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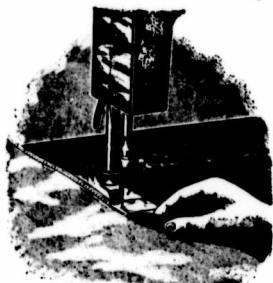
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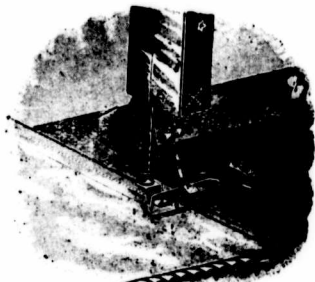
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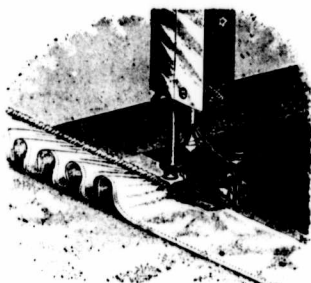
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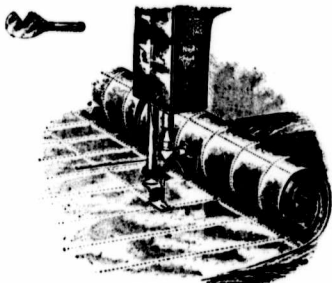
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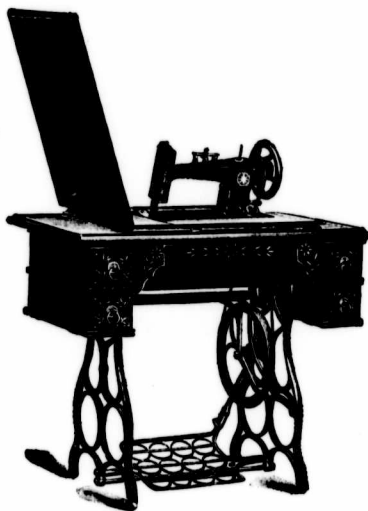
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The Farming World

For Farmers and Stockmen

Vol. XXI

JULY 22nd, 1902.

No. 4

Records and Auction Sales

AT the recent meeting of in last week's issue, a report of which appeared Northwest Territories, a sheep breeders in the couple of important matters were discussed that are deserving of further reference. In no part of Canada has the auction sale method of disposing of pure bred stock been taken hold of so enthusiastically and so energetically as in the Territories. The two sales held at Calgary have been most successful and the demand now is for more of these sales.

The sheep breeders have decided to hold a sale of sheep in September next. A letter of enquiry comes from a breeder in Western Manitoba desiring a sale at an early date either at Brandon or Virden. This breeder points out that he has 10 bulls for sale from one year to over two and states that within a radius of 15 miles of his farm upwards of 40 bulls could be picked up. He further states that there has practically been no sales of bulls west of Brandon this season, and that he has not met a man this season who wished to buy a bull. He believes that this state of affairs could be remedied by a public sale at either of the places named. It might be added that this western breeder had, for 30 years, experience with such sales in Scotland, and is therefore convinced that if fairly started Manitoba breeders would profit very much thereby.

Thus the movement is developing in the West. While the sales already held at Guelph and Ottawa have been successful and have carried the movement beyond the experimental stage, there seems to be wanting in the East that enthusiasm and energy in regard to these sales that have accompanied their progress in the West. Eastern breeders cannot afford to allow this movement to fall behind now that its success as a means of disposing of high-class breeding stock, at satisfactory prices, has been so clearly demonstrated. As we noted last week a combination sale of Yorkshire swine will be held at Guelph next month. There is room for more of these sales, not only in Ontario but farther east and in the Maritime Provinces. The auction sale method to be made of the greatest benefit to the country at large should be taken up more generally by breeders and sales held in new districts.

Another matter discussed by the Territorial shepherms, of perhaps more far-reaching importance, was

that of establishing sheep records in the West. There are no sheep records kept in Canada. Breeders, especially those in Ontario, preferring to record their animals in the records of the United States, where a market is found for a very large share of their surplus stock. But western breeders it would seem find this practice inconvenient and irksome, and have decided therefore to establish a sheep record of their own.

In so far as the establishment of a separate sheep record for the Territories is concerned it will have little if any effect upon the sheep-breeding industry in other parts of the Dominion. It may, however, be the forerunner of similar movements in the West in connection with other lines of live stock. We are informed by parties who have made a close study of live stock conditions in the West for several years back, that unless something is done to make the records edited here more Dominion in scope and more liberal in character that the Northwest people will certainly establish records of their own. There are at the present time different records edited in Nova Scotia, New Brunswick, Quebec, and in Ontario. There is no need of all these various records. One record covering each branch of live stock should be sufficient for the whole Dominion. It would tend to greater uniformity in breeding and would greatly facilitate the sending of pure bred stock to the United States and other countries. Satisfactory progress has been made in the amalgamation of several important live stock records during recent years. But more work along this line should be done and an effort made to centralize all the various records of the Dominion under one management and to make them uniform in character. But this cannot be done unless a liberal policy is adopted and one that will meet the needs of breeders in all parts of Canada. There should be co-operation in this matter and a unity of purpose and effort.

The Scrub vs. Good Cattle.

This is an age when quality counts. This is shown most forcibly in the beef cattle trade. The old-time scrub animal is fast receding from the place he once occupied in catering to the meat-eating tastes of the world. And justly so. It pays neither the producer nor the consumer to have anything to do with the scrub animal. Meat from the scrub animal is neither so nutritious nor so wholesome as

that from the well-bred, well-finished beef animal, and besides, it cannot be produced any cheaper, and sells for a much less amount in the world's markets. This being so, it will be better for all classes to have only the best quality of meat products produced.

Anyone who has watched closely the drift of the cattle markets in recent years, will have seen the difference in prices as between the scrub and the good animal, growing wider and wider each month. Never before has there been such discrimination against scrubs as there is at the present time. This, perhaps, has not been so noticeable at Canadian cattle markets as at Chicago and other Western markets. In Canada the number of really prime animals produced is not as large as it should be, and as it will be in the near future, and consequently this growing discrimination is not so noticeable. But when a car-load of really prime stuff, or a few choice animals are offered for sale, up goes the price, leaving a very wide margin indeed between it and that paid for the ordinary scrub, or even the medium type of animal. Only two weeks ago, as noted in our market columns, a few very choice beef animals sold at the Toronto cattle market for as high as \$7.40 per cwt. Contrast this with the price paid on the same date for inferior stuff and it will be found to be nearly twice as great. If the fellow who produced the scrub could make a profit, what a large profit the fellow must have had who produced an animal that sold for about twice the sum. Surely the day of the scrub is doomed.

The high prices for beef cattle during the past winter and the generally improved condition of the farmer from a financial point of view should enable him to produce or secure a better class of animals for feeding purposes in the future than in the past. There is a better class of breeding stock in the country to secure bulls from than was the case a few years ago, and while breeders are asking, perhaps, higher prices for their breeding stock than formerly, the condition of the cattle trade and of the farmer will enable him to pay a higher price for his foundation stock. And even if these more favorable conditions in which he now finds himself did not exist, it will pay the farmer and the cattle feeder to put up for fattening purposes only animals of the very best quality.

We have said that never before has there been such discrimination against the scrub animals as to-

day, and this will be accentuated as the years go by. To-day nobody wants a scrub animal unless he gets it at a very low price. In the days to come, we believe, people will not only refuse the scrub at a low price, but refuse to buy him at any price. Our advice, then, to the farmer and cattle raiser, is to be prepared for that day. Begin now to grade up your herds and to improve the quality of your beef animals, and be in a position to take advantage of the premiums that are being paid to-day and which will be greatly increased later on for the really choice and well-finished beef animal.

A Permanent Exhibition Bureau

Since his appointment as Commissioner of Exhibitions, Mr. Wm. Hutchison has submitted to the Minister of Agriculture a memorandum in favor of establishing permanent rooms or headquarters at Ottawa. Mr. Hutchison's idea is to gather in these rooms collections which shall illustrate the agricul-

tural, horticultural, mineral and forest resources and wealth of the country, and which, whenever Canada participates in an international exhibition, can be easily drawn upon at a minimum of cost and inconvenience. Furthermore he would have on view at the bureau, for the benefit of Canadian manufacturers and producers, samples of the products of the Dominion put up in the manner best suited to the needs of the foreign market. The conditions of a market vary with the country catered to, and the climate is often an important factor to be considered. Mr. Hutchison would have on exhibition the products wanted by our most promising customers put up in the manner which they favor most.

This, according to our view, is a move in the right direction. Canada has suffered in the past by not having something of this nature to draw upon for international exhibitions. Whether located at Ottawa or elsewhere such a bureau would be of value to any one seeking information about the country and its products.

Our Western Letter

Dr. Fletcher in the West—The Weed Pests—Brandon Experimental Farm—Crop Prospects—Medicine Hat and Edmonton—Twenty Thousand Men Wanted.

Winnipeg, July 14th, 1902.

We always feel the better for a visit from Dr. Fletcher, the Dominion Government Botanist and Entomologist. Notwithstanding the unending warfare that he is carrying on with those primeval enemies of mankind, the weeds and bugs, the doctor retains the same unflinching geniality that has always distinguished him. Though fighting ceaselessly he grows not a whit more bellicose. The doctor has just returned from Southwestern Alberta, where he has been attending and lecturing before a series of meetings arranged by the Northwest Territorial Government. Dr. Fletcher was accompanied by a representative of the Government, who spoke at all meetings on the ordinances relating to noxious weeds and their destruction. The doctor's address related chiefly to poisonous and other plants known or likely to become injurious to stock and human beings. The lectures were illustrated by freshly-gathered specimens of the plants referred to, and at several places large collections were brought in by ranchers and farmers to be reported upon. A feature of the meetings was the attendance of the pupils and teachers of the schools. The doctor was careful to adapt his remarks to his audiences, making the subject interesting to this new and important element at institute meetings. Both pupils and teachers evinced a keen appreciation of the lectures. The meetings included the following points: Maple Creek, Medicine Hat, Lethbridge, Sterling, Ratmond, Cardston,

Mountain View, Fishburn, Pincher Creek, McLeod, High River and Okotoks.

Dr. Fletcher expressed himself to your correspondent as extremely gratified with the success of these meetings, which were far better attended than he had expected.

Aside from the principal business that calls the doctor to the West, he reports having had a most enjoyable and profitable trip. Among other interesting points he mentions the experiments of various gentlemen in growing fodder crops, among others the successful growth of Brome grass on the prairie sod after disking. He also speaks of the excellent fields of fall wheat seen at Pincher Creek.

The Brandon Experimental Farm has had a most unfortunate experience during the past spring and summer. The rainfall in the upper valley of the Assiniboine has been so excessively heavy that along its western course it has everywhere overflowed its banks. The valley is in many cases two and three miles wide, and even more, so that many farms have been inundated. Such was the case at Brandon, and the Experimental Farm being partly situated in the valley, it has experienced the same fate as others in like condition. The experimental plots were at one time, we understand, completely under water. A large portion of the orchard also was treated to this unexpected and undesired irrigation. The rainfall at Brandon during the month of June amounted to a trifle over ten inches.

The crop prospects improve with

each day of the present hot, dry weather. The heat is not of that excessively parching kind that shrivels, but of the moderate character that develops and ripens the grain. There has been very little wind, and, since the first of July, no heavy, beating rains. The result of this favorable combination of circumstances is that the grain is standing straight and strong. Wheat is now heading out in all districts of the Province, and a continuation of the present conditions will ensure the natural ripening of another "bumper" crop. We have every reason to expect a continuation of these favorable conditions. The records of years show that the latter half of July and the first half of August are so regularly dry and warm that we are safe in calling them our dry seasons. May they this year sustain their reputation!

The following notes from Medicine Hat portray conditions on the Western ranges: "General conditions in the range country were never better than at the present time. Almost everything which can conduce to successful ranching is in evidence. The wet months of May and June have made the prairie one mass of glorious feed. This following a similar season last year, has produced such a stand of grass as we have never before had. On many sections of the range the cattle came through the winter only in fair condition, and suffered from the cold winds of April. While the winter was an open one it was probably less favorable than had there been more snow and less variable weather. At present cattle are putting on flesh with remarkable rapidity, showing the effects of the abundant feed. The prospects were never better for hay, and in addition to the crop of native grasses many ranchers will have large acreage of Brome. The fear of loss by prairie fires has this year been minimized by the joint action of the Government and the railways imploving fire guards at the proper season of the year. Prices are tip-top, and almost all cattle have been sold for future shipment. The storm losses reported from some sections did not affect the Medicine Hat district. A good calf crop is also reported. The horse business never was better. The shipment of horses from Medicine Hat this year to date are more than double the total shipments of 1901. Good prospects and plenty of work in Manitoba and Eastern Assiniboia have made a good horse market."

From Edmonton comes the following: "Since the 19th of June, the weather has been ideal for growth. The days have been bright and warm, but not too hot. Grain is looking magnificent, but is no farther ahead than at this time last year. Present conditions promise an early harvest. Creeks and rivers are still high from the heavy rains. Roads are, however, improving and as a result, large quantities of oats are coming in; present market price is 30 cents. New hay is now on the market."



A Convenient Harvest and Haying Tool.

Economical Pork Production

By J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa

In the past some objections have been raised by the packers re the use of forage plants and roots for pork production, but the light of recent experiments would seem to show their fears or objections groundless; in fact, the good influence of a considerable proportion of green feed or roots in the ration of a pig can scarcely be overestimated. It has long been known that skim milk has a most beneficial influence upon the thrift of the porkers, and quality of the pork, even when the amount fed forms only a small part of the ration. Green food and roots seem in a large measure to be capable of supplementing the now—in view of the tremendous expansion in the Canadian bacon industry,—quite inadequate supply of dairy by-products, for use in pig feeding. The farmer whose conditions permit may go even further than to use forage plants as a supplementary food. He may even make them the chief item of his pig feed if he is careful to use a good proportion of grain, (oats, pease and barley,) during the last month of the feeding period.

