecstatically of "the large, roomy kitchen, with beautifully polished stove at the end; snow-white curtains at the windows, white scrubbed floor and tables, and at the other end large, roomy cupboards in which are kept everything, and on the walls hang brightly scoured tins."

They never consider, however, the useless steps for tired feet required in travelling from end to end of the large kitchen. We are told to have rocking chairs and foot-stools. I say No! No! No! Let us cook and cook only in our kitchens. When we have even one minute to rest let us get out of the cook room and shut the door behind us, and let us go into some other comfortable, well-aired room, free from kitchen cares.

I would have only a stove and some shelves about on the same level as the top of the stove or range, that there might not be much lifting and so near the stove that the cook would not have to take a dozen steps, or even one, in reaching what is required for her work—*i. e.*, such things as meal and salt, pepper or any seasoning for soups and stews, knife, fork and basting spoon, but no more than is really required for stove work. Behind these shelves a slide door should connect with the pantry or work room. Near the stove at the other side I would have a hopper-shaped wood box, built in that wall of the kitchen, which is next the wood room. A man on the outside can fill this box and close the lid to the outer half of the hopper, while the cook can raise the inner lid and take out the wood for her fire. I would have as many windows as convenient and would have them well fitted with screens and shades, and the remainder of the walls should be in some bright color. The floor should be of well-oiled hardwood, so that it will need no scouring even though a little grease should be spilled. Beside the stove where the cook will most frequently stand, a sheepskin rug would be elegant, light to handle, restful to the feet, and if a spark fell it would soon be extinguished. I can imagine two chairs might, some cold evening, be introduced, and two pairs of feet be put in the oven to warm. But this is not the intention of the kitchen.

One door is all that is really necessary, that opening into the adjoining pantry or work room. This should be a spring door, and swinging both ways,

though another might lead to the laundry or wash room. The kitchen needs no outside door, for we expect callers will not come to the kitchen, and we do not intend it as a reception room.

In the adjoining room all other utensils and ingredients for cooking should be kept. The baking cabinet, with its flour, sugar, meal, etc., compartments, should be near a shelf corresponding to the one on the kitchen side of the slide doors. When any food is prepared for the oven or fire, the slide door can be opened from either side, and the uncooked set through to the kitchen, or the cooked to the pantry, and the doors immediately closed. The heat being excluded we need no summer kitchen. While the doors are closed the pantry is always cool, and of course in winter we can leave them open to warm both rooms.

In the work rooms, chairs should be kept for working, as I see no reason why work tables and sinks might not be just as low and as easy to work at when seated as our writing tables in the office. But a light, soft rug or cushion should be always handy to place under the feet when any standing work is needed.

Of course I would want pipes connecting with the kitchen hot water tank, fitted with a tap near the dish-washing sink, and also near it I would have slides connecting with the dining room. I would not be in favor of having this room larger than to allow of two or three workers engaging in separate occupations expeditiously. There is no need of large floor spaces to travel over nor to scrub.

Our foreparents had not the advantages we enjoy, and they were content or compelled often to make one room do for kitchen, pantry, dining room, reception room and parlors (and even bed rooms), but we do this from choice. We would consider it a hardship did we possess only a one-roomed house with perhaps a sleeping room above, but in scores of cases this is practically all of the house that is used, yes, even in the long winter evenings. 'Tis true there is a handsomely furnished parlor, often double, and an up-to-date well appointed dining room, both of which are used on the rare occasions when such favored guests as the minister and wife arrive. On all other occasions we cook, eat, work, sew, read, and entertain our neighbors in our spotless, roomy kitchens.

Then make the kitchen so small that we cannot do this. Let us who have to pay for the house and its furnishings enjoy to the utmost our parlors and dining rooms, not on the rare occasions only, but in every spare minute also, and these spare minutes will come far oftener through our not

having to waste our strength in travelling the long distances and in sweeping and keeping clean that roomy kitchen.

Our dining rooms must be large—enough space to accommodate the threshers or family gatherings; our parlors, which should be our living rooms, should also have lots of floor surface, and our sleeping rooms also, but we will be a healthier, more intelligent class if we do not live in our kitchens.

From my window, as I write, I can see a large two-story house with a low kitchen tacked on behind. (Why do so many people spoil an otherwise beautiful house by adding low attachments?) Not twice in a year do I see a light in any room but that kitchen.

One summer day two years ago I called there. I found the mistress—a semi-invalid—not resting in an easy chair in the parlor, nor on the sitting room sofa, nor on the dining room lounge, nor even in the rocker in the spotlessly clean kitchen, nor in a hammock under a shade tree; she was gaining strength and making life easy by occupying a hard, straight-backed uncomfortable seat in the summer kitchen and—hooking rag mats to shut up in the parlor. It is needless to say she is still an invalid.

