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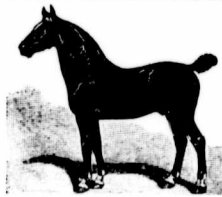
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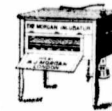
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The Farming World

For Farmers and Stockmen

Vol. XX.

FEBRUARY 3rd, 1902.

No. 5

The Farmer's University.

AN institution that has advanced rapidly in popular favor since the opening of the century is the Ontario Agricultural College. The splendid gifts of the Massey estate and Sir Wm. C. Macdonald have done much to arouse this popular esteem, but they have not done all. The steady effective and practical work during the past decade both in the class room and in the experimental field counts for a great deal. Its value to agriculture is just beginning to dawn upon the farmers of this country and they are rallying around their own college and their own peculiar institutions as never before. This is as it should be.

On Saturday last we spent a day at the College chiefly for the purpose of visiting the classes in live stock judging. The success which has attended this special course is nothing but remarkable. In the first course there was an attendance of 120, and for the second course which began on January 22nd, there are just as many in attendance. Elsewhere we publish a card of thanks from the members of the first course and from what we learned from those in the second course they are just as well pleased.

Though confined to two weeks the course is a comprehensive one, all the different kinds of stock being dealt with. The first hour each morning the class is with Mr. Zavitz inspecting and handling grains. Then comes the live stock work, a couple of days being devoted to one class, such as beef cattle, swine, etc. On Thursday last the class were looking after the sheep, and very well they did it too. Prof. Day had provided a number of specimens of the different breeds for inspection. These, when in the arena, were examined thoroughly by the students, who were requested to place the individuals of each breed in the order of merit. Then followed a criticism of the animals by Prof. Day or some other expert. On that day the vis-

iting expert was Mr. A. W. Smith, Maple Lodge, whose criticisms and remarks on the different animals in the ring were most valuable and greatly appreciated by the class. Mr. Smith addressed the class on the care and management of sheep on the average farm, which, owing to lack of space this week, we will deal with next issue.

W. R. Graham is dealing out the practical feeding and rearing of poultry to a special class of 30 interested parties, two of whom are ladies. Mr. Graham is no theorist. He does not tell his class that a certain breed of chickens has certain characteristics, but he has the live birds in the class room so that he can demonstrate to a certainty

the good and bad points of each individual bird. On Thursday he discussed with the class the merits and demerits of the Buff colored varieties of the various breeds. This is a most valuable course and of great benefit to the poultry industry of the country.

And thus the College is branching out on new and valuable lines. These short courses are of a kind that any farmer, young or old, can take during the winter months without interfering at all with his own work. While the larger number of those in the special live stock and poultry classes were young men, there were not a few with gray hairs and long experience in farm work. And not all the students are confined to Ontario. In the live stock course there were students from Manitoba. But the dairy class of 1902 is the most notable in this regard. Prof. Dean has under his tuition students from Quebec, the Maritime Provinces and from the State of Vermont. Thus the influence of

the College is reaching out beyond provincial and even national lines. Truly it is a great institution and the five hundred odd students who are attending the various courses this winter show a widening out of its possibilities that its strongest admirers of a few years ago never dreamed of.

Dr. McEachran Resigns.

Dr. McEachran, for a number of years Dominion Veterinarian, and in charge of the Quarantine Stations in Canada, has resigned, and Dr. Rutherford, who spent last summer in Great Britain testing for tuberculosis, cattle intended for shipment to Canada, has been ap-

E. D. TILLSON DEAD

The readers of *The Farming World* will regret to learn of the death of Mr. E. D. Tillson, of Tilsonburg, Ont., who passed away after a short illness, on Friday last. His father, Mr. George Tillson, was the founder of the town of Tilsonburg, settling there in 1825, in which year the deceased was born. The large saw mill business started by the father was continued by the son with marked success. The latter was the founder of the present flour and oat meal milling business, which has developed into one of the largest milling industries in the province.

Besides looking after his large milling interests, Mr. Tillson for many years devoted much time to agriculture, and more particularly to the dairying side of it. His herd of Holsteins were among the very best in the province, and under his care and skill had established a record for milk production equal to, if not ahead of, anything in America. Mr. Tillson took particular pride in his farming operations, and being a keen observer and a practical workman, had obtained a fund of valuable information from his own experience. This he was always willing to give to others, and very frequently has contributed to the columns of this paper. His contributions were always read with the keenest interest, and were practical and to the point.

Mr. Tillson was a man of the most sterling honesty and integrity. His unassuming and kindly manner made him beloved by all who had the privilege of his friendship. To meet him and chat with him about his agricultural pursuits was a privilege that many of us will have the most pleasant recollection of. He interested himself in every movement that had for its object the welfare and progress of the country at large and more particularly the district in which he lived. His native town, in which he has held all the offices in the gift of the people, will miss his wise counsel and sound advice on all matters of public interest.

Mr. Tillson married in 1850 Mary Ann Van Norman, and their golden wedding was celebrated on July 4th, 1900. He leaves a family, George W., overseer of the mills; Edwin V., manager of the business; Mrs. Dr. L. C. Sinclair and Mrs. H. A. Harrison, all of Tilsonburg. Mr. Tillson was a member of the Methodist Church, of which he was a liberal supporter.

But the live stock classes do not comprise all the interesting and valuable features of the work of the College. In the dairy building Prof. Dean has a most interesting class of seventy, about one-fifth of whom are ladies, taking the regular and special courses in dairying. A most valuable addition to the dairy course this year is the series of lectures in domestic science by Mrs. Joy. These, as previously announced, are reported regularly for *The Farming World* by Miss Rose. On Thursday Mrs. Joy delivered her fourth lecture to a class of over one hundred ladies.

Quite near the dairy building is the poultry department, where Mr.

pointed to succeed him. The services of Dr. McEachran will be retained in an advisory capacity. The change came into effect on Saturday last and whether it involves any modification of the quarantine regulations in the interests of Canadian importers and breeders we know not. A change of this kind affords the Department of Agriculture a good opportunity to so modify present regulations regarding the testing of imported and other pure bred cattle as to lessen materially the annoyance and hardship to importers.

The Dominion Grange.

The Dominion Grange met in Toronto last week with Mr. Jabel Robinson, M. P., presiding. A lot of discussion took place, chiefly on transportation problems and other matters of interest to the farmer. The Ontario Legislature will be asked to amend the "barberry hedge law" so as to allow of the total destruction of the shrub instead of within a proscribed distance of grain crops as at present. Pressure will be brought through the Legislature to enforce the railways to provide more efficient cattle guards. The law permitting municipalities to compute statute labor was commended and a railway commission to regulate railway and freight rates asked for. The next meeting will be in Toronto.

The officers for 1902 are: Master, Jabel Robinson, M. P., Middlemarch; Overseer, John McDougall, Milton; Secretary, W. F. W. Fisher, Burlington; Treasurer, James Fallis, Newbridge; Lecturer, Jos. Todd, Gifford; Chaplain, W. J. Goodfellow, Craigvale; Steward, J. A. Carswell, Newbridge; Assistant Steward, Arthur Peer, Freeman; Gate Keeper, T. C. Osborne, Whitby; Auditors, Walter Ralston, LeRoy, and J. M. Syme, Dalston.

A Winter Fair for Ottawa

A year or two ago it was intimated in these columns that a movement was on foot to promote a Winter Fair at Ottawa modelled after the same lines as the Provincial Winter Fair at Guelph. During the past few days this movement has taken more definite shape and it looks now as if Eastern Ontario might have a great educational Winter Fair for 1903. Mr. Wm. Hutchinson, president of the Central Canada Exhibition Association, who has been the prime mover in this matter, has applied to the Ottawa City Council for permission to raise \$30,000 by mortgage on Landsdowne Park. Of this amount \$10,000 is for the purchase of 4½ acres of land north of the present exhibition grounds. On this it is proposed to erect the building for the Winter Fair, which it is estimated will cost \$20,000.

Knowing something of Mr. Hutchinson's energy and push in matters of this kind, we feel sure that an annual Winter Fair at Ottawa will be an accomplished fact in the near future. We understand that the Hon. Mr. Dryden, Minister

of Agriculture, is quite in sympathy with the movement and will aid it financially and otherwise as far as lieeth in his power. The fair, if the enterprise is carried to a successful issue, will be held a few weeks before Easter, so that it will in no way conflict with the present Provincial Winter Fair at Guelph.

We wish this movement every success. There is room for more than one such fair as was held at Guelph last December in this pro-

vince, and if the citizens of Ottawa will provide suitable accommodation for the Fair, we say by all means they should have one. Moreover, we believe, the Provincial Government should extend liberal aid to such an enterprise. It is no more than right that the farmers of Eastern Ontario should have the same opportunity as is given those farther west, to learn of the best kinds of cattle, sheep, and swine to raise for the world's markets.

Our Western Letter

Winnipeg, Jan. 27th, 1902.

To the early settlers of this province who were obliged to haul their wheat fifty, seventy-five, or even one hundred miles to market, the farmers of the present day, would seem to be exceedingly well served with railways. There is scarcely to be found a section of country more distant than twelve miles, from a railway, yet the demand continues for more railways, still more railways. This policy of continued railway building may over-shoot its mark. If a company is obliged to build and operate two branches to do the work of which one is fully capable, the expense of operation are doubtless greatly increased and the ultimate minimum, beyond which freight rates cannot be reduced, is sooner reached. But this argument carries no weight with the Manitobans who are one and all clamoring for more railways. The sun scarcely sets without having seen another deputation visit the Provincial Railway Commissioner on this errand.

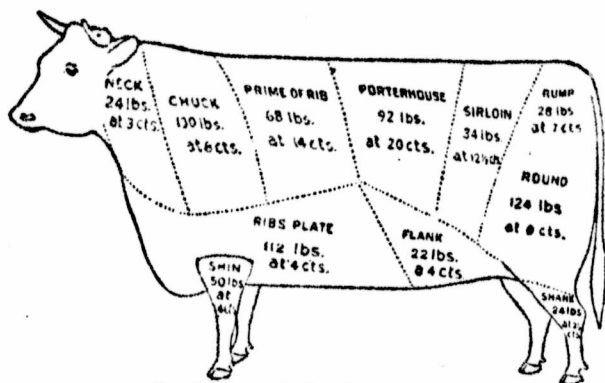
The farmers who have been at the loss and inconvenience of holding their wheat over winter, are now rejoicing in the reduction of freight rates just announced by the Premier, who on Monday last, on the floor of the legislature, stated that after the 1st February, wheat will be carried to Port Arthur for two cents less per hundred pounds than ever before. The precise rate was not stated, but as the present rate from Winnipeg is fifteen cents per 100 pounds, this announcement is taken to mean that the new rate will be thirteen cents per 100 pounds, or seven and four-fifths cents a bushel. This cut in rates is made by the Canadian Northern and is to be followed by further reductions as soon as practicable. Doubtless the C.P.R. will follow suit by making a similar reduction.

The Territories are at present considerably agitated over the question of provincial autonomy. There are those who wish all these Territories to be formed into one province. There are those who would make it with two or three. There are still others who would leave things as they are, and there are a large number who favor the union with Manitoba of the eastern Territories Assiniboia and Saskatchewan. The Territorial Government treat this latter course with marked disfavor and express strong preference for the first alternative above stated.

The reports of tests of various

grains on the Manitoba and Territorial experimental farms look at first sight, almost beyond belief. The most remarkable is the oat yield at the Indian Head farm, where the best twelve varieties yielded over 132 bushels per acre. But as the average for the last six years has been above 90 bushels it is easy to understand the extraordinary figure quoted for this season. A feature of this year's tests at Brandon, was the trial of the new varieties of red wheat produced by Prof. Hays of the Minnesota Experiment Station, recently described in a publication of the United States Department of Agriculture. These varieties are pronounced promising by Supt. Bedford, and will be tested further next year. Barley rusted badly on this farm, but at Indian Head gave magnificent returns, equal to 64 bushels per acre for the best varieties of six rows; the twenty-nine varieties sown averaged about fifty-three bushels. Peas at Brandon, yielded 34, and at Indian Head over 48 bushels for the sixty varieties tested. The best twelve varieties yielded 40 bushels and 58 bushels respectively at these farms. This crop is little grown in Manitoba—why, it is hard to say. As the necessity for rotation of crops becomes apparent to the western farmer doubtless peas will become more popular. Fortunately we have no weevil here. Mr. Bedford has been experimenting further with brome grass as pasture. Two steers pastured on one acre, gained 490 pounds, or an average of 245 each from May to August. This increased weight at 3½ cents per pound would represent a return of \$17.15 for the crop of brome grass, or more than the value of the land. Mr. Bedford believes that this grass will be the pasture and hay crop of Manitoba ere many years, or as soon as the continued settlement and drainage removes the marshes and swales where the hay is now secured and deprives the farmer of the unlimited pasturage on the open prairie.

The secretary of the Western Horticultural Society announces that Prof. W. T. Macoun, will attend the convention of that society in Winnipeg, on the 21st February, and give addresses on "Gardening for Profit," and "What the Experimental Farms are doing for the Horticulturist." The West needs every assistance possible along these lines and the visit of Prof. Macoun will be greatly appreciated.



How the Chicago Butchers Value a Carcass.

The Chicago Carcass Ideal.

There has been considerable criticism of the judging in the dressed carcass competition at the last Provincial Winter Fair. An effort was made to secure an expert from Chicago, but at the last moment he was unable to come. The accompanying diagram represents the carcass of a well fattened grade steer as cut up by the Chicago butchers, giving the retail prices per lb. for the different cuts, and is of interest as showing to some extent what Chicago idea's are. A good 1,200 lb. steer dresses about 800 pounds, and of this 708 pounds is marketable meat. The best cuts are taken from the ribs, loin, and hind quarters. These valuable cuts together weigh 346 lbs., and at the prices in the diagram sell for \$44.55. The less valuable cuts from the fore quarters, belly and flank, weigh 362 lbs. and bring only \$16.48.

This diagram appeared in the report of the Kansas State Board of Agriculture for the quarter ending December, 1901.

Canada's Cattle Trade.

According to data recently published by the Gazette the export cattle trade from the port of Montreal for the season of 1901 has not been a satisfactory one from the shipper's point of view. Taking the season's results all through it is claimed that shippers lost on an average fully one dollar per head and this in spite of the lower ocean freight rates as compared with the year previous. The shipper had to pay an advance of \$5.00 per head for cattle in the country over the year before, owing to the keen competition from the United States. It is estimated that from 12,000 to 15,000 head were shipped via the Suspension Bridge to American ports and thence to Europe.