As the season is rather far advanced for an exhaustive discussion of forage crops suitable for this purpose, I shall confine my remarks to such as are still seasonable.

Clover.—Probably no crop is better adapted to young pigs than clover, and a bit of clover stubble used for this purpose will give very good returns. So far as our experiments go, the pork so produced is of good quality.

Rape.—Of all the crops used here so far for pasturing pigs, rape quite easily stands first. The principal points in its favor are:—(1) its quick growth, (2) its wide range, as it grows well on almost any kind of land, (3) its long season, as it may be sown as late as September and still do fairly well, (4) its evident palatability, as the pigs eat it greedily, and (5) its good effect upon the quality of the bacon, producing as it does, almost invariably a good firm carcass. Rape may be expected to be fit for pasturage from 6 to 8 weeks from date of sowing. It should be sown in rows about 24 inches apart, since when so grown it gives the greatest return per acre, and is best adapted for pasturing. It should be sown fairly thickly in the rows, say, three lbs. of seed per acre. An acre may be expected to carry from 20 to 40 pigs through a season, depending on the season and the condition of the crop when the pigs are turned in.

Vetches.—Vetches also are valuable as forage for swine, and may be, under exceptional conditions, sown late in the season. Especially is this true of the hairy vetch, which species has the peculiar quality of growing up again after having been cut off or eaten down.

Oats.—Probably no green crop will give a better return in pork than oats. They may be sown late or early in the season at the rate of 5 or 6 bushels to the acre and the pigs turned on about a month after they germinate. The fault of this crop is that it lasts only a

short time, as it does not seem to be able to recover when once eaten down.

Artichokes.—Another crop of great value for pork production is the artichoke. It should be sown late in the fall or very early in the spring. The pigs may be allowed to feed on it in October and the early spring. They will do the harvesting themselves. This is a most excellent crop for brood sows in spring and autumn.

Almost all varieties of juicy forage crops are suitable for pork production, the sorts mentioned above being probably the best for Canada.

The question as to the advisability of allowing pigs to graze, or shutting in a small pen and feeding them the green crops, does not seem to have been positively settled yet, for while greater daily gains may be expected where animals are kept in close quarters, there is always the item of extra labor for cutting and carrying the forage.

Another item of some importance to the feeder is the comparative economy of winter and summer feeding of pigs. According to various experiments conducted here recently, pork may be produced at about \$1.00 per hundred pounds, live weight, less cost in summer than in winter. This seems to be due to less cost of green feed, as well as to low temperature, which must be overcome by food or by artificial heat.

Co-Operative Bacon Factories Not a Success

We reproduce below two letters written at the request of the editor of the Ottawa Valley Journal, which seem to set at rest any doubts there may be floating around as to the success of the co-operative pork-packing industry. One of these letters is from Mr. C. F. Hodges, manager of the Farmers' Co-operative Pork Packing Company of Brantford, and the other from the Palmerston Pork Packing Co., Ltd., both organized on the co-operative plan. Both letters, and especially that of Mr. Hodges, express very strongly the opinion that the co-operative pork packing factory cannot be run successfully in this country.

Mr. Hodges says: "I don't think that Canada is at present ripe for factories run under the co-operative principle.

In Denmark they have 25 factories run under this system. They commenced 11 years ago with one, but the Danes are not nearly so skeptical as the Canadians are.

The trouble with the co-operative factories in Canada is, that if the opposition buyer comes forward and offers from 5 to 10c per 100 lbs. in excess of what their own factory can offer, the stockholders of the factory will give them the hogs, and leave their own factory without. In 9 cases out of 10 we find the farmers are prepared to

sell their factory for five cents, and really a factory under such conditions is not a co-operative one. It is only a joint stock company with a multiplicity of farmers as stockholders.

In Denmark it is entirely different—each stockholder is bound to supply a certain proportion of his hog produce to the factory, with the result that they have made co-operation a great success in that country.

They ship more bacon to London than does the whole of Canada. At present there are not sufficient hogs raised in Canada to supply the present packing companies, a great proportion of which are only run on half supplies.

Around Ottawa, for example, they frequently have to come down to the southern part of Ontario to get their supplies.

In brief, our chief difficulty lies in the fact that the farmers cannot be induced to deliver hogs to the factory at a paying price all the time. The competition created by the other factories and the extra price offered as an inducement sometimes take the great proportion of the hogs away from us.

Were the hogs more plentiful this would not happen to the same extent, but as far as the word co-operative is concerned, I think you can eliminate it from the vocabulary of the Canadian farmer.

They may some day come to understand the meaning of the word, but at present we are sorry to say that they do not seem to."

The Palmerston letter is as follows: "Your favor of the 16th to hand and contents carefully noted. In reply beg to say I think the present time is a very bad one for the organization of a co-operative pork packing establishment, for the reason that we have more packing houses in the country than the farmers can supply hogs for. Besides hogs are too high and a new house cannot begin to compete with old and successful established concerns. We doubt very much if any of the packing houses have made any money for the past two years, and fear that most of them have lost it."

The N. S. Travelling Dairy at Work.

The Nova Scotia Travelling Dairy, in charge of Miss Laura Rose, held a two days' meeting at Mt. Thorn, Pictou County, recently. The secretary of the local Agricultural Society writes as follows in regard to the meeting:

"The building was well filled on Thursday evening and an audience more enthusiastic in their praise of an evening's entertainment I have never seen. Miss Rose's winning manner and complete mastery of the details of the business seemed to impress all with the idea that they could learn something by attending the rest of the meetings. Work was nearly suspended for the next two days, and most of the people around the district attended

at the school house. Now that it is over, I feel safe in saying that never in my day was such a general interest taken in our daily occupations as is now taken in butter-making. Though our butter will not be all first-class, in the course of a year's time the mode of butter-making employed by a number of our people will be completely revolutionized. The verdict of all hands is that the making of good butter has got such a start as would be hard to effect in any other way. That has been done in three days, which would take years and years of incessant writing in agricultural papers, instructions from butter dealers, or public lectures to accomplish."

Transporting Butter and Cheese

A special circular has been sent out by the Commissioner of Agriculture and Dairying, embodying the information which we published last week in regard to the carriage of butter in refrigerator cars. Refrigerator cars are now being run from forty starting points each week to Montreal picking up butter at stations on the way. These cars are not suitable for cooling butter. They are intended only to keep cool the butter which is loaded in them in cool condition. To get the butter in a cool condition creameries should arrange to cool the butter down to a temperature below 40 degrees within one day after it is made. In a circular letter to the railways the commissioner invites their co-operation in making the refrigerator cars subsidized by the Government, as useful and as satisfactory as possible.

The Department of Agriculture has also arranged with the C.P.R. and G.T.R. systems to provide a number of refrigerator cars for the carriage of cheese on through bills of lading and on local shipment to Montreal for export. For the cars available the department has agreed to pay the icing charge to permit this service to be started. Shippers using these cars will be charged the usual carload rates. Applications for these refrigerator cars should be made through the usual channels of the local railway agent, or the district freight agent, as the case may be. The Department of Agriculture does not undertake to furnish cars, but only to pay the icing charges up to 100 cars per week, from the middle of July to the middle of September. The Grand Trunk System and the Canadian Pacific Railway will have some specially improved ventilator cars ready this month for the carriage of cheese. These are being fitted with special ventilating contrivances, devised by Prof. Robertson.

A New Milking Machine.

A genius in Iowa has invented a new milking machine. It is modelled somewhat after the one built in Scotland a few years ago, and takes the milk from the udder by

the vacuum process. The machine is a can-shaped reservoir of special construction, made air-tight so that a vacuum may be produced by the air pump on the cover. When the dial indicates from 7 to 15 pounds pressure, the four rubber tubes are attached to the cow, the tips of the tubes being of soft rubber and glass. The milk flows in a continuous stream, drawn by a steady, but gentle, pressure, of a soft rubber connection. The capacity of the machine is said to be equal to two professional or three ordinary milkers. Larger machines are made at a slightly additional cost to milk as high as eight and ten cows at one time.

Comfortable Beds for Pigs.

While it is very important that a pig should have good feed in order to thrive, it is quite as important that it have a good dry and clean nest, especially when the weather is cool and wet. A calf, a colt, a lamb or a pig will not thrive if it is compelled to sleep on a wet filthy bed. In wet muddy weather these beds have to be changed quite frequently, but it means more money in the pocket to do so. The little animals seem to know it is for their comfort, for they will always jump, kick and play when fresh litter is added. Whatever gives comfort gives thrift, and thrift brings profit, which we are all after.

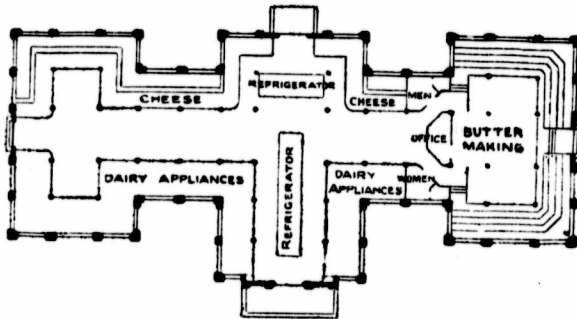
Professor of Animal Husbandry

Prof. C. S. Plumb, Director of the Indiana Agricultural Experiment Station and Professor of Animal Husbandry in Purdue University, has been elected Professor of Animal Husbandry in the Ohio State University. We have frequently published items from Prof. Plumb's pen and feel sure Ohio will gain much by his appointment.

Destroying Wild Mustard

The work that Prof. Doherty, of the Ontario Agricultural College, has been doing during the past three years in stamping out the wild mustard pest is meeting with marked success. His plan of spraying with a solution of blue stone, (copper sulphate) did not originate with him but in France. To Prof. Doherty, however, must be given the credit of successfully introducing this method into Canada. He has applied the treatment in different sections of the province, and without exception, when the weed was taken at the proper stage, it has been practically eradicated.

Wild mustard is all too plentiful in many parts of the country and farmers troubled with this weed pest should put themselves in communication with Prof. Doherty. If it is too late to apply the spraying solution this year, full information should be obtained so as to secure its application next season at the proper time.



Plan of New Dairy Building, Toronto Fair.

Two New Buildings this Year.

Though it is to be regretted that the new Manufacturers' Building will not be ready for the Industrial Fair in September, it is gratifying to know that the new dairy building and art gallery will be completed in ample time to accommodate exhibitors in these departments. Provision is being made to repair the former manufacturers', music and carriage buildings, so that with the addition of these two new buildings there will be ample accommodation for all ex-

hibits, and we are assured that the Toronto Industrial Fair of 1902 will be not only larger but better than any of its predecessors.

The Exhibition Association has recently sent a circular to prospective exhibitors in regard to the non-completion of the Manufacturers' Building. From this we learn that the Exhibition Association is in no way to blame for this delay as the maintenance of the present buildings and the erection of new ones has been assumed by the city of Toronto.

Breeders' Notes

By Stockman

THE ROYAL FARMS

King Edward VII. has been a good patron of stock breeding and agriculture generally—while Prince of Wales, he at Sandringham, established a record for advanced stock breeding, setting an example to the landed nobility of Britain which has been extensively followed. As early as 1866 he had both Booth and Bates Shorthorns, then followed Shire horses, Hackneys, and, later, thoroughbreds, and still later have been added Jersey cattle, Irish Dexter-Kerry and Scotch West Highlanders. The Sandringham Shorthorns have not attained the celebrity enjoyed by the Windsor herd of the late Queen Victoria, but have always contained very good animals. The Shires have taken a good place, and with the thoroughbreds he twice won the Derby with Persimmon in 1896 and with Diamond Jubilee in 1900, both sons of St. Simon. His flock of Southdowns have made probably as good a record as any of the stock bred at Sandringham. Sandringham is in the County of Norfolk, and borders the sea. It has been added to of recent years and now includes about 11,000 acres. On the death of Queen Victoria, King Edward VII. succeeded to the Windsor farms. These have long been celebrated. The Prince Consort, his father, made many improvements over the old style, which George III. had followed, when he had 180 working oxen and not a horse kept on the farms. There are several farms at Windsor.

The Home farm is known as the Royal Dairy, and here are kept the milking Shorthorns, Red Polls and Jerseys. About half a mile distant is the Shaw Farm, where Mr. Tait long resided, the Scotch manager of the farms. Here are the Scotch Shorthorns. This was the early home of the champion heifer, "Cicely," so well known in Canada. The horses here are Clydesdales, and some good ones are bred. Bentinck, 10505. A mile along the Queen's Drive is found the Flemish farm, on which are kept the red Devons and white-faced Herefords. Away up in the north at Abergeldie Maieris is kept a lord of the black polled Aberdeen-Angus. The farm here is a high lying one of 170 acres and the success of the blackies has been well won at Smithfield Club Show, where three firsts and two champions have upheld the Royal honors. May the present King be long spared to win more prizes and honors in his stock breeding.

LIVE STOCK IN THE COLONIES.

The London, England, Live Stock Journal gives a partial list of the live stock in British Colonies and dependencies. For Canada it says, the figures are not complete, those for Quebec and the Northwest and, curiously enough, Manitoba and P.E. Island are grouped together. Nothing is said about British Columbia, Nova Scotia or New Brunswick. The enormous numbers of cattle for India include buffaloes, which are there used in

many parts as dairy animals. In this list should also be included for India, mules and asses, 1,239,500; goats, 19,483,667; camels, 416,223. Natal returns: 2,796 mules and asses, 406,429 goats and 1,326 ostriches.

	Horses.	Cattle.	Sheep.	Pigs.
Australasia	1,863,837	8,117,626	90,535,237	1,309,874
Ontario	621,885	2,507,620	1,761,790	1,491,885
Manitoba and P. E. I.	142,080	983,168	22,960	94,060
Natal and Cape Col'y	412,323	1,428,651	13,226,482	287,0490
Brit. India	1,313,800	87,538,980	17,943,740	

BRITAIN'S MEAT SUPPLY.