Meat and Other Foods.

Questions Answered by Mrs. S. T. Rorer.

Q. Do you prefer to cook meat in a pot or oven?

A. As far as the heat is concerned, there is little difference; but we are accustomed to the roasted, scorched taste produced by the dry heat of the oven. Most people consider roasted more savory than that cooked in a pot. Stewed meats, or meats cooked in water just below the boiling point, however, lose less in weight and are much more easily digested.

Q. Do you put sugar on porridge?

A. No; sugar, here is liable to produce the fermentation spoken of in some of the previous remarks. Porridge is an admirable food, and it may be taken with milk; but not with sugar and milk. Simple foods are more easily digested than when made complex by the addition of other materials.

Q. Do you believe a straight line of foods will answer for all people in all conditions?

A. No; certainly not. The nations of the United States army may be exceedingly good in our climate, but certainly did not prove so in Cuba. Fat pork is not the proper food for summer, and people living on such diet in a hot climate must necessarily fall ill.

Q. Give a recipe for a good cup of tea?

A. Tea, of course, should be made without boiling. The boiling develops or draws out the tannin. The tea pot should be scalded. Allow a teaspoonful of tea to a half pint of water; put the tea in the pot; take the water at the first boil, pour it over the tea, cover the pot with a cosy; allow it to stand for five minutes; stir and use.

Q. Must the meal for porridge be fine or coarse?

A. If you use the Scotch oats, you know it is medium; the grains are slightly cracked, but it is not rolled or crushed; ordinary rolled oatmeal will cook in, perhaps one hour.

Egg Dishes.

Scrambled Eggs.—Break six eggs into a soup-plate, add four tablespoonfuls of cream, and season with salt and pepper. Melt one tablespoonful of butter in a spider and before it browns slide in the eggs. Break them as they cook, and as soon as the whites are well set take them up on a hot platter. The whites and yokes must not be blended, but show thin, separate colors through the mass.

Steamed Eggs.—Into half a dozen little china dishes (egg-shirrs) break half a dozen fresh eggs, add one tablespoonful of cream, and season with salt and pepper. Stand the cups in a steamer over boiling water, cover and steam until the whites set—about five minutes. Small tin tart or patty pans, just large enough to hold the egg and cream, may be used instead of regular shirring cups. Eggs cooked in this manner are specially delicate.

Baked Eggs.—Very convenient shallow pans (like pie pans) of blue-enamel ware, porcelain-lined, now come in all sizes, and these may be used in preparing many egg dishes. Adjustable silver rims for them may also be had. For baked eggs cover the bottom of a large-size pan with half an inch of bechamel, or rich white sauce. Break in six eggs, sprinkle with six teaspoonfuls of good cheese (preferably Parmesan), dust with pepper and salt, and cook on the grating of the oven until the whites are well-jellied. Bread-crumbs, buttered, or merely a lump of butter on each egg may be used in lieu of cheese if preferred.

Curried Eggs.—The trouble with most curried eggs is too little curry. Its presence should not be guessed at, but be strongly apparent. Boil half a dozen eggs as above directed for "hard boils." Melt one heaping tablespoonful of butter in a spider, and fry in it one dessertspoonful of minced onion to a golden brown; blend in one heaping tablespoonful of flour and one dessertspoonful of curry powder (more if the powder is not full strength); add now one cupful of chicken or veal stock and simmer three minutes, then add one level teaspoonful of salt and three-quarters of a cupful of cream.

Heat again just to the boiling point. Take the eggs from the hot water, shell them, and cut them in halves, quarters or slices; arrange them neatly on a hot platter, and pour the sauce over and around them.

Breaded Eggs.—Hard-boil four eggs, cool and cut in thick slices. Dip each slice into raw beaten egg, roll in crumbs, and fry in deep fat. Season the beaten egg with salt, pepper and celery salt or onion juice.

When Company Comes in the Country.

"Begin to enjoy yourself when your guests arrive—in fact, before they arrive," is Mrs. John B. Sims' advice to the hostess in an article on "Entertaining in the Country," in the July *Ladies' Home Journal*. "Do not try to serve such an elaborate dinner that the work of getting it ready will draw so upon your physical powers that they will be strained to their utmost endurance. When your visitors arrive, greet them with a hearty handshake; make them feel that you are ready for their coming; speak of the pleasure that you hope the day may bring; compliment them on their good appearance; notice the neckwear, the dainty handkerchief; be thoroughly interested in each and every one. When the time comes for you to prepare the dinner and place it upon the table, leave your guests as gracefully as possible. If the dinner be not too elaborate, and the mental atmosphere be clear and bright, your friends will come again. 'Eat to live,' and not 'Live to eat,' should be the motto of every household."

