

# The Farming World

A PAPER FOR  
Farmers and Stockmen

## Central Canada Exhibition Association



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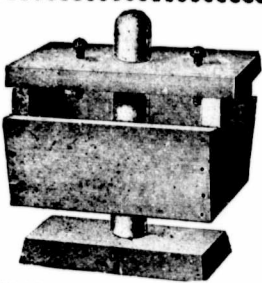
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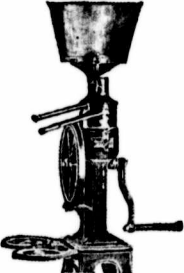
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# The Farming World

For Farmers and Stockmen

Vol. XIX.

AUGUST 13th, 1901

No. 7

## The Western Wheat Crop.

**S**o much is being written and said these days about the big wheat crop of Manitoba and the West that to touch of the subject at all is much like falling back upon a hackneyed subject just to fill up. But as we have just returned from a two weeks' visit to the West a few of the impressions gathered on the spot regarding the crop may not come amiss.

That Manitoba has a big wheat crop to harvest cannot be doubted. But whether the yield will come up to the rosy estimates now being presented to the public remains to be seen. We visited several parts of the province and the crop on the whole promises well. Especially is this the case in southern and south western Manitoba and in the Brandon and Portage la Prairie districts. At the Government Farm, at Brandon, and at one or two other points we saw fields that gave every prospect of reaching close to forty bushels per acre. But these would form only a very small percentage of the total crop area. The bulk of what might be called the best fields, and these cover a very large area indeed, perhaps, over one-half of the growing crop should if good ripening and harvesting weather prevail, run thirty bushels per acre. The balance, which is no very small portion would from what we saw, average, from fifteen to twenty bushels per acre.

To analyze a growing crop in this way may seem somewhat far fetched, especially as nothing is so uncertain as growing grain. But it is the only way of getting near the facts. From the figures we have given our readers will readily see that a good average yield for Manitoba would be about twenty-five bushels per acre. And this is no small average for a country covering the area represented by Manitoba and the Territories. The fact of the matter is, it is a big average, and if after the threshing is all done, the total yield per acre averages up to this figure, Western Canada will have had the largest crop in its history.

But let us compare this estimated average with the general average in other countries. In England where the largest yields per acre are obtained of any other grain growing country in the world, a good average yield of wheat for the whole country is about twenty-seven bushels per acre. In Ontario an average yield for the whole province scarcely runs over fourteen to fifteen bushels per acre, while in the United States the average yield is from four to five bushels per acre less. It will thus be seen that our estimate of twenty to twenty-five bushels per acre for Manitoba is not a small average, but on

the contrary a very good one.

From what we learned from farmers in the Territories the outlook there is perhaps better in most places than in Manitoba. The lands sown to wheat in the Territories are newer and capable of producing larger crops. In the province, however, there are lands that have been sown to wheat every year for the past fifteen or twenty years, and it is not to be expected that these, unless the methods of farming carried on have been exceptionally good, will produce to the same extent as more virgin soils. There are good and bad farmers in Manitoba as well as in other countries, and where the land has not been kept in order and properly cultivated some very poor crops of wheat were to be seen even this year. And this is casting no reflection upon the country or its people. Such a condition merely tends to lower the average yield over the whole country considerably from what it would have been had the best farming methods been followed in every case.

We stated in last issue that fully 20,000 men would be required to harvest the crop. This may seem like a large number, but when we consider the area under crop, the proportion of farm help on the average Manitoba farm is very small indeed. For this reason a large amount of extra help is needed to gather in the harvest. The western farmer realizes this just now as he never did before, and he is prepared to pay good wages, as high as \$50 to \$60 a month, being talked of. And if he can get the men he needs at these figures he may consider himself pretty well off. Though several thousand men left this province for the West last week many more will be needed.

The cities and towns of Western Canada, as well as the rural sections, should be very much concerned in getting off this big harvest in good condition. In fact the townspeople would suffer as much as the farmers should any part of the crop be lost because of insufficient help. It would seem to us therefore to be a good plan for all factories and manufacturing concerns in the cities and towns to shut down all unnecessary work for a few weeks and send their employees into the country to help gather in the harvest. It would be a most profitable outing for the men and would go a long way towards ensuring a safe harvesting of the crop.

## The Cattle Embargo.

In addition to placing the capabilities of Canada as a food producing country before the consuming classes of Great Britain during his recent visit to the old land, the Hon. Mr. Fisher gave some attention to other questions affecting the interests of the Canadian farmer. An effort was

made to have the embargo against the admission of Canadian live cattle removed. An amendment to the law would have to be made to grant this concession and this would seem to be impossible at present, owing to the hostility of British agriculturists who are afraid diseased animals might be brought in. The English authorities tried to show that in maintaining the embargo no reflection upon the health of Canadian cattle was intended. But as Mr. Fisher pointed out, the only ground for maintaining the embargo is the dread of importing diseased animals. The British official opinion seemed to be that Canada and the United States, being allowed to land cattle for slaughter, were better off than other countries and consequently, there should be little ground for complaint. But the last has not been heard of the matter, and with persistent and well directed efforts on the part of Mr. Fisher, which we have every reason to believe he will continue to make, and the co-operation of the several cattle dealers and feeders' associations in the old land, who are asking for its removal, the raising of the embargo may yet come.

## The Provincial Winter Fair.

The directors of the Provincial Winter Fair met on Friday last at the Palmer House, Toronto. There was a representative gathering and a large amount of business was transacted, including the arrangement of the prize list and the selection of judges. The complete official report will appear in next week's Gazette Department. Mr. A. W. Smith, Maple Lodge, Ont., was elected president, to succeed the late Jno. I. Hobson, and F. W. Hodson, Dominion Live Stock Commissioner, vice-president.

## The Temiscaming Fire.

The After Effects Will be Beneficial.

Mr. Thos. Southworth, director of colonization returned a few days ago from a visit of inspection to the burnt district in the Temiscaming country. To a representative of The Farming World he stated that the fire was confined nearly altogether to the settled land. It is hard on the settler for the time being, but will eventually do good, as the fire will help to clear up the land much faster than was being done by the settler. The spruce wood on the burnt lands will be available for pulpwood if taken out this winter. About 114 heads of families and young men who have taken up land were affected by the fire and about 25 entirely cleaned out, yet no one is discouraged, and all

are looking forward to the better conditions that will prevail when the first drawbacks from the fire have been overcome. The fire was not a general one.

The Government has made an appropriation of \$2,000 to assist those who have suffered from the fire. \$1,200 of this amount is being distributed among the most needy. \$300 will be devoted to the rebuilding of the school house, which was burnt down, and the balance, \$500, will be invested in clover and timothy seed for sowing on the burnt lands, so as to provide pasture and hay next season. The Canadian Pacific Railway and the Lumsden Steamboat Line have agreed to convey this seed to the burnt district free of charge.

### The Dairy Trophy.

The accompanying illustration is a facsimile of one of the two challenge trophies to be given by the Toronto Industrial Exhibition Association to the cheese or butter maker exhibiting the highest scoring cheese or creamery butter at the Industrial



Fair. The maker winning either one of these trophies will hold it for one year, but must win the same three times before it becomes his property. The enterprise shown by the Association in contributing so generously towards the dairy display should induce a large exhibit of cheese and butter. A trophy of this nature is something worth having.

### Apple Exporters.

A somewhat unique gathering took place at the Pavilion, Toronto, last week. It was the seventh annual meeting of the National Apple Packers' Association, an organization having for its members gentlemen engaged in the business of buying, packing and exporting apples in the United States and Canada. The unique feature of the meeting was in the fact that commercial men from two countries, who are strong competitors in the markets of the world were gathered together to discuss ways and means of bettering their

position and enlarging the market for their products.

There was a good attendance, many apple shippers from the United States being present. A number of valuable addresses were delivered, and perhaps, the three deserving of special mention were those by Dr. Mills, Prof. Robertson and Prof. G. T. Powell, of Briar Cliff Manor, N. Y. "Apple Growing and Shipping in Canada" was the title of Dr. Mills' paper. He said that the apple was our most valuable fruit for household use. There was no other fruit in Canada to take its place. Apple growing was a profitable business when properly pursued. In the Annapolis Valley of Nova Scotia they would find a considerable number of the wealthiest farmers in that Province who did little else than grow apples, and all over this country, and especially this Province, apple growing is a strong buttress of grain growing, stock raising and dairying. Apple orchards in Ontario, however, were sadly neglected. There was not proper spraying and manuring and pruning were not done thoroughly. An attempt had been made to remedy these defects by the Government, first through the farmers' Institutes, while a demonstrator also had been sent round to illustrate the best methods of spraying. Still, he regretted to say that a very large proportion of our orchards was not sprayed. Then they had in the Province thirteen or fourteen experimental stations, where varieties were tested and notes taken of their adaptability to various locations. Apple shippers, he agreed with Senator Dunlop, should try to improve the quality of the fruit by their representations to the producer. The grower would always pay more attention to the buyers than to the paid lecturers of Government. Careful discrimination should be exercised in buying, so that good fruit might be well paid for.

### CANADIAN APPLES

Prof. Robertson dealt with certain features of apple growing in Canada. Apple culture required special culture and training. Many of the ignorant resorted to books for their knowledge and purchased all sorts of varieties of apples. He had been told of one man who had six hundred varieties on his farm. He thought that from twelve to twenty varieties were all that should be grown in any particular district. They could then be grown to advantage, would speedily make a name and would secure a better market. Such a district would be from Owen Sound to Toronto, about 150 miles square. Canadians had been losing in the English markets by having too many varieties, and shippers could do a good deal of good by talking to the farmers and informing them what varieties were required. The apple shipper should give exact information to these men. The shippers, too, should back up the work of the Government at the illustration stations, where the best ways were shown of growing, picking and packing fruit. An orchard placed under the care of a district asso-

ciation would serve the purpose of an illustration station.

The apple business Canada suffered very severely from the faults of packing. He would like to see a similar development in the apple-packing business as had been witnessed of late in the pork-packing business, and which had resulted in an enormous increase of business. Practical skill on the part of the worker, and commercial talent on the part of the business man, would have the same results with the apple trade. The two special commandments should be: "Thou shalt deliver goods as they are represented to be," and "Thou shalt deliver them in the best possible condition." The question of transportation was one for the consideration of the shippers. In Canada we had an export trade of about a million barrels a year. Two or three things made or marred the profits of the shippers. He knew a man who for four years packed the product of his own orchards and made \$3.50 a barrel. If they sent the best of apples in the best possible condition they would get in England the highest prices.

Inferior goods were always slaughtered in the English markets where they found in competition the products of so many places. The Government of Canada were doing all in their power to protect shippers. They had four men in England whose duty it was to watch over delivery of Canadian products, with instructions to report all cases in which steamship companies or others did not do the right thing. The transport of apples was a difficult thing, owing to changes of temperature. A shipment might show a temperature of 85 on the cars, while that of the wharf might only be 55. This cargo was reported as over ripe when packed. Apples should never go on board a ship unless the ship had a thorough system of ventilation. Most of the steamship lines from Montreal were supplying proper facilities in this way for apples.

The Government had also shown their solicitude for the welfare of the business by passing the fruit marks act, which came into operation on the 1st July. By this act every person who packed fruit in a closed package intended for sale, was compelled to brand it plainly, with his full name and address, the name of the variety, the designation of the grade of the fruit. Packages were not to be exposed for sale or sold unless so packed, and a penalty was imposed for false marking of packages or fraud in packing.

### APPLE CULTURE IN THE UNITED STATES

Prof. Powell delivered an address on the "Possibilities of Apple Culture in the United States." In the course of his remarks he pointed out that while it was true that the apple could be grown over a wide area of country, it did not follow that it could be grown everywhere.

Experience had shown that certain varieties were adapted to certain localities, and should be confined to them. The finest flavored apples

were found in the belt extending from Nova Scotia through the New England States, reaching to Michigan, and taking in New York and north Ohio and a part of Illinois. The Northern Spy would not grow to perfection outside of New York, Canada and Michigan. His deduction was that growers should depend upon the varieties originated in their own soil and climate. In touching upon the transportation question, he paid a high compliment to the enterprise and forethought of the Dominion Government in the efforts they had made in securing proper facilities for shipment on the ocean steamers. How important this matter was could be understood when he said that apples from Tasmania, 14,000 miles from England, were delivered in better condition in England, than apples from the United States.

#### SPRAYING A NECESSITY.

Other important subjects discussed were the proper education of orchardists, commercial orcharding, methods of buying and selling and the importance of spraying. Buyers frequently passed by orchards which they knew had not been sprayed. Sale by the barrel was recommended rather than selling the crop outright on the trees. Considerable complaint was made as to the methods of sale followed in the Liverpool markets. Apples at that market could be inspected as often as desired and were then graded and catalogued according to quality. But although all this was done the buyer at auction had the option of rejection of barrels that he did not approve of. The opinion prevailed that the auction sale should be final, so far as the shipper is concerned, and a committee was appointed to look into the matter.

The next meeting will take place at Rochester, N. Y., in 1902.

### CORRESPONDENCE.

#### Lucerne or Alfalfa.

E. D. Tillson gives some valuable hints to Farmers regarding this crop.

Editor THE FARMING WORLD

I notice in some of your circular letters sent out, that you ask farmers to write and tell how matters are going with them on the farm. As by so doing they might benefit some other farmers. So in compliance with your request, I give you my experience.

I have not very much to say that is new, but there is one thing I might say that may be of interest to others, and that is something about Lucerne or Alfalfa. I am greatly taken with this clover. It is a comparatively new thing in Canada; comparatively few farmers are growing it. Some few have tried it and have not been successful. I have been growing it in a small way for eight years and have only just now learned how to grow it successfully. I have now about twelve acres growing, and last year and this year's

seeding has been very successful, more particularly this year's. I seeded down eight acres, and all but two are doing splendidly, the finest I ever saw, just beautiful, as thick on the ground as it can stand, with no weeds. I sowed about the 10th of May and cut for the first time about the 5th of July, when eight to ten inches high, and now (20th July), it is from six to eight inches high again, and the prettiest field of clover you ever saw.

One field that I seeded down last year, I cut on the 20th of June this year, when it was thirty inches high, and it yielded seven tons of green feed to the acre. I cut a second crop on the 15th of July, but owing to the very dry time—no rain between first and second cutting—it did not turn out so well, only 3½ tons of green feed to the acre. But since then we have had a good heavy rain and it is growing very rapidly, and in three weeks, or about the middle of August, I will have another heavy crop, the third cutting, and a fourth cutting about the 1st of Oct. One lot of last year's seeding I cut for hay about the 26th of June, which weighed 2½ tons of dry hay to the acre, and in two weeks more we shall have a second crop equally as good, and about the middle of Sept. said to be a very rich feed.