The general impression at the beginning of the season was that good prices were going to be realized in foreign markets, owing to less competition from other exporting countries, notably the Argentine. But these expectations were not realized and several times during the season home bred live stock sold in Britain fully half a cent per pound lower than in 1900. The supply of cattle from the Unit-

ed States was much larger so that making full allowance for the shortage from other countries the supply of cattle in England was larger than previous to the embargo on Argentine stock. The action of the Imperial Parliament in prohibiting any but home fed and home bred beef from filling Government contract supplies, it is claimed, hurt the ranch cattle trade very much. Many shippers consider that the above restriction has had a more depressing effect upon Canadian live stock trade than the embargo had when first announced.

The total number of cattle shipped from Montreal last season was 73,791 head, including 7,217 head from the United States, showing a decrease of 18,389 head as compared with 1900. If, however, the 15,000 head shipped via American ports are included this shortage is largely accounted for. The total shipment from Montreal valued at \$65 per head would equal \$4,796,415 as the total value for 1901. The total of only 73,791 head is the lowest in 14 years. The highest total was reached in 1890, when it was 123,136 head. Then there was a gradual decline to 1897, when this trade advanced to 117,237 head. At the opening of the season Canadian cattle sold in Britain at 11 1/2 cts., a decline of 1 1/2 cts. as compared with the opening prices in 1900. American cattle opened up at 12 1/2 cts., or 1 cts. lower than the year previous. Both prices advanced later in the season, only to drop in the case of Canadian to 10c in October.

Thus while it is claimed that the shipper has suffered the Canadian farmer has realized about \$5 per head more for his cattle than in 1900, a pretty good advance for one year.

London Cattle Market.

The review of the London cattle markets made by the Live Stock Journal is of some interest to Canadians. Cattle from foreign countries are landed and slaughtered at Deptford for the London market. The trade from Canada began in May and continued till December. There were landed in 1901 19,630 Canadian cattle, and in 1900 the numbers were 25,039, showing a considerable decrease. From the

United States the figures were: 1900, 119,503; 1901, 142,782. The lowest price per 8 lbs. (sinking the offal) were from the United States, 92c to 98c, which was in March, and the highest \$1.08 to \$1.20, in December. Canadian cattle sell always a good deal under the prices paid for those from the United States. This is because of quality, the U. S. stock being better bred and better fed than the Canadian. In December the prices paid for Canadian cattle averaged from 92c to 98c, or from 2c to 3c per lb. less than the prices paid for United States steers. The highest price for Canadians was in July, when the prices ranged from 96c to \$1.00 or 12c to 12 1/2c per lb. Not very many years ago we had an idea in Canada that we raised the best beef steers in America but times have changed and the Canadian beef producer has now to take a very secondary place. There seems to be a discrepancy between the number of cattle landed at Deptford and those shipped from Montreal. All cattle going in American vessels are classed as American in England. This will account for the discrepancy.

Feed Cattle to a Finish.

We would again direct the attention of cattle feeders to the importance of finishing their animals properly before marketing. For some weeks there has been a dearth of really prime, well finished export cattle. Not only is this true of our own local markets, but even at Chicago the outlet for the great feeding ranches and stables of the West really prime, well finished cattle have been on the scarce side. This is due no doubt to some extent to the shortage in the corn crop and the high prices for feeding stuffs. The same cause may also apply here. Not for years has the price of feeding stuffs been as high as this winter and this no doubt has caused many feeders to slack off in their feeding and sell their cattle before they are in the best finished condition for market. But it will not pay to do this, even if the price of feed is high. To feed cattle up to within a week or two of proper finishing is to quit just when the profit line is reached. Choice well finished cattle of good breeding are worth from 25c to 50c per cwt. more than similar animals marketed a few weeks too early, and this extra price will much more than make up for the feed consumed during this period. If cattle are fed at all, it pays to feed good cattle and to feed them to a proper finish.

Canadian Sheep at Buffalo Market.

During 1901 there were sent to Buffalo 133,243 Canadian sheep and lambs on which was paid a duty amounting to a total of \$100,084.25. If this could be added to the price obtained by the Canadian farmer for his sheep, what an impetus it would give the industry in this country. As compared with 1900 all lambs sold at Buffalo at from 40c to \$1.00 per cwt. lower.

The Farmer's Hens

By John B. Pettitt, Fruitland, Ont.

Many a farmer thinks, in fact the majority of farmers appear to be of the opinion, that because it is not necessary to cut up as much hay and fodder and grind as much grain for the consumption of a single hen as it is for a dairy cow, that there is no money in hawl, and as a consequence in the greater number of instances the hen is looked upon as more of a nuisance than as a source of both pleasure and profit. The fact is, there is no other domestic animal that will yield the same profit in a year as will the ordinary hen, when we take into consideration the very small amount of food that is necessary to keep her up to a paying condition, and the little labour necessary in tending her.

From time to time we see in journals that devote space to the subject of "Poultry," records of eggs laid by different breeds and flocks of hens. That some readers of "The Farming World" may derive some benefit therefrom, I will give an account of my first experience with hens, an experience that plainly demonstrated to me that properly managed poultry cannot help but pay, and that farmers are neglecting an excellent source of profit when they are neglecting their flocks. This experience was gained in the months of February and March, 1899, and since that my interest in poultry has gradually increased and some time in the future I may give an account of more work in that industry.

In the outset I wish it understood that I do not consider my way "the correct and only way," for as intimated above, I had never attended poultry before, another member of the family having previously looked after that work. So the results were the outcome of carefully following what I could gather from poultry journals and the exercising of a little "hen sense," and not of "long experience." And anyone with the desire may do the same.

The hens were twenty-eight in number. Of these, five were old mongrels, nine were two-year-old Barred Plymouth Rocks, and the remainder were B. P. Rock pullets, some of them being hatched as late as September, 1898. From this it may be ascertained that my "subjects" were not the best.

The fowl had been giving five and six eggs per day previous to my taking them over. At the middle of February I determined to see what I could make them do, and after getting them into laying condition, kept count of eggs produced during March. In the thirty-one days of that month we gathered 496 eggs, a daily average of sixteen. And there were some eggs broken that we did not get. How many we, of course, do not know. While this may not be an enormous yield, considering the flock and amateur care-taker, it was not bad.

It is astonishing how little feed will keep hens in laying condition. They must have a variety, however. I found that previously our fowl had been kept too fat. During the test the feed was as follows: For morning a medium-sized turnip or a few small potatoes boiled, the water drained off, then a little meal of oats and corn (ground) was mixed in—just enough to make the feed thick enough. This was given as warm as the fowl would eat it. Between that time and 4 p. m. a quart of mixed, hard grain (oats, corn, barley, rye and sunflower seeds) was scattered in litter over six inches deep on the floor, at which they worked continually, furnishing abundant exercise. At 4 p. m. they were given one quart of whole wheat. Every day they had mangolds as green food and they certainly relished this. They were supplied with plenty of fresh water, grit and dusting box, and it was astonishing how much they were all used. They had what meat scraps were left from the table, which amounted to very little. Account of all food given and if highest market price had been paid for same, \$1.50 would have paid for all grain for the whole month.

The house was not what practical poultrymen would recommend. It was 12 feet by 14 feet. It is made of concrete, four inches thick, with inch boards on the outside. It has two small windows, one in the east and one in the south. During the months there was a great deal of cold, rough weather, with high, piercing winds. The fowl were let out every afternoon when not too rough. Our neighbor's fowl were laying little, if any. During the month the house was refitted with nest boxes, etc. Such an act would be strongly condemned by practical poultrymen, but the action was necessary, and therefore was done.

The droppings board was cleaned twice or three time a week as appeared necessary, and as a result, the fowl were kept clean and healthy.

Throughout the month eggs were selling at from 15c to 25c per dozen.

As a result of my experiment, I was convinced that there is no other farm stock that will give as large profits as will poultry when given reasonable care and proper food fed regularly. As a rule hens are either overfed and kept too fat, or the direct opposite—starved and frozen, and have little or no chance to show their keepers what they could do under proper treatment and conditions.

East York Institute Meetings.

The East York Farmers' and Women's Institute conducted a series of successful meetings in the riding at Unionville, Boxgrove and Ellesmere. The interest taken in

the work carried on by these institutes was manifested by the large attendance at all of these meetings. It was the pleasure of the writer to attend a joint meeting at Ellesmere, on Saturday eve, Jan. 25, where the following programme was carried out with great success.

1. Chairman's address—Dr. O. Sisley, Agincourt.

2. "Objects and Methods of Agriculture" A. J. Reynolds, Scarboro Jct.

3. "The Sanitary Home," Miss Agnes Smith.

4. "Care of Fruit-trees," J. E. Orr.

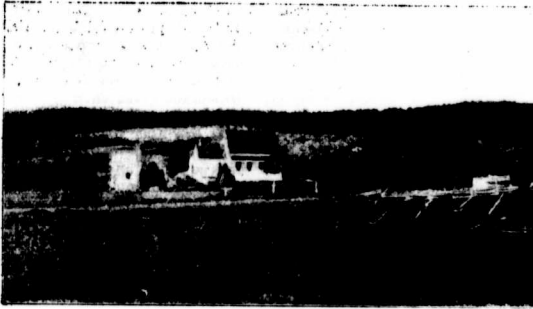
In his capacity as chairman Dr. Sisley was the exact order, and in his address made reference to the advance made during the last century. He dealt with the subject from numerous standpoints, making special reference to the advance in the methods of farming, and agricultural pursuits, comparing as he did the crude methods of years ago with the scientific methods of the present day. After explaining his subject by numerous facts and figures, he called on the first speaker of the evening, Mr. A. J. Reynolds.

As Mr. Reynolds is one of our local farmers, he was listened to with a great deal of interest. He dealt with his subject, "The objects and methods of cultivation," from a theoretical as well as practical standpoint. He endeavored to impress on the farmers the necessity of retaining the moisture in the soil, and carefully outlined the most practical methods of cultivation for this purpose. In this connection he mentioned the use of the "sub soiler" and other devices of later years. He also showed the necessity of retaining the fertility of the soil, not only by the adding of fertilizers and manures, but by bringing into use the elements of fertility already in the soil.

The next speaker, Miss Smith, outlined very concisely the characteristics of "The Sanitary Home". She dwelt especially on the essentials of health in the home-light, and pure air, and advocated the proper ventilation particularly of the living rooms. The necessity of keeping the home perfectly clean, was also considered, and in this the speaker outlined some very practical methods.

The last of the trio of delegates, Mr. J. E. Orr, held the attention of the audience in a somewhat lengthy sketch of the "Care of Fruit-trees". He brought out forcibly the care necessary to cultivate the continuous growth of the several fruits, and outlined the most improved methods for this purpose. Coming from the Niagara peninsula he is a thoroughly practical man. He actually "talks like a book," when dealing with the fruit question, and gave the farmers of East York some very valuable hints.

It is now up to the East York Farmers to make application of the ideas advanced at these meetings, and it is hoped that even greater interest may be taken in the work of the Farmers' and Women's Institute.



Farm of Wm. Hazlett, Jr., Kennebecasis Bay, N.B.

On Kennebecasis Bay

(Written for the Farming World.)

Naturally that bit of territory on the western shore of Kennebecasis Bay and extending from Summerville to Moss Glen, about ten miles, is one of the most picturesque in the province of New Brunswick. The farms extend westward from the water's edge to the summit of a range of hills, the backbone of the peninsula, a distance of about one and a half miles, where they abut on the rear of farms sloping down to the St. John River, these farms, like those fronting on Kennebecasis Bay, being one and a half to two miles deep. The bay here is from three to seven miles wide and in some places of unathomed depth. The Intercolonial Railway trains are seen at almost any hour in the day puffing along the eastern shore of the bay and Summerville, Chapel

before the beginning of the last century. They built log houses for themselves, cleared the land and grew good crops, for the soil was good, and thought, as their descendants thought for a couple of generations, that they could haul away everything that their land produced and haul nothing back, and that no resentment would be shown by our patient mother for such shabby treatment, but they were mistaken. When I first became acquainted in the neighborhood, about 25 years ago, several of the farms were practically abandoned. The yield of hay did not average more than one ton per acre, of oats not more than 15 or 18 bushels per acre, and other crops were equally unsatisfactory. Decay was observable everywhere, and everywhere complaints were that the life of the farmer was a dog's life, and so it was for many of the farmers on the shore of Kennebecasis Bay. Then came a change: some of the younger people began to read the agricultural periodicals and newspapers. When they went to market they returned with a load of manure instead of empty, as their fathers had done; they besieged the lumber mills for ashes, and sent it to their farms by the wagon, scow and wood boat load; they bought hypophosphates, rebuilt their fences, repaired their houses and outbuildings, cultivated only such land as they could properly fertilize, kept more and better stock, planted orchards, and everything they did they tried to do well. The consequence is that the farms between Summerville and Moss Glen to-day are generally a very delightful picture in themselves. The houses and outbuildings are mostly new, tasteful and convenient; there is a piano or an organ in almost every house where there are girls; everybody rides in his carriage and almost every farmer has something to his credit in some city bank. The average crop of hay harvested last season was over two and one half tons of hay per acre, and in 1900 the crop of oats averaged over fifty bushels per

acre. The district produces about 40,000 quarts of strawberries and several thousand quarts of raspberries and other small fruits per year, which are marketed in St. John and Boston. This year it is hoped to extend the market to New York.

As an illustration of the progress that has been made in this section of the province during the last quarter of a century, I show here a picture of the home of Harry B. Short. His farm was a semi-abandoned one about eleven years ago, when it produced about four tons of hay. He grew this year 40 tons of timothy and clover on ten acres of land, and last year his oat crop was a trifle over 70 bushels per acre. He keeps an account with every field he cultivates and estimates that for every dollar he expends on his land he gets a hundred per cent. profit. He was ridiculed by some of the fossils in the neighborhood when he began hauling fertilizers on to his land, but he concludes that he laughs best who laughs last.