Love the Farm and Farm Home.

"The only drawback to any intelligent country community enjoying educational and refining privileges is lack of co-operation between the farmers themselves. "Whenever a farming community realize that in themselves lie the means of educating their sons and daughters to love the farm and the farm home, and that because one does not have the privileges of the town or large city there is no reason why he should stagnate either mentally or socially, they will have solved the problem of how to live happily and contentedly on a farm."

Good Cooking and Morals.

When the introduction of cooking into the public school system was first suggested, one of its most earnest advocates argued that it was a step taken in the interest of temperance and morality as well as of education. She said—for it was a woman who recognized that side of it—that among a certain class of people there was a lamentable

ignorance regarding the very simplest rules for preparing nutritious, well-cooked food, and that it was in this very class that intemperance existed to such an alarming degree. And this is natural. When a man does not get the stimulating nourishment which his nature craves he resorts to liquor to supply the want. With this fact staring one in the face, is it not wise to teach that unflinching good food, with all the elements that stimulate and nourish the body and the brain, has its moral as well as its physical benefits?

There are cases on record, as a proof of what this public school has done, where the domestic sky has been perfectly cleared of clouds simply because good food was offered where before it had been badly cooked and consequently did not properly nourish. In one home the substitution of a well-cooked cup of cocoa for the sloppy, herby tea that had become a component part of every morning meal, and a nice Indian cake or plate of muffins for the dry baker's loaf, began a work of reform. The father was proud of the daughter's skill as a cook; the mother, who had grown careless and shiftless and indifferent, was shamed by it. The consequence was better provision on the part of one and more care in preparation on the part of the other. The mother was by no means above turning to account some of the practical knowledge the daughter had acquired under such competent training, and she began also to brush up her own knowledge that she had carelessly allowed to fall into disuse. The result is a happy home, a united family, a cheerful, contented, busy wife, and a man who puts into the family larder what formerly went to the saloon.

You see what it was—just the case of a man going to the bad simply from an unsatisfied appetite, and a discouraged wife who didn't understand what was the matter.

So you see the question of good cooking does involve good morals as well as comfort, and health as well as both.—*Sallie Joy White, in Woman's Home Companion.*

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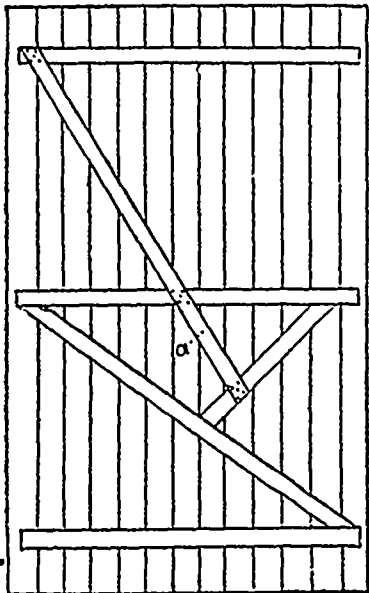
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Calf Notes.

Sterilized skim-milk is good for scours. The calves at the Agricultural College that receive sterilized milk are less subject to scours and recover more readily when attacked. The heating of the milk seems to produce chemical changes that helps to prevent scours and at the same time enables the feeder to keep the milk in good sweet condition. Milk delivered at the creamery contains large numbers of lactic and germs. Unless these are destroyed

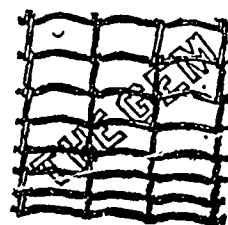
by sterilizing, the skim-milk will sour in a few hours. When sterilized and cooled to the temperature of well water, skim-milk may be kept sweet from thirty-six to forty-eight hours. Feeding sweet milk at one meal and sour at another is very apt to cause scours and stunt the growth of the calf.

The stomach of a calf is delicate and sensitive and any change of feed should be made gradually. Do not change from whole milk to skim-milk faster than a pound a day, allowing from ten days to two weeks for the change. Before turning on pasture in the spring it is better to feed a little green feed and gradually increase the amount until the limit of the calf is reached. Otherwise the calf may suffer severely from scours by the sudden change to pasture.

Several complaints have reached us about skim-milk intended for calves scouring, even when placed in tubs of cold water as soon as received from the creamery. Sterilized skim-milk will not sour until it is cooled to about blood temperature. A can of hot milk will warm a tub of water to about that temperature and as the milk is

cooled at the same time the best of conditions are offered for the development of lactic acid germs. The tub of water only helps to keep the milk at blood temperature. Under such conditions the water is worse than nothing. If hot skim-milk is cooled in a tub it should be done by running water. A much better way would be to use a cooler and then place the can of milk in a tub of cold water in order to keep it cool.