#### AS A SOILING CROP.

We cut some of the Alfalfa every other day and feed it green to our 300 hogs and 65 milch cows, and I believe it to be the finest green feed in the world for soiling purposes, either for pigs or cows. It is the very cheapest and the best feed one can grow; hogs are particularly fond of it as well as the cows, and it is said to be a very rich feed.

In a new book on Alfalfa, published this year by one of the professors in the Kansas Agricultural College, the author states, that one ton of Alfalfa hay is worth as much as four tons of timothy, or two tons of common red clover, and a ton of the leaves is worth more than a ton of wheat bran, and that if you feed Alfalfa hay to your cows and pigs in the winter you do not require to feed any grain. Now this is a big story, but as all the American Agricultural papers, and several new agricultural books, are just now telling great stories about Alfalfa, there must be some truth in it.

#### CAUSE OF FAILURE.

The great trouble or the cause of lack of success with Alfalfa in this country is in getting it to grow, that is in getting it started the first year. Not one farmer in a hundred knows how to grow it, and nine-tenths of those who have tried it have made a failure. The great secret is to have the land thoroughly prepared for it. The land must be thoroughly worked the year before sowing so as to kill all weeds, and early in the following spring cultivated, harrowed and rolled a great many times so as to get a perfect seed bed. Barn yard manure should not be put on for at least a year before sowing

as it will cause weeds to grow, but commercial fertilizers should be used.

#### WHEN TO SOW.

It is best to sow the seed as early in the spring as the land can be got into good shape, but better to sow a little later than to sow when the land is in bad condition or not properly worked. Sow broadcast, thirty pounds of seed to the acre. It is better to go over the land twice, once each way, sowing half the amount of seed each time. We use the wheelbarrow seeder. After sowing roll the land down firm and then go over it with a light harrow or a weeder, and when the Alfalfa is up six or eight inches high it should be cut with the mower, but not very close to the ground. This is to check the weeds and also causes the Alfalfa to grow stronger and healthier.

I have always grown Alfalfa on dry, sandy soil until this year. I have one acre on a heavy clay loam inclined to be a little damp, and the Alfalfa is doing better there than on the sand. I am experimenting with different kinds of soil and different times of sowing with and without a nurse crop, and find it does much better sown alone without a nurse crop. If sown with a nurse crop barley is the best and that should be cut before it gets ripe, for green feed; but Alfalfa is better alone without any grain.

#### WHEN TO CUT.

Alfalfa should never be allowed to go to seed as that would run it out very quickly. If properly managed it will grow for eight or ten years, the roots going down eight or ten feet. It will stand the drought better than any other clover. For hay it should be cut very early, as soon or before it begins to blossom, otherwise the hay will be woody and not nearly so good. In curing Alfalfa for hay it should not lay too long in the hot sun, only a few hours to wilt, and then it should be raked and put into cocks, and the cocks covered with cotton hay caps. It should be left in cock three or four days to cure and then handle as little as possible, or the leaves, the most valuable part of it, will drop off.

Now, if we can grow five or six tons of hay to the acre in three cuttings, which I think we can, and if one ton is worth two of timothy, or two and a half tons of red clover, which I think it is for breeding cows or pigs, this clover is the most profitable our farmers can grow. For green feed it can be cut continuously from the middle of May till October, and it will stand drought better than any other crop. It looks to me as if there is no other crop equal to Alfalfa, and still not one farmer in 1,000 is growing it for the reason that he don't know how. Why they fail is because they do not half work or prepare the land, and do not sow half seed enough to the acre, and besides want a crop of Alfalfa clover and grain of the same ground and both at the same time, which is all wrong.

E. D. Tillson,  
Tilsonburg, Ont., July 23rd, 1901.

# The Winnipeg Industrial Fair

Specially Reported

The city of Winnipeg presents many attraction to the visitor from the East. Its broad streets, fine public buildings, large warehouses and splendid stores mark it as a modern go-ahead centre that is destined to fill an important place in the development of Western Canada. It would not be surprising to see Winnipeg double its population within the next ten years. At the present time there is great activity in building circles, and it is estimated that between two and three million dollars will be expended in this line the present season.

Winnipeg is the gateway to the prairie. From this point visitors branch out to all parts of the West. Here are located the large banking and financial institutions of the country, the wholesale warehouses and branches of numerous concerns doing business in the West. With respect to bank clearings Winnipeg now ranks as the third city in the Dominion, Montreal and Toronto alone excelling her. And all this has been accomplished within the past twenty-five years. To-day, Winnipeg, with her 50,000 population, is one of the most progressive cities in the Dominion. The boom days are over and a steady, substantial and healthy development has set in which may be said to be characteristic of the whole of Western Canada.

Nowhere will one gain a more correct idea of the kind of people who inhabit the Canadian West than at Winnipeg's big summer fair. They gather here from all parts of the prairie province and Territories, not only to see the big show, but to transact business that has accumulated during the year. Because of this latter reason the Winnipeg fair is of very great advantage to the merchants of the city, who reap a big harvest from the large influx of visitors to the fair. This year was no exception to the rule, the hotels being taxed to the utmost to accommodate the people.

The dates of this year's fair were from July 29th to August 2nd and from the first day, when the exhibition was formerly opened by Lieutenant-Governor McMillan, to the close, the grounds presented a scene of activity and bustle, quite characteristic of Western life. The fair was largely attended throughout, though there was some falling off in the attendance of farmers as compared with other years. Realizing the big harvest ahead of them, not a few farmers this year remained home from the fair in order to have all other work on the farm done before the wheat crop is ready. There were, however, good crowds on the grounds during each day of the fair, while at night the grand stands were overcrowded. The performance before the grand stand this year was good and the fire-works on a scale almost equal in extent to that wit-

nessed at the Toronto Industrial. As at Brandon, the horse race is the chief centre of attraction. To attend the fair and miss seeing the speeding in the ring is a calamity Westerners endeavor to avoid. And the West may well feel proud of some of its fast horses, though it would perhaps be better for the agricultural part of the show, if less attention were paid to this feature.

With the exception of the live stock department the Winnipeg fair cannot be called a great agricultural show. The season of the year when the show is held may possibly account for this. A much better display of agricultural products might be gathered together after harvest than before. The dairy products exhibit was only fair, there being very few cheese shown, though the judge, J. W. Hart, superintendent of the Kingston Dairy School, stated that a couple of lots showed very good quality. The butter exhibit was large and fairly even in quality, both the creamery and private dairy being well represented. A butter-making competition, somewhat along the line of that held at Toronto, attracted considerable attention. In our opinion it would pay the Manitoba dairyman to confine his energies entirely to butter, rather than divide them up with cheese. There is a large and gradually increasing market for butter in the Kootenay and British Columbia districts, which Western dairymen should endeavor to hold for themselves.

## HORSES.

The exhibit of heavy horses at Winnipeg was good. They were judged by Mr. John Gardhouse, Highfield, Ont., who pronounced the display a very creditable one. As at Brandon, the Clydesdale was the favorite. The aged stallion class of this breed was a very good one, there being six entries. "St. Christopher" owned by J. A. S. Macmillan, Brandon, was first. Jacob Shunk, Carman, 2nd, and Donald Ross, Cypress River, 3rd. In three year old stallions, Rosemont, bred by Graham Bros., Claremont, and shown by W. Swenerton, Carberry was first. A & G. Mutch with "Prince Stanley" 2nd, and J. A. S. Macmillan 3rd. In two year-olds, J. A. S. Macmillan was first with imported Baron Hendry, John A. Turner, Millerville 2nd, with Lord Grandeur, bred by D. & O. Sorby, Guelph, and J. B. Thomson, Hamiota, 3rd. There were seven yearling stallions in the ring, and a nice even lot they were, with John E. Smith, Brandon, first. Fraser & Son, Emerson, second, and J. B. Thomson third. In brood mares and young stock the show was strong. For brood mares with foal by side John A. Turner was first, John Wishart, Portage la Prairie, 2nd, and J. B. Thomson 3rd. For brood mare and two of her progeny 1 and 2, went to J. B. Thomson and 3rd to A. and

G. Mutch. For two year old filly A. and G. Mutch, Lumsden, were 1st and 3rd, and McKenzie 2nd. For yearling filly, A. and G. Mutch were 1st, J. A. S. Macmillan 2nd, and Jno. E. Smith 3rd. For best foal, Jno. E. Turner was 1st, and John E. Smith 2nd and 3rd. John E. Turner had the sweepstakes for best mare by age while Jno. E. Smith and Donald Ross had 1st for stallion and three of his get. The sweepstakes for best filly any age went to W. Swenerton, for Rosemont.

There were only a few Shires shown. In draft horses some good types were shown, the teams being strong. Quite a number of good general purpose horses were shown and the judge was kept busy allotting awards.

So far as quantity was concerned, the display of light horses was good but the quality, in many cases was not what one would expect at a fair where the racehorse and the driver has such a hold on the people. In fact Mr. D. H. Charles, Galt, Ont., who judged the light horses was so impressed with the poor quality of some of the classes that he refused to award first prizes, and an examination of some of the exhibits would seem to justify him in taking this stand. It would seem as if many exhibitors concluded that anything that would draw would be all right for the show ring. The lesson administered to them by the judge may have a wholesome effect in inducing a better class of exhibits in the future.

## CATTLE.

It is perhaps in the display of cattle and especially of the beef breeds, that the Winnipeg fair will rank high as a live stock show. The display of shorthorns was an excellent one especially of young stock, and one that would do credit to any show. Ontario breeders may well look to their laurels when we have in our new Canadian West such a turn out of "red white and roans" as was to be seen at Winnipeg this year. The judge, Prof. Thomas Shaw, stated that it would be impossible for his own state, of Minnesota, to get together so large and creditable an exhibit. The gentlemen who contributed largely towards making this good showing, were, the Hon. Thomas Greenway, of Crystal City; John G. Barron, Carberry, and Jno. E. Smith, Brandon. In judging the beef breeds Prof. Shaw had three days of steady hard work. In aged bulls some overdone animals were shown; 1st went to Benallach & Lafrance, Winnipeg; 2nd to Geo. Bruce, Greenway and 3rd to Andrew Graham, Pomeroy. A nice lot of three year-old bulls was shown, 1st and 3rd going to Jno. G. Barron, the former for Topsman's Duke, and the 2nd to Greenway, for Jubilee (Imp). In two-year-olds Greenway had 1st and 2nd, his bull, Sittytown Hero 7th, bred by Jas. I. Davidson & Son, getting first place. This is a noble animal, large and well proportioned. He was the sweepstakes bull at Winnipeg in 1900. Patron was

3rd, with Judge 2nd. In yearling bulls there was strong competition, there being some new blood in the field, first going to Wm. Ryan, Nanga, for a fine white bull, with John Graham, Carberry, 2nd; Greenway 3rd, and Jno. E. Smith, 4th. For bull calf Greenway was again 1st, with James Bray Lomburn, 2nd, and Jno. E. Smith, 3rd, with a nice calf of Jno. Isaac's breeding. For the best bull any age, Hon. Thos. Greenway, had it with Sittytton Hero.

The display of aged cows was large, there being 13 in the ring. In this class Jno. G. Barron was first with Jenny Lind 4th, (imp.), and Greenway 2nd, with Roga Mary, bred by Hon. John Dryden. In three year olds Greenway had 1st and 2nd, and also first in two-year-olds with Barron 2nd. In yearling heifers, Greenway had 1st, 2nd and 3rd, and also the same standing for heifer calf. There was strong competition in the herd classes, the highest awards being divided pretty evenly between Greenway and Barron, with Jno. E. Smith strong in some young herds. Considerable interest was shown in the contest for the specials given by the Dominion Shorthorn Breeders' Association. With the consent of the exhibitors and to relieve Prof. Shaw somewhat, Mr. Ogilvie, of Chicago, was called in to make these awards. The interest centered around the best bull any age where Barron's Topman's Duke and Greenway's Sittytton Hero were competing. After some deliberation the judge awarded the palm to the former, thus reversing Professor Shaw's judgment in previous awards. For best female any age Barron was also first while in the Association's specials for young herd bull and their females, Greenway had 1st and 2nd, and Smith 3rd. There were a number of specials in this class, making a large number of sections and in fact, more than were necessary in a show of this kind. The number of sections in nearly all the live stock classes might be cut down by one-quarter to the advantage of both exhibitor and judge.

There was rather a fine showing of Herefords and some very fine specimens were shown. This breed has many qualities which make it of value to our western country and it would seem as if western farmers are just beginning to realize this. The principal exhibitors were John Wallace Cartwright, J. A. Chapman, Beresford and J. E. Marples, Deleau. Honors were about equally divided between them, with perhaps Mr. Wallace leading.

There was also a fine showing of Polled Angus for a new country, and some fine specimens were shown. A. Cummings, Lone Tree, and C. W. Speers, Griswold, Man., were the chief exhibitors and winners though John Fraquhar, Welwyn, Assa., was frequently in the list. This is another breed of beef cattle well adapted for Western Canada.

The showing of Galloways excelled by far that of any previous year. The exhibits were made by D. McCrae, Guelph, and Wm. Martin, Winnipeg. The former had on exhibition thirteen fine animals including the imported bull Cedric IV, of Tanbreoch. This

bull is a splendid type of the breed and stood first at the Highland show last year. A two year old bull shown by Wm. Martin, also imported showed up well in his class. The bulk of the first prizes came to the Ontario breed which made a good showing in competition with its western rival.

#### DAIRY BREEDS.

The dairy cattle were judged by R. Reid, Berlin, Ont. Holsteins were out in large numbers, and though there was, no doubt, good quality in many of the animals shown they were not brought out in show shape. In fact not a few of the animals shown looked as if they had just been brought in from about some straw stack, and low exhibitors expected to make an impression upon the judge or visitors to the show as a mystery. We do not for a moment countenance too much fitting and fixing for the show time, especially with dairy cattle, but there is a happy medium by which no injury comes to the animal and a much more creditable showing made. If the Holstein breeders of the west expect this breed to become the popular dairy cow west of Lake Superior, as there seems to be good prospect of its becoming, they must learn to fit their animals for the show ring better. This is advisable for purely business reasons if for no other. A visit of examining the different breeds with the intention of purchasing will be much more favorably impressed if the animals that are in good healthy, thrifty condition, than if they are shown in a half starved, neglected state. This is a bit of advice from an Easterner who has attended a good many shows and we trust it will be received in the spirit in which it is given. The chief exhibitor in this class as usual was Jas. Glennie & Son, Longburn, who won the bulk of the awards. Other large exhibitors were John Oughton Middlemarch, and A. B. Potter, Montgomery, Assa., the latter showing a very fine two year old heifer Glennie & Son had the sweepstakes for the best bull any age and also for best female any age in milk.