The farm of John S. Edwards was a semi-deserted one seventeen years ago and did not cut hay enough to keep a sheep. Now it is one of the most beautiful, as well as one of the most productive farms in the province. Mr. Edwards grows from 60 to 70 bushels of oats per acre, three and a half to four tons of hay per acre, has a fine orchard of young apple trees, and grows a good deal of small fruit. His buildings, farm improvements, etc., and stock have cost him from three to four thousand dollars, and they are all paid for, though his capital consisted of only four hundred dollars seventeen years ago.

William Hazlett, Jr., began hewing his farm out of the wilderness about 27 years ago, and as his is a virgin soil, most of the fertilizers



Farm Home of Jno. S. Edwards, Kennebecasis Bay.

Grove and White Head, all within the territory which I am attempting to describe; there are wharves, at which steamers call daily during the open season. Summerville is only four miles from St. John and has frequent communication with Milligeville, a Saint John suburb, by the steamer Maggie Miller. When the province of New Brunswick and Nova Scotia were in the possession of the French and were known as Acadie, those people had a sparse settlement on the western shore of Kennebecasis Bay. On the arrival of the Loyalists in 1783 they had disappeared, and these pioneers of Eastern Canada had planted themselves in their places



Farm Home of Harry B. Short, Kennebecasis Bay.

he uses are made on his own land. His crops are quite equal to those of Mr. Short and Mr. Edwards, and his herd of cattle, like those kept by them, are grade Jerseys and famous butter makers. He is the largest grower of small fruits in the neighborhood and his strawberries and raspberries yield him an annual crop of 6,000 quarts per acre.

These men, and they are only types of several in the neighborhood, have succeeded by working

intelligently and always aiming at the largest possible results from the smallest possible area of ground. I doubt if anywhere else in the province such improvements

have been made in soil cultivation during the last twenty-five years as on the western shore of Kennebecasis Bay. —H. L. Spencer, St. John, Jan. 11, 1902.

How Canada Benefitted from the Pan-American

The following paper by Mr. Arch. McCall, secretary of the West Elgin Institute, was read at a recent meeting of the Institute, held at Rodney. We publish it in full here, as it gives in concise form the advantages obtained by Canada from her exhibit at Buffalo and furnishes a strong argument why a beginning should be made at once in the way of preparing Canada's exhibit for the St. Louis Exposition in 1903:

In considering any question where a large amount of cash has to be spent, the first question that we will naturally ask ourselves is: Will it pay. Then after the money and time has been spent in the undertaking and the result is in view then we ask, has it paid for the time, and worry, and cash. This is a fair stand to take in regard to the Pan-American, for we are all well aware that Canada has spent both time and money for the purpose of bringing Canada and her productions prominently before the thousands of visitors who visited Buffalo the past season, and now it is perfectly in order for us to consider whether the money has been wisely spent or not. We think it has been money well spent for several reasons. First, as an advertising agency it has far excelled a whole army of immigration agents at a far less cost, as it really showed people what Canada can produce, and they could see with their own eyes the evidence of this fact.

What Chicago did for Canada among the people of the Western States, Buffalo has done for us among the people of the New England States.

As a result largely of the splendid efforts put forth by the people of Canada, to make an effective exhibit at Chicago, there has been a steadily increasing flow of population from the Western States to our North-West, where the conditions for making a good living are more favorable, until now they are numbered by tens of thousands each year. Just so as the result of the Canadian exhibit at Buffalo will there be a flow of population from the Eastern States to the fertile lands of Ontario and Manitoba whose productions spoke louder than words to the careful observer as to the great productiveness of the Canadian soil.

Then again it was a far cheaper means of bringing to the notice of the classes we wish to attract to our shores, to patronize the Buffalo fair, than it would be to hold a large fair in Toronto or any other Canadian city, because the Amer-

ican newspapers devoted far more space to the Canadian exhibits than they would do to any Canadian fair, and thus thousands of people had their attention drawn to the exhibit who perhaps did not have the means of visiting the fair in person, owing to the fact that their lands have become so unproductive through long years of cropping and careless farming that they are now barely able to live, and who only have to have the matter brought fairly to their notice to make them wish to come and take up their abode in Canada.

Again, we were spared the enormous expense of preparing for a fair like the one held at Buffalo, where millions of dollars were spent by the city and citizens in preparing grounds and accommodation for all who chose to visit their city before they received a single dollar in return. In fact the large loss to the cities where these large fairs have been held is a strong argument that whatever advantages the country as a whole may reap, the city where the work is done, and the money spent in preparing for the fair is almost certain to be the loser.

While the Canadian exhibit was a huge surprise to the people to the south of us, it was also a great surprise to the majority of our own people who visited the fair, who although they knew Canada to be a land in which it was good to live, yet were not aware how varied were the products of our fair Dominion. The entire Canadian exhibit was of a practical and useful nature. The Canadian building was perhaps the most comfortable and homelike of any on the grounds. A good type of the country it represented, not showy, but plain and solid looking, a place where every visitor was made to feel perfectly at home. Very few Canadians had the chance to see more than one section of the live stock exhibit, but to go through even one section and see names tacked up over so many exhibits, names that are quite familiar to all reading Canadians, and then see under these names the sleek, handsome, proud looking animals who seemed from their appearance to realize that their superiors were not to be found on this green earth, was enough to stir up a feeling of pride in every Canadian.

Much credit is due to the Flatts, the Greenways and numbers of others, whose names might be recalled, who having plenty of cash, are not afraid to spend it in buying the best that can be procured,

and who by so doing bring credit to themselves and glory to Canada, and who have confidence that even the best is none too good for Canada. Even more credit is due the men who have spent years of time, who have given their best care and thought to the production of stock that are able to hold their own in the show ring with the best that can be found anywhere. In this respect what applies to one section of Canada's live stock exhibit applies to all. Perhaps the live stock exhibitors will reap more direct results from their work than any other class of exhibitors.

Here once more Canada was able to show the world that so far as dairy products were concerned she occupied the leading place. A place she secured by careful attention to details always looking for a chance to improve her products in order the better to hold her place in the markets of the world by trying to suit the taste of the consumer. It is said that: "eternal vigilance is the price of liberty," it is also true price we must pay if we wish to retain first place with our dairy products.

The fruit men also made a very creditable exhibit perhaps not quite as showy as some of the states, but when it came to quality then Canada came to the front, and in the long run it is quality that counts. And if our packers are careful to select for shipment, only good quality, we need have no fear but what we will be able to hold our own.

To the Canadian visitor generally speaking, the greatest revelation of the whole fair was the Ontario mining exhibit. Most of us were well aware that our province was very rich in minerals, but after seeing the great number of varieties in the collection, we were almost forced to ask ourselves whether there was anything under the sun in the shape of a mineral that did not have a resting place under Canada's flag. It is not much wonder that the ordinary visitor was surprised when even that prince of inventors, Edison, was so much surprised at the extent of our exhibit that he at once started for New Ontario to examine for himself as to the truth of the stories about Canada's mineral wealth. It would not do to close this paper without a word of friendly reference to the splendid exhibit of grains and grasses made by Manitoba. An exhibit which spoke louder than words of the wonderful fertility of the prairie province. The Canadian exhibit on the whole was one of which every Canadian might well be proud. While always proud of Canada and of being a Canadian, never did I feel prouder of these things than after seeing the Canadian exhibit at Buffalo.

Express Their Thanks

We, the students of the first live stock and grain judging class, wish to express our appreciation of the instruction and valuable informa-

tion we have received at the Ontario Agricultural College while taking the short course. The professors have taken all possible pains to give us the best information that could be given and we have pleasure in testifying that they have succeeded admirably.

The lessons we have received will be of untold benefit to us in the future, especially along those lines in which we are more particularly engaged. Every branch of the work has been taken up thoroughly and we feel our indebtedness to Dr. Mills and the staff for the kind manner in which they have treated us. Signed on behalf of the students, Wm. Hudd, Pres.; W. Harris, Vice-Pres.; A. D. Alton, Jas. Smellie, D. J. Kennedy, W. K. Fansher, Committee.

Live Stock Sale in the West.

The second annual spring show and auction sale of pure bred cattle under the auspices of the Territorial Pure Bred Cattle Breeders' Association will be held at Calgary, N. W. T., on May 15th, 1902. The spring stallion show of the Horse Breeders' Association will take place on May 14th also at Calgary. In reference to last year's sale at Calgary the catalogue announcing the coming sale says:

"The highest priced bull sold at \$250 and was raised by Peter Talbot, Son of Lacombe, who also sold four home bred yearling Shorthorn bulls at an average price per head of \$148.75. Laidman Bros., Lacombe, disposed of two averaging \$118.50 each. Thos. Copland, Saskatoon, obtained \$130 for one bull, and the same price was realized for a bull sent by Thos. Talbot of Lacombe. The Canadian Land and Rancho Co. of Crane Lake, sold 17 Shorthorn cows and heifers at an average of about \$75 per head. The latter were not in good sale condition. There were in all 64 bulls, cows and heifers put up for sale, which realised \$5,451, an average of \$85.17 per head. A number of the animals were in extremely poor condition and consequently sold at low prices, but the general verdict was, that every beast put up for sale brought all it was worth."

Territorial Crop Estimate Bulletin.

Owing to the prolonged threshing operations in the Territories, caused by the bountiful crop of the past season, complete threshing returns will not be available in the Territorial Department of Agriculture until the latter part of the winter, which will materially delay the issue of the annual crop bulletin. It has, therefore, been decided to publish the following estimate for the season of 1901, which has been compiled on a basis of several thousand returns of actual threshing results from all over the Territories, now at hand in the department.

The yield per acre may be considered as correct within a fraction, but an element of uncertainty al-

ways enters into approximating the area under cultivation in any country presenting the unique features of the Territories, where the crop area is an ever increasing factor varying in its volume in sympathy with the influx of new settlers and the ability of older settlers to extend their operations. This condition, of course, involves

a corresponding uncertainty in the weighted estimate. A final report of the season's crop, based on complete actual threshing returns, will be issued in March or April next, but in the meanwhile the following estimate will serve as a fair indication of what may be expected to those who for business reasons are interested in the question.

WHEAT.

District.	Bushels	Threshed	Acreage.		Yield Per Acre.	
	1900	1901	1900	1901	1900	1901
Assiniboia:—						
East	1,239,111	3,942,447	165,235	195,218	7.49	20.40
Central . . .	1,780,368	6,917,889	192,558	236,979	9.24	29.19
West	1,548	8,360	47	283	32.93	29.18
Saskatchewan:—						
East	400,616	770,237	23,535	35,235	17.02	21.85
West	24,028	59,500	1,165	1,750	20.62	34.00
Alberta:—						
North	477,575	757,344	25,539	29,634	18.89	25.55
Central . . .	44,669	79,908	2,115	3,870	21.12	20.64
South	50,379	140,658	2,670	5,595	22.61	25.13
Territories	4,028,294	12,676,343	412,864	508,564	9.75	24.92

OATS.

Assiniboia:—						
East	609,738	1,980,328	46,487	52,203	13.54	37.93
Central . . .	615,394	2,372,871	41,013	49,923	15.00	47.53
West	14,340	46,001	466	960	30.77	47.91
Saskatchewan:—						
East	269,344	497,204	9,303	12,543	27.86	39.64
West	36,653	32,338	1,071	1,611	34.22	51.10
Alberta:—						
North	1,806,308	4,892,390	56,422	79,642	33.07	61.42
Central . . .	538,093	827,710	13,129	22,309	40.98	37.10
South	276,276	414,224	7,548	10,248	36.60	40.42
Territories	4,226,152	11,113,066	175,439	229,439	24.08	48.43

BARLEY.

Assiniboia:—						
East	33,146	119,351	3,229	3,689	10.04	32.36
Central . . .	23,322	77,163	1,794	2,109	13.00	36.58
West	848	3,905	36	96	23.27	40.67
Saskatchewan:—						
East	59,250	88,224	2,607	2,757	22.73	32.00
West	1,942	3,413	79	94	24.58	36.30
Alberta:—						
North	182,811	372,776	7,280	8,540	25.11	43.65
Central . . .	41,405	55,072	1,481	2,111	27.95	26.08
South	10,502	16,815	468	648	22.44	25.94
Territories	354,216	736,749	17,044	20,944	20.72	36.75

Correspondence

Regina, January 20, 1902
Editor The Farming World:—

My attention has been drawn to the following paragraph in "Our Western Letter", which appeared in your issue of the 14th instant:—

"Production in the North-West Territories is an unknown quantity; they have as yet no system of crop statistics and all figures are more or less guesswork. The Commissioner of Agriculture announces that the system followed in Manitoba will be shortly introduced in the Territories. The sense of such statistics makes it an utter impossibility to form an estimate for the Territories, but it is thought to be about one-fourth or one-third the value of Manitoba's products."

So far from these statements being correct, I beg to point out that, recognizing the value of reliable crop statistics, immediately upon the organization of the Territorial Department of Agriculture, steps were taken to secure these, based not on "guess work", but on actual results of threshing operations. These have appeared in all annual reports of the Department for the past four years, and have also been furnished previous to the publication of the report, by means of special bulletins to all leading newspapers, Agricultural Periodicals, Boards of Trade, Financial Institutions, and others interested in the question.

What the Department has been unable to accomplish hitherto, owing to financial considerations and lack of machinery, is the publication of crop reports previous to harvest time. Steps have, however, been taken to remedy this state of affairs, and during the crop season of 1902, the Department expects to be in a position to furnish at least one or more bulletins with regard to the condition of crops during the growing and ripening seasons, as well as the final estimate based on actual threshing returns. So far as I am aware, the North-West Territories is the only country in the world where the crop figures are made up from actual results.

In conclusion I may say distinctly that the system now in vogue in the Province of Manitoba will not be followed, nor did the Commissioner of Agriculture ever intimate that it would.

I enclose for your information copy of a recent bulletin issued by this Department and will be pleased if you can give it publicity through your columns.

I am, sir,

your obedient servant,
Charles W. Peterson,
Deputy Commissioner

Influence of Fat on Cheese Yield

Editor The Farming World:

For the benefit of Mr. A. E. Kennedy, who in your issue of Jan. 7th inst., asks for information as to the fairest method of paying patrons for milk supplied to cheese factories, I would ask you to kindly give space to the inclosed copy from the report of the Department of Agriculture for the United States, taken from the Year Book of 1895, page 468.