Calves like fresh water. Any arrangement like the Dewey hog waterer that will keep clean, fresh water before them all the time, is the best way to supply it. Our calves drink between seven and eight pounds daily per head.—D. H. Otis, Kansas State College.



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Stock Notes.

NORMAN M. BLAIN, COLDSRING FARM, ST. GEORGE, writes: "I have had a successful season as far as I have gone through the fall fairs. Have exhibited stock bred by myself, and find on returning home some young Tams that look like future winners. Sales have been satisfactory. I have some nice young stuff still on hand."

ONTARIO STOCK FOR BRITISH COLUMBIA.—Mr. W. E. Butler, of the firm of Wm. Butler & Sons, Dereham Centre, Ont., left on September 20th for Westminster, B.C., with a mixed carload of purebred stock. This is the third carload that Mr. Butler has taken to the West this season, and included some very noted animals. The carload consisted of four Clydesdale mares, four head of Short-horn cattle, two Holsteins, nine sheep (five Shropshires, two Dorset Horns, one South-down, and one Oxford Down); seven pigs (one Berkshire, two Tamworths, three Duroc-Jerseys, and one Chester White). Mr. Butler says that, owing to unfavorable weather, grain prospects in British Columbia are not good. There is a fairly good demand for purebred stock. Mr. Butler will attend the Westminster Fair, which opens on October 3rd next.

ANOTHER IMPORTANT SHIPMENT.—Mr. A. J. McArthur, Paisley, Ont., is shipping another car load of purebred stock, and among his purchases are two Shire stallions, bought of J. M. Gardhouse, Highfield, Ont. Imp. Duke of Blagdon is a beautiful bay, 6 years old, and is, without a doubt, one of the very best horses that has ever been shipped to the West. He has a great record as a show horse, having won fourteen first prizes out of a possible sixteen at such shows as Toronto, Montreal, Brampton, Woodbridge. Duke of Blagdon's colts are also winners. His colts have won more 1st prizes for the number exhibited than any other horse's colts in this locality. Another good colt is Darnley II., a brown that should breed right; he has good legs, bone, and a good hard color. His sire and grandsire were both sold for \$2,000, and great grandsire was sold for \$2,400.

Unreserved Ayrshire Sale.

Brook Hill Herd to be Offered on Oct. 3rd next.

As announced in last week's issue the auction sale of registered and high-grade Ayrshire cattle at the Brook Hill Farm, Trout River, Que., will take place on Tuesday, October 3rd next, instead of Oct. 4th, as previously published. Breeders and others desiring to secure some first-class dairy stock should bear this change of date in mind and make arrangements to visit Brook Hill Farm on the third of next month. The sale will commence at 10 a.m. sharp. Trout River is on the line of the G.T.R., sixty miles south-west of Montreal. Carr's Crossing station is one mile from the farm and Huntingdon, which can be reached by either the N.Y.C. or G.T. Railway, is five miles from the farm. Teams will be in waiting at Carr's Crossing on the morning of the sale to meet the train that leaves Montreal at 7 a.m.

The Brook Hill herd of Ayrshires is one of the oldest herds in the Province of Quebec, and was founded just thirty years ago by the late James Stephens. New blood has been added to the herd from time to time, until it is now one of the best dairy herds in Quebec. The aim from the first has been to breed typical dairy animals, and while this has been the main object, the show-ring has not been forgotten, and this herd has from time to time made good records there. A number of World's Fair prize-winners were sired by a get from this herd. For five years the head of this herd was Uncle Sam, a son of the noted "Nellie Osborne," Klondyke of St. Ann's, a son of the celebrated Glencairn III (imported), is now at the head of the herd.

The proprietor of Brook Hill herd, Mr. W. F. Stephen, announces that all animals mentioned in the catalogue of sale will be sold without reserve, as he intends going out of dairy farming. The list of animals in the catalogue includes eight purebred Ayrshire

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Publishers' Desk.

"The Growing Time."—The Toronto *Globe* has recently issued a handsomely illustrated announcement that is quite in keeping with the high character of that paper's productions of the past. It contains a large number of very fine half tone engravings, showing some of the leading public and private buildings in the cities and towns of Canada, and is specially illustrative of "the growing time."

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Exhibition Number Praised on all Sides.

Some Press Comments.