There was a fair showing of Jerseys though their companion breed the Guernseys were conspicuous by their absence. W. V. Edwards, Souris, was the chief exhibitor and winner.

In Ayrshires some good specimens were shown, principally by the Hon. Thos. Greenway. Mr. W. M. Smith, Scotland, Ont., showed some good animals, but as they were of the old type of Ayrshire, they appeared at a disadvantage in competition with the more up-to-date animal, at least the judge seemed to be of this opinion. Alex. Wood, Souris, had a few winners, but the bulk of the prizes went to the Crystal City herd.

#### SHEEP.

The splendid sheep barn of the Winnipeg Industrial did not contain as fine an exhibit of sheep as one would have expected to see. While there were quite a number shown the majority were thin and not in show condition, though Mr. Thos. Teasdale, Concord, Ont., the judge, stated that the exhibits handled a good deal better than they looked. Nearly all the

leading breeds were represented, many Ontario exhibits being among them. These latter were shown by Wm. Smith, who displayed considerable enterprise in visiting the West with a car load of cattle, sheep and swine for the show. In Cotswolds, M. Oughton Middlemarch, was the only exhibitor. Leicester were represented by Duncan Sinclair, Oakville, and Alex. D. Gamley, Brandon, the former being the chief winner. In Lincolns, W. T. Lytle, Beaconsfield, had everything his own way. Hon. Thos. Greenway and D. E. Corbett, Swan Lake, made up the exhibit of Shropshires, the former securing most of the awards if we are to judge of the popularity of the breed by the number of exhibits the Oxford Downs would carry off the palm. There was more competition in this class than in any other and a number of Ontario sheep shown by J. H. Jull & Sons, Mr. Vernon, Ont., figured in the prize list. Alex. Wood, Souris, and J. B. Jickling, Carman, Man., were prominent winners, the former, perhaps, carrying the most firsts. Wm. Smith had the only Southdowns shown. In Dorsets, the exhibit of R. H. Harding of Thorndale, Ont., took the first place in nearly all classes, W. H. Thompson, Emerson, being a good second.

#### SWINE

There was a very good exhibit of swine, Berkshires, Tamworths and Yorkshires predominating. Mr. Tios, Teasdale, judged this section also. In Berkshires, J. A. McGill, Neepawa, and Hon. Thos. Greenway, were the chief exhibitors, the former being perhaps ahead in the winnings, especially of firsts. There was keen competition in Yorkshires, where Ontario was represented by Brethour & Saunders, Burford, Ont. The chief western exhibitors in this class were S. J. Thompson, St. James; Andrew Graham, Pomeroy, and Hon. Thomas Greenway. Tamworths were out in large numbers with some fine specimens shown. L. H. Bradley, Portage La Prairie and W. E. Baldwin, Manitou, were among the chief exhibitors and winners, though Will H. Smith, Carman, and W. M. Smith, Scotland, Ont., had no small share of the prizes. Chester Whites, Poland Chinas, and Duroc Jerseys, were fairly well represented, though if we are to judge of the number shown at Winnipeg, these are not the popular breeds among western farmers. There was strong competition in the bacon hog class. In this A. B. Potter, Montgomery had first, Brethour & Saunders second and S. J. Thompson & Son third.

#### POULTRY.

As at Brandon the poultry exhibits were judged by Sharp Butterfield, who pronounced the exhibit a fair one. Many of the birds were not in good feather and consequently did not score as high as they otherwise would. As at Brandon what are known as the utility breeds predominated.

Taken altogether Manitobans have good reason for taking a genuine pride in their big fair. In several respects it will compare favorably with the largest of our great fairs in the East.

(Concluded on page 144.)

## Studies in Nature

### A Review of Insect and Bird Life on the Farm

Edited by C. W. Nash

The editor of this department will be glad to identify for subscribers any specimens of natural history sent to this office for that purpose, and will answer any questions on the subject that may be asked through *The Farming World*.

#### BIRD NOTES.

Just before daylight on the morning of the 7th inst. I had an opportunity of noticing an extraordinary migratory movement of Wilson's thrushes here. The night had been very dark, and towards morning several heavy showers of rain had fallen, accompanied by a good deal of thunder. I did not hear any birds passing over during the night, but just at dawn, and quite suddenly, I heard the veery's call note everywhere around me. The notes seemed to come from over my head and from among the trees quite close to me, but I could see nothing, the birds were travelling from East to West, and soon passed by, and I have seen none since, there may be a few stragglers yet left, but I think the bulk of them have left us for this season. Baltimore orioles and bobolinks are fast disappearing; they perform their journey in a more leisurely fashion, and do not always travel at night.

The shore birds and waders are working their way down from the North, and are becoming abundant along the sandy beaches of Lake Ontario. These are only the advance guard of the vast army that in another month will be sweeping across the continent from North to South.

#### INSECT NOTES.

The enormous number of cherry and maple aphids that appeared on our trees this spring has caused a corresponding abundance of the predatory insects whose mission it is to keep them in check. In a past issue I mentioned the unusual number of fifteen spotted ladybirds that had arrived in this neighborhood, and which were increasing rapidly. Lately I have noticed everywhere, in the grass, about the bushes and on the trees, great swarms of lace wing flies, sometimes called aphid lions. These are beautiful green bodied lace winged flies, the larvae of which feed on aphids and other plant lice. Want of space prevents my giving the life history of this insect in this issue, but I will do so shortly.

#### ANSWERS TO CORRESPONDENTS.

J. N.—The beetles sent as specimens taken on the sugar beet are the common striped blister beetle (*ep-*

*canta vittata*) sometimes known as the "old fashioned potato beetle." These insects are sometimes destructive to potatoes, flowers, or garden crops in late summer, they are very fond of beets and are sometimes, though not often, seriously harmful. Blister beetles occasionally appear in swarms at this season of the year and sweep over a garden or field before the nature of the attack can be realized. As a rule they disappear as suddenly as they come, the swarm remaining for only a day or two, at other times they may stay a week or more. The ordinary arsenical poisons kill them slowly and a swarm that feeds for a day or two, before the poison is applied, and a day or two before the insects die, has done about as much injury as they would have done if allowed their course unmolested. Driving them off is often practised with success, and should be resorted to when circumstances permit it.

These blister beetles are beneficial insects in their earlier stages and form one of the most important checks to the excessive increase of grass-hoppers. The young larvae, when hatched, hunt up the egg sac of a grass-hopper, and there remain until they have reached their full development, in the meantime feeding upon the grass-hopper's eggs contained therein. For full life history of blister beetles see *Farming World* of September 25th, 1900.

Wm. Muir—The plant sent is the common yellow clover (*trifolium prostratum*). This is an annual plant and quite easily kept under control by frequent cultivation. It is generally considered beneficial in pastures.

# MILLIONS OF WEALTH IN CANADA

Our

**Annual  
Autumn  
Number**

will be published about  
Sept. 1st.

Her population is growing rapidly.

This year her harvest is the greatest on record.

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THE FARMING WORLD is the only weekly agricultural paper in Canada.

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# The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially  
Representing the Farmers' Interests

Edited by JAMES FOWLER

## Sugar Beetlets.

To produce our own sugar will save not less than two dollars per capita to the country, including the purchase of and the duties on foreign sugars.

Beet sugar is rapidly supplanting cane sugar because the latter cannot be as cheaply produced.

In Michigan alone, within three years, the investment in factories has been \$6,000,000.

Michigan's beet sugar product in 1898, the year of its first factory, was 5,000,000 pounds. In 1899 it was 35,000,000 pounds. Last year it was 52,000,000 pounds. This year, it will be about 120,000,000 pounds, neatly one-third of the total output of the whole country.

At River Fall, Wis., two young lady school teachers are contractors, each having two acres on their fathers' farm. They have done all the work on the crop, with the exception of team work, and both have perfect fields of beets that would shame some of our good farmers to visit.

A great many things that are beneficial to the farmer follow in the wake of every factory. It affords the very best opportunities to the creamery industry and to stock feeding of all kinds in its supply of pulp which results from the extraction of the sugar from the beets. This is one of the most desirable of stock food, can be obtained cheaply from the factory and is easily stored and kept.

Fuller Brothers will commence at once to feed cattle on beet pulp from the big silo east of town. They now have there 1,100 head and propose to buy in Arizona some two thousand more. The Chino Land and Water Company has fitted up its engines, and are taking the pulp directly from the factory to the silo. So there will again be Chino beet-pulp-fed beef on the market the coming fall and winter and no better beef, by the way, is furnished to the markets of California—Chino Champion.

## Sugar Beets at Dromore.

Editor Sugar Beet World.

Replying to your inquiry of July 30th, I may say, that I sowed the mangels and sugar beets on April 26. There was much backward weather after they were sowed. The Danish sugar beets are now larger than the mangels and just as numerous. They are fairly regular in the drills. There are some misses varying from 2 feet to 12 feet, but the average distance apart is about a foot. The circumference of the beets is about 8 inches on the average. Some are as large as 12 inches. The seed was put in drills just like the mangels and 1 lb. was sown in 12 drills 40 rds. long. This would be a little more than 2 lbs. of seed per acre. I will send you a report of the total crop after harvesting. How does this crop as described

above compare with a crop properly sowed on level ground as described in The Farming World of which paper I am a regular subscriber?  
Dromore, Ont. —Wm. L. Dixon.

## Personals.

Mr. H. S. Cane, Mayor of Newmarket, made us a pleasant call during the week and discussed the beet sugar question.

Mr. J. C. Siemon, one of the directors of the Warton Beet Sugar Co., Warton, while in the city, dropped in to see us. Warton is moving slowly but surely along the right lines.

## How Many Factories Shall we Build?

By actual count there are at the present time 19 different projects in the air for the establishment of sugar factories in the province. How many of these will be built for next season's operations, is the question that is now troubling the minds of the places interested. At the present time one only is assured, Wallaceburg being the only one for which the contract for building has been awarded. Though developments within the next few days will show no doubt that at least one more will follow very closely. Each locality interested, seems to feel that they are about the only one at all sure of having a factory built, and are holding out inducements to their expectant subscribers for stock, that they are sure to receive  $\frac{1}{2}$  per pound from the Government upon all the sugar they manufacture, at least \$50,000, the first year. These statements or inducements are somewhat misleading as the the whole appropriation is only \$75,000 a year, and must be divided pro rata upon the basis of the sugar manufactured. So that with 3 or 4 factories participating it would mean less than \$25,000 each. There is no great haste to rush this matter, it is best to establish, say, two plants in different parts of the province and fully demonstrate the success of the enterprise before embarking too heavily, or some towns will regret their hasty action of giving very large bonuses for the establishment of an enterprise which may not be successful in their vicinity. Go slow, and investigate carefully the surrounding conditions.

## From Sombra.

Capitalists from Michigan gave recently been looking over the ground with a view to building a factory at Sombra, and, while there are some disadvantages in regard to railway facilities, there are other advantages which largely counterbalance them. Much satisfaction was expressed at the way the farmers have taken hold of the contracts offered them for the

growing of beets and the manner in which they look after them. It is likely a factory will be built there for 1902.

## The Crops.

The general outlook continues fine, the beet fields have been well taken care of and farmers are well satisfied. The beets being grown under contract for shipment to Michigan have been carefully looked after by representatives from the factories interested.

## Sugar Beets and Drouth.

It is an ill wind that blows nobody any good. The recent prolonged drouth in Nebraska and elsewhere served to show in a surprising manner the vitality and strength of sugar beets in resisting unfavorable climatic conditions. While other crops were literally burned up, sugar beets continued to grow and to make sugar rapidly, and when the rains came the beets recovered in a remarkably short time, whereas for other crops the relief came too late to secure even an average crop. This lesson will not be lost upon the observing farmer.—Beet Sugar Gazette.

## Sugar Bounties Conference.

Meeting to be held at Brussels in the Autumn.

The West Indian Committee announces that the Government has accepted the invitation of Belgium to attend another sugar conference in the autumn to consider the question of the abolition of bounties. The abolition of the bounties referred to is export bounty, which means to this country an increase in the price, unless we manufacture our own sugar.

## Cultivation of the Sugar Beet.

Prof. F. T. Shutt.

The sugar beet is a variety of the ordinary beet that, by careful and scientific selection and propagation, has been improved, so that now ex-

**E. H. DYER & CO.**  
Builders of

**SUGAR MACHINERY**

Cleveland, Ohio

Will contract to build complete beet sugar plants, including all machinery and buildings; also furnish the necessary technical and skilled help to operate them.

amples are not wanting whose juice contains 20 per cent sugar.

It is not intended to describe the many different kinds of sugar beets developed of late years and now grown on the continent of Europe for the sugar factory, but it is necessary to say that the seed of such varieties as have been proved to be rich in sugar should only be sown.

The sugar beet has been found to thrive throughout the greater part of Europe and the United States. As the northern or southern limit of this very extended area of growth is approached the sugar beet increases in richness. What the sugar cane is to the tropics, the sugar beet is to the temperate zones. As it has already been said, there can be no doubt but what the climate of a large portion of Canada is suitable for the development of beets rich in sugar.

The value of beets for the manufacture of sugar depends upon their richness in sugar and the purity of their juice (co-efficient purity), and these again in turn depend upon the kind of seed, the quality and condition of the soil, the extent and nature of the cultivation and the character of the season. Failure in the past has often resulted from not recognizing the fact that the sugar beet requires a different and more thorough cultivation than beets grown for fodder purposes. A right preparation of the soil, correct planting, and the keeping of the root well below the surface of the ground, all exert their influence upon this crop, both as to quality and quantity.

In view of the probable extension of the beet sugar industry in the near future and the consequent growth of these roots in large quantities in this country, it has been thought advisable to give some information—necessarily in a concise form—regarding those methods of culture which have been found advantageous by experienced sugar beet growers.

Soil.—The sugar beet will grow in almost any soil, but its profitable culture requires a good soil, properly prepared.