The principle that no milk is too good for good cheese was admirably shown by an exhibit from the dairy school of the University of Wisconsin at the Columbian Exposition. Six cheese were placed side by side, which had an interesting origin and constituted a valuable object lesson. The dairy pupils at Madison, as an application of the principles they had been taught, divided a large quantity of milk of uniform quality into six parts. Then, by different degrees of cream separation the percentage of fat in the milk of each lot was fixed exactly as desired. Almost all the fat was taken from lot 6 (see figure 122) and a good deal was added to lot 5. Just 300 lbs. of milk was weighed from each lot. The six, having these percentages of fat, respectively: 0.2, 1.3, 2.4, 4, and 4.9 per cent. The numbers given to designate these lots of milk, and the cheese resulting 0 to 5, thus, indicate the nearest percentage of fat in the milk, expressed by a whole number; reasons for numbering thus will presently appear. These lots of milk were made into six cheeses without appreciable loss except pure whey. All were

pressed in 10 inch hoops, so the only difference in size was in the thickness. The cheeses were weighed green on April 17th, 1895, when taken from the press, and the cured weights were recorded June 26th, when they were sent to Chicago. Weights and other figures are given in the following table:

INFLUENCE OF FAT UPON YIELD OF CHEESE.

No. of Lot.	Lbs. of milk in lot.	Per cent. fat in milk.	Weight of cheese in lbs.	Cured Cheese.
0	300	0.2	18.4	13.0
1	300	1.3	22.4	19.0
2	300	2.0	24.0	21.5
3	300	3.0	27.0	25.0
4	300	4.0	29.0	27.0
5	300	4.9	31.9	30.0

These figures are very suggestive. The richer the milk the greater the quantity of cheese, green or cured, from a fixed weight of milk. Without regard to quality the best milk made more than twice as much cured cheese as the skim milk, and the richest cheese lost the least in curing—very much less than those partly skimmed. As exhibited, these cheeses looked like this:

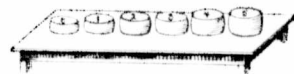


Fig. 122.—Diagram showing influence of fat upon yield of cheese.

The contrast was marked and the lesson conclusive. The richest cheese had more bulk to the pound than the poorer ones; hence No. 3 was fully twice as thick as No. 0, and No. 5 still thicker in proportion to weight. Before being cut and tested it was plain that the one containing the most milk fat was much the best cheese. The market sequel or financial result in this case is noteworthy. Exact duplicates of these cheeses being sold gave these results in part:

No. 0 sold for 5 cents per pound, equals 65 cents; No. 3 sold for 9 cents per pound, equals \$2.25; No. 4 sold for 10 cents per pound, equals \$2.70; No. 5 sold easily for 12 cents per pound, equals \$3.60. All these were wholesale prices.

Now, if the fat in No. 3, 4 and 5 in excess of that in No. 0, had been made into creamery butter, without loss, the respective quantities would have been 3½, 4½ and 5½ pounds (very nearly), which at 25 cents per pound would have brought \$0.88, \$1.17, \$1.38. Add to these amounts for butter the worth of skim cheese, No. 0, and the gross receipts from the lots of milk 3, 4 and 5, made into skim cheese and butter would have been \$1.53, \$1.78 and \$2.03, as against \$2.35, \$2.70 and \$3.60 from the same lots of milk unskimmed made into good cheese. The profit is largely in favor of cheese in every case, and the richer the milk, the larger this profit. These facts show conclusively that, no natural

milk is too rich to make cheese with success and profit.

A series of instructive cheese experiments at the Iowa Agricultural Experiment Station, bears upon this same question. Cheese was made there from milk ranging in fat content from 0.75 per cent. by 15 graduations up to 8.4 per cent. It was found that the richer the milk the fewer pounds it required to make a pound of cheese, and the per cent. of loss in the making of the original fat in the milk, always small, was no more with milk of the extreme richness stated than with standard milk and skimmed milk. Similar results have been obtained in Vermont, New York and Minnesota.

Conclusions:

1. The best milk makes the best cheese and the most of it.
2. The milk which is the most profitable for butter is also the most profitable for cheese.
3. The best butter cow is the best cheese cow.

Other things being equal, a cheese containing a large per centage of fat is better because, first, of finer flavor and taste; second, of its better consistency; third, of its improved aroma; fourth, of its increased digestibility; fifth, of its more perfectly answering the requirements of a complete food or balanced ration.

I am of opinion that the facts from the practical experiments given in the above article, for which, by the way, the Department of Agriculture for the U. S. holds itself responsible, cover the ground of queries put by Mr. Kennedy, and should go a long way towards putting an end to all controversy in the matter. I will conclude by drawing a parallel between the financial results to two companies, A and B, based on the foregoing experiment:

They wish to manufacture, say, 100,000 lbs. of cheese each.

A will have to furnish 1,000,000 lbs. of milk.

B will have to furnish 1,200,000 lbs. of milk, or 200,000 lbs. more than A, for that quantity of cheese.

Drawing of milk per 100 lbs. costs, say, 5 cents.

A will have to pay on this head alone, \$100 more than A.

The rich milk, therefore, saves to company A an item of \$100.

A's cheese sells at 12 cents per pound, equals \$12,000.

B's cheese sells at 9 cents per pound, equals \$9,000.

Excess of A's receipts over B's, \$3,000.

Total gain for A over B on these two scores because of richer milk, \$3,100.

It is, therefore, to the financial interests of cheese manufacturing companies to put a premium on good, rich milk, which will also have the desirable result of securing to our product a reputation for good quality in the markets abroad.

Yours,

J. J. Macdonald,
Kinkora, P.E.I., Jan., 13th, 1902.

The Sugar Beet World

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

Edited by JAMES FOWLER

ONTARIO BEET SUGAR ASSOCIATION. OFFICERS FOR 1901.

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Annual Meeting.

The Ontario Beet Sugar Association will hold its annual meeting on Feb. 13th, 1902, at 2 p. m. at the Walker House, Toronto. It is expected the usual rates of single fare, on the standard certificate plan, will prevail. All parties interested in the beet sugar industry, in the growing of beets, whether members or not, are invited to be present.

Big Figures for German Beet-Root Sugar Factories.

An official list of those German beetroot sugar factories, which have finished this year's campaign by the 31st of December, 1901, is an interesting study, as it shows to what enormous production a lot of factories have risen.

The leading and biggest factory is Kuhlmeise, which worked 3,594,280 cwt. of beets, or 48,108 cwt. per day, an achievement which is probably without comparison. There are three factories which worked between two and three million cwt. of beets, and 45 which managed between one and two million cwt. Those which worked between 600,000 and 1,000,000 cwt. of beets are legion and need not be specially mentioned.

As to the results we find that it took from 7½ to less than 7 cwt. of beets to produce 1 cwt. of raw sugar, first and second products taken as one, but this does not include the melasse produced besides.

The latest estimate of the German sugar crop is now 2,220,900 tons against 1,974,800 in 1900-1901, and 1,795,000 in 1899-1900. Altogether 6,591,700 tons beetroot sugar are expected to be produced the current season in all Europe, to which about 150,000 tons of beet sugar have to be added as produced by the United States.

With 3,860,000 tons of cane sugar besides, the world has to face the enormous sugar crop of 10,601,700 tons compared with:

9,470,500 tons	1900-1901
8,318,000 tons	1899-1900
7,923,400 tons	1898-1899

To curtail the big output to some extent and as reductions in the acreage do not help much, as long experience has taught, the question of feeding not only melasse but also sugar, the second and third products, has now become a burning one in Germany, and is pushed with much energy. The German Government will probably assent that sugars for feeding purposes may be allowed to be denatured (to save the inland duty) and then worked in cakes. Just this year when corn is so high priced, there should be a good beginning with the consumption of this new and cheaper food, but all depends upon how the

Sugar Beetlets

The farmers as a rule are loth to give the attention to the preparation of the soil which the proper cultivation of the sugar beets demands.

It is necessary to follow the instructions given by experts in making experiments if a farmer is to make a success of growing "sugar beets for profit."

The ability of the farmer as an agriculturist is not doubted nor discredited but the sugar beet crop is a new one for him.

And he must study the most approved methods of cultivation if he wishes to be successful.

Nobody should cultivate the sugar beet unless he is prepared to do it properly.

To grow sugar beets successfully, the conditions of the soil should be favorable.

And the soil must be kept free from grasses and weeds, the ground must be stirred so as to allow the air to do its work in conjunction with the sunshine and moisture.

In experimental work the farmer is apt to neglect the beet plot for almost every other part of the farm.

Personal.

We have had the pleasure of meeting the following gentlemen during the week, all interested in the beet sugar industry.

E. F. Dyer, of F. H. Dyer & Co., Cleveland.

Godfrey Engle, of Bartlett, Hayward Co., Baltimore, Md.

J. H. Robbins, of Bartlett Hayward Co., Baltimore, Md.

Otto Meinshausen, of American Brass, Copper & Iron Co., Chicago, Ill.

Messrs. Kathol and Otten of the Maschinenfabrik Grevenbroich, New York.

T. A. Hutchin, of Colonial Construction Co., Detroit, Mich.

J. C. Siemon, J. McConnell of

the Warton Beet Sugar Co., Warton.

Galt

The sugar project is looking up, because "it is so flat on its back it can't look any other way," is the way the people express themselves when asked about it. If this matter falls through "no other promoter" will be able to get his work in, and get a lot of hard and expensive work done, without putting up a deposit to cover expenses if he cannot carry out his end of the proposition. Better results are expected next time. In the meantime if any "capitalists" have any money to invest in the enterprise, let them communicate with the secretary of the Board of Trade.

Baden

It looks as though the sugar factory for this place has been "laid by" for this season, and a great deal of disappointment is manifest by the people who have worked for the enterprise, spending time and money and hard labour in order to make it go. There still are faint hopes.

Berlin

Contractors galore have been looking after the contract of building the sugar factory for the Ontario Sugar Company at this point. The townspeople and farmers are anxiously waiting the result, and the breaking of the ground in the commencement of the work.

The Ontario Sugar Co.

The prospectus of the Ontario Sugar Company, Limited, which appeared in our issue of last week, was received by the public very favorably. Stock subscriptions are still being received and it is expected the full amount offered to the public will be taken up. The opportunity for investment is a good one. The office of the company is at 22 Victoria St. Mr. James Fowler, secretary.

big farmers and cattle owners will favor the new undertaking. There is sure to be much prejudice to be expected at first, but it may safely be hoped that a closer study of this important question, more thorough trials and the cheaper price will conquer at least a good sized part of the market for feeding stuffs. That sugar and molasses cakes are absolutely a healthy food for cattle has been satisfactorily proved by many experiments.

R. Bach, Montreal.

Beet Root as a Cattle Food.

Since the great growth of the sugar beet industry in Michigan has become an assured fact the farmers of the State have shown a uniform interest in the problematical food value of the waste product of the sugar mills. The Michigan Agricultural College Experiment Station in a recently issued bulletin gives a detailed account of a series of experiments with a view of determining the practical value of beet pulp as a food for cattle. We give below a summary of the result of several experiments of this nature in different localities and under different conditions as published in this bulletin.

1. The experiments at this station, combined with the experience of practical farmers, show that steers, milk cows and sheep are fond of beet pulp.

2. In an experiment on the farm of A. W. Wright, where steers were fed with the object of carrying them through the winter with as little outlay as possible, and where the ration was made up of mixed hay, shredded corn stover, and grain ration, consisting of corn and beet seed ground together, one lot of 30 steers had pulp while a second lot of 20 steers had the same ration of hay, stover, and grain, but no pulp. It required per day and steer with the pulp fed lot, 55 lbs. of pulp, 8.5 lbs. of mixed hay, 4 lbs. of shredded corn stover, and 2.4 lbs. of the ground grain. On this ration the steers made an average daily gain of 1.42 lbs. The lot receiving no pulp had for a daily ration 11.5 lbs. of mixed hay, 8 lbs. of shredded corn stover, and 2.4 lbs. of grain, and made a daily gain of .684 lbs. Comparing the amounts of food consumed by each pen to produce a hundred pounds of grain, and computing from this data the value of a ton of pulp as an additional succulent fodder, the tests show that under the conditions existing a ton of pulp fed with the other factors of the ration, took the place of 421.5 lbs. of corn stover, 274 lbs. of mixed hay, and 68.8 lbs. of grain. Practical feeders will naturally wait for the confirmation of these figures by future experiments before basing their operations upon them.

3. In the experiment on the farm of A. M. Todd, a herd of twenty steers of mixed breeding, and in poor condition was divided into two lots, to one of which was given a ration of mint hay, somewhat mouldy, but palatable, wheat bran or oats, and corn meal; while to the other lot was given the same

ration, and beet pulp in addition. The latter lot made an average daily gain of 2.52 lbs., while the steers which had no pulp made a daily gain of 1.84 lbs. Making the computations as before to find the estimated value of a ton of pulp, we find that under the conditions existing at Pearl, a ton of pulp took the place of 214 lbs. of mint hay, 12.6 lbs. of wheat bran, 206 lbs. of corn meal, and 27.2 lbs. of oats. During the last week of this experiment the lot of steers having no pulp were off feed and made no gains. If, for this reason, the experiment were brought to a conclusion a week earlier the estimated value of the pulp would be reduced approximately by one-third. These figures result from a single experiment and must therefore await confirmation before being taken as the statement of the station in the matter.

4. Where, in the last experiment, two lots of ten steers each were fed the same kind and amount of

dry feed for six weeks and to the ration of one lot pulp was added, the feeding of 13,775 lbs. of pulp gave an increased gain of 280 lbs.

5. When fed to milk cows at the College, with mixed hay, and a grain ration of two parts bran to one of corn, the pulp added nothing to the yield of butter fat. It increased somewhat the milk flow.

6. Experiments with milk cows at the Cornell Experiment Station, in New York, reported in Bulletin 184, indicated that the dry matter of the beet pulp and of corn silage were of equal value. To furnish the same quantity of dry matter requires twice as much of ordinary pulp as of silage.

7. The consensus of opinion among farmers who have fed pulp is that for milk cows it is a good feed, although the pulp from frozen beets should be used with caution. Growing and fattening cattle do well on it, and owners declare that it saves one-third of the coarse fodder.—Michigan Farmer.

The Kilby Manufacturing Co.

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Builders of Complete Machinery for Beet, Cane and
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INCORPORATED 1890

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The American Construction Supply Co.

Main Office:

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Western Department:

401 Atwood Bldg., Chicago, Ill.

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 Rubenzuckerindustrie" in Germany.

The Agricultural Gazette

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

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

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

BENEFITS OF MEMBERSHIP.