The Exhibition Number of that excellent agricultural journal FARMING is a beauty.—*Newmarket Era.*

The Exhibition Number of FARMING (Toronto) is a superb copy, and a credit to the publishers.—*Herald, Carleton Place, Ont.*

FARMING has entered upon its seventeenth year of publication. The last issue was a special Exhibition Number containing a fine group of illustrations, the special features being some of the leading markets in Canada and the old land. The cover represents Miss Canada drawing back the folds of the Union Jack and exposing to view one of Canada's many fertile fields.—*Canadian Statesman, Bowmanville.*

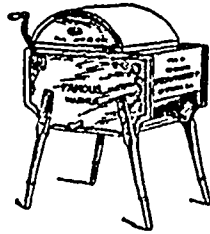
The Exhibition Number of FARMING is "a beauty." This excellent magazine is entering upon its seventeenth year of publication, and third year as a weekly, and the publishers have good reason for pride in the progress made in all its departments. The front page of this number is specially pretty and appropriate. It depicts Miss Canada drawing back the folds of the Union Jack, exposing to view one of Canada's many fertile farms. The last page is a cartoon, suggesting a line of action that would be in the interests of Canadians to follow, patronize home manufactures in preference to those of the neighboring States. Another special feature is views of some of the leading markets of Canada and the Mother Land, which demonstrate that there are in the cities and towns of Canada as good facilities for the marketing of farm produce as are to be found anywhere.—*Orillia Packet.*

A FARMERS' PAPER.—The September 6th issue of FARMING is called the "Exhibition Number," and a fine one it is, comprising sixty-four pages with plentiful illustrations, not the least interesting and valuable of which are those showing the difference between undesirable hogs, on the hoof and in carcase, and those which command the highest prices as "the packers' choice." This number marks the seventeenth year of this excellent publication, and its third year as a weekly. It is so thoroughly Canadian and practical that every Canadian journal should commend it as a farmers' paper deserving of the widest support. Drop a card to the office of publication, Confederation Life Building, Toronto, for a sample copy.—*Goderich Star.*

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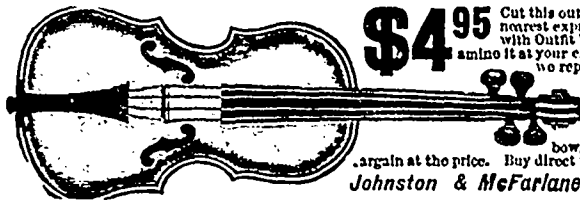
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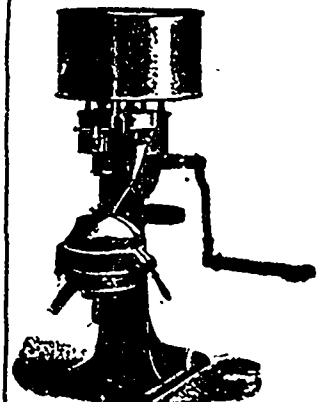
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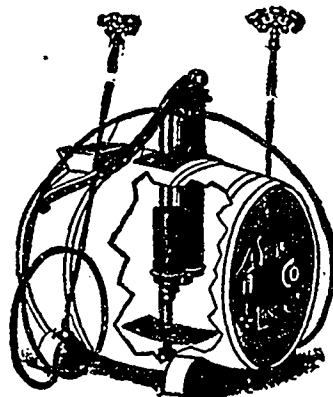
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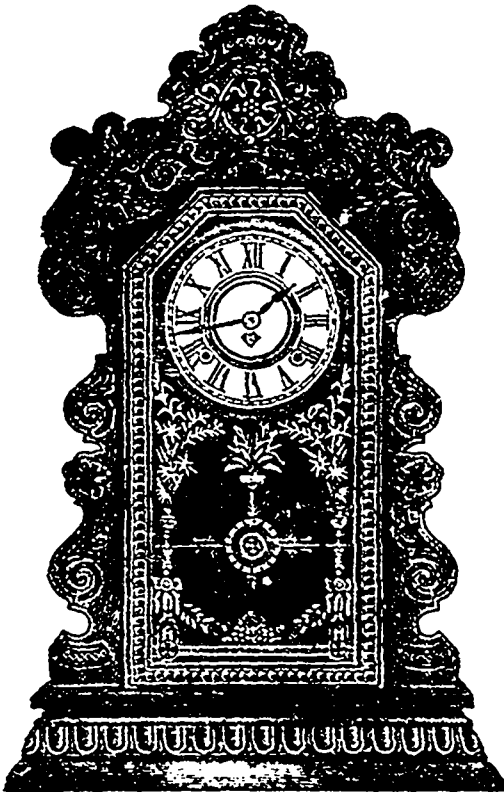
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BALANCE OF YEAR FREE TO ALL NEW SUBSCRIBERS

The present is a splendid time to make up a clubbing list. The weather is fine and one can get around easily among their neighbors and friends. Fall business is good and money is plentiful. The grain is being harvested and there is lots of it, and prices on the whole are satisfactory. Let us urge readers, in their own interests as well as ours, to make an early start and a good push.