Heavy clay and wet soils, rocky and marshy lands, are not desirable. By judicious drainage the former may be vastly improved. Soils in which clay predominate are often too hard and impenetrable. In a ground full of stones the roots become forked and unsuited for the factory, and in a wet soil a watery root is produced.

Rich, loose, sandy soils, containing a fair proportion of lime, are the most favorable for the growth of beets rich in sugar.

Too much organic matter in the soil is apt to impair the purity of the juice, and for this reason the soil selected should be well manured the previous autumn, no application being made in the spring. The manure used should be in a thoroughly rotted condition.

The soil must not only be fertile, but its mechanical condition must be such that the root may easily penetrate it. Soils in suitable condition for grain crops give excellent results, and a soil in which the in-turned sod

is thoroughly rotted is also good. New soil is not considered the most desirable.

In seasons when it is hot and dry the stronger and heavier soil, if well drained, will be found more favorable than a loose, sandy soil, but the latter, if well manured, will be better if the summer is rainy or cold.

The ground should receive a thorough cultivation previous to seeding. If at all heavy it should not be worked while wet.

Sowing.—The proper time for seeding will depend upon the season and the soil, but during the latter part of April or the beginning of May the soil will in most localities be sufficiently dry, without having lost that degree of moisture necessary for the germination of the seed. The earlier the sowing the better, as the beets require to grow as long as possible. If found desirable, the seed may be soaked from five to ten hours before sowing.

The seed should be planted from  $\frac{1}{2}$  to  $1\frac{1}{2}$  inches deep, and in drills 12 to 20 inches apart. As it is not the purpose to raise a large beet—from 1 lb. to 2 lbs. is a good size for sugar content—the closer the plants in the row and the nearer together the drills the larger will be the yield to the acre, other things being equal.

Weeding.—When the weeds appear, if the beets are above ground, this operation should be commenced. A dry day should be selected for the work, which may be done by a hoe or suitable cultivator.

Thinning.—This may be done when the beets have attained a thickness of about  $\frac{1}{4}$  inch. A damp day should be chosen, the roots being left from 6 to 9 inches apart, according to the richness of the soil. The richer the soil the closer the beets may be left. It is not desirable to raise a very large beet; small beets are the richer in sugar and have purer juice.

Cultivation.—It is of the utmost importance that the weeds be constantly destroyed and the soil kept loose. The number of times necessary to go over the ground will depend on the nature of the soil and the season.

Moreover, it is necessary that the beet should not be allowed to grow above ground, and consequently, as the summer advances, earthing up will have to be resorted to. In the part of the beet root developed above ground there is very little sugar. In the manufacture of the sugar this

portion, if present, is always cut off and discarded—for not only is it poor in sugar, but it contains an excess of other substances which makes difficult the extraction of the sugar. Care should be taken not to break off the leaves during the early growth of the plant, for it is by them that the sugar is developed.

Harvesting.—When the leaves turn yellow the beet is approaching maturity. Although it is desirable to leave the beet in the ground as long as possible, they should be pulled before the first heavy frost, as such would materially lower the percentage of sugar.

If not intended at once for the factory they may be kept in a pit.

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## CORRESPONDENCE.

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Editor Sugar Beet World:

Dear Sir.—I send you to-day samples of a bug which has appeared in the beet fields. So far as I can learn they have as yet appeared in only two places and have already disappeared after doing only very little harm. The newspaper reports sent abroad are very misleading and will do the industry a great amount of damage unless contradicted.

Yours,

John Northwood.

Chatham, Ont.

A description and the particulars of this beetle will be found under "Studies of Nature" column, on page 132.

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## Refining Grape Sugar from Corn.

Promoters are in earnest in their plans for further utilizing the grape sugar content in Indian corn. As recently noticed in our columns, C. W. Post, the well-known Michigan manufacturer, is planning to establish a sugar factory at Battle Creek for the purpose of turning out refined sugar from maize. He is now in England, where he also contemplates the erection of works with considerable capacity, "probably 14,000 to 17,000 bus. corn per day." The parent refinery located in St. Louis, where extensive experiments have been conducted, is enthusiastic in the belief that the next few years "one-half or more of all the sugar used in the U. S. will be raised in the corn fields of the West."

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# The Kilby Manufacturing Co.

## Founders and Machinists

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Builders of Complete Machinery for Beet, Cane and Glucose  
Sugar Houses and Refineries.

Under date of late June, C. W. post writes us as follows: "Experiments have been in progress during the past two years, the result of which makes it possible to refine grape sugar up to 98.92 per cent pure. The process eliminates about 13 per cent. of the impurities of ordinary commercial grape sugar, besides 10 per cent. of moisture, and is the only one known up to this time that will produce a perfectly pure grape sugar, retaining permanently its pure white color and all other desirable properties. The grape sugar of commerce is, of course, made from corn; the starch produced from ordinary Indian corn is transformed into grape sugar, producing 38 to 40 lbs. grape sugar to a bu of corn. This sugar has been 12 to 15 per cent. impure. The refined sugar is a beautiful product, milky white, dry and of great value as a food. Patents have been taken out for the various processes in all the civilized countries of the world."

**Growth of Sugar Beets.**

London Advertiser.

The test growths of sugar beets are giving much satisfaction to the people interested in the promotion of the beet sugar industry here. Acting-Mayor Parnell said yesterday that as soon as the tests were completed the committee of citizens appointed to study the project would again get into harness. He was confident, he said that the tests would prove better than was expected. He believed that they would so advertise the Middlesex district as a first-class beet-producing country that capitalists who propose to erect a factory here, will do so without request for a bonus.

**Cost of Growing Sugar Beets.**

The following figures from the report of the Agriculturist at the Central Experimental Farm, Ottawa, will be of interest to our readers, showing as they do the cost of growing sugar beets for factories and

beets for fodder. It proves conclusively that there is more profit in growing sugar beets than the common fodder beet.

(a).—BEETS (FOR SUGAR.)

Cost of growing one-quarter acre sugar beets for sugar—

Rent of land, at \$3 .....	\$0 75
Cultivating in autumn .....	0 37½
1-5 manure, at 15 tons per acre, valued at \$1 per ton .....	0 75
Ploughing in spring .....	0 50
Harrowing .....	0 10
Drilling .....	0 33
Rolling .....	0 95
Seed, 3 pounds at 20 cents ..	0 60
Sowing, 1 hour .....	0 12½
Hand-wheel hoeing, 2½ hours ..	0 33
Thinning, 11 hours .....	1 38
Hoeing, 7 hours .....	0 87½
Cultivating, single horse ..	1 95
Ploughing out roots, 1 hour at 25 cents .....	0 25
Pulling and topping, 12 hours at 12½ cents .....	1 50
Drawing in roots, 3 hours ..	0 75
Loading and unloading, 19 hours .....	1 25

Yield on one-quarter acre, 10,265 pounds.	\$10 96½
Cost of producing 1 ton ..	\$2 14
Cost of producing 1 bushel 6.42 cts.	
Digestible matter in 1 ton, 450 lbs.	
Cost of 100 pounds of digestible dry matter .....	48 cts.

(b).—BEETS (FOR FEED.)

Cost of growing one-quarter acre sugar beets for feed—

Rent of land, at \$3 .....	\$0 75
Cultivating in autumn .....	9 37½
1-5 manure, at 15 tons per acre, valued at \$1 per ton .....	0 75
Ploughing in spring .....	0 50
Harrowing .....	0 10
Drilling .....	0 33
Rolling .....	0 05
Seed, 3 pounds at 20 cents ..	0 60
Sowing, 1 hour .....	0 12½
Hand-wheel hoeing, 2½ hours ..	0 33
Thinning, 9 hours .....	1 13
Hoeing, 6 hours .....	0 75

Cultivating, single horse, 8 hours at 17½ cents .....	1 05
Ploughing out roots, 1 hour ..	0 25
Pulling and topping, 10 hours .....	1 35
Drawing in roots, 2½ hours ..	0 63
Loading and unloading, 8 hours .....	1 00
	<hr/>
	\$9 97

Yield on one-quarter acre, 10,660 pounds.  
 Cost of producing 1 ton .. 1 87  
 Cost of producing 1 bushel 5.61 cts.  
 Digestible dry matter in one ton, 375 pounds.  
 Cost of 100 pounds of digestible dry matter .. 50 cts.

**Build Sugar Plants.**

Company Formed in Detroit for that Purpose.

The National Construction Co. of Detroit, Mich., has just been organized with a capital of \$500,000 and articles of incorporation were filed in Lansing. The directors of the company are: H. W. Caldwell, of Chicago, Godfrey Engel, of Baltimore, Charles O. Beaumont, of Philadelphia, Alfred Musey, of Rochester, Mich., E. Salich, of Chicago, and J. C. Dumont and R. R. Bane of Detroit.

The company will build beet sugar plants and contracts are already being taken for the season of 1902. Mr. Caldwell is of the firm of H. W. Caldwell & Son Co., Mr. Engel of the firm of Bartlett, Hayward & Co., and Mr. Beaumont of the firm of Jos. Oat & Sons. All three firms are said to be strong financially, and big manufacturers of machinery. Musey, Salich and Dumont are beet sugar experts, among the best known in the business, while Mr. Bane is secretary and general manager of the Mt. Clemens Sugar Co. and secretary of the Lapeer Sugar Co. Mr. Bane is president of the new company, L. R. Nicholson secretary, H. W. Caldwell treasurer and E. Salich consulting engineer. The company will have its offices at 1025 Majestic building.

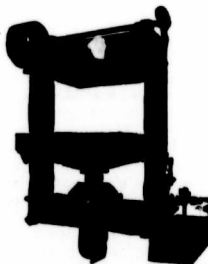
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# The Agricultural Gazette

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

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

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

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

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

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

The name and address of each member, and the stock he has for sale are published once a month. Over 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 15th 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.

A. P. WESTERVELT, Secretary,  
Parliament Buildings, Toronto, Ont.

## FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations. In the case of persons wishing to employ help, the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular department of farm work in which a position is desired, wages expected and where last employed.

These names when received together with particulars will be published FREE in the two following issues of the "Agricultural Gazette" and will afterwards be kept on file. Upon a request being received the particulars only will be published, the names being kept on file.

Every effort will be made to give all possible assistance, to the end that suitable workers, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

## Help Wanted.

Man wanted to work on a farm near Goderich. Must thoroughly understand farming, raising and care of horses, cattle and pigs. A man from 45 to 55 preferred, with wife and either grown or half grown family, who would be willing to work under their father and mother. Must be willing, capable and trustworthy in every respect. No. 842. a

Wanted by September 1st.—Competent farm hand, to work by the year on a farm in Brant County. Must be able to milk and tend to stock; must be thoroughly trustworthy and capable of taking temporary management. Young man with some education preferred; also one who neither uses tobacco nor any alcoholic liquors. Good wages and permanent employment for the right sort of man. Correspondence solicited. No. 843. a

Man wanted to look after bees, poultry garden, and to help on a farm. Married man preferred. State wages expected. No. 844. a

Man wanted to work on a 300 acre farm near Toronto. Everything very convenient. Good wages paid to suitable person. No. 845. a

Single man wanted to work on a farm. Must be steady and willing to

do his best. Farm consists of 250 acres and all kinds of live stock is kept. Man must be a good milker and kind to stock. Wages \$200.00 per year to right man, with board. No. 846. a

Farm hand wanted by the year to attend to stock in winter and work on the farm in summer, must have some experience in feeding stock or willing to learn. Married or single, if married a convenient house with wood provided. May commence work in October. Permanent situation for suitable man. No. 847. a

Comfortable house for man and wife on a fruit farm, would not object to one child. No. 848. a

Man wanted for year to work on farm. Must be good ploughman and milker and willing to do all kinds of farm work. Married man preferred. House and wood furnished, also garden. No. 849. a

Man wanted by the year. Steady employment for suitable person. State wages expected. No. 850. a

**N.B.—Where no name is mentioned in the advertisement, apply to A. P. Westervelt, Parliament Buildings, Toronto, giving number of advertisement.**

## Canada's Position in the English Market.

Prof. Robertson, in an interview with the Globe after his return from England, says: "On the whole, I found our products were taking a better place every year in the English market. The president of the wholesale provision trade in Manchester said that, whereas, six or eight years ago Canadian butter had a bad name in the market, it was now rated as being almost on a par with the best Irish creamery, and running the finest Danish very hard for first place. The market price will warrant that statement. Ten years ago we sent only 7 per cent. of the main foodstuffs which Britain imports while last year we sent 16 per cent. There is no reason why we should not keep up the rate and in ten years more

send 30 per cent. of these foodstuffs to the British market."

## Our Bacon Trade in England.

Live Stock Commissioner Hodson, speaking with reference to our bacon trade with England, says: "One dealer in London informed me that Canadian bacon is probably the most important meat product that reaches the English markets to-day, either foreign or home grown, and that he believed it was destined to eclipse all other bacon. This, perhaps, is too optimistic a view, but I am not altogether sure that it is not so."

## British and Canadian Breeders Compared.

F. W. Hodson, Dominion Live Stock Commissioner, who has just returned from England, in an interview with the Globe, says: "I found the average British farmer a very much better breeder and handler of live stock than the average Canadian or American, even in our best districts. Excepting the matter of pig growing the British farmer is very much ahead of the Ontario farmer. It is quite true that here and there sections may be found where a very fine grade of bacon is produced, but, taking the whole country, it is safe to say that the hogs bred in Great Britain would rank No. 3 at any of our packing houses. In sheep breeding the British farmer seems to have almost reached perfection. They are producing there on a very large scale very much better sheep than in any part of America. The rank and file of the cattle are not only better than ours, but they are also much better cared for and better finished by the butcher, not made abnormally fat, but fed so that the carcass will produce a large amount of lean meat. Horses in all grades are better kept there than they are here, and are finer specimens than are to be seen in Canada. The Englishman, I may remark, is a perfect horseman. The horses in England are not worked as long hours as they are in Canada or the United States, and receive a great deal more grooming and attention, and they show it. But, while the live stock in Britain is, on the whole, better than ours, we have many breeders of pure-bred live stock who are doing better work and producing animals which give better results than nine-tenths of the pure-bred animals that are to be obtained in Great Britain. I found the English farmer to be an exceedingly skilful man in the cultivation of the soil. The farm hands there understand thatching and stacking better than do our people, but in England the farming implements and machinery are at least one hundred years behind those in use in Ontario or Manitoba. The ploughs, harrows, cultivators, and seed drills used by the best English farmer are such as our people would not tolerate for a day."