The British markets for meat products have shown remarkable growth in recent years. As recent a year as 1893 showed but 27 pounds per head of dead meat imported — this includes beef, mutton and bacon of all kinds. The same articles were close on 50 lbs. per head for 1901. During the latter year there came from the colonies of these products 163,000 tons, and from foreign sources 745,000 tons. Of this quantity the United States sent 524,000, Argentina 108,000, Denmark 63,000 and Holland 50,000 tons. Of the quantity sent from the colonies New Zealand supplied 87,000, Australia 46,000 and Canada 30,000 tons.

United States Crops

The condition of the crops in the United States on July 1st as published by the Department of Agriculture, at Washington, shows them as a rule to be in a very fair condition. The acreage of corn shows an increase of 3.9 per cent. over last year. The average condition of corn on July 1st was 87.5 as compared with 81.3 on July 1st, 1901, and a ten years' average of 89.2. Winter wheat stood at 77 or 11.3 points below that at the corresponding date of 1901 and 2.4 points below the ten years' average. Spring wheat stood at 92.4 as compared with 95.6 on July 1st, 1901, and a ten-year average of 85.8. It is estimated that about 7 per cent. of last year's crop remains still in farmers' hands.

The average condition of the oat crop on July 1st was 92.1 as compared with 90.5 last year and a ten-year average of 87.3. Barley was 93.7 as against 91.3 on July 1st, 1901, and a ten-year average of 87.1. The reports of the hay crop are favorable, there being considerable improvement in the condition of the crop during June. While there has been a general decline in the condition of apples and peaches during the month reports from nearly every important fruit state indicate that more than an average crop of each of them will be harvested. The grape crop will likely be large.

"The men admit that she isn't exactly pretty, but they say her face grows on one."

"Does it? Well, I shouldn't like it to grow on me."

Tillage to Conserve Moisture

By B. J. Waters, Middlesex County

During the last few years, crops have suffered so much, during the growing season, from a lack of moisture, that the conservation of that already in the soil has become a necessity. Unlike our forefathers we cannot depend upon the summer showers for the production of our crops and therefore must obtain the required moisture from some other source. This source we find in our subsoil. The subsoil acts as a vast reservoir from which plants may draw the water they require.

Water exists in the soil in three forms, viz: free water, capillary water and hygroscopic water. Free water is that which flows under the influence of gravity. This water while in the surface soil is very injurious to plant growth because while there it keeps the soil cold and excludes the air. A soil which is not naturally drained should have underdrains to carry away this water. Free water, however, when it exists below the feeding ground of plants, becomes very important as a reserve supply to be used by plants as capillary water. Capillary water is that which immediately surrounds the soil grains and is held there by attraction. If a tube with a perforated bottom is filled with dry soil and set upright in an inch of water it will soon be found that the soil has become saturated with water, the dry particles of soil having attracted the moisture from the more moist until all have become wet. The same action takes place in the soil. Plants use up the water in the surface soil and hence this soil becomes dry and attracts the moisture from the damp subsoil. Prof. King in his book on "The Soil" states that an acre of meadow grass will take out of the soil, in twenty-four hours, in a dry time, 21,200 gallons of water. This shows what a vast quantity of water the subsoil must contain and also how important it is that we allow as little of this as possible to escape except through the plants. The third form in which water exists in the soil is of no direct use to plants. By hygroscopic water we mean the quantity of water that a soil is capable of absorbing from the air after the soil is thoroughly dried at the temperature of boiling water.

From the above it will be seen that plants derive the greater part of their water from the subsoil. This being true, we should endeavor, by tillage, to reduce to a minimum the quantity of water that escapes by evaporation. One of the first essentials is early cultivation to form a soil mulch. The surface of the soil should be stirred as early in the spring as it is possible to work it. This stirred soil dries and being disconnected, to some extent, from the other soil, acts as a sheet to prevent the water rising to the direct surface where it will be evaporated and thus wasted.

In reference to surface tillage, to conserve moisture, let us consider the inter-tillage of the so-called hoed crops. The soil, in this section, is a very stiff clay and we find that unless it is cultivated just at the right time it will become so hard that it cannot be worked. We always endeavor to give it a thorough tilling just before sowing the corn and roots. When the corn and mangel plants are nicely through the surface we go over them with the harrow and find that, without seriously injuring the plants, the crust which will be formed can be broken and the weeds also given a serious check. After this the mulch is maintained by means of a sculler.

Keep the capillary action between the immediate surface soil and the sub-surface soil destroyed and you have the ideal condition. To do this it is necessary to stir the soil once every week and as soon as possible after all heavy rains. The depth of the mulch depends upon the kind of crop. Corn, when young, may be cultivated three inches deep, but when it becomes larger the roots feed very near the surface and therefore the mulch must, at this time, be made very shallow. A wheel can easily be placed behind the sculler to keep it from going too deep. For potatoes the mulch may be kept quite deep.

The time and manner of plowing has a great influence upon the amount of moisture retained by a soil. The fall is undoubtedly the proper time to plow. This allows the water from the melting snows a free access to the soil. Sand plowed in the spring will dry out to the depth at which it is plowed. It is a case of forming a mulch out of this inverted soil. The capillary action between it and the lower soil will be destroyed and it will take some time for it to re-establish itself again. Where spring plowing is unavoidable the soil, after being plowed, should be rolled at once to make the connection between this soil and the lower soil as close as possible. The depth to plow is influenced by the character of the soil. In order that capillarity may proceed to the best advantage in a sandy soil the sub-soil must be kept compacted and therefore the plowing must be shallow. A clay soil, however, must be worked deep as it is liable to become so close in texture that capillarity is interfered with. This does not necessarily mean that it has to be plowed deep, the depth to plow depending upon the depth of humus or dark, rich soil. The soil below that reached by the plow should be stirred with a sub-soil plow or with a grubber.

Rural Free Delivery and the Farmer.

Of all the institutions that promote the progress of the United

States, there is no other, to my mind, that compares in importance with free rural mail delivery. Although it is scarcely five years since the system was adopted, it has already revolutionized social, business and economic conditions in territory covering more than one hundred thousand square miles. Its popularity is increasing at a rate exceeding that attending any improvement heretofore attempted in the post-office service, and it means more in the way of personal happiness and public advancement than anything else of which I know.

The importance of this new branch of the postal service is best indicated by the rate at which it has grown. We began, in 1896, with an appropriation of forty thousand dollars. For three years previous to that, congress had made each year, an appropriation; but, with declining revenues and increasing deficits, the post-office department had been loath to take any step that might involve additional burdens. As the matter of establishing rural routes had been left to the discretion of the postmaster-general, the appropriations were unused. In 1896, congress, in making the appropriation, embodied a mandatory clause; and, with much misgiving, Postmaster-general William L. Wilson, in October, 1896, established the first route, which was out of Charleston, West Virginia. On the first of July, 1897, only forty-three routes were in operation. To-day there are more than six thousand routes, serving six hundred thousand farmhouses, in which live more than four million people. It requires some experience of life in the country, under old conditions, to realize what it means to these people to be suddenly brought from an isolated position into daily touch with the outer world, the news and events of which had only sifted to them at haphazard. The territory covered by the rural routes is equal to about one hundred and twenty thousand square miles, equaling in area the New England States, New York, and New Jersey. Eventually they will cover one million square miles or more. The appropriation for the maintenance of the service advanced from \$40,000, in 1897, to \$50,000, in 1898; \$150,000, in 1899; \$450,000 in 1900; \$1,750,000, in 1901. For the fiscal year ending June, 1902, we have an appropriation of \$3,500,000. Of this sum, three million dollars will be required to maintain the more than six thousand routes, the cost of each being five hundred dollars. Nearly five hundred thousand dollars will be used in the expense of administration. For the year 1903, the department has requested an appropriation of \$6,250,000, and there is not the slightest doubt that it will get it, for members of congress are agreed that no other single item in our annual expenditure brings anything like a proportionate return to the people.—A. W. Machen, in July "Success."

The Sugar Beet World

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

Edited by JAMES FOWLER

Beet Sugar Alcohol

Considerable interest has been worked up by the sale in Cincinnati of alcohol manufactured by the Michigan Chemical Company, of Bay City, from the residue left from the manufacture of beet sugar.

There is a difference of opinion as to whether this alcohol can be substituted for grain alcohol in the whiskey business, but there have been some considerable sales of the product of the Michigan plant to whiskey concerns in Cincinnati. It is claimed by the manufacturers that the alcohol they make is just as good as grain alcohol for drinking purposes and that there is nothing injurious or distasteful in it. On the other hand grain spirits manufacturers say that the beet sugar alcohol contains salts and that as soon as the alcohol that has been sold reaches the consumer in the shape of finished whiskey he will not take to it kindly and the goods will be unsalable to whiskey men. It is argued by some people that the success of the plant at Bay City would be greatly increased if it were possible to have alcohol made there sold free of duty the same as wood alcohol on the ground that it is unfit for taking into the stomach, and therefore can be used only in arts and manufactures. The cost of production of alcohol from beet sugar residue is much less than that of grain alcohol. In the first place the residue that is left after all the sugar has been crystallized out of the beets that will crystallize has heretofore been thrown away, and it has been a problem as to how to dispose of it. Now, however, it is utilized for the purpose of making alcohol, and the final residue left after this process is burnt and the ashes become potash, which is a valuable production for many commercial uses. It is figured out that the cost to manufacture alcohol by these various processes is almost nothing, since the final residue which has to be burnt in order to produce potash feeds the fire that is necessary to make the alcohol. Therefore the residue left from the sugar process furnishes the fuel for making alcohol and also becomes potash in the same operation.—Enquirer.

that of the preceding year, the aggregate increase for the entire country amounting to 121,588 acres.

The most notable increase in area in four States, which are credited with about 88 per cent. of the aggregate area of the country, viz, Michigan, California, Colorado, and Utah. Michigan with an area in the present year of 98,000 acres, shows an increase over the area of the preceding year of upwards of 70 per cent., and for the first time in the history of the industry takes rank as the leading State in the area devoted to this product. California, which has heretofore been the foremost State in respect of sugar-beet area, is this year in second place, with an acreage of 71,234 acres, the largest area, however, ever sown in the State, and one showing an increase of about 10 per cent. over that of the previous year. Third in importance in this industry is Colorado, with an area of 39,449 acres in 1902, against 23,700 in the preceding year, an increase of 66 per cent. In Utah the 1902 area is 18,600 acres, against 12,500 acres in 1900, showing an increase of 49 per cent. The other States of smaller production which show increases in area are Washington, Oregon, Nebraska, and Ohio. Wisconsin and New York are credited with the same area as last year. The only State which shows a decrease is Minnesota. The following statement as published by Messrs. Willett and Gray, gives the area sown to sugar beets in 1902 by States, with comparable figures for the two preceding years:

States.	Acreage sown to sugar beets.		
	1902	1901.	1900.
	Acres	Acres	Acres.
California ...	71,234	64,300	42,300
Washington ...	2,300	1,700	1,400
Oregon ...	3,100	2,700	2,400
Utah ...	18,600	12,500	11,200
Colorado ...	39,449	23,700	10,800
Nebraska ...	9,960	9,825	9,000
Minnesota ...	4,500	5,000	3,000
Wisconsin ...	3,400	3,400
Ohio ...	2,450	2,100	2,700
New York ...	6,500	6,500	6,500
Michigan ...	98,000	57,400	39,000
Illinois	2,000	3,700
Indiana	3,600

Sugar Beet Acreage in the United States

The area sown to sugar beets in the United States in 1902, as estimated by Messrs. Willett and Gray, New York, is 259,513 acres, against 137,925 acres sown in 1901 and 132,000 acres in 1900. Out of the eleven States enumerated as participating in this industry in 1902, eight show an increase, and one only a decrease, in area over

Pressing or Not Pressing Beets

This question of pressing or not pressing has been very exhaustingly examined by several German authorities, and we give their analysis of the residuum before and after pressing:

	Not Pressed	Pressed
Water	94.0	89.8
Ash	0.4	0.6
Raw protein	0.5	0.9
Fibre	1.4	2.4

Nitrogen free extract.	3.6	6.1
Fatty substances	0.1	0.2
There is Digestible		
Albuminoids and am.	0.3	0.6
Nitrogen free extract.	3.0	5.1
Fibre	1.2	2.0
Fatty substances	0.1	0.2

A glance at these analyses shows that there is every advantage in having the product thoroughly pressed, and factories are certainly doing the tiller a great injustice by not running the residuum through one of the well known presses. Some years since it was declared that the water from the presses contained certain nutritive elements. Stammer was the first to demonstrate that such was not the case, the loss of nitric elements was only 0.03 to 0.04 per cent. of the weight of the cosettes, furthermore 100 parts of the dry matter of the cosettes before pressing contained 7.4 per cent. albumin, and for the pressed residuum it was 6.56 per cent. Another authority discussing the question of the feeding value or the residuum cosettes declares that the product when fresh contains more albumin than the siloed, the difference being 1.70 which is lost in the siloes. The fresh cosette contains a very little acid while after several months' keeping five parts of the dry substance are changed into acids, which have less nutritive value than carbohydrates. It is interesting to note certain experiments made to determine the digestibility of beet cosettes. Some authorities after a series of experiments declare that the residuum is not as easily digested as many suppose. With sheep there was only 45 p.c. of the nitric substance digested. On the other hand 84 per cent. of the nitrogen free extract was digested, and other more important experiments show that 76 p.c. of the nitrogenous substances is digested. These two figures are given mainly to show how at variance are the leading authorities. Cattle in general can eat large quantities of residuum cosettes, but it is desirable to put certain restrictions on the quantity given, as the heavy percentage of water would bring about intestinal complications. When feeding cattle with cosettes it is desirable to commence with about 30 lbs. of the residuum per 1,000 lbs. live weight. During this period salt is allowed ad libitum, as its action is found to be most beneficial. The allowance of the residuum for milk cows varies very considerably in the countries visited by the writer. Some farmers declare that 70 lbs. per diem is an outside limit, and if exceeded the milk will not contain more than 2.2 per cent. of fatty substances. As the cosettes contain very little lime the milk has not the desired

keeping qualities (?) Such views have never been satisfactorily proven to be correct. Evidently it is a mistake to feed the product after it has undergone the slightest organic change in the form of decomposition. It may happen that the cossettes are not as fresh as they should be, when certain micro-organisms are formed which bring about certain complications in the manufacture of butter and cheese. Cows during their calving should be very sparingly fed with the cossettes under consideration. Oxen may receive 100 lbs. per diem with great beneficial effect. Sheep may receive 20 lbs. of the residuum for 100 lbs. live weight (?) Frozen cossettes should not be fed in that condition, they should be thawed with steam or hot water; some authorities declare that the freezing diminishes the digestibility of the product.