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

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

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

The name and address of each member, and the stock he has for sale are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

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

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 25th 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, Secy. ary.
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 name, 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, 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.

or \$25 a month for married men.
No. 881. b.

A reliable man to do general farm work, will engage by the year. Can furnish free house for married man. Also good man to work for summer months. Apply stating wages expected. No. 882. b.

For one year a good reliable man with considerable experience in general farm work and care of horses, cattle, sheep and hogs, and capable of taking charge of the farm in the absence of the employer. House provided. Must supply good references. Box 262, Simcoe, Ont. b.

Wanted, a good man for general farm work, must be handy with cattle. Mostly steers kept on farm. Will hire for either eight months or a year. Please write and state salary. John McKee, Glenoak, Ont. b.

Domestic Help Wanted.

Wanted, a farmer's daughter to assist with work on a farm four miles from Paris, family of three. Would not be expected to do outside work, except to milk two cows in evening. Wages \$7.00 a month. No. 887. a.

Wanted, by the first of April, an experienced housekeeper for a farm, small family, good references required. No. 883. b.

Young girl wanted to assist with light house work on a farm near Toronto. No outside work. No. 884. b.

Housekeeper wanted by man living 5 miles west of Galt. No family except what may be engaged. No. 885. b.

A bachelor with good home would like a capable woman to look after house situated 2½ miles from Arnprior. One hired man kept during the summer months. No. 886. b.

Situations Wanted.

Position wanted on a farm in

British Columbia, by a young man who has had a great deal of experience in general farm work and taking care of stock. No. 971. a.

Good reliable man wants work on farm or dairy—dairy preferred. Is willing to do anything, 29 years of age, no bad habits. No. 970. b.

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

A Successful Year for Sheep.

The following is President Smith's address before the recent meeting of the Sheep Breeders' Association:

I have pleasure this year again to congratulate the sheep breeders of the Dominion upon a successful year—and more particularly those who produce high-class breeding stock. 'Tis true, the price of mutton has not been so high as last year, yet there has been demand for all that has been produced, and only the fact that feed is scarce in the West, and consequently very high, has had the effect of forcing great numbers of unfinished sheep and lambs on the market with the result of bearing down the market price, and this was natural, for generally the quality was not up to the mark. Whereas, not for years has better prices been paid for choice fed and ripened wethers in the large markets. This is a healthy state, because we can see a good reason for dullness, and we cannot but consider the business prosperous.

But on the other hand, the demand for, and prices paid for choice breeding stock, which we are so favorably situated to produce, has been better than for last year. This is encouraging, for the enthusiasm, and I may say the inspiration of our breeders, has led them to make commendable efforts to make the best of their special material advantage. And I repeat, there is no country or climate under the sun so well calculated and conditioned to produce such healthy and well-developed a type of the mutton breeds of sheep as this Canada of ours. And so long as our breeders pursue the calling with the zeal and enthusiasm they now evidence, there will be no lack of profitable business. Then, if we consider the grand exhibit made at all our larger shows, and many not so pretentious, we have reason to feel proud of our breeders who can make such a display of their skill, not only in producing, but in maturing to a perfect ripeness so many specimens of the different breeds, and that after supplying show flocks and filling

Help Wanted.

Wanted, a single man to work on a fruit or dairy farm, capable of taking charge when required. Good references needed. No. 886. a.

Wanted, experienced farm foreman in Manitoba. First-class man, able to take charge of 100 acres grain, 100 cattle, 20 milk cows. Ship cream to creamery. Wife must board men. House and stables modern. Will sign agreement for three years. Apply stating wages, experience and references. C. C. Castle, Drawer 1406, Winnipeg, Man. a.

Strong boy or man wanted for general farm work. Good wages with board will be paid. If suitable will engage by the year. No. 878. b.

Wanted, a young man to work on an eighty acre farm, in connection with a summer hotel. Must be a good milker, ploughman and kind to stock. Salary, \$200 a year and board. No. 879. b.

Married man wanted to work on farm. Good comfortable house provided. No. 880. b.

Situations can be found for five or six reliable men at Pittsfield, Ohio, in a rich farming country. Wages \$12 a month for single men

up others, for our less fortunately situated neighbors across the line.

The past year has been one of very great success to our breeders when they have taken their flocks out of our own country to place them in competition in the show ring, with those of the United States, and was redoubled very much to our credit, since with a smaller percentage of entries we have carried away a very large percentage of the premiums when we competed at the Pan-American, Buffalo, the International, Chicago, and other large shows. Again proving that we have the animals, the environment and the breeders and shepherds to produce the best.

I believe, also, that beginnings have been made that will lead to events of great benefit to the sheep breeders of the Dominion. I refer to auction sales, such as are conducted with profit and convenience to the breeders of Great Britain. In October last a sale of sheep was held in Chicago, to which several others from Canada, as well as myself contributed from our flocks, and although the prices were low, I believe that sale to be the beginning of what will be a profitable opening for the disposal of our surplus stock. And as will be announced to you later, arrangements have been begun for the holding of an annual sale of sheep in the city of Guelph, under the same management as the cattle sales, and which will, I believe, be profitable and advantageous to our breeders.

And now gentlemen, I want to thank you for the kindness and courtesy you have shown me, while I have had the privilege of acting as president of our Association, and while I make way for other and perhaps better men. I can assure you I shall always find pleasure in working for the best interest of the Dominion Sheep Breeders' Association.

Farmers' Institutes.

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

G. C. CREELMAN,
Superintendent Farmers' Institutes

Farmers' Institute Notes.

BY SUPERINTENDENT G. C. CREELMAN,
TORONTO

Reports of the January meetings are still coming in and our speakers continue to write in the most encouraging tones of Institute work generally. A few years ago people told us that the Institute work had reached its maximum point of usefulness and that some new

method would have to be adopted in order to keep up the interest. We have tried very conscientiously to select the very best men for the work, and to give them every opportunity of improving themselves along their special lines. We have had the speakers attend the Experimental Union and Provincial Winter Fair each year and listen to the addresses of the best men that could be procured on the continent. We have also procured for them the results of the agricultural experiments in the United States and elsewhere, and tried to give them every opportunity of posting themselves on all matters pertaining to progressive agriculture. We are now reaping our reward.

INCREASED MEMBERSHIP

Last year saw an increase of 2,000 members, and this year the indications are that the increase will be quite as great. This means that not only have most of the members of previous years attended the Institutes and paid their membership fees, but that 2,000 men in addition, hearing of the work through their neighbors and through the newspapers, came forward and asked to be associated with the work. We have received reports from the following places during the past week.

WEST ELGIN.

Meetings were held at Rodney, Dutton, and Middlemarch, with an attendance of 185 in the afternoon and 200 at night. Mr. C. W. Nash introduced the subject of "Insect Pests" and "Beneficial and Injurious Birds," while Mr. R. S. Stevenson took up the subject of "Beef Cattle" and "Corn Growing for the Silo." Poultry production was also a live subject at the Rodney meeting, being introduced by Mr. T. N. Havens, Aldboro.

SOUTH HURON.

At Exeter on the 11th, Mr. S. Smilie reports that owing to the meeting being called for Saturday the attendance was small, and what the secretary calls a small meeting is 70 in the afternoon and 200 in the evening. Three sessions were held at Brucefield, morning, afternoon and evening, with a total of 330 people in attendance. "Cement Silos" was the principal topic of discussion and the subject was pretty well threshed out. It was decided that a man building a silo on his own farm, if he could afford it at all, should put up a first-class cement silo. On a rented place where a man does not get credit for permanent improvements a stave silo answered very well. Some complaints were heard about cement silos being so cold that the silage froze around the margin. While this may be true in very severe weather the consensus of opinion was that there was not enough silage lost to condemn the cement silo.

Mr. G. R. Cottrell introduced at this meeting the subject of "Poultry," which was well received, as this new and important subject deserves.

WELLAND.

The regular meetings were held this year at Ridgeway and Welland and the secretary reports that at the first mentioned place they had the best Institute meeting ever held in that town. Major Sheppard spoke on "Corn Growing" and gave his experience of forty years. The discussion was spirited and profitable. Late in the afternoon the subject of "Good Roads" was brought up, being introduced by Mr. J. F. Beam, Black Creek. At Welland there was no afternoon meeting held on account of it being the date of the meeting of the Agricultural Society. This also seemed to interfere with the attendance at the evening meeting, for in the beautiful town of Welland with such a splendid agricultural country surrounding it, there were only thirty people out at the evening session.

WEST SIMCOE

For the first time since 1885 Farmers' Institute meetings were held in West Simcoe without the assistance of the late Mr. Charles Lawrence. No matter what the condition of the weather or the state of his own health Mr. Lawrence was always on hand bright and cheery to help on the work. This Institute, however, is fortunate in having secured the services of Mr. John McKee of Dunroon, who now acts as secretary of the Institute.

Mr. Duncan Anderson discussed the subject of "Cattle Raising" and Dr. Reid took up the subject of "Horse Breeding," so they had a series of live stock Institutes. There were 200 people at the afternoon meetings and 350 at night.

CENTRE BRUCE.

The regular meetings were held at Chesley and Paisley, and the speakers sent from this department were Mr. G. C. Caston and Mr. F. C. Ellord, also Mrs. Colin Campbell. Mr. Caston discussed the question of "Cold Storage" and "Transportation and Marketing of our Perishable Products," while Mr. Ellord introduced a somewhat new subject in Ontario, "The Growing of Alfalfa for Haying Pasture." Mr. Ellord recommended 20 lbs. of seed to the acre, sowing with barley in the spring following root crop. "I have raised hogs," said Mr. Ellord, "on lucerne and whey alone, with grain for the last two or three weeks only. This kind of pork costs me only 2½ cents per pound. Alfalfa also makes a first-class soiling crop, and I have taken over twenty tons of green fodder to the acre in one season. It is also an early crop. At Holmesville it is two feet high on the 6th of May." In answer to a question Mr. Ellord said that he also fed it to milch cows, and they did not find anything they could add to it to increase the flow of milk. "Give the cows all the lucerne they can eat," said he, "and plenty of water and you will get all the milk they are capable of producing. It also makes good hay. It is my experi-

ence that lucerne alone will keep working horses in as good condition as will timothy hay with three gallons of oats added to it. Both on my own and on my neighbors' farms the introduction of lucerne has trebled the hay crop, and as the hay crop of Ontario is estimated at 1,500,000 tons you can easily see the immense gain there will be to the country at large. The seed is expensive, but the plants stand our hot seasons well and the field continues to give crops for eight or ten years."

EAST VICTORIA.

Last year East Victoria had a membership of 172. Already this year Mr. Thurston, the secretary, has sent us 234 names of members. This certainly speaks well for that district and we feel like congratulating the officers and directors on the decided improvement in their work. The delegation this year was particularly strong. Mr. Glendenning talked on "Breeding and Feeding of Hogs," "Cattle Feeding," and the "Fruit and Vegetable Garden" and was well received everywhere.

Mr. W. N. Hunt, who was so well received at the annual meeting of the Ontario Fruit Growers' Association when he took up the subject of "Pruning," also got good audiences in East Victoria. Then Miss Linton was present also to assist at the evening meeting. At Omamee there were 74 in the afternoon and 450 at night; at Dunsford 30 in the afternoon and 50 at night; Cambray 30 in the afternoon and 100 at night, and at Burnt River 50 in the afternoon and 120 at night. At each place Miss Laura Linton held a separate meeting for women in the afternoon.

WEST DURHAM.

The secretary writes that the meeting at Orono was the best ever held in the riding, the attendance being over 300, and half of the number being ladies. The town hall was packed and great interest was shown in the subjects introduced by the delegates. The directors considered that the two things that contributed most largely toward drawing the large audience to the meeting, were, first a lady lecturer, and second, liberal advertising. It is true that no kind of meetings can now be held satisfactorily without letting the public know from as many standpoints as possible what is going on. In Halton and Peel counties where some of our best meetings are held, they do not depend entirely upon bills or posters, but they use the public press liberally, and each director takes upon himself the responsibility of seeing a certain number of people and not only telling them that there is to be a meeting, but also mentioning the subjects that are to be discussed.

NORTH WENTWORTH.

Mr. Joseph Stephenson, the secretary, writes: "The regular meetings just closed have been the best in the history of our Institute. The

farmers are taking a very deep interest in all the subjects advertised and seem eager for knowledge in all lines of general farming and stock raising. We had a total of 175 at our afternoon meetings and 450 at night."

WEST HASTINGS.

The supplementary meetings of this district are always held in school houses, and they are always taxed to their utmost capacity, especially at night. This year there was a total of 1,097 at the four meetings. Mr. Andrew Elliott and Mr. F. M. Lewis spoke to the men and Mrs. Elizabeth Torrance of Chateaugay Basin, Que., took charge of the meeting for ladies held in the afternoon.

CENTRE WELLINGTON.

James Kirkwood, the secretary, writes: "We have just completed our regular meetings and they were first-class. Mr. Raynor and Mr. Clark gave good, practical addresses, which were followed by interesting discussions. We hope to arrange another meeting so as to use the services of the same delegation on their way home. We had 145 at Belwood and 325 at Ospringe."

HASTINGS

Mr. Andrew Elliott writes that all three ridings of Hastings had good meetings. "They have a splendid dairy country and are progressive people, but I am afraid there is just a little danger of their being satisfied with their present standing in dairy matters—inclined, as it were, to rest on their laurels. Their cows are a fair quality but the breed is altogether too mixed. They have stuck to no particular type nor breed and the result is that are not just sure themselves what they have. If the farmers of Hastings county with their natural conditions so suitable to dairying, would take a leaf out of the book of some of our more progressive stock counties, select one good type and breed to it, we would see not only a great advance in the quantity and quality of milk but the farmers themselves would become more intelligent as they became more observant and painstaking." Further Mr. Elliott says, "We have found the officers in this district energetic and obliging, which I am sure accounts for the Institutes being in such a flourishing condition."

EAST NORTHUMBERLAND.

Reports are just in from Secretary Carlaw, of meetings held at Castleton, Wooler, Menie and Hastings. "The most enthusiastic meetings we ever held." "110 in the afternoon and 400 in the evening." "125 in the afternoon and 300 in the evening." These are some of the phrases used by the secretary in reporting the meetings. East Northumberland is a splendid dairy and fruit country, and as Mr. Erland Lee, Stony Creek, and Mr. A. McNeill, Walkerville, were the delegates much valuable information was received by those present.