### Farmers' Institutes.

Under this head the Superintendent of Farmers' Institutes will each week publish matter relating to Institute work. This will include instruction to secretaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. He will also from time to time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and the United States. In this way he hopes to give Institute members some valuable agricultural information which they might not otherwise receive, on account of not having access to the original publications. If any member at any time desires further information along any of the lines discussed, by applying to the Superintendent he will be put in direct communication with the Institution that has carried on the work.

G. C. CREELMAN,  
Superintendent Farmers' Institutes.

### The Farm Help Problem

This problem of getting enough labor for the farm has not become less serious. In the past three weeks, engagements to lecture at Chautauqua assemblies, farmers' meetings, etc., have taken me into all the States of the upper Mississippi Valley, and every where I have heard the same complaint of serious lack of farm labor. Farmers are almost begging for workers, and yet within the past four weeks four men have committed suicide in Chicago because they could not get work to support their families! How can the surplus labor in the cities be got out into the country, where it is so much needed? And how much will it be worth when it is got on to the farm? The laborer that cannot get work in the cities now must be an "unskilled" laborer. This is unfortunate. Farming nowadays requires skilled labor—intelligent labor skilled in farming. Much is required of the farm laborer. What laborer must have a wider variety of knowledge? Machinery is now so extensively used, especially in the prairie states, with their smooth land—level and free from stumps and stones—that the laborer must be a skilled machinist, able to operate more intricate machinery than that found in most machine shops; and he must be able to operate not one machine only, but several, and widely differing from each other. Consider, for a moment, the self-binder. Here is a machine that cuts the grain, arranges the stalks, forms them into bundles, square and trim, compresses the bundle, puts a string around it, ties the string in a hard knot, and then cuts it; and the machine does this rapidly, and not when anchored to a firm concrete foundation, but when being dragged over an uneven field as fast as a team can walk. The labor that operates such a machine, or the two-horse corn planter and checkrower, or the riding cultivator, or the hayloader, or that handles and feeds farm animals properly, or that applies fertilizers intelligently, cannot be "unskilled" labor. I fear that it is not the kind that fails to get employment in the cities these days. To get the unskilled city labor out on the farm might be a benefit to that labor, but I doubt if it would benefit the farmers.

The problem of farm labor must be satisfactorily solved by keeping on the farm more of the laborers reared and trained there. Farm labor must be made less repulsive, and farm life must be made more attractive. Rather than draw labor from the city, we should endeavor to lessen the

amount of labor the city is drawing from the farm. We shall be successful in getting labor for the farm, not by aiding societies and organizations to foist on the farmer labor so ignorant, unskilled or unwilling that it cannot find employment in the cities even now, but by making farm conditions such that they will hold more of our farmer boys on the farm. We must have shorter work days on the farm, and days of a specified number of hours, to be lengthened possibly in certain emergencies. We must get rural free mail delivery in all farm neighborhoods, and a telephone in every farmhouse. We must have a live grange or farmers' club in every farm neighborhood. We must go to church more, and we must go fishing more! In this way we can best solve the problem of farm labor, and certainly there is no more important or pressing problem confronting the farmer to-day. John M. Stahl.

Adams County, Ill.

### The Grain Rusts.

By Prof. Wm. Lochhead, O. A. C.,  
Guelph.

The damage done by rusts every year to the grain crops of Ontario may be safely estimated by hundreds of thousands of dollars. The amount of damage varies with the individual years, according to variations in atmospheric and soil conditions. During damp, warm seasons, the damage is usually so severe that in some localities but a fraction of the possible yield of grain is obtained, which scarcely pays for the trouble of harvesting and threshing.

What are rusts? Rusts are parasitic plants, that is, plants which obtain their nourishment from living matter, by sending tiny branches into the tissues. They belong to a low class of plants called fungi, which are characterized by the absence of green coloring material, by the production of spores instead of seeds, and by the very simple structure of their tissues. The rusts are very remarkable fungi from their peculiar habit of changing their habitation from wheat or barley or oats to other plants.

#### THE LIFE HISTORY OF WHEAT RUST

Two stages of wheat and oat rust are probably well known; one, the Red Rust, develops in early summer, and the other, the black rust, in the late summer and autumn. The characteristic colors of the two stages are given by masses of spores growing in layers upon the plant body of the rust. This plant body consists of a network of threads living in the tissues of the wheat stem and feeding on the living liquid material. The spores project from the inside of the wheat stem by the rupture of the skin or bark, and are separated from their stalks by the wind which may continue to carry them all summer to other wheat and oat fields. Thus the infection spreads by means of the red rust spores throughout the summer. From the same plant body which produces the red spores, appear the black spores later in the season in equally large numbers. These, however, must remain dormant all through the win-

ter on the stubble of the field before they will germinate, so that the black spores are not instrumental in the infection of new fields the season they are produced. The red spores are minute oval, spiny, one-celled bodies, but the black spores have thicker walls, and are two-celled.

In the spring the black rust spore develops a tiny thread and produces new spores called Sporidia, which does not affect the wheat plant but readily affects the leaves of the barley. Two sorts of spores are formed on the barley leaf by this infection. One kind is readily seen on the upper side, and the other on the lower surface in yellow, minute cups called cluster-cups. It is known that the orange colored spores when set free from the cluster-cups and blown away to a wheat field, will infect the wheat and give rise to a parasitic fungus plant body within the wheat stem or leaf, from which red rust spores are produced.

We thus observe that during its life-cycle the wheat rust fungus bears four different kinds of spores; namely, red rust, on wheat in late summer, black rust on wheat in late summer, Sporidia in spring, and cluster-cups spores, on leaves of barley in the spring. With some of the rusts (for there are several hundred varieties) one or more of the three stages are absent or has become extinct, so there are varieties which exist only in the cluster-cup stage, and others only in the red and black rust stages. Whether wheat rust omits one of its stages in Ontario is not certainly known, but evidence is accumulating to show that the rust may be prevalent in localities where the barley is unknown, so that the latter is not absolutely necessary for the continuous propagation of the fungus. For example, the cluster-cup stage is not met with in Australia, in Central India and in the Western States, yet the rust is only too prevalent in those very regions. Near home, in the Streetsville district in Ontario, no barley has been reported yet the rust is very severe this year, many fields being so badly attacked as to hardly pay for the threshing.

#### HOW THE RUST SPREADS

In districts where the barley is common, the fungus, to all appearances, uses that shrub as a second host, and the full life-cycle is then completed, as already described. The cluster cup spores infect some of the wheat plants close by, and give rise to the plant body within from which red rust spores are liberated during the early summer, and the black rust later in the season. In the vicinity of Barrie, the fields of wheat are very badly rusted this year; moreover, this destruction of wheat by rust is an annual occurrence there. The infestation is manifestly the result of the spread of the cluster-cup spores from barley hedges of which there are three miles in the town of Barrie. In all cases the wheat close to the hedges is shockingly bad, and the further removed the field is from the hedge, the rusting is less marked. The infested wheat has grains so shrunken that they would scarcely weigh 20 pounds to the bushel. Two or three interesting cases were noted in the

same township on the influence of barberry hedges on wheat fields. A few years ago, one or two farmers planted some hedges of this shrub, but to their dismay their wheat fields became badly infested, although prior to the planting no rust had been observed. After the removal of the offending hedges, rust did not again make its appearance. Mr. C. A. Zavitz, Experimentalist at the Ontario Agricultural College, has a like story to tell. So long as a fine barberry hedge flourished along one side of a certain field on the College farm, the crops were badly rusted, but so soon as the hedge was removed, the rust failed to appear. Lately, however, the College fields are badly rusted.

It would certainly appear from these and many other cases which might be given, that if the barberry is not absolutely necessary for the continuous propagation of wheat rust, it is at least a very important factor.

It is more difficult, however, to explain the cause or causes of the outbreak at Streetsville, since no barberry shrubs have been observed in that vicinity. There must either be some plant which takes the place of the barberry (but such a plant is not known in any part of the world) or else the fungus omits altogether the cluster-cup stage, as is the habit of some of the closely related rusts.

The conditions favorable to the spread of rust are moisture and heat. A rainy season, when the intervals are characterized by intense heat, is an ideal one for the spread of rust. Thus seasons when thunderstorms are frequent, and the accompanying winds are strong, will have more than the usual amount of rusted grain.

The red rust spores are distributed by the winds, and the rapidity of spread is marvellous. Those whose training has not been scientific look upon the rust as though it were like the hot blast of a fire scorching the leaves from a distance. As a matter of fact, when the red rust spores are wafted by the wind to uninfected leaves, a period of incubation occurs, from seven to ten days or more, before the rust spots appear on the leaves and stems.

It may be stated here that atmospheric conditions, such as abundant moisture, either as rain or dew, and hot spells, are not the cause of rust, but simply conditions under which rusts will propagate themselves most rapidly. It is not likely that the smoke of locomotives has any influence whatever in the spread of rust, as some farmers claim it has. It is also very essential that plants suitable to the fungus be present, if the disease is to spread rapidly, for every fungus has its own peculiar plant upon which it feeds.

#### PREVENTION AND REMEDIES.

At present no satisfactory method is known for the prevention of the loss by rust. Spraying the crop, although theoretically good, is practically impossible, while pickling the seed grain is useless. No practicable method of "polishing the atmosphere" and preventing rust spores from finding their way to the young wheat has been devised. Australia is working along the line of development of rust-resistant

varieties, and has secured results of great practical value. "That country now has wheat varieties that are vigorous, true to name, and of exceptional quality for the particular region in which they are grown." While some attention has been given to this important question in America, little has been done in Canada. It is believed, however, that varieties of wheat with narrow, erect leaves and a stiff skin upon which there is a marked waxy "bloom" are as a rule less easily infected with rust than those with broad, soft, green leaves. In England, Nursery, Trump, and Squarehead are highly resistant. In New York and in Canada the bearded varieties appear to suffer least. Turkey red makes a good showing, while the Glydon of Dakota showed practically no traces of rust.

There appears to be no appreciable difference in resistance of the following varieties sown in Ontario—Manchester, early Red Clawson, Genesee Giant, Dawson's Golden Chaff, and Democrat, as all were equally infected.

#### RUST-RESISTING VARIETIES.

A word here as to rust-resistant varieties. It is probable that the rust-resistant varieties of one district will not be completely rust-resistant in another district where the soil is richer and moister, and the atmosphere more humid. Local differences are apparent in nearly every section. For example, the wheat was more rusted in the low lands and valleys about Streetsville than it was on the hillsides and uplands. The reasons for this difference in resistance to rust are probably the ranker, more succulent growth of crops in the lowlands, and the greater amount of moisture including dew. It is apparent from the study of plants that if rust-resistant varieties are to be produced in a province like Ontario where marked variations in soil and surface conditions exist, the varieties will have to be developed locally. Along the line of prevention of rust, it has been urged that an excessive use of nitrogenous manures, such as dung or nitrate of soda, should be avoided, as it tends to a growth of strong, soft stems to which rust spores can easily effect an entrance. Again, good drainage is decidedly beneficial for the dampness of the soil and thereby excessive moisture of air will be removed, and the conditions made less favorable for the development of the fungus, as has been described.

#### Grass Seeded Without Grain.

##### The "Clark" System of Grass Culture

Here is a note from a new subscriber: "What do you mean by the 'Clark' system of seeding to grass? Who is 'Clark'? Where does he live? Does he know what he is talking about? What is his so-called 'system' as compared with the usual plan of sowing grass seed with small grain?"

For the past five years we have been writing about George M. Clark, of Higganum, Conn., and his field of grass. It seems necessary to tell the story anew each year. Instead

of reprinting the old articles we try to get in the growth of the matter. It is quite evident that in a country as wide as America any plan of farming must be modified and changed as it goes away from home.

But thousands of farmers raise good grass—why do you speak of "Clark's system?" Is he the inventor of it?

No, yet we do not know of anyone who has carried out his definite plan as carefully as he has.

Does he get more grass than anybody else?

So far as we have been informed he does.

What did he cut this year?

He had seven acres in grass and cut from them 79,490 pounds of well-dried hay. This is an average of 11,355 pounds per acre. Last year the crop on the same seven acres was 70,750 pounds.

Do you believe any such story?

Yes, I have been in this hayfield several times, and have reason to believe that each load of hay is accurately weighed as it comes from the field.

How many years had this grass been seeded?

Three and one-half acres were seeded last November. This year they averaged 10,118 pounds per acre. Another field of 1½ acres averaged 11,890 pounds, while another of seven-eighths of an acre 12 years old gave 12,210 pounds, and another of five-eighths of an acre gave 9,700 pounds, or at the rate of nearly eight tons per acre! There will also be another later crop.

What sort of grass was it?

Timothy and Red-top. Some of it contained a small amount of clover.

What is Mr. Clark's secret?

He has none. He simply knows what grass needs, and has been able to supply the needed conditions.

What are these conditions?

First, natural grass land, well drained, smooth, and with a perfect grade. Grass likes a stone two feet under ground, but not on the surface. There must be no dishes or knobs on the surface, which should be as level as the cement floor of a stable, so that it will gently drain water. Second, the upper four inches of the soil must be as fine as an ash heap that has not been packed by rain. The weeds and foul grass must be killed out. Third, there must be an abundance of soluble plant food. Mr. Clark uses chemical fertilizers, and says they are much better than manure. Fourth, Mr. Clark seeds his grass without any grain crop, and uses about twice as much seed as is usually sown.

That sounds easy—can anybody do it?

I have not been able to do it myself yet.

What caused your own failure?

My field was too rough. We did not get all the stones out, and the heavy floods of this wet season did too much washing. I think also that we did not use enough fertilizer.

Why do you advocate for others what you admit you have not done yourself?

I do not advocate anything beyond the careful preparation, heavy ferti-

lizing and fair seeding. No man can expect to take rough land, full of stones and not well drained, scratch it over and say that he knows Clark's method is a failure. I advocate as close an imitation of Clark's plan of fitting the ground as a farmer can give. I know that many farmers with only one team and a dozen jobs pressing at one time cannot do it all. I am sure, however, that every extra working of the soil before seeding will pay.

How does Mr. Clark fit the soil? Tell the whole story.

It cannot all be told at once—being too long. I will describe the method next week. If you have a piece of clear land that you wish to seed down in this way begin at once to prepare it. Mr. Clark does not plow land, but uses various forms of the Cutaway harrow. Instead of turning the furrow over these tools lift and toss the soil, shaking it up to the sun and wind. The object is thoroughly to air the soil, and thus sweeten it and kill out all weeds and foul stuff. It must be said, however, that excellent work may be done with such a tool as the spring-tooth harrow.—H. W. C., in Rural New-Yorker.