With the view to determining just within what limits the residuum may be compared with forage beets when fed to milch cows, a series of experiments has been made. The result was that cows fed on forage beets gave 1,137 quarts of milk with 79 lbs. fat, while the residuum fed cows gave 1,105 quarts with 75 lbs. fat. The difference is so slight that they may be considered identical. The forage beet ration consists of 72 lbs. beets 8 lbs. clover, 6 lbs. chopped straw and 5 lbs. oil cake for 1,000 lbs. live weight, while 80 lbs. residuum cossettes were combined with 8 lbs. clover, 9 lbs. chopped straw and 4 lbs. oil cake per 1,000 lbs. live weight. Experiments in Germany demonstrate that the cossette feeding is the most economical.—Sugar Beet.

Lincoln's Hay Crop

A story about Abraham Lincoln would have to be older than the one below to lose its characteristic savor.

In the summer of 1857 Mr. Lincoln was sitting in his office, when he was visited by one of his neighbors, an excellent farmer, but one inclined to increase the size of his crops even after harvesting. He had given, on this particular morning, a skilfully padded account of the hay he had put in.

"I've been cutting hay, too," remarked Mr. Lincoln.

"Why, Abe, are you farming?"

"Yes."

"What you raise?"

"Just hay."

"Good crop this year?"

"Excellent."

"How many tons?"

"Well I don't know just how many tons, Simpson, but my men stacked all they could outdoors, and then stored the rest in the barn."

Patient—I have a terrible cold, doctor.

Doctor—Yes, so I see. You'd better take a hot bath, and under no circumstances get your feet wet.—Ex.

A Missouri editor is responsible for the assertion that at a recent church entertainment in his town the master of ceremonies made the announcement that "Miss Bates will sing 'Oh! That I had an Angel's Wings That I Might Rise and Fly,' accompanied by the minister."—Chicago Chronicle.

The old lady with the tract was curious.

"And when you drink too much do you really see snakes?" she asked.

"No, mum," responded, Sandy Pikes, "I generally see country constables, bull-dogs and woodpiles."—Chicago News.

"After you have taken this medicine," said the physician, "give yourself a hot water bath and go to bed at once."

"Gosh, doc!" exclaimed the shaggy-haired patient. "Can't you make it a mustard plaster or somethin' like that? I always kitch cold when I take a bath."

Copper and Brass Work

Of every description. Special attention given to plants for Beet Sugar Factories, Glucose, &c. Get our quotations

COULTER & CAMPBELL

155-7 GEORGE STREET, TORONTO, ONT.

The Booth Copper Co., Limited

COPPERSMITHS

Established 1854

COPPER WORK FOR **Sugar Houses
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115-123 Queen Street East, TORONTO, CANADA

The American Construction & Supply Co.

Main Offices:

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Specialties:—BUILDING OF BEET SUGAR FACTORIES;
AND BEET SUGAR FACTORY SUPPLIES.

We have the record of building modern equipped and economical running factories. More than 20 years' experience in this special business. Correspondence solicited.

We are also sole representatives of BUETTNER & MEYER, Urdingen, Germany, manufacturers of the best pulp drier in the world. This drier received the prize of 20,000 marks offered by the "Centralverein für die Rubenzucker-industrie" in Germany.

The Kilby Manufacturing Co.

FOUNDERS AND MACHINISTS

Corner Lake and Kirtland Streets, Cleveland, Ohio New York Office: 220 Broadway.

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

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', 25c.

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 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 buyers resident in Canada, the United States and elsewhere, also to prominent breeders and probable buyers.

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.

Wanted—A man to work on a farm in Manitoba. Must be able to plough well and handle horses. Wages \$90 for three months. Will engage for a year if suitable. Apply, giving references. No. 117. a.

Wanted—A man to work on a dairy farm about a mile and a half from Gravenhurst, one accustomed to general farm work, the care of stock and able to milk. Single man preferred. State age and wages required. No. 118. a.

Wanted—An active young man of good habits to work on a dairy and fruit farm near Burlington for four months. Wages \$18.00 to \$20.00 per month. Permanent engagement if satisfactory. No. 119. a.

Wanted—A handy, intelligent, industrious man as assistant on a fruit and stock farm. Twenty dollars per month, free house, fuel, milk, garden and seeds. School on farm. Churches near. State age, whether married, number of children, experience. Addresses of employers for past 10 years and kind of work done. Give references as to character. Must be teetotaler. An excellent place to right person. No. 116. b.

Domestic Help Wanted

Wanted.—A housekeeper, a thoroughly good woman, middle age preferred, to take charge of the work on a 100 acre farm where dairying is done. Woman will not be expected to do milking. Must be an economical housekeeper, with first-class references and must be willing to work. May come on trial for one or two months, and if satisfactory will be engaged by the year. House very comfortable, heated with hot water and supplied with all modern conveniences. Three men employed all year. No washing to do except for the Manager. Methodist, Presbyterian and English churches within two miles of farm. Neighborhood good. Permanent home to sight party. No. 107. b.

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

Farmers' Institutes.

Under the 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, suggestion time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and 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

Farmers' Institute Meeting.

A LARGE AND ENTHUSIASTIC MEETING
AT THE MORRIS HOMESTEAD.

The annual meeting of West Huron Farmers' Institute was held on Tuesday on the grounds of Harry Morris, Colborne. The president, James Snell, of

Hullett, addressed the meeting and reviewed the year's work at considerable length. Regular meetings had been held at Clinton and Duncannon and supplementary meetings at Wingham, St. Helens, Port Albert and Auburn. Local meetings had also been held at Kintail, Carlow, Porter's Hill, Goderich, Blyth and Londesboro.

The auditors' report showed receipts, \$419.09; expenditures, \$321.75; balance on hand, \$97.34.

The following directors were elected:—

Ashfield—James Hayden, Port Albert; Isaac Andrews, Lucknow; James McGregor, Kintail.

W. Wawanosh—J. Gaunt, St. Helens; George Howatt, Auburn; Wm. Bailie, Duncannon.

E. Wawanosh—A. Currie, Wingham; J. C. Stottz, Auburn; R. C. McGowan, Blyth.

Colborne—H. Morris, Loyal; R. Young, Carlow; W. Kerningham, Benmiller.

Hullett—Jas. Snell, Clinton; W. Jackson, Auburn; John Tiplady, Clinton.

Turnberry—Chas. Homuth, jr., Wingham; Wm. Cruickshank, Bluevale.

Goderich township—J. J. Caldwell, Goderich; Joseph Laitwhaite, Goderich; F. C. Ellord, Holmesville.

Goderich—Wm. Warnock, W. J. Morrow, Colin Campbell.

Clinton—J. E. Blackall, Jos. Wheatley, Oliver Johnston.

Blyth—F. Metcalf, A. E. Bradwin, A. H. Jacobs.

Wingham—W. P. Grierson, Wm. Clegg, Wm. Robertson.

R. McIlwain and Chas. Girvin were elected auditors.

An unanimous vote of thanks to the president and secretary for their efficient services during the past year was passed.

At the directors' meeting the following officers were elected:

President—R. Young, Carlow.
Vice-President—A. Currie, Wingham.

2nd Vice-President—H. Morris.

Sec.-Treas.—F. C. Ellord, Holmesville.

President Rod. Young thanked the directors for his elevation to the chair.

Carlow was selected as the next place of meeting.

The hospitality of Mr. and Mrs. Morris was much appreciated, and after the sumptuous repast on the lawn, games and sports of every kind were indulged in by the large gathering.

R. R. Sallows took a number of views of the situation, one of the pictures taken being of the fine Jersey herd of which Mr. Morris is the owner.

Mr. Hare, of Ottawa, gave a discourse in the orchard on "How to Raise Hens," which was duly appreciated.

The day's doings closed with a hearty vote of thanks from president Rod Young to the host and hostess, which was seconded by retiring president Snell and endorsed by Col. Varcoe and D. Mc Allinday in short speeches. In fact everybody endorsed the vote, and a pleasant and profitable outing was brought to a close.

The Women's Institute.

The Women's Institute of West Huron also met at the same time and place, Mrs. I. Salkeld, jr., presiding.

The secretary, Mrs. Colin Campbell, Goderich, presented the following report:—

"It affords me very great pleasure to submit to you my second annual report of my official acts as secretary-treasurer. Before entering upon the subject matter of this report, I desire in behalf of the members of the West Huron Women's Institute to thank the Department of Agriculture and the Farmers' Institute for your kindly interests and for your financial support, which have made it possible for us to carry on the work of the year.

"I also desire to express my sincere sorrow upon the loss our organization has sustained in the death of our late president, Mrs. H. Ellord, of Holmesville, who died April 27th, 1902. She was a most successful and energetic worker for the organization and her counsel and advice will be greatly missed at this annual meeting.

"Referring to the growth of this association, I think we may congratulate ourselves on the success we have achieved. Twenty-seven members were on the roll at our first meeting a year and a half ago and to-day we have one hundred and twenty. We held during the year thirty-two meetings, namely: Goderich, 9; Goderich Township, 4; Wingham, 6; Holmesville, 4; Kintail 2; Colborne, 2, and one at each of the following places, Clinton, London, Belgrave, St. Helens and Dunganon. The number of addresses given and papers read were 71, which were listened to by 1,676 women, an average attendance of fifty-two. Those who have attended the meetings have received much benefit directly from the information received and indirectly from a social point of view. We have been much benefited by the literature sent out by the Department of Agriculture. The aim of the association for the past year has been to stimulate throughout the district an interest in the subject of domestic science. Domestic science must cover many subjects. It must not be restricted to mean simply foods, hygiene or any other single thing but it must include all that makes for the health, the comfort, the well-being and the surroundings of the inmates of the highest institution upon earth—the home—because it is from this country home that we have come and shall come, our broadest minded men and women."

Officers for the ensuing year were elected as follows: President, Miss Green, Loyal; vice-president, Mrs. H. Morris, Loyal; secretary and treasurer, Mrs. Colin Campbell, Goderich; directors—Goderich, Mrs. Gundry, Mrs. Bichan and Mrs. J. Salkeld Jr., Clinton, and Mrs. I. A. Snell and Mrs. G. Crich; Blyth, Mrs. Metcalf and Mrs. Bradwin; Holmesville, Mrs. Forster and Mrs. G. Tebbutt; Porter's Hill, Miss M. G. McPhail; Wingham, Mrs. J. J. Elliott and Mrs. Ritchie; Kintail, Miss H. Young and Mrs. J. N. McKenzie; Nile, Mrs. Dustow, Mrs. Grummett and Mrs. Hugh Girvin; St. Helens, Miss Marion McPherson; Carlow, Mrs. R. M. Young.

Poultry Raising on the Farm

By G. R. COTTRELL, Milton.

In time past, there were few farmers that would care to do without a few hens, yet many of them had the idea that they were a bill of expense without any profit derived. To-day it is entirely different, almost every farmer is considering the possibilities of the poultry industry. He realizes the undoubted fact what a good foundation the industry has, the almost unlimited market in the Old Country and the increasing demand for a superior quality of poultry flesh at home. The farmer now realizes how he can take one of the by-products of the farm and derive a quick profit from it, by applying the same principles that have made other branches of his business successful.

The important points in poultry-raising are breeding, feeding, housing, fattening and marketing.

Breeding.—People who have had experience with any market, no matter where, or how small a scale, realize the great necessity of having first-class quality in the product offered for sale. Now, were you to ask a successful cattle man if he could take any specimen of an animal and make it of prime quality, he would answer every time, "Give me one with lots of breeding." In nine cases out of ten he will express a preference for a pure-bred animal. It is just as necessary to have breeding in our poultry before we can produce first-class quality as in other animals. Yet it is not necessary that the flock should be fancy bred; not by any means. Any farmer having a flock of mongrels, can at the end of five years by the selection of sires of one distinct breed have a flock of fowls practically as good as any pure-bred birds. The single breed that he selects should be one of the utility breeds, of the American class; to this class belong several varieties, and it is advisable to select a variety that is widely bred in order that the breeding stock can be secured at a moderate price. I have proven the Plymouth Rock and the Wyandotte to be very satisfactory, and I am giving the Rhode Island Red a trial this year. There is very little difference in the Plymouth and the Wyandotte; both present a fine appearance

when dressed, are rapid flesh formers and rank among the best as winter layers.

When it comes time to get eggs for incubation, select twelve to fifteen of the best hens that you have in your flock and mate them with a strong, vigorous male. Many farmers imagine this too much trouble and they think it extra expense, when it is directly the opposite. With the old way, breeding from all the flock, if you buy enough or as many males as there should be with them, it necessitates buying quite a number when half the money would buy one real good male. Then again in every flock there are probably half of the females that are not fully matured, and hens from which you intend to set eggs for incubation should be other than pullets unless they are quite early hatched, if you want strong germed eggs and strong chicks. Avoid having over fat hens in breeding pen.

The old style of raising chickens with the hen is as yet the general system of incubation and for a few eggs is about the best, yet if a large number of chickens are to be raised say 150 or more, then the incubator is the better method. When buying an incubator always buy a reliable make and not less than two hundred egg size. They cost very little more than a smaller one and it takes very little more to run them. Nevertheless, whatever system is used, unless a person has a suitable building, he lessens his profit by trying to hatch too early. It is often better to wait until the weather gets a little warm and then to get out as quickly as possible all the chickens you are going to raise. Never use eggs that are a bad shape or mottled in color, very often they are infertile. Always test your eggs on the seventh day and take away all infertile ones. With an incubator it is necessary to test again on the fourteenth day but with a hen it is not.