SOUTH GRENVILLE.

Here again we find an enthusiast in Secretary G. W. Carson. In writing of his meetings he says: "I am glad to report our supplementary meetings as a grand success. Notwithstanding the fact that we had a snow blockade in our section during the meeting the people disregarded the state of the roads and turned out in large numbers. At Donville, where we had never held a meeting before, we had probably the most successful one of the series. We were assisted at this meeting by Mr. Harold Jones of Maitland, who has charge of the Experimental Fruit Station for this district. Mr. Jones is certainly doing a good work in the fruit business for this section of the country. I am glad to report substantial increase in our membership this year. We are much pleased with the delegates, Mr. A. W. Peart and Mr. John Gardhouse."

PRINCE EDWARD ISLAND.

Mr. Robert Thompson, St. Catharines, a member of our staff whom we loaned to Prince Edward Island for January, reports good meetings down there. He says: "As yet the people are diffident about taking a place on the programme, but are asking questions freely, and I think they will be all right when they get fully organized. They are a bright, intelligent class of farmers, but have not been in the habit of meeting together much. They are eager for information."

Women's Institutes.

SOUTH BRUCE.

The energetic secretary of this Institute, Miss May Tolton, Walkerton, writes that on the 9th of January they had a meeting in Walkerton at which Mrs. Colin Campbell, Goderich, was the principal speaker. Miss Tolton says that Mrs. Campbell made a splendid impression and enabled them to secure many new members, as well as renewals of last year's membership. At the afternoon meeting Mrs. Campbell spoke on "Household Economics," when there was an attendance of 60 ladies. At the evening meeting, which was a union meeting of Women's and Farmers' Institutes, there were over 700 people present.

NORTH GREY.

Mrs. Wm. McGregor, secretary of this Institute, succeeded last year in securing the largest membership in the province. In reporting the meeting at Kemble on January 7th Mrs. McGregor writes: "At this meeting we secured 38 new members. It was decided that we hold a meeting here at least once in three months, and that we further make arrangements to exchange papers and essays with other institutes so that in this way we may be mutually helpful. Some of the subjects discussed were 'House Sanitation,' 'Poultry,' 'Special Occasions' and 'Success in Life.'"

The Farm Home

In Common Things.

Seek not afar for beauty. Lo! it glows
 In dew-wet grasses all about thy feet;
 In birds, in sunshine, childish faces sweet.
 In stars, and mountain summits topped with snows.
 Go not abroad for happiness. For, see!
 It is a flower that blossoms by thy door.
 Bring love and justice home; and then no more
 Thou'lt wonder in what dwelling joy may be.
 Dream not of noble service elsewhere wrought.
 The simple duty that await thy hand
 Is God's voice uttering a divine command;
 Life's common deeds build all that saints have thought.
 In wonder-workings or some bush aflame,
 Men look for God, and fancy Him concealed;
 But in earth's common things He stands revealed,
 While grass and flowers and stars spell out His name.
 The paradise men seek, the city bright
 That gleams beyond the stars for longing eyes,
 Is only human goodness in the skies,
 Earth's deeds, well done, glow into heavenly light.
 —Minot J. Savage.

Cooking Lessons at the O. A. C. Dairy School

No. III.

Food and economy formed the basis of Mrs. Joy's remarks for this lesson.

Food is that which taken into the body builds tissue and yields energy.

The most healthful food is that which is best fitted to the wants of the user.

The cheapest food is that which furnishes the largest amount of nutriment for the least cost.

The best food is that which is most healthful and cheapest.

The body is likened to an engine and the amount of work done depends largely on the kind and amount of fuel used, as some engines are so constructed to do a maximum amount of work with a minimum amount of fuel, so some bodies make much better use of the food eaten than do others, or in other words, some people have better assimilating powers and get more benefit from the food they eat than do others who consume, perhaps, twice the quantity.

One pound of proteid or one pound of carbohydrates furnishes the same amount of heat in the body, while one pound of fat will furnish two and a quarter times that amount. The body has the power to throw off or rid itself of an excess of carbohydrates much easier than if too much proteid were taken. Proteid is always the dearest portion of our diet. Does not the meat bill always exceed the bread bill?—and it is the meat which largely furnishes the proteid.

In buying clothes we say the best is the cheapest in the end. Not so with regard to food, especially meat. Shoulder steak is more nutritious and not so wasteful and very much cheaper than surloin. In buying food we must not only consider the first cost but also the waste. In buying beef there is usually from 8 to 10 per cent. waste, in fish 50 per cent. waste, chicken 40 per cent. waste, in eggs 14 per cent. waste. The value of a food is not determined merely by the nutrients it contains but also by the amount of these nutrients the body can make use of. Many foods contain nutriment but in such a form as to be of little use to the human system.

There are two chief means of waste of food. One is throwing food away which might be utilized in making wholesome, tasty dishes. The left-over vegetables, dry bread and cake, bones and scraps of meat can all be used to good advantage by the thrifty housewife. Many people waste much food by over-eating. This is not only a waste of good food material, but also a serious waste of life force as it gives the system unnecessary work and frequently causes serious sickness.

Many buy expensive foods to suit or please the palate, instead of buying that which costs less and then spending a little time and thought in properly cooking and developing flavors to make wholesome tasty dishes.

Mrs. Joy then prepared a dish of corn beef hash as follows:

1 cup cold corn beef, 1 cup cold boiled potatoes, 1 tablespoonful butter, 1 tablespoonful water. Salt and pepper to suit taste. Cut the beef and potatoes into small squares, add pepper and salt and mix together. Put water and butter into irving pan, and when just browning put in the hash and slightly brown. Then turn out on a hot dish.

A DAINY AND DELICIOUS SPONGE CAKE.

$\frac{3}{4}$ cup sugar, $\frac{1}{4}$ cup flour, 3 eggs, 3 tablespoonfuls of cold water, a little grated lemon rind, or other flavoring. Beat the yolks of the eggs and the sugar together until creamy—for cakes without baking powder it is better to use fine white sugar—sometimes called cas-

tor sugar, as it does not require so much beating. Add the water and the yellow rind of the lemon—the white part is bitter—sift in part of the flour, stir and add part of the stiffly beaten whites of the eggs, then the rest of the flour and lastly fold in the remaining white of eggs. Avoid beating or much stirring, as the more air you can keep in the better, the lighter will be the cake. Take 1 teaspoonful of flour and 1 of sugar, mix and sprinkle over the bottom and sides of a well buttered cake tin. This forms a nice crust on the cake. Pour in the cake mixture and bake in a moderate oven, trying it with a broom straw to see when it is cooked.

BOILED SALAD DRESSING

1 yoke of egg, 1 tablespoonful water, 1 tablespoonful vinegar, 1 tablespoonful butter, 1 tablespoonful sugar, $\frac{1}{2}$ teaspoonful mustard, $\frac{1}{2}$ teaspoonful salt. Mix the ingredients together, cook until thick, stirring constantly. Thin by adding beaten white of egg, milk or cream. Pour over carefully picked lettuce leaves which have been torn into small pieces. The lettuce should not be wet; if so it will wilt quickly. The dressing is nice over cold potatoes cut into cubes and a few drops of onion juice added.

For a sauce for fish add three times the amount of water and a little lemon juice. Cut up olives or gerkins are by some considered an improvement to the sauce.

Laura Rose,

O. A. C., Jan. 28th, 1902.

Farming World Helpmates

BY M. E. GRAHAM.

What education should the girl receive who expects to become a successful helpmate for the up-to-date farmer?

LEFT OVERS

The educated helpmate has proved a very interesting subject and all who have taken part in the discussion must have gained by the careful consideration they have given the question. But all has not yet been said as there are still some excellent articles on the subject. Most of the writers found it impossible to do justice to the subject in a short article and though some of the winners spread a little beyond the required length, yet there were some who wrote excellent letters but who sent nearly double the allotted number of words. These will appear shortly and we will begin with one which almost appeared among the winners though the writer assumes certain conditions for the girl before giving her the required education. You realize the need of the educated farm woman.

A SCHOOL TEACHER ALL RIGHT.

Assuming that our girl in question has been reared on a farm

Andrew Carnegie says,

*"There are
opportunities for women everywhere
today that when I looked in
New York's parlors."*

Are you ambitious for
business success? Then pre-
pare for it. Plenty of oppor-
tunities for those fitted to fill
them. Take our

**Home Correspondence
Business Course**

and while continuing present duties
fit yourself for some big future.
Shorthand Course prepares
for positions in offices, courts,
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competent help. Good salaries.
Learn to "Buy Study Business"
Free. "Buy Study Shorthand"
The Home Correspondence School,
Temple Building, Toronto



where up-to-date methods of farming have been followed, that her public school education has been completed, and that during her secondary education, she will be observant of conditions and changes on the farm and in the farm home, what education would best fit her for the position the question suggests?

Her literary education should be continued in a high school until she has obtained a matriculation or equivalent non-professional certificate. If conditions permit, a professional training and some experience as a school teacher will give a fund of experience, invaluable in after life, not only as an adjunct to the profitable transaction of business, but in her capacity as a mother. Next she should have a course in Home Dairying and Poultry Management, and from her intellectual ability she would wish these be able to carry on a reading course on Domestic Science. Her musical education could be obtained between the time she completes her public school course and the time the High School course begins to grow heavy. Such a course would give all the social and intellectual advantages to make a daughter in her mother's house, mistress in her own, and an helpmeet for her husband.

A PRACTICAL HELPMATE.

Every girl who expects to become a successful helpmate for the up-to-date farmer should possess the following educational qualifications:

To be able to write a good legible hand.

To speak and write good English, make out an ordinary account and receipt it when paid. Write a promissory note and reckon interest or discount on it. Tell the number of bushels of oats in a bin. Know something of the laws of health and what to do in an emergency. To know how to behave in public and society. To have sufficient common sense to get along in the world.

Laura B. Foster.

(I was extra well pleased, Laura, with your answer, perhaps because it is so matter of fact. I judge the last paragraph describes you, I would imagine you to be a straightforward, go-ahead girl, who takes no round-about way to reach her destination.)

Graham or Whole Wheat Bread

A new subscriber at Reed's Mills, Ont., asks for a recipe for making Graham or whole wheat bread.

The Ideal Cook Book gives the following recipe for making brown bread. If any of our readers have other recipes to offer we would be glad to have them:

Ingredients—Sponge as for white bread, 2 parts of Graham flour, 1-3 white flour, to every quart of this add a large breakfast cupful of Indian meal, 2 saltspoonfuls of salt, for a good sized loaf allow 1/2 a cupful of molasses.

Take the Graham and white flour, Indian meal, and salt, in the above proportions, and mix this up with the sponge, then pour in the molasses. If it cannot be brought to the proper congruity (which should be very soft) with the sponge, add a little warm water; be careful to knead it well and for a long time; then allow it to rise: it will take longer than white bread; then make into loaves, and bake carefully. When baked allow to cool before cutting.

Hints by May Manton.

The favor of the blouse waist appears to increase as each new variation is offered. This very effective model while simple in the extreme can be made to give an elaborate effect by judicious handling of materials.

The original is made of white Henrietta with a deep embroidered edge. A narrow vest of white taffeta, and trimming of narrow black velvet ribbon and jewel buttons.



4025 BLOUSE WAIST.
32 TO 40 BUST.

The fitted lining closes at the center front, on it are arranged various parts of the waist. The back is plain across the shoulder and drawn down in gathers at the waist line; but the fronts are laid in two plaits at each shoulder which provide additional fullness over the bust. The narrow vest is plain and held in place by the buttons. The sleeves are in bishop style with novel pointed cuffs made of the embroidery.

To cut this waist in the medium size 3 1/2 yards of material 21 inches wide, 3 yards 27 inches wide or 2 1/2

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We thoroughly prepare young people for the business duties of life by our complete courses in Accounting, Telegraphy, Shorthand, Typewriting, Etc. We provide a dozen Capable Teachers, and Eighty Typewriting Machines, and produce good results.

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yards 44 inches wide will be required.

The pattern 4025 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

Advance Fashion Suggestions for Spring

Dresses of thin, transparent materials will be trimmed as they were last season with Valenciennes insertion and lace.

White pique shirt-waists are among the first to be worn in the early spring. The newest are of a light weight and fine cord, and are made quite simply, with a cluster of tucks at each side of the front.

Belts of both plain and ribbed black velvet will be worn with spring woollen gowns. Such belts are stylish and may be worn with spring gowns of any color or material. The prettiest belts are made with a slight dip in the middle of the front.

For hard general wear a spring suit of black, navy, brown or Oxford gray cheviot will give general satisfaction. One of smooth cloth is more dressy in effect but not so suitable for all sorts of weather. The skirts of such suits should be made to clear the ground, and lined with percaline if silk cannot be afforded. The jackets should be neatly lined and made comfortably large so that they will slip on easily over all kinds of waists.—February Ladies' Home Journal.

Do you Hook Mats?

Imake patterns for Hooked Rugs or Mats. Send your name and address a postal card for design sheet of patterns. Made in eight sizes. If you cannot get them from your dealer shall be pleased to send them by mail. The two patterns shown are 1 1/2 yard size and are 28 in. wide. Price by mail 25c. each. Easy postage. Order by number.

JOHN E. GARRETT, Box 231, New Glasgow, N. S.



The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

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

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CONFEDERATION LIFE BUILDING,
TORONTO.

Industrial Fair Dates Fixed.

At a recent meeting of the board of directors of the Toronto Industrial Fair Association, it was decided to hold the next Exhibition on Sept. 1st to 13th, inclusive. These dates are practically a week later than last year and will enable a more mature exhibit of apples and vegetables to be made. We understand that it is the intention of the Ottawa people to hold their exhibition this year the week immediately following Toronto, which will bring the London and Ottawa fairs on the same week.

Plans have been decided upon for the new dairy building at the Industrial which will be in readiness for next season's display.

New Brunswick Dairy School.

The Provincial Dairy School of N. B. opens for the 1902 session this month. The factory course for cheese and butter makers begins on Feb. 25th and closes March 26th, 1902. The home dairy course begins Feb. 25th and closes March 7th. A comprehensive course of instruction in these two branches of dairying will be given free to all students from the Maritime Provinces. Harvey Mitchell, Sussex, N. B., is resident superintendent.

Nova Scotia Fruit Growers.