#### Table Decoration.

By Mrs. Wm. Cartwright Allen of West Durham Women's Institute.

When I was asked a few weeks ago by our secretary-treasurer, Mrs. John Mulligan, to write a short paper on table decoration, I at once said "yes," as I was pleased to do anything I could to help on the work of the Women's Institute. I thought my subject was an easy one, but when I began to really think about the matter I found I had undertaken a large field and one that I fear I shall be unable to cope with as I should like. I shall not, therefore, attempt to elaborate many designs in flowers and ribbons for table decoration, such as are suitable for large dinners or "at homes," as information of that kind can be obtained from other publications, but what we want is some idea of making our everyday dinner or tea table attractive, and this can be done by all of us, no matter how busy our lives may be. I have noticed particularly in the country, that window plants receive a great deal of attention, and very lovely they are, but as a rule, when going into the houses, all the lovely bloom and foliage is kept in the windows and the dinner and tea tables are bereft of all decoration. This is a taste, I think, which the Women's Institute might help to cultivate. Papers might be read by the members on the subject and discussed to great advantage; our young people would do well to think about the house decoration; seeds might be sown by them in the early spring, which would produce flowers for the house all through the summer. What can add more to the attractiveness of the table than foliage or flowers? The dishes, plates and other accompaniments may be of the plainest, but if

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arranged tastefully and a vase or pot of flowers is placed in the centre, the whole tone of the meal is changed, no matter how plain the food may be it certainly will be enhanced by the environment of flowers, and when the father and brothers come in from the fields, tired from their hard work, what would be more restful to them than to see some of God's beautiful handiwork adorning the table? Some of you may say you have no time for such trivial matters, that it is much as you can do to prepare the food. I do not consider this such a trivial matter; why not encourage the children to provide the flowers and so give them an interest in the growing and finding of flowers, and then you will be inculcating in them habits of observation, industry and unselfishness, which virtues, as a rule, lay the foundation of good men and women. Some of us, perhaps, are able to go to the florist in the autumn and buy different kinds of bulbs for decoration during the winter and early spring, but many of us are unable to do this, and we must not think because we cannot buy we cannot have something suitable for the table. Ferns can always be obtained from the woods and with very little care can be kept green all through the winter, and they always look well. Then in the early spring there are the trilliums, marsh marigolds, violets, marguerites, etc., all of which, tastefully arranged, make a lovely centre piece. Not long ago in Toronto I saw a lovely table decoration carried out entirely in white trilliums and maiden hair fern, plucked from the Rosedale ravine; it was worthy of gracing the table of the Queen.

In conclusion, I should like to make a few suggestions regarding arrangement and color. To have an effective decoration for the table a large number of flowers in a vase or jardiniere is not necessary. A few tastefully arranged with ferns or other foliage is quite sufficient; and then, as regards color, the flowers, if possible, should harmonize with the surroundings; the color of the vase should contrast favorably with the flowers chosen; it is distressing to see, for instance, a yellow vase and bright red flowers, or a red vase filled with bright blue flowers; with a little thought this can be avoided.

At the fair shows in the Old Country there are always entries for "Table Decoration," and prizes are awarded. I have often thought that it would be a good plan to adopt here. The exhibit enhances the appearance of the show and develops the artistic taste. Each person desirous of exhibiting was allowed one square yard on which to place her flowers and vases as she thought would look best on dinner or tea table. Should anyone think well of this idea and desire to try it at any time at the Millbrook Fall Show I shall be pleased to give the first prize for the best arrangement of flowers for the dinner table.

#### Buttermaking with Separator.

By Mrs. G. S. Thorn, at a recent meeting of the East Durham Women's Institute.

This subject was more an address. Mr. A. T. Armstrong kindly placed a separator in the hall for the occasion. By means of the machine it was shown how the cream was separated from the milk, fresh from the cow. The different parts and uses being explained while showing the course the milk takes before it is separated. She took a number of headings as—Purity—The rapid revolutions and different parts the milk passes through while being separated, drive all impurities and diseased germs out of the milk. Quality—The cream being purer will make the butter much purer and better than the slower process of setting in pans or cream cans. Quantity—All the cream is extracted from the milk and more butter is obtained. Labor is lessened, does away with milk utensils and drawing of ice and pumping water and the cream churns much easier. Skim milk—The milk is fresh, warm, and when mixed with oil cake or ground meal makes an excellent food for calves. Care of Separator—It should be kept in a clean place, away from the barn during summer, and in a warm place in the winter. Visitors' Remarks.—A gentleman from Toronto wanted to know what kind of a coal oil stove that was, and a lady thought it was water works in the kitchen. Many other interesting points were given in connection with making butter with separator, only those having heard it could appreciate it.

## THE FARMING WORLD

# The Farm Home

### The Great Afterwhile.

Ah me! the things that we mean to do,

In the great, great afterwhile;  
When our ship comes in,  
We're sure to begin  
And we'll keep right at it, too.

Yes, yes, my boys, I know it is true  
That we mean just what we say,  
But afterwhile is a mythical place  
In the realms of an unborn day.

The railway of life is supposed to run  
Through the land of this unborn day,

And the great afterwhile is a station there,

Where people do fine things, they say.

But thousands, my boys, are traveling this road,

Whose hands are as white as the snow,

Who meant to stop off at the great afterwhile,

In the years of the long ago.

But somehow or other they never quite reached,

The place with the high-sounding name,

So they traveled along with the rest of the crowd

Who hunted for fortune and fame.

Yet fortune or fame ne'er came to them, boys,

And neither will they come to you,  
If you wait to begin, in the great afterwhile,

All the grand things you mean to do.

'Tis best, then, to begin right here,

In the land of the greater to-day,  
And work while you wait,  
For your ship might be late,  
Then you'd miss half of life, I fear.

—G. W. Hendricks, in "Success."

### Missions.

Canada contributes every year immense sums of money in order that missionaries may go to foreign lands to try to induce the inhabitants to live lives more in accordance with what we consider the correct method.

Sermons are prepared and preached, vast numbers of them every week, all through our land in order to induce us to prepare to die according to what the preachers consider the correct method. How successful the missionaries and preachers are in their work we are not prepared to say, as far as my observation goes the success or failure is judged by the number who are converted to the special belief of the particular church which the preacher represents. The preacher thinks he understands the people and gives them the spiritual food they need, and that his afternoon calls or his invitations to tea puts him in complete sympathy with the life which his people lead. In order to give the best advice to the farmer one

must be a farmer, or to aid the housekeeper one must herself understand from experience the many duties which fall to the lot of the housekeeper. It is true the onlooker may sometimes be able to point out an easier way than he adopts, who is always in the midst of the operation, but in nine cases out of ten he will see only what if followed would produce a tangle. The minister who is questioning the small boys, praised the first for his desire to be a farmer but told the second his desire to be a teacher was far better, and the third that his desire to be a minister was best of all got the cart, horse and harness sadly out of order, and the small boy put matters in a more sensible light when he gave as his reason, that he wanted to be a minister because when he came there was always chicken for supper. The farmer is first always, and were it not for his contributions and chickens, there would be surprisingly few ministers. And it is to the farmers to-day we must look for salvation, and if we are Bible students we will find it was so always in the past from Adam, Abraham, David, all down the life of people worth recording until we come to Him who said: "I am the good shepherd," and his first disciples who were farmers in another sense being fishermen. I do not think I am far wrong when I say that the Agricultural Colleges, The Farmers' Institutes and the Agricultural Press are doing more for the salvation of Canada than all the ministers of all the churches we have. But we want more — we want something that will lift us to that happy state which Solomon desired when he said: "Give me neither poverty nor great riches." I believe every farmer's mission is to help to lift his fellow farmer into that plane, not by giving him money but by showing him better methods so that his labor may produce the very best results. In no country is there so little genuine poverty. In no country are there so few people depending on charity or dishonesty for a living. Still there are yet a great many who have to work too hard and a great many more who are too miserly and a yet greater number who are too much given to spending money in useless show to thoroughly enjoy the good things of this country of ours. Our mission should be to assist others to share in Canada's riches, and perhaps the greater number need only that their eyes may be opened that they may see the feast of good and beautiful things around them to which they have always had access but have had in their eyes too much of the dust caused by their own labor in trying to get other and less desirable pleasures.

A great many people have the idea that God placed us all in this world in order that we might die and go to heaven or hell as the case may be, and that our whole life should be a preparation for death, and that they only accomplish any good who are endeavoring to make people think of death. "It is appointed unto men once to die" but that is no reason why we

should not enjoy the life which we have. The life which was given us to enjoy. The beauties of field and forest, lake and stream, mountain and dell. The pleasures of work, of rest, of health-giving recreation. The enjoyment of nature in all its beauty as well as the constructions and inventions which man has been endowed with the talent to prepare for mankind. Man, (woman also), has no business wanting to go to heaven where we are told to look for delights that cannot be imagined if he deliberately turns his back on the pleasures that are all around him spread, as James Whitcombe Riley so forcibly puts it, "Like sunshine spread  
Thick as butter on country bread."  
W. E. Graham.

### Hints by May Manton.

#### Child's Overalls, No. 3877.

Every sensible mother recognizes the value of overalls for the summer outing, and supplies them alike for small boys and girls. Nothing does so much to build up the health and physique of the young child as complete abandonment and contact with Mother Earth. The overalls provide perfect freedom and comfort, and at the same time protect the dainty underclothing from soil. They can



**3877 Child's Overalls,  
4 to 8 yrs.**

be worn over guimpes or shirt waists of any sort, but plain, dark blue percale with touches of white is admirable and eminently serviceable. The overalls themselves are uniformly made of denim or cotton covert cloth, and are closely modelled on those worn by grown up workmen. The fronts are elongated to form a protective apron, or bib, and are sup-



plied with ample pockets. The backs are roomy but not baggy, and are cut off at the waist line, shoulder straps holding the garment in place.

To cut these overalls for a child 6 years of age, 2½ yards of material 27 inches wide will be required.

The pattern 3877 is cut in sizes for children 4, 6 and 8 years of age.

### A Very Good Sponge Cake.

Take five eggs, half pound of sugar and the weight of two eggs in flour. Beat the eggs and sugar together with a fork for half an hour, then add the flour gradually. Bake in a buttered tin or round dish lined with buttered paper at the bottom for about an hour in a moderate oven. The tin should only be about half full, as it should rise to the top. A nice pudding can be made of any pieces of cake that are left. Cut the cake in thin slices and put raspberry jam between, then pour a pint of hot custard over and serve cold.

### Apple Snowballs

Boil two teacupfuls of rice until nearly done, strain it off, pare and core two and one half pounds of apples without dividing them. Put a little sugar and a clove into each apple. Put the rice round them and tie up each apple separately in a cloth. Boil until the apples are tender; then take them up, remove the cloth and serve with cream.

### Ham Croquettes.

One ounce of cooked ham, one ounce of macaroni boiled, one tablespoonful of grated cheese, one ounce of butter, one ounce of flour, one gill of stock or milk, pepper and salt.

Chop the ham finely, and cut the macaroni into small pieces. Melt the butter in a saucepan, stir in the flour smoothly, add the stock, and stir until it boils. Take off the fire and stir in the ham, macaroni and cheese. Season well with pepper, and if needed, with salt. Let the mixture cool on a plate. Make into cork-shaped pieces, brush over with beaten egg and dip into breadcrumbs. Make these adhere closely to the croquettes, and shake off all loose crumbs. Fry a golden brown in a deep saucepan of fat. Drain well and serve on a dish, paper garnished, with parsley.

### Cleaning Gilt Frames.

This is the best way of cleaning all manner of gilt frames. With very big ones, cover with a sheet, then lay the frame flat, and leave it thus until after the brushing. A gilt frame speckled but untarnished needs to be rubbed with a flannel wet in alcohol and polished afterward with a soft leather, stretched smooth over the palm.

Brasses, as knobs, handles and such as are used upon modern furniture, are commonly lacquered, so can be cleaned with alcohol and a soft cloth. Dampen the cloth in place of wetting it and rub quickly. Unlacquered brass

can be cleaned in various ways. One soapsuds, then rub with salt and vinegar, using a flannel swab, and polish afterward with dry whiting, and a clean cloth. Take care not to let the acid and salt touch the wood. If the brass is either open or intricate it is better cleaned with tripoli mixed to a soft paste with sweet oil. Rub hard and quickly and polish afterward with tripoli in powder.

### To Clean Upholstered Furniture.

To clean upholstered furniture, cover the material with a towel and whip with a rattan, shaking the towel whenever it grows dusty. Wash all visible wood in tepid soapsuds, dry it very quickly, then rub hard with a flannel and a few drops of kerosene. This for walnut, cherry and oak in any finish. Mahogany needs to be merely wiped with a damp cloth, then rubbed for half an hour with a clean flannel. Brush the upholstered parts very hard, then wipe them quickly with a cloth wrung very dry out of clear, hot water. Follow this with a clean, white flannel dipped in alcohol. As soon as the flannel shows dirt, wash it clean in tepid water. Otherwise the alcohol will dissolve the dirt, and deposit it in streaks upon the surface of the fabric.

### are of a Child's Nails.

The appearance of the hands and the comfort of the feet in later life is often made or marred in quite early days by careful or careless cutting of the nails. This should not be done too often or the nail cut down nearly

Only vegetable oils—and  
no coarse animal fats—  
are used in making

## "Baby's Own Soap"

PURE, FRAGRANT, CLEANSING.

Doctors recommend it  
for Nursery and Toilet use

Beware of Imitations.

Albert Toilet Soap Mfrs., Montreal

to the quick. And it should never be cut at the corner. It is this cutting of toe nails badly, combined with wearing tight boots, which causes much of the real misery which so many grown-up people heroically endure. Again, never cut the nails at the corners; cut them straight and flatly along the top, leaving the corners untouched. In that case they do not grow properly, but if cut they grow quickly and into the flesh. Another great point about children's nails is after washing always to gently press back the skin at the bottom of the nail, which tends to grow over, weaken and spoil its appearance.

## "GOOD CHEER" STOVES and RANGES



The "ROYAL GOOD CHEER"

A Cast-Iron Range with a Steel Plate Oven. Built to last a generation and guaranteed perfect in operation. Sold by leading dealers everywhere.

The JAS. STEWART MFG. CO., Limited, WOODSTOCK, ONT.