Address all letters and make cheques, drafts or money orders payable to

FARMING Confederation Life Building,
TORONTO, CANADA.

Market Review and Forecast

Office of FARMING,
Confederation Life Building,
Toronto, Sept. 25th, 1899.

Fall trade conditions continue good, and there appears to be every confidence in the future. Remittances have been good and country payments better than usual at this season of the year. Canadian stocks continue steady and there does not at the present time appear to be anything to give a set back to the splendid season of fall trade now opening up. Money, though somewhat tight, seems ample for all legitimate purposes.

Wheat.

Statisticians are now busy forecasting the approximate wheat output of this year's crop and we may hope ere long to have something definite in regard to it. The visible supply of wheat in the United States and Canada is gradually increasing and is now 29,134,000 bushels more than last year at this time. The world's supply in sight is now 66,142,000 bushels, an increase of 2,413,000 bushels on the week and 38,914,000 bushels more than last year at this time. Another big wheat corner is talked of, of far greater dimension than that of the Leiter corner. But it is likely only a rumor, as the promoters of such a corner would not be likely to let it out at this early date.

The wheat market shows a little more strength than a week ago and cable reports are higher. There has been some advance at Chicago for September and December which have caused some excitement in wheat circles. There have been large receipts of wheat in the American Northwest and it would seem that the farmers there are not inclined to hold. There has been some enquiry at Montreal for Manitoba hard wheat, but at cable limits it is hard to do business. Ontario red winter is quite at 66 to 67c., f.o.b. west. The offerings here are increasing but the demand is somewhat slow, and the market steady at 67c. for red and white north and west, and 68 to 70c. for goose north and west. On the Toronto farmers' market red and white bring 69½ to 70c., spring 68c. and goose 73½ to 75c. per bushel.

Oats and Barley.

Oats in Montreal have stiffened a little, and sale are reported at 30 to 30½c. afloat. Cable limits have improved, and the outlook for business better. Oats are a little easier here at about 25c. west. On the farmers' market they fetch 29 to 30c. per bushel.

The Montreal market is firm for feed barley under a good export enquiry, with sales at 43½ to 44c. afloat. Malting barley is quoted there at 47 to 51c. as to quality. On the Toronto farmers' market barley brings 43½ to 46½c. per bushel.

Peas and Corn.

The English market for peas is firm with light stocks. The Montreal market is 1½c. higher, at 69c. afloat. Peas are also firmer here, at 58 to 60c. west, and on the Toronto farmers' market bring 62½c. per bushel.

American corn is quoted here at 40c. on track, Toronto.

Bran and Shorts.

The good demand at Montreal for Ontario bran continues at \$14.50 to \$15 per ton in bulk lots. Shorts are also in good demand at \$16.50 to \$18 as to quality. City mills here sell bran at \$13 and shorts at \$16 in car lots f.o.b. Toronto.

Eggs and Poultry.

There is quite an increased demand in the English markets for Canadian eggs and values have improved, but as prices on this side continue to keep up there is little profit for exporters. The shipments from Montreal so far

this season are 22,740 cases, as against 56,970 cases for the same period last year. A lot of eggs has been shipped to Germany during the week, which is something new, as that country has sent large quantities to the English market.

The Montreal market is firm for fresh gathered stock which sells at 17 to 17½c. for selections, and 16 to 16½c. for candled stock. Prices here are firm at 14½ to 15c. for fresh stock, and 12c. for seconds. On the Toronto farmers' market new laid eggs bring 16 to 20c. per dozen.

The outlook for export poultry is good and it would be advisable for farmers to begin fattening their birds early. Skinny birds are not wanted for this trade. On the Toronto farmers' market chickens fetch 40 to 75c. and ducks 50 to 90c. per pair, and turkeys 12 to 15c., and geese 8c. per lb.

Potatoes.

Offerings are liberal at Montreal and new potatoes are quoted at 35 to 45c. per bag. Prices are weakening here owing to larger receipts. Cars on track are quoted at 45c. and out of store at 50 to 55c. per bag. On the farmers' market they fetch 50 to 60c. per bag.

Apples.

Cable reports indicate that the English market can be relied upon for good fruit. The Ontario crop is estimated at from one-third to one-half a crop, and the Nova Scotia crop is a good one in both quantity and quality. There has been a good deal of competitive buying during the past week or two at Ontario points. It is reported that 2,000 barrels of winter fruit have been purchased for the West and Winnipeg markets at \$2.50 f.o.b. Sales are also reported of 4,500 barrels for Montreal account at \$2.50 to \$2.75 per barrel f.o.b., and one lot of fancy Spies bringing as high as \$2.35 on the tree. There has been a very good demand for fall fruit at Montreal, choice varieties bringing from \$2.50 to \$2.75 per barrel. In Nova Scotia growers will not accept less than \$2 per barrel, and are looking for higher figures. On the Toronto fruit market apples bring \$1.50 to \$2.25 per barrel.