The annual meeting of the Nova Scotia Fruit Growers' Association held at Wolfville on January 20th, 21st and 22nd was a most successful one. Among the prominent speakers from a distance were Prof. L. H. Bailey, Cornell University; Prof. Waugh, Vermont; Dr. Fletcher and Frank T. Shutt of the Central Experimental Farm, Ottawa; W. A. McKinnon, chief of the fruit division, Dominion Department of Agriculture; and A. McNeill, Windsor, Ont.

President Bigelow in his annual address stated that while the world's crop of apples was only about 35 per cent. of a full crop, Nova Scotia had almost an average crop of splendid quality and that it would yield fully 300,000 barrels for export. He referred to the bad carriage of Nova Scotia fruit from Halifax. It had been found that Nova Scotia apples could be shipped cheaper and in better condition via Montreal than via Halifax. He urged a thorough inspection of Nova Scotia orchards for the San Jose Scale. So far no scale had been found in the province, but the utmost vigilance must be exercised to keep out this pest.

The subjects discussed were the Fruit Marks Act, Tillage of the Orchard, Insects Injurious to Fruits, Transportation of Apples, Spraying, Pruning, etc. The School of Horticulture at Wolfville is in a very flourishing condition. 64 students attended last year, 59 of whom were from Nova Scotia, 4 from New Brunswick and one from Prince Edward Island. In the election of officers, J. W. Bigelow, Wolfville, was elected president for 1902; P. Innes, Kentville, senior vice-president; secretary, S. C. Parker, Berwick; and assistant secretary, R. W. Starr, Wolfville.

To Discuss Local Fairs

On Feb. 13th next there will meet at Ottawa representatives of the Township and County Agricultural Societies of Eastern Ontario and Western Quebec to discuss the adoption of measures to improve the fair system of that part of the country. As this meeting will be held on the day following the public auction sale at Ottawa a good crowd is expected.

East Middlesex Institute.

The supplementary meetings of the East Middlesex Farmers' Institute will be held in February as follows: 8th at Wellburn, 10th at Bryanston, 11th at Crumlin, 12th at Ilderton, 13th at Hyde Park, 14th at Dorchester Station, 15th at Belmont, 17th at Glanworth, and 18th at Lambeth. The chief speakers will be Henry Glendenning and Miss Blanche Maddock.

Royal Show

A special feature of the show of the Royal Agricultural Society of England, which this year is to be held at Carlisle, will be the classes for White Shorthorn bulls. The London Live Stock Journal says: In the north of England it is well known that the White Shorthorn bull is a very valuable cross with Galloway cows for the production of those celebrated feeding cattle known as the "Blue Greys." These are largely bred in the districts about Carlisle and the local committee have secured a special class for white bulls, which will be a new feature at the Royal Show.



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These are the great curses which afflict three-quarters of the present generation. Sufferers from either one or all of them must always feel miserable, and sooner or later become chronic invalids, useless to themselves and a burden and nuisance to friends and family. There is one sure, safe and absolute cure which you can test without any expense. Our remedy is Egyptian Regulator Tea, a trial package of which we will send you free and prepaid on request. Unless you find our claims are true, we must be the losers by this liberal act. Shall we send you the trial package, and lead you to perfect health and happiness? Address, THE EGYPTIAN DRUG CO., New York.

Well Fattened Chickens Pay.

We are indebted to the Orillia Packet for the following:
 "Mr. Chris. Moore last week gave the Packet the result of a practical experiment in chicken feeding carried on by himself. About ten days before Christmas he bought nineteen Brahma chickens from a butcher, at eighteen cents apiece. Then he proceeded to fatten them systematically. The chickens were well housed, were given a regular grain ration and abundance of soft food, and the water they drank, which was given them at the same hour every day, had the chill taken off it. Last week Mr. Moore killed the chickens. When dressed they made a fine appearance, looking more like small turkeys than chickens. Fourteen of them weighed eighty pounds, which at seven cents a pound (they were easily worth a cent a pound more than ordinary birds) would be \$5.60, or eighty cents a pair—double the price paid for ordinary chickens. The nineteen chickens cost Mr. Moore \$3.42, and their food cost \$1.25, a total of \$4.67. Mr. Moore had five chickens for his own use, which at forty cents apiece would be \$2. His profit therefore was \$2.93 on the expenditure of \$4.67—a very satisfactory percentage for less than four weeks. The experiment is only a further evidence of the wisdom of the farmers bringing their poultry to market properly finished. The farmer who sold the chickens a month ago got only twenty-five cents a pair

for them—less than a quarter of their value when fattened. One thing is necessary for success, and that is to have good breeding so as to get the frame to build on. With Plymouth Rocks, Mr. Moore believes he could have made even better showing.

Poultry and Eggs.

Advertisements under this head one cent a word. Cash must accompany all orders under \$2.00. No display type or cuts allowed. Each initial and number counts as one word.

BROWN Leghorns, Prolific early layers; Strain Down at Pan-American. Stock for sale—Minorcas, Barred Rocks, Ch. test Strains, Eggs in season. JOHN B. PETTIT, Fruitland, Ont.

BRONZE TURKEYS—My stock has won first and second premiums at the largest shows in England, Ireland, United States, and Canada. My stock pleases customers, as I have sent out 363 turkeys and only four were dissatisfied. Choice stock now for sale. W. I. Bell, Angus, Ont.

FOR SALE—Mammoth Bronze Turkeys of extra quality and bone. Tom's \$2.30, hen's \$2.00. Also some White Wyandottes and Barred Rock Cockerals. Satisfaction guaranteed. Sam. Snowden, Box 265, Bowmanville, Ontario.

FOR SALE—Light Brahma cocks, hens and cockerels from stock that won 6 prizes, 6 entries Bradford, 8 prizes on 10 entries, Toronto, also Earl Minto silver cup, best collection, value \$50 \$1.50 to \$5 each. J. J. Pickard, Dumbo.



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 Simple—Effective—Durable
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 Price 45c. each. AGENTS WANTED.



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 must be well and carefully done, as the future crop depends upon it. For all purposes, in any soil, on all kinds of ground nothing equips the
SPANGLER CORN PLANTER.
 It saves time, labor, money and lessens the crop. You know when it is working, you can see the corn on its way to the ground. Made with or without fertilizer attachment. New device for sowing peas, beans, cow peas, corn, etc. We also make the famous Spangler Low-down traps and Fertilizer Drill. Write for catalog and circular.
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...FARMERS'... FEED COOKER



Will cook 100 gallons of feed in 45 minutes, or 50 gallons in 30 minutes, and uses only a quarter of the wood the old styles use.

50 Gallon Cooker 38 inches long, \$12.00
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I have spent nearly 30 years in the treatment of the above named troubles and believe I have effected more permanent cures than any specialist in the history of medicine. As I must soon retire from active life, I will, from this time on, send the means of treatment and cure as reader of this paper who suffers from these loathsome, dangerous and disgusting diseases. My treatment will positively give prompt relief and cure in the worst cases. This is a sincere offer which anyone is free to accept. Address, **PROFESSOR J. A. LAWRENCE, 114 West 33d St., New York.**

The Successful Ones

The following is a list of the successful Ontario competitors in the Macdonald Seed Grain Competitions for 1911:

Ontario.		
Fall Wheat		
Bertie Andrew & Co.	Sheridan, Ont.	\$25 00
Willie Murray	Avening, Ont.	20 00
Ernest Cochrane	Ayr, Ont.	15 00
Alfred Mountain	Avonbank, Ont.	12 00
Bessie Brimicombe	Goderich, Ont.	10 00
C. E. Gies	Heidelberg, Ont.	8 00
Claud Blake	Lyons, Ont.	5 00
W. J. Armstrong	Constance, Ont.	5 00
W. J. Dunlop	McDonald's Corners, Ont.	5 00
Adam Stevenson	Avonbank, Ont.	5 00
Spring Wheat.		
Pearl Henricks	Headford	\$25 00
Charlotte St. George & Co.	Tramore	20 00
Walter H. Farthing	Silver Water	15 00
W. J. Ross	Braemar	12 00
Marguerite Dellandrea	Golden Valley	10 00
John McN. Heslip	McKellar	8 00
Edith Fleming	Ivanhoe	5 00
David Fleming	Ivanhoe	5 00
Ormiston Brown	Morley	5 00
R. G. Brown	Chard	5 00
Oats.		
Wilbert Prouse	Goderich	\$25 00
John McDonald	Porter Hill	20 00
E. & M. Cochrane	Ayr	15 00
W. L. Stephens	Aurora	12 00
Maggie Marshall	Doe Lake	10 00
Edgar Sullivan	Watford	8 00
Harvey Lennox	Magnetawan	5 00
Alfred Mountain	Avonbank	5 00
John F. Collingham	Palmero	5 00
Fred Wright	Glanworth	5 00

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 best suited to our advertising columns.

Horses.

The following from the Mark Lane Express summarizes the horse trade in Great Britain very concisely:

Breeders of Shire horses have again experienced a good year for their special class. Perhaps the outstanding feature was the sale of geldings held last spring by the late Lord Wantage, when fifty-one averaged very nearly £89. With regard to breeding stock, Mr. Fred. Crisp secured a record when he obtained £1,627 10s for one of his stallions, while the best sale averages were Sir J. Blundell Maple's £196 18s 4d and Mr. P. A. Mintz's £186 18s 4d. Clydesdales have had a satisfactory season, a number being bought for export, Canadians especially being fond of this type of horse. Values ranged up to £80 for a gelding, while stallions realized 50 gs. Hackneys have done rather better than in 1900. A stallion made £451 10s., while at the Agricultural Hall in the spring 400 gs. was given for a brood mare. Hunters of good class have been in demand, up to 700 gs. being obtained, while for harness horses really first-class animals have made high values. Polo pony breeders, too, had a good season, but just at present the supply of ponies is quite equal to the demand.

Cattle.

A most important addition was made to the Ontario Agricultural College herds last week in the arrival from quarantine of the highest priced Hereford bull calf sold last season in England. The calf was purchased for the College by Mr. Joe Barnett, manager for W. C. Edwards & Co., at Mr. John Price's (The Court House herd) big sale of Herefords last season. The price paid was 120 gs., the highest figure at the sale for a calf. He was calved in January, 1901, and shows good size and quality for his age. Though looking somewhat the worse of his stay in quarantine and long journey afterwards, the calf shows up well, having an excellent Hereford head and forequarters.

Mr. J. G. Davidson, manager of the Hon. Mr. Mulock's farm at Newmarket, in sending in his subscription, writes in this interesting way: "I have been two months in charge of Hon. Mr. Mulock's fine farm and stock here. Some of my friends say of me that I will 'make a spoon or spoil a horn' and I confess I am rather anxious about the horn myself. There is one thing, however, in my favor. I have had all my life the greatest regard for the late W. I. Talbot Crosby and his excellent methods for the im-

provement of a country's live stock, and although I am a Scotchman myself I may say that I do not know a Scotch herd that did so much for the common cattle as Mr. Crosby's did for those of Ireland, and indeed everywhere his stock went. If one thing more than another would make a man a 'Booth Crank' it would be a knowledge of Mr. Crosby's life work after getting his 'Lamp of Lothian' cross on his Isabellas. I little thought that I should ever have charge of a small group of his fine cattle out here in Canada."

J. A. RICHARDSON, South Marsh, Ont., breeder of Ho'stelns, Dorset Horned Sheep, Tamworth swine.

E. PANNAECKER, Fairview Farm, Hespeler, Ont., breeder of reg. Holsteins. Stock for sale.

FOR SALE

Shorthorn Bulls, from 10 to 11 months old. Color, red. Low set down fellows.

JAMES BROWN, Thor-Id, Ont.

FOR SALE

One pair of pure bred Angora goats, one year old past.

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Mount Vernon, Ont.

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PURE-BRED AYRSHIRE BULLS coming 1 year old, fit for service, and one coming two years old. All sired by "White Prince" (Imp.) except the one coming 2 years old. As I am about renting my farm these bulls will be sold cheap if taken at once. Also a number of fine pure-bred Yorkshire Sows from one to four years old.

JOHN H. DOUGLAS,
WARKWORTH, ONT.

OXFORD DOWN SHEEP

Durham Cattle, "Milk-Ing Strains"; Yorkshire Pigs; Plymouth Rock Poultry.
John Cousins & Sons
Harrison, Ont.



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...Young Stock for Sale

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are acknowledged to be the best type of bacon hog to produce the ideal carcass for the best English trade. CHAMPIONSHIP - BRED AT TORONTO INDUSTRIAL EXHIBITION FOR NINE YEARS also sweepstakes on Dressed Carcass at Provincial Winter Show. We have on hand now a large herd of different ages. Our prices are reasonable and the quality is guaranteed to be choice. Write

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OXFORDS AT BRANT FARM



Choice ewe lambs an ewes of all ages. Prices to suit times. Orders booked any time for show stuff for 1902. Fitting a specialty. Burford Station
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Ho'stelns, Tamworths and Barred Rocks.

One bull, 11 months old; 2 bull calves, 6 weeks 4 heifers in calf; 1 cow; 2 heifer calves, all De Kols. Tamworth, 2 boars ready for service; 1 sow; breed young pigs of both sexes ready to ship; 6 B.R. Cockerels. Look for bargains owing to change of location.

A. C. HALLMAN, New Dundee, Ont.

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

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Choice Young Bulls and Ram Lambs for sale. Write for prices.

IMPERIAL HOLSTEIN-FRIESIAN STOCK FARM

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Glen Crescent Shorthorns and Oxfords

Two Young Bulls by imp. "Precious Stone" and imp. "Blue Ribbon" for sale. Can spare a few more Oxford females.

J. W. WIDDIFIELD,
Uxbridge, Ont.



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The GRIMM MFG. CO.,
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YORKSHIRES

Sows safe in pig, are from 225 lbs to 300 lbs. each, lengthy smooth deep type. Guaranteed as described, and safe delivery. Write

JAS. A. RUSSELL, Precious Corners, Ont.

Market Review and Forecast

Office of The Farming World,
Confederation Life Building,
Toronto, Feb. 3rd, 1902.

The features of the general trade of the country mentioned last week continue. Firm confidence in a good year's business continues in wholesale lines. Speculation is a little too much in evidence in some lines, which is likely to bring reaction, but on the whole the outlook for legitimate trade is bright. The money market keeps steady with a good demand at 5 per cent. on call. Discounts on commercial paper continue at 6 to 7 per cent.

Wheat.