The chickens should be left in the machine or the nest about twelve hours, then they can be taken with the hen to a coop that has had something placed in it to destroy vermin, or to a brooder that has been running long enough to remain at 90 deg. Fahr. Place about one inch of moist sand in the bottom.

Feeding.—I would not be in a hurry to feed the chickens and would feed but a small quantity at a time. Stale bread soaked in sweet milk and squeezed dry, or hard boiled eggs cut up fine shell and all, or rolled oatmeal crumbled right on the sand is splendid feed for starting young chicks. In a few days a little millet or small wheat may be given. Give plenty of fresh water for them to drink and be sure the vessel is arranged so that the chickens cannot get into it. In about two weeks the feed can be changed gradually to corn meal and fine ground oats mixed with milk, which may be given twice a day, and wheat or cracked corn at night. A little ground meat is good

once in a while. Do not feed them any more at a time than they will eat up clean, and at the end of 3½ or 4 months, they should weigh 3½ or 4 pounds, they are then ready to fatten for market.

Crate-Fattening.—The final fattening of chickens for market should be done in crates 6½ feet long, 16 inches wide and 20 inches high, divided into three compartments with slats running lengthwise on the three sides, bottom back and top, and up and down in the front. The crate should be put up about three feet from the ground. Twelve chicks are placed in every coop or crate and they are fed in a trough that runs along the outside of the crate in front.

Chickens fed in this way have a great deal better quality of flesh and bring a higher price besides being a great deal less trouble to the farmer. They remain in the crates for three weeks, and are out of the way of younger chickens. If every farmer would fatten his poultry in this way, with the proper breed to begin with, there would be none of the scrubs that we to-day see on the market, and the demand for home consumption would be greatly increased. The feed consists simply of a mixture of the grains that are grown on the farm. The old country market demands a white flesh and the home market a yellow flesh. As we can influence the color of the flesh greatly by the feed given and as we must suit the market, we must in the first place know to what market the chickens are to be sent. With the large commission men we have to-day, every farmer is in a good position to get a good figure for white flesh sent to the old country, or he can make the yellow flesh for this market. As corn meal has the greatest influence for yellow flesh it should be the principal feed, yet it cannot be fed alone. It can be mixed with oat meal, barley meal, or buckwheat meal, but when you want the flesh white, corn meal must not be fed. Oat meal can be fed alone or it can be mixed with barley meal or buckwheat meal. The meals should be mixed quite soft and fed in the troughs as regularly as possible. Care should be taken not to feed more at a time than they will eat up clean.

If the chickens are troubled with vermin, dust them with sulphur about twice during the fattening period. Starve the chickens thirty-six hours before killing and pluck dry. As a general thing farmers ship their poultry in baskets, but baskets do not hold the shape of the chicken. By getting some ¾ inch lumber eight inches wide, and making some boxes 18" x 18" x 18", they will hold exactly twelve chickens and will hold them in good shape. Boxes do not cost as much as baskets, and the express companies will return them just the same.

The question of egg production in winter is a large one with the poultry farmer. Farmers say they can get the hens to lay in the summer

time but not in winter. To overcome this difficulty we must come as near summer conditions as possible and keep the chickens active. Have about six inches of litter on the henhouse floor, and keep the fowls hungry all day giving them all they want at night. Give roots in the morning (not pulped), meat, if possible at noon, mash (2 pints of bran and 1 pint oatmeal) with clover leaves about 2 o'clock and corn or wheat in litter at night, plenty of fresh water to drink and some form of grit. One hundred pounds of mica crystal grit will do an ordinary flock for a year.

Housing of Poultry.—There is a little difference between a farmer's hen house and a fancier's. A fancier likes to have a passage in a hen house, etc. A passage no doubt is a fine thing, but it is just an extra partition and a little more harbor for vermin. The ordinary farmer of to-day wants everything arranged so that the work can be done the easiest and quickest way possible, as cleanliness is essential to success. He wants no equipment more than is necessary, and that arranged so that it can be lifted out and cleaned. Under the roost there should be drop boards and the roosts placed about eight or ten inches above them. Always have the roosts the same height, as it seems to be characteristic of the hen to fly to the top of the roost. If roosts are not level the chickens always crowd on the top one and overcrowding on the roost should be avoided, because they are apt to sweat and when they come off in the morning are liable to chill.

Have plenty of nests of a good size and always keep plenty of straw in them so that the hen may be partly concealed when laying. I prefer a clay floor, well up above the level of the ground outside so that it will be dry. Keep the building clean. Whitewash it and spray it with carbolic acid and water. Always keep the odor of the acid there, when it is gone it is time for some more.

It is not necessary that the building should be fancy or very warm. I get better results in winter production with the building a little on the cold side than too warm. If it is too cold arrange a roosting place to keep the chickens warm at night. Keep them at work in the day time to keep them warm.

In conclusion let us bear in mind the principal points. Keep down all vermin. Feed the hens the year around. Buy a good strong well bred male bird. Never breed in. Always breed from good well matured stock, not too fat. Never keep hens too old. Do not be in too big a hurry to feed young chicks. Do not think of raising any more than you intend to feed and feed well. Get them on the market as early as possible. Fatten them properly. Pluck dry, never scald. All these things add to quality. Quality, which should be our principal object, is necessary to increase and hold any market both at home and in the Old Country.

The Care of Milk for Cheese-making.

Mr. Geo. H. Barr, in charge of the Ontario Department of Agriculture's Cheese Factory Syndicate in Lambton County, gives the following advice to patrons in regard to care of milk:

"Cows should not be allowed to drink impure water, from dirty watering troughs, stagnant pools or ponds, or soakage from barnyards. They should not receive any rye, rape or turnips—these things cause tainted or gassy milk, which is the cause of a very great loss in the manufacture of milk into cheese, and, hence, a loss to the patron. Sour, or over-ripe milk is caused by leaving or keeping it at too high a temperature. Milk for cheese making should never be left at a temperature above 70 deg. Evening's milk should be cooled to about 65 degrees. If the milk is to be kept from Saturday till Monday, it should be cooled to 60 degrees Saturday night, and kept as near that temperature as possible, without any stirring on Sunday. The cow's udder and flank must be clean before commencing to milk; wipe them with a damp cloth, and milk with dry hands into clean, bright tin pails. Wooden or galvanized pails should never be used for milk. Strain the milk as soon as it is drawn from the cow, through either two thicknesses of cheese cloth, or a very fine wire strainer, or both, putting the cloth over the wire. Cool the milk by putting the cans or pails into cold water. Stirring it with a clean, long-handled dipper will allow the animal odor to pass off, and aid in cooling the milk more rapidly.

"Very few patrons realize the great loss they sustain by sending over-ripe, tainted and gassy milk to the cheese factory. This kind of milk will take from one to three pounds more to make a pound of cheese than sweet, good-flavored milk.

If, at a factory which receives 10,000 lbs. of milk per day, the maker takes in 3 or 4 cans of sour, tainted or gassy milk at the very lowest estimate, it will take one pound more milk to make a pound of cheese, than if all the milk had been sweet, clean and well flavored. Suppose cheese to be worth 10 cents per pound, the loss to the patron in this case will be \$8. If this is continued every day for 26 days or a month the loss is \$208.

"We are quite safe in making the statement that this loss is sustained in every cheese factory in Ontario during the summer months, June, July and August. The patrons are losing the money and they can blame no one but themselves, but there is no reason why they should continue to lose. If they take proper care of the milk at the farm, and deliver it in good condition at the factory, this very serious loss can be stopped in a day and the patrons will have more money, the cheese maker less trouble and our Canadian cheese will merit the reputation they should have, 'the finest in the world.'"

The Farm Home

All Hail the Microbe!

Go draw the curtains, sister, and
 stop up all the chinks,
 For microbes and bacilli are kick-
 ing up high jinks;
 Go sterilize the water and disin-
 fect the cook—
 The germ is grimly stalking like
 some pursuing spook!
 And while you're doing these
 things,
 You'd better do 'em twice—
 And when you've got 'em finished,
 Go down and boil the ice!

Be careful of the mutton (oh!
 guard ye well the meat!)
 It's full of varied microbes we
 would not care to eat!
 And trace the antecedents of that
 seductive stew—
 We know not how much danger
 lurks in the brew!
 Go, vaccinate the oatmeal
 And sulphurize the rice—
 And once again, dear sister,
 Don't fail to boil the ice!
 —Baltimore News.

The Romance of Hans Peter- son.

BY F. A. KORSMEYER.

Hulda was having a hard time of it. In her heart of hearts she could not quite decide which one she loved best. Hans, she had to confess, had some advantages which weighed with her. Mr. Barton, the man who owned the place across the street, was particular about his furnace man, and she knew he liked Hans. Besides, Hans could speak Swedish, and she couldn't deny that it was pleasant to talk with him in the accents of the dear old home she had left so far behind.

But whenever his plain, open countenance, with the blue eyes twinkling below the yellow hair, was pictured in her mind she blamed him for being a little too ordinary. She could see a dozen such any Sunday in the little Swedish church. Now, with a man who wore a long blue coat with a five-pointed star on the front of it and carried a mahogany club it was different. No one who looked at him could fail to see that he, being a part of the Government, was superior to the common run of men.

James had told her that he was "the right arm of the law," and she had looked her admiration. She had known him almost as long as she had known Hans and he was so good to her. On Sundays in the park he would get her a seat close up to the band stand. Then when the concert was over he would buy some peanuts, and together they would stroll through the part of the park that had signs to keep off the grass stuck up all over it. Of course, he would go anywhere.

James knew that Hans was his rival, for one Saturday night he

had come to see Hulda and had found Hans there. Hulda had said: "Hans, this is Mr. Daniels."

And Hans had said, "I am vaar glad to see you," while James had mumbled, "How d'ye do?" and then sat scrawling at the sink all the rest of the evening.

After that James never came on a Saturday. He asked to be shifted to another platoon, so that he could do his calling on Monday or Tuesday nights. Hans did not change his night, and so they never met at Hulda's home again. Indeed James took so little pains to cultivate Hans' acquaintance that he never even learned what his rival did for a living. And this disdainful indifference proved costly in the end.

How Hulda would have learned to know her heart had not Hank O'Day, the iceman, set in motion a fateful train of circumstances one cannot even guess. Hank did not know Hulda. He does not know her to this day. And yet it was none other than Hank who, all unknowing, unmasked her heart's desire.

Hank O'Day drove to his ice wagon a pair of high-spirited horses. One morning when his wagon was empty his aesthetic instincts led him to lay his route back to the iceyards along the street that skirted the park.

Just as the chariot of fate was nearing Hulda's home the chain at the back of the wagon slipped and let the end gate drag upon the ground. Hank swore softly, stopped his team and jumped to the pavement to fasten the chain. He jerked it quickly through the iron rings and then—swore again as the team, alarmed by the sudden noise, galloped madly down the avenue and made straight for the nearest entrance to the park.

The horrified Hank stood still long enough to see the end gate banging out defiance. Then he started after as fast as his rubber boots would let him run.

When Officer James Daniels turned from his faithful guardianship of a bevy of simpering nurse-girls in the park, he saw coming toward him at full speed a pair of wild-eyed horses and an ice wagon swaying from side to side. Behind the seat of the wagon stood a man trying desperately to get hold of the reins.

In an instant James recognized the waving yellow hair and pale features as those of Hans Peterson, and in the same moment, like an inspiration, there came to him the realization of his opportunity. He ran out into the roadway and as the flying wagon passed caught the chain of the end gate and swung himself into the box.

As he gained his feet the wagon

Lever's Y-Z (Wise Head) Disinfectant Soap
 Powder dusted in the bath softens the water at the same time that it disinfects. 16

slowed suddenly and he lurched forward to bring up against the back of the sturdy Swede. Seizing him firmly by the collar Officer Daniels gasped:

"I arrest you—in the name—of the law!"

Hans did not quite understand, but the hand on his collar in the moment of his success made him angry.

"Whad yo' say? Led me go!"
 "I say 'you are under arrest.'" James was getting his breath again. "This is against the law, you know."

"Whad is agains' da law?"
 "Driving traffic teams in the park. Come, you'll have to go with me to the station."

The officer tried to pull Hans out of the wagon, but the latter still held the reins and refused to go. In his broken English he explained, he expostulated, he all but exploded. Another officer was approaching.

"Come on now; drop those lines. This other officer will take care of your team."

Hans dropped the reins and appealed to the other policeman. But the newcomer was indifferent. If Hans had been arrested, why, of course, he would have to go to the station.

The magistrate was busy when they arrived, and it was upon the officer's recommendation that Hans was allowed to go until afternoon, when he would have his hearing. To have Hans released was the scheme James had evolved, Hans would have to explain where he wanted to go when he left the horse in the afternoon. Thus, his employer would learn all and Hans, at least disgraced, might possibly lose his place. Would she of the flaxen hair and the wide, admiring eyes hesitate any longer? James smiled as he strolled back on post.

In the afternoon Officer Daniels, Hans Peterson, Hank O'Day and Mr. Barton, the man Hans worked for, came into court. The officer told the circumstances of the arrest and dwelt at length upon the plain case of violation of the city ordinances. Then Hank O'Day explained who he was and how his horses had become frightened. Hans took the stand and said he "yust yimp in da wagon to stop id," and finally Mr. Barton informed the court that Hans worked for him and had never driven an ice wagon in his life.

The judge turned to James again, and when the officer had nothing to say began to talk himself. He talked for quite a while, and most of the time he addressed his remarks to Officer Daniels.

When the butler had read to Hulda from that evening's paper the account of the runaway and the trial, what the judge had said to James and what he had said about Hans, she went out into the kitchen and sighed and thought. That night Hans came and talked long and

earnestly, and as he talked the fading glimmer of that five-pointed star went out and naught remained for her but the light in Hans Peterson's blue eyes.

Midsummer Delicacies

Lemon Jelly.—Soak one-fourth box, or one tablespoon of gelatine in cold water. Pour over it, stirring meanwhile, enough boiling water to actually dissolve it, and no more; add about one-half cup of sugar, one-fourth cup of lemon juice, a speck of salt, and enough ice-water to make a pint in all. Strain and cool.