Our "GOOD CHEER" Lucky Pocket Piece mailed on request.

# The Farming World.

## A PAPER FOR FARMERS AND STOCKMEN.

Publisher, . . . D. T. McAINSH.  
Editor, . . . J. W. WHEATON, B.A.

The Farming World is a paper for farmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, payable in advance.

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THE FARMING WORLD,  
CONFEDERATION LIFE BUILDING,  
TORONTO.

### Canadian Horticulturists

The fourth annual meeting of the Canadian Horticultural Association was held at London last week. It was a representative gathering of florists and others interested from the various centres of the Dominion. The president, Mr. J. H. Dunlop, Toronto, in his annual address, referred to the present day improvements in the products of Canadian green-houses as compared with twelve or fifteen years ago. At the American Rose Society's exhibition at New York, last year, ten first prizes were taken by Canadian exhibitors. Highest honors were also taken by Canadians at the carnation show at the Pan-American this year. A very instructive address on "Insects injurious to floral culture" was delivered by Dr. Bethune, editor of the Canadian Entomologist. Addresses were also delivered by W. Lawrence, president of the Toronto Gardeners and Florist Association and others.

### Pan-American Notes.

The proposed horse show at the Pan-American Exposition, along the lines of the Madison Square Garden Horse Show and the Toronto Horse Show, has been abandoned. Consequently there will be no horse exhibit at Buffalo other than the exhibition classes as provided for in the premium list as sent out.

The exhibits in other lines of live stock will be large. There are already over one thousand entries of cattle and about five hundred of swine, poultry, Belgian hares and all kinds of pet stock will be well represented in their different classes at the proper time.

Mr. W. W. Hall, assistant superintendent of the dairy division in sending us a report of the score made by Canadian cheese at the Pan-American (the score as made by the various ex-

hibitors appeared in the Farming World of July 30th) says:

"It will be noted that the average scoring of Canadian cheese is very high and uniform. The committee who judged them: A. C. Bryce, Montreal, S. B. Richardson, New York, and H. C. Whyte, Wisconsin, complimented the Canadians on their exceptional success and said that no better cheese are made in America."

Arrangements have been perfected whereby a large exhibit of wool will be made at the Pan-American Exposition during the time of the sheep show, from September 23rd to October 5th.

The classification will be a purely commercial one for clothing, combing and carpet wools, and the jury will make the awards on the standard known to the trade. Entry blanks will be furnished upon application to F. A. Converse, superintendent of live stock, Pan-American Exposition, Buffalo, N. Y.

### Will Benefit Stockmen.

Stock raisers in Eastern Canada may congratulate themselves on the fact that the Pan-American Exposition is going on at the same time as the Central Canada Exposition at Ottawa, from Sept. 13th to 21st.

The reason for this is that the western herds will, in all probability, stop at Buffalo in place of coming on east and thus the eastern stock raisers will have the field of competition for the liberal cash and other prizes all to themselves and be free from the rather dangerous rivalry of their western brethren.

In consequence of this there will be a much larger exhibit of eastern stock than ever before. The management are making preparations accordingly and the accommodation will be unsurpassed.

The special attractions, the dairy and other exhibits and all the paraphernalia of the fair will be of the highest possible order and agriculturists and stockmen will do well to write Mr. E. McMahon, Secretary, 26 Sparks St., Ottawa, for space applications, entry forms and information.

### New Century Ideas.

The Toronto Exhibition, to be held from August 26th to September 7th, announces that its principal characteristic will be the adoption of New Century Ideas. The phrase might be considered a bit indefinite but for the fact that contemporaneously the statement is made that there will be daily and nightly displays of all the new weapons of war as well as recent developments in the arts of peace. The pom-pom will be on view, wireless telegraphy will be shown in practical use off the shore to passing vessels, magnificent displays of illuminating effects will be made, recently announced developments in electricity will be shown, demonstrations will be made in the cultivation of the sugar beet, modern methods of rescuing at sea will be illustrated, manoeuvres with lat-

ter-day artillery will take place, in fact, the military will be very much in evidence in all its branches, while the handy-man and the marines will also be used largely in the off-shore operations and the brilliant nightly spectacle the bombardment of the Taku forts by International forces will be given. An International Military Tattoo will be the feature of the opening night, when a large body of troops will be utilized. A strong exhibit of French-Canadian cattle, as well as of Pan-American live stock, is to be made. In fact, in the live stock, dairy products and manufactures, Toronto Exhibition never promised so well as this year. Greatly reduced rates on the railways and steamboats have been arranged for, and no better time for visiting both Toronto and the Pan-American, or the former alone, could be desired that, between August 26 and September 7. When it is stated that this year Toronto will distribute upwards of \$35,000 in premiums and spend \$30,000 in special attractions, all of which can be seen from the grand stand for 25c., the magnitude of Canada's Greatest Exhibition will be appreciated.

### Good Roads Machinery.

Public notice is hereby given that under the Ontario Companies' Act, His Honour the Lieutenant-Governor-in-Council has, by letters patent under the Great Seal of the Province of Ontario, bearing date the 17th day of July, 1901, been pleased to grant a charter creating and constituting John Challen, manufacturer, et al of the city of Hamilton, in the county of Wentworth and Province of Ontario, and any others who have become subscribers of the Memorandum of Agreement of the Company, and their successors, respectively, a corporation for the purposes and objects following, that is to say: "To carry on the business of manufacturing and selling road-making machinery, tools and appliances, and, for the said purposes, to acquire the business, assets, franchises and rights of the said John Challen, and to carry on the business heretofore carried on by him at the city of Hamilton under the name of 'Good Roads Machinery Co.' the Corporate name of the company to be The Good Roads Machinery Company, Limited; the share capital of the company to be forty thousand dollars divided into four hundred shares of one hundred dollars each; the head office and factory of the company are at the late Killey-Beckett Works, 144 York street of the said city of Hamilton.

J. R. Stratton,  
Provincial Secretary.

"I am fortunate in one thing," said Mr. Meekton. "My wife is one of the most economical women in the world."

"That is indeed fortunate."

"Yes, I don't like to brag, but she is a marvel. She doesn't let me spend a cent of my money foolishly."—Washington Star.

## PURE-BRED STOCK

### NOTES AND NEWS FROM THE BREEDERS

*These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and pure base of stock and the condition of herds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.*

#### Cattle

From July 6th to 27th, 1901, thirty-four reports have been received by the superintendent of advanced registry for the American Holstein-Friesian Ass., of which five were of full age cows, averaging: Age 6 years 9 months 17 days, tested 49 days after calving, milk 412.8 lbs., butter fat 14.185 lbs., equivalent butter 80 per cent. fat, 17 lbs., 11.7 oz., or 16 lbs. 8.8 oz. 85.7 per cent. fat. Three were of the four-year-old class, averaging: Age 4 years 2 months 23 days, tested 45 days after calving, milk 418.8 lbs., butter fat 12.855 lbs., equivalent butter 80 per cent. fat, 16 lbs. 1.1 oz., or 15 lbs. 85.7 per cent. fat. Six were of the three-year-old class, averaging: Age 3 years 6 months 24 days, tested 46 days after calving, milk 369.5 lbs., butter fat 11.197 lbs. equivalent butter 80 per cent. fat, 13 lbs. 15.9 oz., or 13 lbs. 1 oz. 85.7 per cent. fat. Twenty classed as two year olds averaging: Age 2 years 1 month 28 days, tested 42 days after calving, milk 283.5 lbs., butter fat 8.699 lbs., equivalent butter 80 per cent. fat, 10 lbs. 14 oz., or 10 lbs. 2.4 oz. 85.7 per cent. fat. These records, nearly all, were made during the intense summer heat. Practical dairymen recognize the danger of testing during the summer months. The least danger is in testing two year old heifers and hence the great preponderance of this class.

W. D. Flatt, Hamilton, and Robert Miller, Stouffville, Ont., are bringing to Canada over one hundred head of Shorthorns, among them being many of the most celebrated animals in Great Britain.

#### Sheep

Mr. Carpenter, M. P. P., Simcoe, Ont., has become the owner of one of the best rams and one of the best ram lambs shown at the Royal show. He has also secured twenty ewes from among two of the finest flocks of sheep in Britain. The value of this stock aggregates \$1,500.

Mr. Robert Miller has in quarantine at Levis, Que., 250 Hampshire, Shropshire, Dorset and Merino sheep.

#### Swine

Messrs. Brethour and Saunders, Burford, Ont., report that they have recently purchased from the most noted breeders in England several very superior Yorkshire pigs.

Among the lot are two young sows in pig, winners at the Royal show, England, and also a young boar winner at the Royal and wherever shown.

High prices have been paid but they are reported the very best that could be got in England and will, no doubt,

make a splendid addition to the famous Oak Lodge herd.

Mr. J. Davis, Woodstock, Ont., is importing fully sixty head of Yorkshires so that some fine new blood will be added to the already high quality attained by this choice bacon breed in Canada.

J. A. M., Hermanville Farm, Hermanville, P. E. I., writes: "Considering quality of stock and prices received we believe that we are the largest breeders of pure bred Tamworth swine in Canada or the United States. We have had our most successful season in sale of spring pigs in our history. Here is a list of our foreign sales: 6 pigs to Newport, Arkansas; 1 pig to Fairhaven, Vt.; 3 pigs to Cumberland Centre, Me.; 2 pigs to Waterloo, Q.; 1 pig to Greenwood, Ind.; 1 pig to Waterville, N. Y.; 2 pigs to Clinton, Conn.; 6 pigs to Experimental Station, Fayetteville, A.; 2 pigs to Westbourne, Manitoba; 1 pig to Hernandez, Cal.; this in addition to a fair provincial trade, and we have five boars to go yet. We have had very good success in our shipments, having lost but one pig, and this was caused by a delay at a port of entry. Did we breed other breeds beside Tamworth we could have sold many more in the East. We, however, stand by the Tamworth and refuse to handle any other breed, for we feel confident that there is no breed of hogs like them, and only need to be known to be appreciated. The Tamworth is quietly and unostentatiously forging his way into public favour, both in this country and the States, and claims the undoubted title, without a peer, of the bacon hog, par excellence. The wonderful docility and motherhood of the Tamworth is equalled by no other breed, and the beauty of a herd of young golden red Tamworths is difficult to duplicate in swinedom, etc. etc."

#### Auction Sale of Clydesdales.

An important event to breeders of Clydesdales will take place at Grand's Repository, Toronto, on Tuesday, September 3rd, at 11 o'clock sharp, when a splendid collection of carefully selected registered Clydesdales rising three years old, fillies and stallions, mostly bred from all imported stock, will be sold to the highest bidder. This is a choice lot and well worthy of inspection. The sale will take place on Tuesday of the second week of the Great Industrial Exhibition of Toronto, and will be over in time to attend afternoon events at the fair. Catalogues containing particulars and pedigrees will be ready shortly and may be obtained by writing to Walter Harland Smith, Grand's Repository, Toronto.

Horse Owners Should Use

GOMBAULT'S

## Caustic Balsam

The Great French Veterinary Remedy.

A SAFE, SPEEDY AND POSITIVE CURE.



Prepared exclusively by J. P. Gombault, ex-Veterinary Surgeon to the French Government Stud.

SUPERSEDES ALL GAUZY OR FIRING

Impossible to produce any scar or bluish. The safest best Blister ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses or Cattle.

As a HUMAN REMEDY for Rheumatism, Sprains, Sore Throat, Etc., it is invaluable.

WE GUARANTEE that one tuberculous of any ailment or sprain cure mixture ever made.

Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address THE LAWRENCE-WILLIAMS CO., TORONTO, ONT.



## Auction Sale OF CLYDESDALES

Grand's Repository

TORONTO

Tuesday, September 3rd at 11 a.m.

Selected Registered Clydesdales, rising three years old, fillies and stallions. Catalogues containing particulars and pedigrees can be obtained by writing.

WALTER HARLAND SMITH,

Grand's Repository, TORONTO.

Don't miss this Special Sale Tuesday, second week of the Fair.

#### AGENTS WANTED

for the NEW PICTORIAL STOCK DOCTOR AND LIVE STOCK CYCLOPEDIA, revised to 1901 with the assistance of the Professors of the Ontario Agricultural College, Guelph. The finest illustrated, cheapest and best book of its kind ever published. Large wages for agents. Particulars mailed free. Address—

World Publishing Co., Guelph, Ont.

**FITS** Liebig's Fit cure for Epilepsy and kindred affections is the only successful remedy, and is now used by the best physicians and hospitals in Europe and America. It is unconditionally recommended by the afflicted. If you suffer from Epilepsy, Fits, St. Vitus' Dance, or have children or relatives that do so, or know a friend that is afflicted, then send for a free trial bottle and try it. It will be sent by mail prepaid, if you send where every fitting case has failed. When writing mention this paper, and give full address to THE LIEBIG CO., 179 King Street West, Toronto.

**CURED**

**The Winnipeg Industrial Fair.**

(Continued from page 131).

In one respect at any rate the Westerner excels and that is in making visitors from a distance feel at home. So pleased are Easterners with the reception they got from the management that they will never regret should circumstances permit of their visit another year. In one particular our Eastern Fairs might take a valuable lesson from the West, and that is in their treatment of the Press. Not but that our Eastern fairs treat the members of the press courteously enough, but there is something in the reception the press gets out West that prevents it from uttering anything but praise and commendation of the show.

**Testin a New Churn.**

A representative of The Farming World witnessed a very interesting public demonstration of churning butter on Saturday last, at Price's Dairy, 212 King street, by the Columbia Air Churn Co., Toronto. Several farmers and dairymen from the surrounding country were present. All present were unanimous in their praises of this wonderful new churn and milk aerator. It is a complete revolution of all known methods of butter making, in that the separation of butter from the milk is accomplished by air practically and scientifically applied. The demonstration proved that the old methods of churning butter by friction, agitation and concussion is very greatly improved upon. In the demonstration, 4 gallons of ripe gravity cream were churned, temperature 60 degrees. The time consumed in churning was six and a half minutes as timed by several present. Those present were surprised not only at the time consumed but at the fine quality and quantity of butter produced, several remarked that it was the most perfect granular butter they had ever seen, and for color, high flavor and firmness could not be duplicated by other methods of churning.

These churns are made durable, and will last a lifetime, and are being manufactured in twelve different sizes and geared for quick and easy churning. The tub is of white cedar and the air dasher is of the best seasoned maple. In construction the churn is different from any we have seen, and the churning is done with the top open, and all cases and foul odors escape. This churn does not require the capacity of other makes, as it will do its work at two-thirds full. The Columbia Air Churn Co. have secured space at the Industrial Fair at Toronto where it will be on exhibition.