Hay and Straw.

The Montreal market for baled hay keeps firm at \$8.50 to \$9.50 for No. 1 choice, and \$6 to \$7 per ton for No. 2. No. 1 timothy is quoted here at \$8.50 for cars on track. On the Toronto farmers' market hay brings \$10 to \$12 per ton, sheaf straw \$7.50 to \$8, and loose straw \$4 to \$5 per ton.

Clover and Timothy Seed.

On the Toronto farmers' market red clover is quoted at \$4 to \$4.50; alsike, \$3.50 to \$6; white clover, \$7 to \$8, and timothy seed \$1 to \$1.65 per bushel.

Cheese.

The cheese market has greatly improved during the week, and seems to be gradually recovering the ground it lost a couple of weeks ago. The advance, however, is on September goods, which always bring higher prices than the August make. Cable reports indicate large receipts of Canadian cheese, which is making buyers somewhat cautious. The decline, however, has been checked, and English buyers are anxious for September goods. The shortage in the English make is having some effect in stimulating prices. The increase in shipments from this side so far this season is 154,924 boxes as compared with the same period last year. The Montreal market is firmer under an improved demand, with finest westerns quoted at 11½ to 11¾c., and finest easterns at 11¼ to 11½c. The market has an upward tendency. On the local markets prices have ranged from 10¾c. early in the week to 11¾c. towards

the end. At Brockville on Thursday everything was cleared at the latter figure.

Butter.

There seems to be a stronger feeling in the butter market also. The *Trade Bulletin's* London cable of September 21st reads thus: "There is a firmer feeling, owing to continued light stocks, which cause holders to be very reserved in their offerings. Choice Canadian creamery is firm at 108s to 110s, with fancy brands bringing 112s. Good to fine 102s to 106s." This indicates a strong market, and shows that the largely increased Canadian exports of butter, which now amount to over 183,000 packages more than for the same period last year, are having no depressing effect upon the market. At Montreal the market is active at 21½ to 22c. for choice creamery and 20½ to 21c. for fine. Some of the Eastern Township creameries are reported to have got as high as 22½ to 22¾c. during the week. The New York market continues steady at the rise, which makes prices there 1½ to 2c. more than on this side.

Creamery prints fetch 23 to 24c. at Toronto, and boxes 21 to 22c. per lb. Choice dairy grades are in good demand at 17 to 18c. and medium 13 to 14c. On the farmers' market lb. rolls bring 20 to 25c. per lb.

Wool.

Prices for wool continue firm at the Boston market with a fairly active demand. There is little, if any, change in the wool situation here and prices remain at 14 to 15c. for fleece, and 8 to 8½c. for unwashed.

Cattle.

The cattle situation has changed very little during the week. At the American as well as on this market really good beef cattle are scarce, while there is an over supply of inferior stock that is somewhat draggy with easy prices. On the Toronto market on Friday the run of live stock was large with the quality of the fat cattle with a few exceptions only medium. Two-thirds of those offered as fat cattle were only fit for feeding purposes. Trade was fair with prices steady for the better classes of exporters and butchers, while the lower grades were easier. The bulk of exporters sold at \$4.25 to \$4.85 per cwt., but better animals would command better prices.

Export Cattle.—Choice loads of these sold at \$4.75 to \$5, and light ones at \$4.25 to \$4.60 per cwt. Heavy export bulls sold at \$4.12½ to \$4.40 and light ones at \$3.40 to \$3.65 per cwt.

Butchers' Cattle.—Choice picked lots of these equal in quality to the best exporters, weighing 1,000 to 1,100 lbs. each sold at \$4.40 to \$4.50, good cattle at \$3.65 to \$3.90, medium at \$3.50 to \$3.85 and inferior to common at \$3.12½ to \$3.50 per cwt.

Stockers and Feeders.—Good stockers and feeders rule steady in the west, but common and light stock cattle are dull. There has been a fair trade in stockers at Buffalo with steady prices. On Toronto market on Friday Buffalo stockers sold at \$3 to \$3.40 per cwt. for medium to good steers, and \$2.25 to \$2.50 per cwt. for inferior black and white steers and heifers. Stock bulls bring \$2.25 per cwt. There was a large number of heavy feeders offered on Friday and prices were a little easier at \$3.80 to \$4 per cwt. for well-bred steers weighing 1,100 to 1,200 lbs. Light feeders weighing from 900 to 1,000 lbs. each sold at \$3.60 to \$3.75 per cwt., and bulls for the byes at \$2.75 to \$3 per cwt.