Creams.—Make a soft custard with one pint of milk, the yolks of three eggs, and one-fourth cup of sugar. Or one cup of custard and one cup of scalded cream may be combined. When taken from the fire dissolve in it one-fourth box of gelatine, softened in cold water. Strain, flavor, and cool. This may be served with whipped cream, or fruit or chocolate sauce.

Sponges.—Either a cream or fruit jelly, or both together, can be blended with either whipped cream and stiff egg whites, or both. The important point is not to attempt the blending until the jelly or cream is half thickened, in a sort of "cold molasses" condition. Then the sponge will be of uniform texture throughout, otherwise the jelly will separate from the froth and settle, while the froth stays on top, and, therefore, is at the bottom when the dessert is turned out of the mould.

Coffee Cream.—With an egg whip beat one cup of heavy cream until it begins to thicken, then gradually beat in a spoonful at a time of slightly thickened coffee jelly, using one pint in all.

Snow Pudding.—This consists of a lemon or orange jelly with which the whites of eggs are beaten, while the yolks are made into a soft custard to serve as sauce.

Fruit Sponge.—Make a soft custard with one pint of milk and the yolks of three eggs. Take from the fire and add one-half box of gelatine soaked in one-half cup of cold water, one-half cup of sugar, and a speck of salt. Strain and cool, stirring occasionally. When it begins to thicken beat thoroughly, and add one-half pint sifted fruit pulp and the stiffly-beaten whites of the eggs.

Or dissolve the gelatine in the hot fruit pulp, and when cold fold in one pint of cream, whipped. Pack in moulds and serve cold. Whipped cream may be added as a garnish.—American Kitchen Magazine.

Perhaps if our cooks were more able,

Our caterer skilful and kind,
We might give too much thought
to the table

And too little to joys of the
mind.

Yet 'twere useless to venture denial
That most men would gladly exchange

A piece of their mind to make trial
Of an abler cook at the range.

Hints by May Manton

WOMAN'S LOUNGING ROBE, 4166.

To be Made With High or Low Neck, Long or Elbow Sleeves.

Pretty and attractive negligees belong in every woman's wardrobe and are economical as well as useful and comfortable, inasmuch as nothing is more extravagant than lounging in a gown designed for other uses. This stylish model is admirable in many ways and is suited to a variety of materials, lawn dimity and the like, challie, albatross veiling and similar light weight wools; but as shown is of pale blue lawn with trimming of white embroidery and blue louisine ribbons.

The robe is simply made with a smooth fitting yoke, that can be cut high or square neck, to which



4176 Lounging Robe,
32 to 40 bust.

the full front and the Watteau-like back are attached. The back is gathered and hangs loose and the under-arm gores curve gracefully to the figure. The front is gathered to the yoke and closes invisibly at the left side. The elbow sleeves are gathered at the lower edges and are finished with graduated frills, but the long sleeves are in bishop style with straight narrow cuffs.

To cut this robe in the medium size 10½ yards of material 27 inches wide, 10 yards 32 inches wide or 5½ yards 44 inches wide will be required, with 4½ yards of embroidery and 1½ yards of insertion and 2½ yards of narrow edging to trim as illustrated; or ½ yard of tucking, 2½ yards of embroidery and 3½ yards of insertion when large high neck and long sleeves are desired.

The pattern 4176 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

The price of above pattern post-paid is only 10 cents. Send orders to The Farming World, Confederation Life Building, Toronto, giving size wanted.

Every Woman Should Know.

That Prof. W. Hodgson Ellis, Official Analyst to the Dominion Government, has recently made a number of analyses of soaps, and reports that "Sunlight Soap contains that high percentage of oils or fats necessary to a good laundry soap."

What every woman does not know is that in common soaps she frequently pays for adulterations at the price of oils and fats. Try Sunlight Soap—Octagon Bar—next wash day, and you will see that Prof. Ellis is right. He should know. 206

MOTHERS

The Skin of infants causes half their discomforts.

Baby's Own Soap

Cleanses, soothes and heals irritation, keeps the pores open, and leaves a deliciously fresh sensation to the little bodies.

Don't be misled by store-keepers, who, to make more profit, sometimes urge the purchase of other soaps, instead of

Baby's Own Soap.

The quality and purity of this soap are such that you cannot buy a better one for any money, nor as good for the price of

Baby's Own Soap.

Albert Toilet Soap Co.,
Manufacturers,
MONTREAL.

Four Lovely Diamond Rings

Mounted in our own factory, with Diamonds personally selected in Amsterdam, twenty-five dollars, fifty dollars, seventy-five dollars, one hundred dollars. Every one of these Diamonds are of such quality that the most critical cannot find fault. Send for catalogue.

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The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

D. T. McANISH, — — — PUBLISHER
J. W. WOODS, B. A. — — — EDITOR

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Letters should be addressed:

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TORONTO.

QUESTIONS and ANSWERS

Well Under the Barn

A subscriber in York County who is building large up-to-date barns and stables wishes to know if it is practicable to have the well under the barn. He contemplates putting in windmill power for the running of a cutting box, grinder, etc., and also for pumping water, and would like to have the well as close to the power as possible. He will, of course, put in cement floors in all the stables and make provision for all the liquid manure to be carried off. If any of our readers have had experience with wells of this kind we should be glad to hear from them. Let us have your views on the question whether good or bad.

Pointers for Chicken Fatteners.

Mr. F. C. Hare, Chief of the Dominion Poultry Division, points out as the result of experience, that the farmers and poultry rearers of Canada should realise:

1. That pure bred or high grade chickens can be reared more cheaply, can be fattened more cheaply in the fattening crates, and present a better market appearance than do common chickens, or "scrub" chickens.

2. That there is more profit in placing well fattened chickens on the market than in marketing lean chickens.

3. That four months old is the most profitable age at which to market chickens.

4. That heavy chickens are not generally as saleable as medium weight ones.

5. That the type of chicken desired in Canada or Great Britain is a young, plump bird, with a broad full breast, white colored flesh, white or yellow colored legs,

without leathers or spurs, and with a small head.

6. That crate fattening of chickens is the farmer's business; that it is a profitable business; that it does not require a large outlay to fatten one or two hundred chickens that the chickens are fed from troughs and that machine feeding is not necessary.

The Commissioner of Agriculture and Dairying, Ottawa, will, on application, freely furnish additional information concerning any branch of the poultry business.

Some Canadian Exports

According to the London Board of Trade returns for the six months ending June 30th, the imports of Canadian agricultural products into Great Britain show increases as follows: Bacon, £121,000; hams, £62,000; butter, £72,000; wheat, £177,000; wheat flour, £67,000. The decreases are: Sheep and lambs, £23,000; cattle, £6,000; cheese, £32,000; eggs, £13,000; oats, £173,000; peas, £82,000; horses, £9,000.

Vastly Improved

Visitors to the Central Canada Fair at Ottawa in August will notice quite a few changes in the grounds. Vast improvements have been made in which the Ottawa Improvement Commission has had a hand. The driveway to the Experimental Farm now runs through the grounds, near their northern boundary, and the beautiful grove to the north recently acquired has been taken in and cleaned. Moreover the entire place has been thoroughly drained, many flower beds added to the scene which is one well calculated to delight the eye.

Prince Edward Island Apple Crop

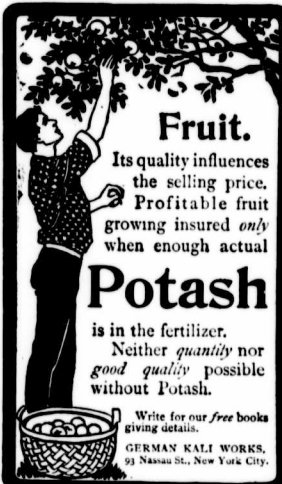
The Rev. Father Burke, of Prince Edward Island, who attended the Ontario Fruit Growers' Annual Convention at Cobourg last winter reports the apple crop of that province to be most promising. An abundance of fruit has set despite the wet weather and apples will under ordinary circumstances be a big crop. Cherries and other stone fruits will be scarce owing to late frosts. The small fruits, gooseberries and currants, promise well.

In the West.

Mr. Henry Wade, Registrar of Live Stock, is attending the Winnipeg Fair this week. He will spend a few weeks in the West in the interests of the Dominion Shorthorn Breeders' Association.

South American Cattle Trade

Mr. Frank W. Bicknell, special agent of the United States Department of Agriculture, writing from Buenos Ayres about the end of June says that it is possible for



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Some of the breeders of the United States to send some really first-class animals to the Argentine. He states that now is a good time to do so, as British cattle are barred owing to an outbreak of foot and mouth disease in England.

Would it not be a wise plan for Canadian breeders to look into this matter a little? We can raise as good breeding stock here as anywhere in the States.

The Stingless Bees of Central America.

These bees are smaller than house-flies, and continually buzzed about us in clouds. They have no stings, have a greenish appearance, but, when closely examined, they showed spots of reddish brown on the abdomen, with greenish down on the thorax. Their tongues, I remember distinctly, were very long in proportion to the insect—some-what similar to the bumble-bee.

They make their nests in crevices in dead wood, rocks, bark, or dirt, but never rear large colonies, being content with an unlimited of swarming. In some localities these little colonies are exceedingly numerous, the little bits of comb in the clefts of trees being plainly seen if looked for, the trees being in countless millions. Their comb is in little thin sheets, leaf-shaped, probably 5-16 inch in thickness, very delicate, and beautiful to look upon. Honey is stored in this in quantities, only sufficient for their immediate needs, as they seem to think the continuous summer a guarantee that no surplus is necessary.

The so-called "wild-bee" of Central America is somewhat larger than a common house-fly, perhaps half the size of our honey-bees. They are brownish, with golden markings in stripes across the abdomen; have no stings, and enjoy a peculiar squatry look as if their legs were too short for them. When chopping at a bee-tree they go almost frantic, flying into the chopper's mouth, ears, eyes, and nose, into all openings of his clothing (which is exceedingly scanty), mak-



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ing it almost impossible to work. And, by the way, these "bee-trees" are almost always down already, as in the clearings for cultivation it takes two or three years to get rid of the wood. In the forests, if there are any nests they are invariably so high up that nobody ever finds them.

These nests are always divided into two apartments—one for brood and one for surplus. The brood is in comb perhaps $\frac{3}{4}$ in. thick, and is built from the sides of the hollow, springing out, layer after layer, till the cavity is filled from the middle to the bottom. These cavities are never larger than would hold a quart, and are generally spindle-shaped, as though the bees had done a great deal of the work themselves, and had made it of a standard design.

The upper half of the cavity is filled with surplus, and here is where the most peculiar part of their habit occurs. Instead of being stored in comb, the honey is put in large wax globules or capsules, of a size equal to the average pecan-nut, and about the same shape. The walls of these capsules are about as thick as ordinary cardboard. If the tree is opened nicely, these globules look about like a heap of nuts or marbles, some of creamy, others of brownish color, and all shades between.

The bees do not seem to fill the interstices between the globules with honey, using them for passageways when putting in and taking out the honey.

I never saw any honey lighter in color than molasses (New Orleans type), and it has a rank taste as if a good deal of pollen had been mixed in with it.

The natives do not seem to care much for the honey, but cut out combs of brood and bite into them as a small boy would into a slice of bread and jam. To see them with the mashed-brood juices running down from the corners of their mouths is not a pleasant sight.

There are several other sizes of honey-gathering insects in our tropical countries, but the above were the only ones I had the pleasure of examining closely. Probably the last described could be "domesticated," and encouraged to build their nests in boxes; but it is very doubtful whether they would store their surplus in comb as our bees do.—H. N. Cross in Bee Culture.

The Russian Thistle as a Fodder

In some parts of Kansas farmers are utilizing the Russian thistle for pasture and hay. It is claimed to compare quite favorably in feeding value with native grasses while some assert that it is equal to alfalfa, which in some respects it resembles, when properly cured and handled. The best authorities, however, contend that it should not be used for feed, but should be eradicated from the soil as its presence is a menace to the growth of grains, which it easily chokes out, such as wheat, rye and oats.

NEW BOOKS

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Business Farmer

Animal Breeding. By Thomas Shaw, Professor of Animal Husbandry at the University of Minnesota. Author of *The Study of Breeds, Forage Crops Other Than Grasses, Soiling Crops and the Silo, etc.*

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The growing and feeding of all kinds of soiling crops, conditions to which they are adapted, their plan in the rotation, etc. Not a line is repeated from the *Forage Crop Book*. Best methods of building the silo, filling it and feeding ensilage. Illustrated, 12mo, 5 by 8 inches, 361 pages, 60 plates. Price, \$1.50. One new subscription to *THE FARMING WORLD* and "Soiling Crops and the Silo," both for \$2.00.

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How to cultivate, harvest and use them. Indian corn, sorghum, clover, leguminous plants, crops of the brassica genus, the cereals, miller, field roots, etc. Intensely practical and reliable. 298 pages, Illustrated, 12 mo, 5 by 8 inches. Price, \$1.00. One new subscription to *THE FARMING WORLD* and "Forage Crops Other Than Grasses," both for \$1.70.

Milk and Its Products. By Henry H. Wing, Professor of Dairy Husbandry in the Cornell University.

A treatise upon the nature and qualities of dairy milk, and the manufacture of butter and cheese. 12mo, cloth, Price, \$1.00. One new subscription to *THE FARMING WORLD* and "Milk and Its Products," both for \$1.70.

Fruit. A Practical Guide to the Picking, Storing, Shipping and Marketing of Fruit.

The subject has been treated strictly from the standpoint of the fruit producer. The commission business, for instance, is thoroughly and fairly discussed, and the commission man can be pleased with the advice given, yet it is all plainly directed to the benefit of the fruit grower. Evaporating and canning are handled in a similar way, telling how to run a canning factory or a commercial evaporator—but by explaining those points which are of interest to the man who grows the fruit. The whole subject is treated plainly and adequately illustrated. It is a book which every one can read and enjoy, and which no fruit grower, large or small, can do without. Illustrated, 5 by 7 inches, pp. 250. Cloth, price postpaid, \$1.00. One new subscription to *THE FARMING WORLD* and "Fruit," both for \$1.70.