Germany has colonies and possessions whose area is equal to nearly five times her own size.

**FOR SALE**

Pure Bred Improved Yorkshire Pigs

ANNANDALE FARM,  
TILSONBURG, ONT.

**Sheep****Silver Creek Stock Farm**

Shorthorn Cattle  
Oxford Down Sheep  
Bronze Turkey

**THOS. ARKELL,**  
Teeswater, Ont.

**OXFORD DOWN SHEEP**

J. H. JULL &amp; SONS.

Yearling Rams and Ram Lambs, and Ewes of all ages, for sale. Prices reasonable. Our flock is headed with the best imported rams in Canada—prize winners in England, first prize at Toronto Industrial and all leading shows in Canada.

**Grant and Plain View Stock Farms,**  
Mt. Vernon, Ontario, Can.

**OXFORDS****AT FARNHAM FARM**

50 Superior Yearling and Two Year Rams,  
2 Extra Fine Imported Lambs,  
100 Ram Lambs.  
And a number of good Yearling Ewes and Ewe Lambs.  
—PRICE REASONABLE.

**HENRY ARKELL, Arkell, Ont.**

**ST. LAWRENCE COFFEE HOUSE**

78 and 80 King St. East

"RESTAURANT" TORONTO

Dinner for 20c.

6 Dinner Tickets \$1 Served from 11:30 to 3  
for : : : : : and from 6 to 8  
Farmers and their wives visiting Toronto will find this to their taste.

**Stock****MAPLE LEAF HERD**  
OF LARGE YORKSHIRES

...Young Stock for Sale

ROBERT NICHOL, BRUSSELS, Ont.

**W. R. BOWMAN**

Mt. Forest, Ont.

Breeder of POLLED ANGUS CATTLE  
Young Stock of both sexes for sale.

**IMPERIAL HOLSTEIN-FRIESIAN STOCK FARM**

10 Young Bulls from one month to four months, bred from Winnie R's De Kol.

**W. H. SIMMONS,**

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**RETTIE BROS.****HOLSTEIN-FRIESIAN BREEDERS**

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**BRETHOUR & SAUNDERS,**

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# Market Review and Forecast

Office of The Farming World,  
Toronto, August 12th, 1901.

General trade keeps quiet and there will not likely be any great activity till the fall trade is in full swing. The prospects, however, are bright, and a good business is looked for later. Remittances are a little slow, a usual thing at this season. There is a good demand for money which continues at about 5 per cent. on call. Discounts show no change and large volumes of merchantile paper continue to be taken at the banks at 6 to 7 per cent.

#### Wheat.

The speculative element is figuring so largely in the wheat markets just now that it is hard to tell exactly how matters stand. Prices pump up and down quickly, according as the bulls or bears great control. For instance, on Monday last, closing prices for September at Chicago, reached 70½ cents, being an advance of 2 cents, and it has since receded. This speculative element will continue to affect the market till the new crop is harvested. Of course, all the speculation now is on the new crop. The visible supply of wheat in the United States and Canada, and the amount of wheat and flour now in transit to Europe, are equivalent to 67,189,000 bushels, against 76,922,000 bushels a year ago. The visible supply increased 1,105,000 bus. on the week. Everything points to a big yield on this continent. Reports regarding the English crop are uncertain. The Mark Lane Express calculates that although the quality is fine, the yield in the most important counties will be four quarters (32 bushels) against the usual five quarters.

The markets rule firm at quotations. No. 1 Manitoba hard is quoted at Fort William at about 71c. Red and white are quoted here at 66c. to 67c. middle freights, goose 64c. and spring fine 70c. east. On Toronto farmers' market red and white bring 69½c. to 70½c. goose 68c. and spring fine 68c. per bushel.

#### Oats and Barley.

The oat market is quiet but firm. There is no export trade, present prices being above an export basis. Old oats are in good demand here, and selling at 37c. for No. 2, white, middle freights. Some new oats have sold at 31½c. to 32c. on the farmers' market, old oats bring 40½c. per bushel.

Barley quotations are largely normal. On the Toronto farmers' market barley brings 43c. per bushel.

#### Peas and Corn.

The pea market is steady with very little doing, owing to scarcity of supply of old stock. Some large sales of new peas are reported at 64c. to 65c., north and west.

Corn is higher, and American is quoted at Montreal at 60c. out of store. American, No. 2 yellow, is

quoted at 62c. to 62½c. Toronto and Canadian yellow at 50c. west.

#### Bran and Shorts.

Cars of Ontario bran in bulk sell at Montreal at \$15.50 to \$16, and shorts at \$17 to \$18 per ton. City mills here sell bran at \$15 and shorts at \$16 in car-lots, i. o. b., Toronto.

#### Potatoes.

There is an export demand from the United States for potatoes, though no business in car lots of new stock is being done yet. The recent rains have greatly improved the crop. At Montreal new potatoes are quoted at \$1.75 per bbl. in good sized lots. Offerings have been large here, with prices easier, at 90c. to \$1 per bushel, by jobbers. On the farmers' market new potatoes bring 90c. to \$1.09 per bushel.

#### Hay and Straw.

England continues to take a large share of Canadian hay shipments. The market there is reported steady at a three cent advance. Large quantities of old hay are being delivered at Montreal. Prices there for old baled hay are \$9.50 to \$10 for No. 2 and \$8 to \$9 for clover. Old hay is dull and lower here at about \$9.50 per cwt. New hay is offering freely and the market is steady at \$8 to \$8.50 for car lots on track. On Toronto farmers' market old hay brings \$13 to \$13.50, new \$10.50 to \$11, and sheaf straw \$10 per ton.

#### Eggs and Poultry.

A steady English market for eggs is reported, with quite a number of Canadian going forward. Prices are firm at Montreal, where candled stock is quoted at 12c. to 12½c. in large lots. Selects are scarce here and in good demand at 12½c. Held fresh are steady at 11c. to 11½c. in case lots. On Toronto farmers' market new laid bring 13c. to 14c. and held stock 12c. to 13c. per dozen.

On the farmers' market here dressed chickens sell at 50c. to 75c. for old, and 50c. to \$1.00 for new, and ducks at 75c. to \$1.10 per pair. Turkeys bring 10½c. to 12½c. per lb.

The Canadian Produce Co., 36 and 38 Esplanade east, Toronto, will pay for week ending August 22, for ducklings not under four lbs. each 5c. per lb. and spring chickens, not less than two lbs. each, 6c. per lb. For hens (including last year's birds) 4c. per lb. These prices are for live weight on arrival.

#### Fruit

Estimates are beginning to come in as to the probable apple crop for 1901. It is a little too early yet to give anything like an accurate forecast. The American crop, according to late reports, is likely to prove better than was at first estimated. Harvest apples are selling on Toronto fruit market at from 25c. to 50c. a basket. Cherries are higher at \$1 to \$1.35, and tomatoes firmer at 60c. to 80c. a basket. Red raspberries are in keen demand at 10c. to 12c. a box. Black currants bring \$1 to \$1.15 a basket, and red currants 50c. to 60c. Huckleberries sell for \$1 to \$1.15 per basket.

#### Cheese.

The English market is reported firmer and 1s to 2s higher than a week ago, with a good demand at the advance. Prices there for finest Canadian range from 48s to 50s c. i. f. and 45s to 47s for fine. This has caused a steadier feeling on this side, though the markets of the week cannot be called active. Montreal quotations are 9½c. to 10c. for finest westerns and 9½c. to 9½c. for easterns. Everything appears to favor a good fall make, the pastures in most places being in good condition, and the weather cool and favorable for cheese making. The total exports for the season so far from Canada and the United States show a falling off of 358,355 boxes as compared with the same period last year. There has been a wide range of prices at the local markets, varying from 9½c. early in the week to 9-9-16c. later, the ruling prices being from 9½c. to 9½c. and 9½c. Colored cheese are now selling at fully 4c. per lb. higher than white.

#### Butter.

There is a steady demand in the Old Land for choice creamery butter, finest Canadian being quoted at 102s to 104s and fine at 96s to 99s. The total exports of butter this season to date in the United States and Canada show an increase of 33,426 packages as compared with the same period last year. The Trade Bulletin summarizes last week's creamery butter market as follows:

"Country advices report quite an active business in creamery butter during the past week, with sales of about 3,000 packages reported to us at 19½c. to 20½c. f. o. b. as to quality. Of course, some high prices were paid at West Shefford on Wed-

**CANADIAN PRODUCE Co.**  
TORONTO

**Want Every Chicken in Ontario**  
AND WANT AGENTS TO BUY THEM.

nesday, as usual, but they do not represent the market here as they are special makes with little or no salt, two of these factories getting 21c., but in spite of that fact some of the finest creameries have sold on this market during the past few days at 20c. to 21c. In fact a well known Eastern Township's factory sold yesterday at 20c. f. o. b. Quite a lot of creamery sold at 18c. to 19c. and 19c. that was classed as off flavor and out of prime condition.

Creamery is selling here at 21c. for prints and 20c. for solids. Offerings of dairy butter are large, but choice quality is scarce, and the best tubs, pails and crocks is selling at 16c. to 17c. in a jobbing way. On Toronto farmers' market pound rolls bring 18c. to 22c., and crocks 17c. to 20c. per lb.

**Wool**

There is little activity in Canadian wool, though quite a few sales of car lots are reported at Ontario points at from 18c. to 13c. and 11c. f. o. b. for washed fleeces. Toronto dealers quote 12c. to 13c. for washed and 8c. to 9c. for unwashed wool.

**Cattle**

While prime cattle continue firm and in good demand the market for any but first quality was dull and lower at most markets. Cables quote live cattle firm at 11c. to 13c. dressed weight. Prices at Toronto market have ruled fairly steady during the week. On Friday, the last market day of the week, the run of live stock was smaller than usual consisting of 491 cattle, 1,144 hogs, 966 sheep and lambs and 25 calves. The quality of the fat cattle was not very choice. Trade was fair for good cattle, of which there were few, and very dull for the poorer classes, of which there were too many. Prices for shippers were lower as there were no choice lots offered. The best loads of exporters sold at \$5.95 per cwt. Butchers' cattle of choice quality were scarce and wanted, and firm at quotations, but common butchers' stuff was plentiful and cheap. A few feeders and stockers were offered. The bulk of the milk cows and springers offered were of medium quality. Only a couple out of the lot would bring \$50 each.

Export cattle—Choice loads of these are worth from \$4.85 to \$5.65 per cwt., and light ones \$4.50 to \$4.75 per cwt. Heavy export bulls sold at \$4.90 to \$4.25, and light ones at \$3.60 to \$3.75 per cwt.

Butchers' cattle—Choice picked lots of these, equal in quality to the best exporters, weighing 980 to 1,125 lbs. each, sold at \$4.40 to \$4.60 per cwt., good cattle at \$4.00 to \$4.25, medium at \$3.60 to \$3.75, and inferior to common at \$2.75 to \$3.15 per cwt.

Feeders—Heavy, well-bred steers, from 1,100 to 1,200 lbs. each, sold at \$4.00 to \$4.25, and other quality at \$3.40 to \$4.80 per cwt. Light steers, 900 to 1,000 lbs. each, sold at \$3.00 to \$3.25 per cwt.

Stockers—Yearling steers, 500 to 800 lbs. each, sold at \$3 to \$3.25, off colors, and inferior quality at \$2.50 per cwt.

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If you do write for a copy of the new pamphlet on land settlement in New Ontario to  
**HON. E. J. DAVIS,**  
Commissioner of Crown Lands, Toronto.

**Calves**—These are higher and active at Buffalo, veals bringing \$6.75 to \$7.25 per cwt. At Toronto market ordinary calves bring \$2 to \$8 each.

**Sheep and Lambs**

The run of sheep and lambs was fairly large and prices for lambs easy. Sheep sold at \$3.35 to \$3.50 per cwt for ewes and \$2.50 to \$2.75 for bucks. Spring lambs sold at \$2.50 to \$3.50 each. At Buffalo, good lambs are stronger, fair to fancy spring lambs bringing \$3.50 to \$5.60 per cwt.

**Hogs**

Deliveries of hogs continue fairly large and yet the market keeps steady and firm, showing that the demand for our bacon must be growing at a very rapid rate. Prices at Toronto market are unchanged at \$7.25 for select bacon hogs and \$6.75 for lights and fats. Unculled car lots bring about \$7 per cwt.

The Wm. Davies Co., Toronto, for the week ending August 17th, will pay \$7.50 per cwt. for select bacon hogs and \$7 for lights and fats.

**Horses**

The horse market is still quiet, though some more enquiry is reported at Montreal for the better class of carriage and saddle horse. Quotations are: carriage horses \$180 to \$350 each; heavy drafts \$190 to \$225 and light roadsters drivers and saddles \$190 to \$225 each. The buying of remounts is still going on.

Seventy-five remounts were sold at Grand's last week. The inspectors were very critical, and yet this number were secured without any difficulty. An important sale of ten very high class carriage horses, from 16 to 16.1 hands high was made to the Canadian Government. These horses are designed for use in connection with the Duke of Cornwall's visit and will be especially broken for the work. The regular trade shows some improvement, though nothing special is doing in this line.

**How to Keep Cool.**

Two subjects there are about which the ordinary human being considers himself or herself fully intelligent: these are food and clothing. Yet few persons use discretion in adapting their food to the weather, however it may be about clothing.

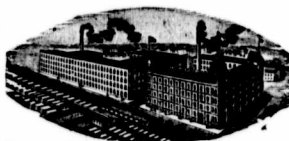
Who has a right to expect to be comfortable on a hot day if the food consumed has sufficient heat-giving capacity for zero weather? There are many households where the same routine of steaks and chops and roasts are carried to the table in July as in January.

The first way, then, to lighten the burden of the housekeeper and increase the comfort of the individual members of the family is by a change of diet. For the time being, become at least a half-way vegetarian, and use few meats, but an abundance of fruits and vegetables.

—American Kitchen Magazine

"Beautiful snow" poems are usually regarded as slush.

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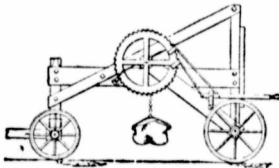
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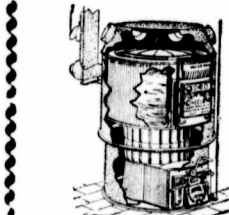
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