Calfes.—These sold at \$4 to \$8 each, or \$4.75 to \$5 per cwt.

Milch Cows.—These fetch \$25 to \$48 each for the bulk, with \$50 each for the best.

Sheep and Lambs.

There has been an improvement in the tone of the Buffalo market and a better clearing up

of stock. The deliveries of both sheep and lambs on Toronto market on Friday were large. Export ewes sold at \$3.50 to \$3.80, and bucks at \$2.50 to \$2.75 per cwt. Butchers' sheep sold at about \$3 per cwt. Prices for lambs were a little lower at \$3.40 to \$3.60 per cwt., with the market dull at these prices. About 500 lambs were unsold at the close of the market, and many drovers refused to sell here and shipped through to Buffalo.

Hogs.

Receipts of hogs were fair on Friday with prices somewhat easier at \$4.62½ for best bacon hogs of good quality, not less than 160 lbs. nor more than 200 lbs each (off cars), unfed and unwatered and thick and light fats \$4.12½ per cwt. Unculled car lots sold at \$4.50 per cwt. The Montreal market has ruled steady with offerings taken by packers at \$4.75 per cwt. The *Trade Bulletin's* cable of Canadian bacon reads as follows:

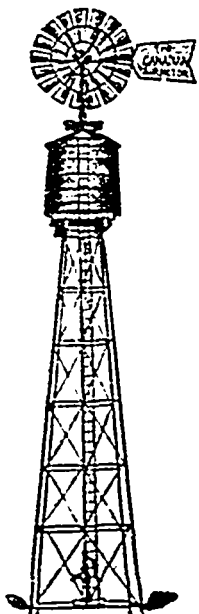
London, Sept. 21, 1899.—The market for Canadian bacon is firm at about last week's prices, as stocks are light and holders are not pushing sales. No. 1 pea-fed Canadian 48s. 1 50s.

Glass door-knobs are handsome and more easily kept in condition than those of bronze or brass.

A cork that is steeped for a few moments in hot vaseline will, it is said, serve all the purposes for which a glass stopper is used.

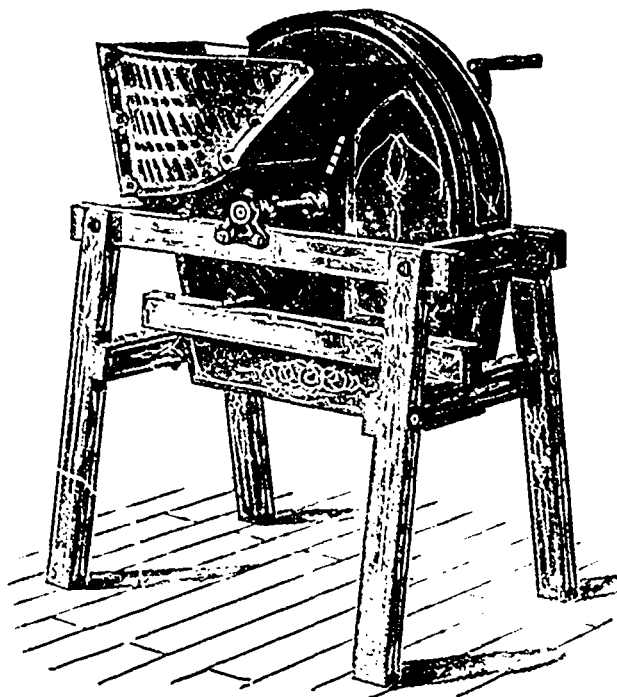
A woman ought to try her veils with all the care that she tries her hat. It is a mistake to suppose that any woman can wear any kind of a veil. There is as much difference in them as in any other part of the dress and perhaps more. A becoming veil increases a woman's good looks, and lessens her imperfections, and an unbecoming veil may make her look coarse and unrefined, a possibility that should be avoided, and it would be if people realized the importance of the matter. Colored veils, like colored gloves, are striking, in bad taste, and give the appearance of loudness to the costume. Nothing but neutral shades should be worn.

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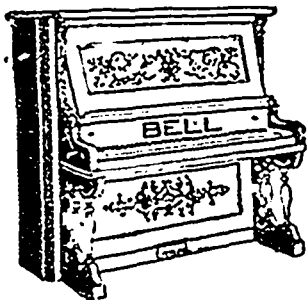
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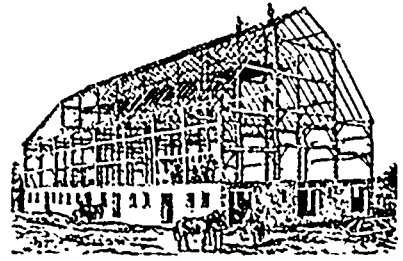
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