An easier feeling prevails in wheat notwithstanding the predictions of many in the trade that prices would advance as the winter got older. Cables have ruled easier during the week and there is not nearly as buoyant a feeling on the other side as was reported a few days ago. The visible supply of wheat in Canada and the United States increased during the week by 100,000 bushels to 59,373,000 as compared with 60,791,000 at this time a year ago. The total world's supply in sight is 94,493,000 bushels, or 4,400,000 bushels greater than at this time a year ago. The condition of the growing crop will play an important part in the market fluctuations from this on. At present the condition in the Western States is reported good. There is now only about five months till the new crop will be ready.

Locally the wheat markets have ruled quiet. Manitoba is reported firm, however, at Fort William at 74c for No. 1 hard. Here things are quiet at 74c to 75c for red and white, and 67c for goose, middle freights, and 72c for spring east. On Toronto farmers' market red and white bring 70c to 78³/₄c, goose 67c, and spring file 70c per bushel.

Oats and Barley.

The oat market rules quiet and in favor of buyers. Quotations here are 40c to 41c for No. 2 white, middle freights. On the local farmers' market oats bring 46c to 46³/₄c per bushel.

Feed barley is lower, but good malt barley is scarce. Prices here are 50c to 56c as to quality and point of shipment. On Toronto farmers' market malt barley brings 55c to 63c per bushel.

Peas and Corn

There is a quiet market with lower values for peas at 82c for No. 2 middle freights and 81c north and west. On the farmers' market here peas bring 85c per bushel.

PAIN-KILLER is more of a household remedy than any other medicine. It meets the requirements of every home. Cures cramps and dysentery and is the best liniment made. Avoid substitutes, there is but one Pain-Killer, **Ferry Davis'**. 25c. and 50c.

A CONVENIENT INVESTMENT

Our Bonds and Coupons may be collected without expense at any branch of The Mutual Bank, the Ontario Bank, or The Standard Bank of Canada.
The remittances can also be made without expense. They bear interest at FOUR PER CENT., payable half-yearly.

The CANADA PERMANENT and WESTERN CANADA MORTGAGE CORPORATION

Toronto Street, TORONTO

The corn market is easier and Canadian yellow is quoted at Montreal at 65¹/₂c to 66c in car lots. Quotations here are 56c for Canadian mixed and yellow west in car lots.

Bran and Shorts.

Ontario bran in car lots is quoted at Montreal at \$20 to \$21 and shorts at \$21.50 to \$22.50. City mills here sell bran at \$19 and shorts at \$21 in car lots f. o. b. Toronto.

Potatoes and Beans.

Potatoes are firmer at Montreal. Ontario potatoes are being quoted there at 76³/₄c to 78c for car lots on track. There is a fair demand here and car lots which are not plentiful sell at 60c. On Toronto farmers' market potatoes bring 75c to 80c per bag.

The bean market east is reported easier. Montreal quotations bring \$1.30 to \$1.35 for car lots of primes and \$1.40 to \$1.45 in jobbing lots.

Hay and Straw.

Good Canadian hay continues to sell well in England. There is active buying on this side, especially east. Montreal quotations for baled hay in car lots are \$10 to \$11 per ton, for No. 1 timothy; \$9.00 to \$9.50, for No. 2; \$8.00 to \$8.50 for clover mixture, and clover \$7.50 to \$8.00. Baled straw is quoted there at \$5.00 to \$6. The market here keeps steady under a fair demand and small supply. Car lots on track are quoted at \$9.50 to \$10.00 for timothy and \$8.50 to \$9.00 for medium. On Toronto farmers' market, timothy sells for \$12 to \$13; clover, \$8 to \$9.50, and sheaf straw at \$9 to \$10 per ton.

Eggs and Poultry.

The egg market keeps firm with no prospect of an immediate decline. Single case lots of new laid are quoted at Montreal at 32c to 35c per dozen. New laid are scarce here and are quoted at 25c per dozen in case lots. On the farmers' market new laid bring 25c to 30c per dozen.

Receipts of dressed poultry are reported very scant at Montreal, and the market is firm and prices well maintained at 12¹/₂c to 13c for choice turkeys, 9¹/₂c to 10c for chickens, geese 7c to 8c and ducks 9c to 10c per lb. On Toronto farmers' market live and dressed chickens bring 45c to 70c and ducks \$1 to \$1.25 per pair, and geese 8c to 9c and turkeys 9c to 12c per lb.

Seeds.

The seed market keeps firm with more enquiry. Wholesale quotations at Montreal are \$10.50 to \$12.50 for Alsike, \$8.50 to \$9.50 for red clover and \$5.50 to \$6.50 per cwt. for Timothy. On Toronto farmers' market, Alsike bring \$6 to \$7, red clover \$4.75 to \$5 and timothy \$2.50 to \$3.25 per bushel.

Cheese

The cheese market though quiet, is steady, holders being not at all anxious to sell out. Cable limits just now are not up to holders' ideas, so they are not selling. Stocks are not large and consequently holders are not anxious. Finest Westerns, (Ontarios,) are quoted at Montreal, at 10¹/₂c to 10³/₄c, and finest Easterns, (Quebecs,) at 10c to 10¹/₂c. Finest Canadian Septembers are quoted in London at 51s to 52s.

**ORIGINS
DUCKS
GEESE
TURKEYS**

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DRESSED OR LIVE POULTRY RECEIVED—We will forward empty crates for live poultry and pay charges on all out-going crates. Prompt remittance by Express Order will be made on arrival of shipments less express charges, if not prepaid. We do not purchase on commission, but pay in full for all birds on arrival.

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WANTED—BUTTER, POULTRY, EGGS

We have a large outlet, having Twenty-one Retail Stores in Toronto and suburbs. Payments weekly. Established 1884.

The WM. DAVIES CO., Limited

Head Office—Retail Dept.

Correspondence invited. 24 Queen St. West

Butter

Choice fresh creamery butter continues to sell well. Though there is little buying on export account. Montreal quotations are 21 $\frac{1}{2}$ c to 21 $\frac{3}{4}$ c for large lots. In smaller lots higher prices have been paid. There is little doing in dairy butter here, and stocks are light. Cables during the week have ruled quieter. The demand here for choice creamery keeps good and it sells readily to the trade at 21c to 22c for prints and 20c to 21c for solids. Choice dairy pound rolls in jobbing lots sell at 18c to 17 $\frac{1}{2}$ c, large rolls at 18c to 16 $\frac{1}{2}$ c and tubs at 14c. On Toronto farmers' market pound rolls bring 16c to 19c, and crocks 15c to 19c per lb.

Cattle

The cattle situation shows little change. Choice well finished heaves are in good demand and hard to get. This does not apply to Canada alone, but to most of the American markets. Our advice is, if you have any choice animals feeding, have them well fitted before marketing. At Toronto cattle market on Friday, the run of live stock was not large, comprising 824 cattle, 1,061 hogs, 50 sheep and lambs and 15 calves. The quality of the cattle was only fair considering the season. Trade was good for all classes, with prices firm. Choice beef cattle are higher than a week ago. Milk cows of good quality are in good demand but there are few choice ones offering. Some farmers on Friday were not able to get the kind they wanted.

Export Cattle—Choice loads of these are worth from \$3.25 to \$3.30 per cwt., and light ones \$4.25 to \$4.90 per cwt. Heavy export bulls sold at \$3.75 to \$4.00 and light ones at \$3.25 to \$3.50 per cwt., choice export cows sold at \$3.50 to \$4.00 per cwt.

Butchers' Cattle—Choice picked lots of these, equal in quality to the best exporters, weighing 1,150 to 1,260 lbs. each, sold at \$3.25 to \$4.40 per cwt., good cattle at \$3.75 to \$4.00, medium at \$3.40 to \$3.75 and inferior to common at \$2.00 to \$3.25 per cwt.

Feeders—Heavy, well-bred steers from 1,100 to 1,200 lbs. each, sold at \$4.25 to \$4.50, and other quality at \$3.50 to \$4.00 per cwt. Light steers, 900 to 1,000 lbs. each sold at \$3.50 to \$4.00 per cwt. Feeding bulls are worth \$3.25 to \$3.50 per cwt.

Stockers—Yearling steers weighing 500 to 800 lbs. each sold at \$3.00 to \$3.50, and off colors and

THE MATERIALS USED IN "THE D & L" EMULSION are the finest the market affords regardless of expense. Taken in cases of wasting diseases, loss of weight, or loss of appetite, with great benefit. Davis & Lawrence Co. Ltd., manufacturers.



Page Metal Ornamental Fence. We now make fence that is ornamental, very showy and surprisingly cheap. It is just what is wanted for door yards, division fences in town lots, grave yards, orchards, etc. It is painted and retails at only 20 cts. PER RUNNING FOOT. Just think of it. Let us send you full particulars. We also make farm fence, poultry netting, nails and staples. The Page Wire Fence Co., Limited, Walkerville, Ont. 8

those of inferior quality at \$2.50 to \$2.75 per cwt.

Calves—These are in steady demand at Buffalo. Good to choice veals bring \$8.25 to \$8.75 per cwt. At Toronto market ordinary calves bring \$2 to \$10 each.

Milk cows and springers sold at \$30 to \$54 each.

Sheep and Lambs

All classes of sheep are steady at Buffalo, and lambs are 10c to 15c higher. Choice lambs selling there at \$6.10 to \$6.15 per cwt. Sheep are firmer here at \$3 to \$3.60 per cwt. for ewes, and \$2.50 to \$2.75 for bucks. Lambs sold at \$3.75 to \$4.25 each and \$3.75 to \$4.80 per cwt.

Hogs

We have to report another drop in hogs. On Friday, select bacon hogs sold at \$6 and lights and fats at \$5.75 per cwt. Unculled car lots are worth about \$5.87 $\frac{1}{2}$ per cwt. The market was rather weak at these prices.

For the week ending Feb. 8th, the Wm. Davies Co., Toronto, will pay \$6.00 per cwt. for select bacon hogs, \$5.75 for lights, and \$5.75 for fats.

Montreal packers have been paying from \$6.50 to \$6.75 during the week for bacon hogs. The Trade Bulletin's London, cable of January 30th, re Canadian bacon reads thus:

"The market is firmer with good demand at the decline cabled you last week."

Horses

There is more doing in horses as intimated last week. At Montreal some good sales have been made in carriage and heavy draft teams. Quite a few remounts are going forward, 800 will leave St. John this week. Montreal quotations are: Carriage horses, \$175 to \$350; heavy drafts \$125 to \$225, roadsters and drivers \$100 to \$125, and remounts from \$1.15 to \$1.50 each.

A number of good sound general purpose horses sold at Grand's last week at prices ranging from \$100 to \$145 each. One extra big one weighing 1,750 lbs., sold for \$195. General trade is improving though it is not as good as was expected sometime ago. Outside of a temporary demand from the N. W. Territories, for blocks weighing from 1,200 to 1,500 lbs. each there is little to warrant any large expansion in trade. The only thing doing in the export line is in remounts. Quite a few culls from the ranches in the Western States are coming into Ontario. It does not seem fair that Americans

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FOR IMMEDIATE SALE.

SPLENDID 300-Acre Farm, 5 miles from Brantford, 240 acres cleared. Three two-story stone houses, 11 rooms, cellars full size. Frame barn 45 x 100, all 3 other barns, 3 drive houses, 2 sheds, 20 acre orchard, 60 rods from railway, excellent soil. For full particulars, address

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HUNTER-TRADER-TRAP-PEER—A monthly. Sample copy, 5 cts. All about Hunting, Trapping and Kew Furs. A. R. Harding, Gallipolis, O.

should be allowed to ship their culls in here at a nominal duty of \$2.00 per head, while we cannot send horses to the United States for less than \$30 per head. These culls are injuring the trade here and should be prevented from coming in.

Natural History Exhibition.

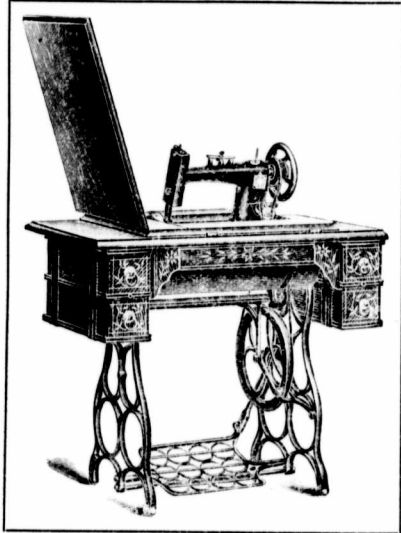
That enterprising organization, the "Wellington Field Naturalist's Club," will hold an exhibition of natural history collections at Guelph during December of each year—most probably during the week of the Winter Fair and Experimental Union meeting. Prizes will be offered for the best collections of plants, weeds, rocks, insects, etc., and every girl and boy in the county of Wellington will be eligible to compete for prizes. At the same time the club will hold a public meeting to be addressed by some of our well known scientists.

Prof. M. W. Doherty is president and Mr. D. Jarvis secretary, both of the Ontario Agricultural College, Guelph.

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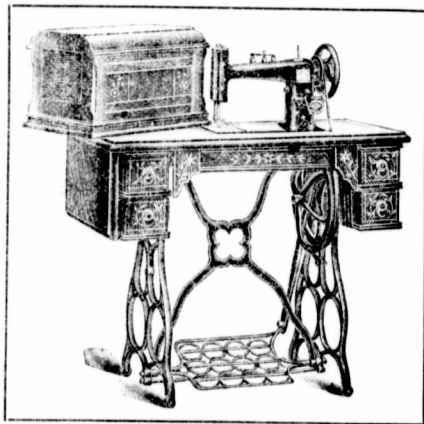
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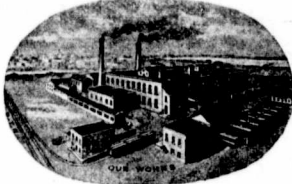
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EARN A MACHINE
WITHOUT CASH.**

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THAN THE OTHERS

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Instructor.

Remember that it
EXCELLED EVERYTHING
at the
**PAN-AMERICAN
MODEL DAIRY**

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POWER AND PUMPING MILLS
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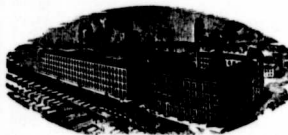
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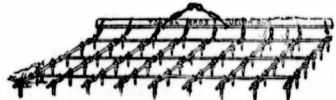


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