Cabbage, Cauliflower and Allied Vegetables, from Seed to Harvest. By C. L. Allen.

A practical treatise on the various types and varieties of cabbage, cauliflower, broccoli, Brussels sprouts, kale, collards and kohi-rabi. An explanation is given of the requirements, conditions, cultivation and general management pertaining to the entire cabbage group. After this, each class is treated separately and in detail. The chapter on seed raising is probably the most authoritative treatise on this subject ever published. Insects and fungi attacking this class of vegetables are given due attention. 60 cents. One new subscription to *THE FARMING WORLD* and "Cabbage, Cauliflower and Allied Vegetables, from Seed to Harvest," both for \$1.25.

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Five thousand gardeners all over America kept a daily record of the methods and results for a whole season, and no word thereon falls in competition for many and large prizes. They represented all grades from the small amateur to the professional market gardener. This unique book summarizes the most useful of all this experience. Illustrated with many charts, sketches, etc., from original photos. 323 pages, 5 by 7 inches, bound in cloth. Price, \$1.00, postpaid. One new subscription to *THE FARMING WORLD* and "Prize Gardening," both for \$1.70.

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The Chinch Bug.

The Ohio Agricultural Experiment Station gives the following advice regarding the chinch bug:

The chinch bug, though able to fly, prefers to travel on the ground and its migration from wheat to oats or corn may be intercepted by making a V-shaped trench, as with the corner of a hoe or the outside tooth of a cultivator, and pouring in a little coal tar. A line of tar an inch across will be sufficient. When a crust forms over the tar it must be freshened with a new supply. As the bugs enter a cornfield their progress may be impeded by frequent cultivation on the outside rows of corn, thus burying many of the bugs. When they cluster on the stalks of corn they may be killed by sprinkling with kerosene emulsion, made as follows, and thrown with sufficient force to wash them off the corn:

Dissolve half a pound of soap in one gallon of water and heat to boiling; remove from the fire and while hot add two gallons of coal oil, churning the mixture with a force pump for fifteen minutes or until it resembles buttermilk. To each quart of this emulsion add five quarts of water and apply with spray pump or sprinkling pot.

Feeding Horses Bran

The superintendent of one of the largest and most successful stock farms in the United States has the following to say in regard to feeding bran:

"In regard to feeding horses bran we always prefer putting in a quart of dry bran to about three quarts of oats for general feeding, or in about that proportion. The reason for this is that the animal masticates the oats better and eats more slowly, and we believe it wholesomer than the four quarts of oats alone, and get better results. In feeding weanlings, the hardest season to make the little fellows grow is through the cold weather. We boil the oats twice a day for them, and while they are hot we put in about one-third winter wheat bran, thoroughly mixing and then let it stand about an hour before feeding. In our opinion this is one of the best feeds for growing young horses. You can winter a horse very nicely on bran and good hay, if he is not working hard. I do not believe it would give entire satisfaction to feed too much bran for regular road use, as it is liable to cause loosening of the bowels, and cold and inflammation set in."

HIS FINAL INSTRUCTIONS.

An old darkey who was fearful of being buried alive left these final instructions:

"Atter my time come, lemme stay ez long ez possible. Don't make de funeral sermon too long, kaze dat'll make me sleep only de sounder; but blow de dinner-ho'n over me. Ef dat don't wake me, I is sho, gone!"—Atlanta Constitution.

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DAVID McCRAE, Jansfeld, Guelph, Canada, Importer and Breeder of Galloway Cattle, Clydesdale Horses, and Cotswold Sheep. Choice animals for sale.

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If you are thinking of going to the Pacific Coast try British Columbia: No extremes of temperature. No cyclones. No dust storms. No cloud bursts. No droughts. No blizzards. Fertile land, and the heaviest crops per acre in Canada. We make this statement without fear of contradiction. The land is cheap and the markets and prices for farm produce the best on the Pacific Coast. Write for Farm Pamphlet to the Settlers' Association, Box 540, Vancouver, B.C.

When writing please refer to this paper.

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Humbus & Prapert, 1111 Broadway, New York, N.Y. Dealers and Manufacturers of all kinds of measuring instruments. Makes self-acting level, all sizes, with many other instruments. Testimonials free. Price \$1.50 (send \$1 for trial). If works, send balance. Paid U.S. May 6, 1902 for U.S. Canada Dec. 17, 1901. FARMER BRIGHTON, Fairfield, Iowa, U.S.A.



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Scotch and Scotch-topped choice young cows and heifers for sale at moderate prices.

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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 purchase 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.

Horses

Mr. Robert Beith, M.P., Bowmanville, Ont., has recently made a noted sale of Hackneys to an American buyer. The Statesman of that town describes the sale as follows:

"Mr. Robt. Beith, M.P., has just shipped to Mr. J. B. Vandergriff, Wellsburg, West Virginia, U.S., the best car-load of Hackney horses, we believe, that ever went out of Canada from a single breeder to a single buyer. Ten head comprised the shipment, five of them being world winning champions in their respective classes, and included:

"Alarm" winner of First Prize at National Horse Show in Madison Square Garden, New York, 1900, and reserved for the championship; First Prize winner at same show in 1901 and winner of First Prize and championship at Toronto Horse Show, 1902.

"Jessica," winner of very many first prizes and champion at the Industrial Fair, Toronto, for several years, also at Toronto Horse Show and Central Exhibition, Ottawa.

"Hermia," winner of first prize and sweepstakes since 2 years old at all important horse shows in Canada.

"Titannia," winner of first prize at every show exhibited and never beaten.

"Princess Fedora," 2 years old, first prize winner at Toronto as a yearling and again as a 2-year old.

"Hotspur" a very promising colt 1 year old, sired by Lord Rosebery, dam, Wildmint. He has never been exhibited but Mr. Beith considers him one of the best Hackneys ever bred in Canada.

"Shamrock," a beautiful foal only 3 months old, sire, Squire Rickell, dam, the famous mare Jessica.

The other three were half-bred hackney geldings.

The whole ten horses were shipped by express to Wellsburg in a beautiful upholstered car sent here from the New York Central and finished like a parlor car. Mr. Beith accompanied the shipment to Suspension Bridge to see it safely over the border."

Cattle.

The Hazel Grove, P. E. Island Farmers' Institute recently purchased from Mr. John Davidson, Ashburn, Ont., the fine young Shorthorn bull Baron, for \$115. The same Institute also purchased from R. T. Douglas, Kensington, the Shorthorn bull, Rockingham, sired by Challenge, for \$80. This bull is five years old and weighs 1,800 lbs.

Swine

At the combination sale of Yorkshires to be held at Guelph on August 21st, particulars of which were given last week, the following well-known families will be represented:

JULIA

This family traces back to Holywell Pearl—3—(imp.1887) by Holy Slit Ear (515), a noted prize winner in his day. The family of Julias has been bred by Mr. Brethour in Oak Lodge Herd for five generations, and has produced many prize winners and is a very prolific family. As a sow under one year, "Oak Lodge Julia VII" won first prize in several competitions at the largest Canadian shows. In 1901, she won the Champion Gold Medal at the Pan-American Exposition.

MINNIES

This family is a branch of the Marian stock, which at one time was the most prominent prize winning family in the Oak Lodge Herd and which was descended from one of the first pigs imported by Mr. Brethour, viz.—"Marian—18"—which formed the foundation of Oak Lodge Herd. This importation was from the herd of Frank Walker-Jones, of Little Mollington, England. It was one of this family that won the Holywell Challenge Cup offered by Sanders Spencer at Toronto the first time. When finally competed for it was won by a representative of the Cinderella family.

CINDERELLAS

Without doubt this is the most noted of all Yorkshire families in Canada. A large percentage of the honors brought to the Oak Lodge Herd has been won by Cinderellas. They are prolific, producing very even thrifty pigs of strictly bacon character, having great length of body, depth of side, and strong, hard, flinty bone; they are large without undue coarseness. Upon different occasions representatives of this family have obtained premiums over all breeds in dressed carcass competitions. The remarkable and trueness to type have been brought about by the most careful selection of the best boars and sows used in the Oak Lodge Herd. They have been carefully bred for many generations along the lines of the ideal bacon standard. Pigs offered from this family are the result of years of careful breeding and selection. They are from the same foundation as the Julia family.

The Holywell Challenge Cup was offered by Sanders Spencer to be competed for at Toronto. It was first offered in 1891 when it was won by a representative of the Minnie family. This trophy was

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Absolutely self-regulating.
Supply their own moisture.
Will hatch every hatchable
egg.
Used by large breeders.
Catalogue free.

T. A. WILLETT,

514 Dundas Street, Toronto

finally placed to the credit of the Oak Lodge Herd and was won by a representative of the Cinderella family in 1898. This plate was offered for the best Yorkshire pig at the Exhibition, male or female, and required to be won twice by one exhibitor before becoming his property.

COUNTESSES

The Countess family traces to importation made in 1868 from the herd of Denston Gibson. The Countess family is a branch of the Constance family. They have proved to be very successful breeders. One pig from this family sold for \$200 when ten months old.

PINKS

This family traces back to Oak Lodge Primrose—2099—which made a record in the show ring, never equalled by any other Yorkshire pig shown in Canada. She won first prize for three years in succession in the class for best brood sow at the Toronto Industrial. On the sire's side the name of Ruddington Lad appears. He was the winner of the first prize and Grand Championship at the Royal Show in 1896.

PRIDES

This family is quite equal in point of merit to the Cinderella family, and has produced many noted prize winners, at the largest Canadian and American shows. The foundation of this family traces to Lady Duckering, 415, imp. bred by C. E. Duckering, who was the winner of the first prize in the aged class at the Columbian Exposition, Chicago 1893. Like the Cinderellas this family, though bred on slightly different lines, has furnished many prize winners, in the bacon and dressed carcass classes. Next to the Minnies or Marians this is the oldest family in the Oak Lodge Herd.

MITES

This family traces back to Kinacroit Mite II, 27 (imp.) and Kinacroit Mite III, 28 (imp.), which formed part of the foundation of the herd established by the Wm. Davies Co., about 1890. These sows were selected from the herd of Sanders Spencer, and were got by Holywell Tyke. The sow Oak Lodge Mite VI, 3096—made a reputation for this family by winning first prize for two years in succession in the class for aged sows at the Toronto Exhibition.

ROYAL QUEENS.

This family is descended from an importation made from the herd of D. R. Daybell, in 1868, and is without doubt one of the most noted prize winning families in Enoland in recent years. Representatives of this family have won first prize at the Royal Exhibition for four years in succession, both in the male and female sections. They have proven a very valuable addition to the Yorkshire breeds in Canada. They have the power of transmitting to their offspring, uniformity of type and excellence of the highest standard.

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(6) Two Weeks' Course in Stock and Grain Judging—Jan. 8, '03.

(7) Four Weeks' Course in Poultry Raising—Jan. 9, '03.

Ladies Admitted to Dairy and Poultry Courses.
Send for Circulars.

JAMES MILLS, M.A., President

Guelph, July, 1902.

"About Heating"

is the title of a short common-sense treatise on the subject which we have just issued and which we desire to place in the hands of everyone interested.

It is brimfull of information and advice and no householder should be without it.

If you send us a card saying that you are interested we shall mail you a copy immediately, free of charge.

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Champion Fruit Evaporators

Save Your Fruit

and dry it with the

CHAMPION FRUIT EVAPORATOR

Dries all kinds of fruit and vegetables, producing a superior quality of clean, white fruit. It is made of galvanized iron, is lined throughout with asbestos, is fire proof and portable. Made in five sizes. Catalogue for the asking.

THE GRIMM MFG. CO.,
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Manufacturers of the celebrated CHAMPION MAPLE SYRUP EVAPORATORS.

OAK LODGE YORKSHIRES



Years of CAREFUL BREEDING have made the OAK LODGE YORKSHIRES the Standard of Quality for IDEAL BACON HOGS.

The championship against all breeds has been won by this herd for 4 years at the Provincial Winter Fair, on foot and in dressed carcass competition.

Prices are reasonable.
J. E. BRETHER, Burford, Ont.

Combination Auction Sale Large Yorkshire Hogs GUELPH, ONTARIO

Thursday, August 21st, 1902

One hundred carefully selected hogs (boars and sows) from the herds of the following well known breeders will be sold:

J. E. BRETHER, Burford, Ont.
HON. JOHN DRYDEN, Brooklyn, Ont.
GLENHODSON CO., Myrtle, Ont.
G. B. HOOD, Guelph, Ont.
ONTARIO AGRICULTURAL COLLEGE, Guelph, Ont.
SANDERS SPENCER, Holywell Manor, St. Ives, Hunts, Eng.

The special attention of Agricultural Societies is called to the sale.
For catalogues and further information apply to any of the above mentioned parties.

Market Review and Forecast

Office of the Farming World, Confederation Life Bldg.

Toronto, July 18th 1902.

Though this is the quiet season in wholesale lines a very fair volume of business is reported through out the country. The favorable crop reports from all parts of the country including the West have given a somewhat buoyant feeling to business in the country. Money is steady at $4\frac{1}{2}$ to 5 per cent on call and discounts on mercantile paper range from 6 to 7 per cent.

Wheat.

The wheat markets rule steady at about last week's quotations on the local markets. Statistically the situation is unchanged. The world's invisible supply in sight is 50,528,000 bushels or 15,200,000 less than at this time a year ago. The United States crop report for July 1st as noted elsewhere shows winter wheat to be not in as good condition as a year ago and estimates the total wheat crop of the United States as over 100,000,000 bushels less than the crop of 1901. But the government estimate of last year's crop was shown later to be astray, and other authorities believe this will be proven to be also. The Price Current of last week reports wheat threshing in the West as meeting with expectations, with the quality good especially east of the Mississippi. Farther west the quality is poorer. The price of wheat this season to a large extent has followed the ups and downs of the corn market; and the recent collapse of the corn corner may have a depressing effect on wheat values. Reports from all the wheat growing districts of Canada indicate a fair crop with an abundant yield expected in many places. Cable reports are easier. Locally there is little change to report. No. 1 and No. 2 Northern Manitoba are quoted at 74c and 72c respectively, at Fort William, July shipment. Here red and white are quoted at 77c at outside points. On Toronto farmers' market red and white bring 80c to 85c, goose 58c to 72c, and spring file about 80c a bushel.

Oats and Barley.

The oat market rules steady under a higher English market. Oats are quoted here at 43c to 44 $\frac{1}{2}$ c as to quality and point of shipment. On the farmers' market they bring 50c to 50 $\frac{1}{2}$ c a bushel.

There is nothing doing in barley.

Peas and Corn

The pea market is quiet. Quotations here are 75c to 76c at outside points.

The excitement in speculative circles during the week has been in corn. On Tuesday of last week the corner in corn at Chicago came to smash and the price dropped nearly 16c in a single day to 65 $\frac{1}{2}$ c. On Monday it had been 80c. This break though causing a quieter feeling has not caused any great drop in prices here. At Montreal last week Ontario yellow was quoted at 72c to 73c in store. Here prices rule at 63 $\frac{1}{2}$ c to 64c for Canadian yellow and mixed west.

Bran and Shorts

Ontario bran is selling at Montreal at \$17.00 and shorts at \$22.00 to \$22.50 in car lots. City mills here sell bran at \$18.50 and shorts at \$23.00 in car lots l.o.b. Toronto.

Potatoes and Beans.

New potatoes are selling at Montreal at from \$1.80 to \$1.85 per bbl. in large lots. Last year at this time they were selling at \$1.40 to \$1.50 per bbl. Prices are steady here at \$1.00 per bag for new, and 70c per bushel for new in jobbing lots. On Toronto farmers' market old potatoes bring \$1.25 a bag and new ones \$1.25 a bushel.

The bean market continues unsettled. Montreal quotations are \$1.15 to \$1.20 for primes.

Hay and Straw

The interest in hay now centres around the growing crop which from reliable reports will be an average one. A fairly active business is still doing in hay in the East and in Quebec at about \$7.00 l.o.b. at country points. Car lots of baled hay are quoted at Montreal as follows: No. 1 timothy, \$9.00 to \$9.25; No. 2, \$8.00 to \$8.25; clover mixture, \$7.50 to \$8.00, and clover \$7.25 to \$7.50 per ton. There is a little firmer demand here at \$9.50 to \$10.00 for car lots of No. 1 timothy on track Toronto. On the farmers' market old timothy brings \$14.00 to \$15.50; new, \$10.00; clover, \$8.00 to \$9.00, and sheaf straw \$8.00 to \$9.00 a ton.

Eggs and Poultry.

The English egg markets have taken a decidedly firm turn and prices have advanced 3d to 6d per 120. There is a marked falling off in receipts on this side. Last week they were the lowest for some time past and nearly 50 per cent. below those for the same week last year. English buyers are still buying pickled stock. At Montreal receipts of fresh eggs are all going into consumption and sales are

readily made as soon as they arrive at 14c to 15c, in case lots. There is a good demand here at 16c for fresh stock in case lots. On Toronto farmers' market, new laid bring 15c to 17c a dozen.

On the farmers' market here live and dressed chickens bring 50c to 70c and ducks 50c to 75c a pair and turkeys 8c to 12c a lb.

Fruit.

Reports indicate a good average winter apple crop for Ontario. Many orchards that last year did not have any are this year loaded with fruit. At Montreal apples are quoted at 55c to 70c a basket and strawberries at 6 $\frac{1}{2}$ c to 7 $\frac{1}{2}$ c a box. Quotations on Toronto fruit market are strawberries, 5c to 6c a quart; red raspberries, 8c to 10c, and black, 8c a box. Gooseberries, 50c to 75c, red currants, 30c to 50c; black currants, 80c to \$1.00, and huckleberries, 80c to \$1.00 a basket.

Cheese

The cheese market continues steady at an advance of about $\frac{1}{8}$ c over last week's quotations. The English market is firmer and is higher at 48s 6d to 49s 6d for finest Ontario. The falling off in United States shipments keeps up. At Montreal finest Westerns are quoted at 9 $\frac{1}{2}$ c to 9 $\frac{3}{4}$ c, and Easterns at 9 $\frac{1}{2}$ c to 9 $\frac{3}{4}$ c. At the local markets good business has been done during the week at from 9 $\frac{1}{2}$ c to 9 $\frac{3}{4}$ c the ruling figure being about 9 $\frac{1}{2}$ c. The large make at the factories keeps up.

Butter

The butter market continues steady with a good volume of business doing. The Trade Bulletin's report of last week's trade is as follows:

"There has been considerable buying in the country since our last report at steady prices a good portion of which has been for English account, in all fully 18,000 to 20,000 pkgs are said to have changed hands, quite a lot of which have gone into cold storage for future shipment. A good portion of the exports during the past week consisted of goods that were left over from the week previous owing to limited refrigeration on ocean steamers. Regarding prices, although 20c has been paid for fancy Eastern Townships creamery, it is said that 19 $\frac{1}{2}$ c is a fair top quotation. Seconds have ranged from 18 $\frac{1}{2}$ c to 19 $\frac{1}{2}$ c. At the recent decline in Western dairy quite a lot of business has been done, exporters having picked up considerable at points of shipment at 15 $\frac{1}{2}$ c, 15 $\frac{1}{4}$ c

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We have a full and complete assortment of Fruit and Ornamental Trees which we offer at lowest prices possible. Farmers wishing to buy stock absolutely first hand and without paying commission to agents, should write to us at once for prices.

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and 15½ c.o.b. In this market sales have been made at 15½¢ to 16½¢ as to quality."

Prices are steady here with a good demand for choice dairy. Creamery prints are quoted at 19½¢ to 20½¢ and solids at 19¢ to 19½¢. Choice dairy tub pails and pound rolls are quoted at 15¢ to 16¢. On Toronto farmers' market lb. rolls bring 15¢ to 17¢ and crocks 12½¢ to 14¢ a lb.

Wool.

The wool situation remains unchanged in so far as Canadian wool is concerned. The Boston wool market is reported active and decidedly strong. Prices are 1¢ to 2¢ a lb. higher than a week ago, with a tendency to going higher. New wools are reported to be selling at better prices.

Cattle

The cattle situation has not improved any during the week and on the whole there is a weaker tendency on the local markets. The American markets have been somewhat irregular during the week. Cables, however, are steady and good cattle continue to command good prices. There was only a light run of live stock on Toronto market on Friday comprising 564 cattle, 968 hogs, 546 sheep and lambs and 50 calves. Generally speaking the quality of the shipping cattle was only medium and that of butchers' cattle only fair, there being many unfinished cattle that ought not to have been brought forward. Trade was slow in nearly every class of live stock, but more specially for fat cattle. Shipping cattle were a little easier because exporters had got a full supply for last week's shipments earlier in the week and would not buy any on Friday unless they got them at a sufficient reduction to pay for keeping them over. There were few outside buyers for butchers' cattle and the local buyers had got all they wanted earlier in the week and of course would not buy except at a reduction. Fat cattle were easier all round and sold at about 25¢ lower than earlier in the week. The bulk of the shippers sold at from \$5.65 to \$6

per cwt. There was very little demand for feeders and stockers and prices were easier. Farmers are too busy to buy just now but if they had been present on Friday, could have got fairly good cattle at reasonable prices.

Export Cattle.—Choice loads of heavy shippers are worth from \$6.25 to \$6.50 per cwt., medium exporters \$5.50 to \$5.75. Heavy export bulls sold at \$5.25 to \$5.50 and light ones at \$4.75 to \$5.00 per cwt., choice export cows sold at \$4.00 to \$4.50 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters, weighing 1,100 to 1,150 lbs. each, sold at \$5.50 to \$5.75 per cwt. Choice picked lots of butchers' heifers and steers, 925 to 1,025 lbs. each, sold at \$5.00 to \$5.40, good cattle at \$4.50 to \$5.00, medium at \$4.40 to \$4.75 and inferior to common at \$2.75 to \$3.50 per cwt. Loads of butchers' and exporters' mixed sold at \$5.25 to \$5.50 per cwt.

Feeders.—Light steers, 1,050 to 1,100 lbs. each, sold at \$4.25 to \$4.75 per cwt.

Stockers.—Well bred young steers weighing 400 to 900 lbs. each, sold at \$3.00 to \$3.75, and off colors and those of inferior quality at \$2.50 to \$2.75 per cwt.

Calves.—At Toronto market good to choice calves bring \$3.50 to \$4.50 per cwt. and \$2.00 to \$8.00 each.

Milch Cows.—These sold at \$30 to \$50 each.

Sheep and Lambs

Export sheep are easier the ruling price being \$3.40 per cwt. and it looks as if they would go still lower. Lambs sold a little higher on Friday, but should receipts increase they will likely not maintain the rise. Spring lambs are worth from \$4 to \$5 per cwt. Sheep sold at \$3.25 to \$3.40 per cwt for ewes and \$2.75 to \$3.00 for bucks.

Hogs

Hogs maintained last week's quotations during the week but there was a feeling on Friday as if prices would be lower this week. They sold at \$7.25 per cwt. for select bacon hogs and \$7 for lights and fats.

For the week ending July 26th, The Wm. Davies Co., Toronto, will pay \$7.25 for select bacon hogs, \$7.00 for lights and \$7.00 for fats. The Montreal market is higher. Packers there are paying \$7.00 to \$7.25 per cwt. for bacon hogs.

The Trade Bulletin's London cable of July 17th, re Canadian bacon, reads thus:

"The firm market cabled last week has been fairly well maintained, stocks of Canadian are light and holders are not pushing sales."

Horses

The Trade Bulletin reports Montreal markets as follows:

"The principal feature in this market has been the resales of remounts which ranged from \$25 to \$135 each as to grade. One country dealer stated that he lost considerable money through the low prices realized at the above sales. He was left with about 20 head on hand which he cannot sell within \$200 of the price he paid for them. The first sale of remounts averaged about \$47 each, the second sale about \$50 each and the last sale about \$60 each. The Teller & Climie Company sold three good workers at \$150 to \$175 each. These last sales were all we heard of in the local market."

Trade is and has been very good at Grand's for this season of the year. Prices, however, are a little lower for all classes. There are indications that dealers are determined not to pay as high prices to the farmer as they have been paying of late for nearly all classes. City dealers state that at present horses cost too much money in the country to make any money on them. This applies to nearly all classes except high-class harness horses.

Toronto's Grand Exhibition.

The prize list for Toronto's Grand Annual Agricultural Exposition and Industrial Fair, which this year will be held from September 1st to September 13th, both dates inclusive, is being distributed. It is compiled on a more than usually liberal scale, several material alterations and additions having been made to the live stock and other classes. In fact, there is abundant evidence in the prize list that the Executive are resolved that Toronto Exhibition shall amply maintain its reputation as the best annual fair in the whole world. The premiums, with an uncommonly large number of special prizes, aggregate between thirty-five and forty thousand dollars, arranged with an eye single to the encouragement of the interests of the country. In industrial exhibits as well as in live stock, and especially in the dairy department, the Fair this year will assuredly be ahead of all its predecessors, while as regards entertainment the single announcement that the great Kirally has been engaged to produce his wonderful spectacle, "The Orient," that for years attracted multitudes to Olympia, in London, Eng., is sufficient to stamp it as of the highest class that money can procure and art devise. There will also be many other features, star attractions in themselves, that in Toronto will be found on the one programme. Prize lists and any other literature or particulars required can be had by addressing H. J. Hill, Secretary and Manager, 82 King street East, Toronto, Ont.

This will remind you that the pain of strains, bruises and sprains, common incidents of active out-door life is drawn from aching bodies by Perry Davis' Painkiller, as a magnet draws bits of iron from sand.

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Makes New Men
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Many Are Going

The attendance at the Ottawa exhibition from this district this year promises to be much larger than ever before. From all accounts an August show—the dates of the exhibition are August 22nd-30th—is popular, and what with a grand show and the many other attractions at the Capital, a very large number have already expressed their intention of going to Ottawa next month. These will certainly see a fine exhibition, for the entries are very numerous this year and the directors are sparing no expense to secure the best special attractions in the continent.

Two men were talking in a woolshed in the year 1910:

"What er ye goin' to leave for, Bill?"

"Gosh! The dashed boss put more work on to me. I've got to get up and fill that blanky sheep pen once every quarter of an hour, and the cursed cow wasn't satisfied with that. Things are pretty bad when a chap can't get a decent lie down of half an hour at a time. Blowed if I know what this country is coming to!"—Pastoralist's Review.

"The new minister is an improvement on the other, isn't he?"

"How so?"

"Well, somehow it seems to me as if he were more successful in keeping the congregation awake."

"Oh, yes, he had the cushions taken out of the pews."

Jake—"The professor is a clever man; he kin spake in four different tongues."

Jim—"That's nothin'! Thor's only one thing that kapes me from doin' the same?"

Jake—"An' wat is that?"

Jim—"Oi hoven't the four tongues."

Gyer—Crankleigh is working on a perpetual motion machine.

Myer—How is he getting on with it?

Gyer—First rate. He has all the necessary wheels in his head.—Chicago News.

Rimer—He says I'm very like Shakespeare.

Wryvell—So you are; exactly like him except for one thing.

Rimer—What's that?

Wryvell—Shakespeare's buried.—Catholic Standard and Times.

An old colored preacher was telling his congregation that after death they would probably go to the moon. After meeting, one of the best informed brethren said to him:

"Br'er Jinkins, don't you know dat de moon is col' ez ice, en ain't got no fire 'tall in it?"

"Br'er Thomas," replied the parson, "ef hit's fire you a-wantin', des keep on in de way you gwine en you can't miss it."—Atlanta Constitution.

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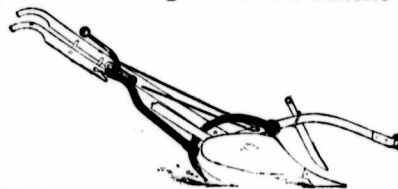
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