

dairy products the most complete on the American Continent, as he had seen nothing to equal it.

The exhibits of dairy utensils were very conspicuous by their absence, with the exception of cream separators. A few years ago full lines of dairy utensils were exhibited by different firms, but they seem to have all gone out of business, or have turned their attention to cream separators. In the hand-separator line there was a full and fine exhibit. The machines represented were the Oxford, Alpha de Laval, Tubular, Magnet, Melotte, United States, Simplex, Empire and National. There was no striking improvement in this line of machinery, but there seems to be a tendency among manufacturers toward an increase of capacity without an increase in the size of bowl, by increasing the efficiency of the skimming device. Some attention is also being given to a suitable power for driving cream separators on the farm. The Empire people had a very neat and compact gasoline engine, of about 2 h.p., which would drive several separators. The Tubular people had a very neat steam boiler for the same purpose, which drives direct with the steam, without the use of an engine. A good deal of interest centered around a milking machine exhibited by D. Derbyshire & Co., of Brockville. This machine is driven by gasoline or other power, and seems to be capable of doing the work with ease and efficiency, as one man can supervise the milking of eight or ten cows as easily as he could milk one under the old system.

The chief attraction in the dairy building was the buttermaking competitions, which were watched by thousands of interested visitors daily. These demonstrations have been carried on for the past seven or eight years, but there never seems to be the slightest abatement in the interest taken. Many say that it is one of the most interesting features of the fair, and to many it is a revelation of the art of buttermaking.

There were no dairy lectures given this year. The management concluded to discontinue them, as it was found difficult to hold the crowds for a straight lecture; but they seem to enjoy a short description of the process as it is carried on. During the first week of the fair the amateur class was in competition; there were five entries, but only four competed. The prizes were keenly contested, and it would be difficult to find a more skillful lot of competitors, for the majority of them showed that they were well schooled in their chosen art. The first prize went to Miss Jayne, of Cobourg, \$40; second, Miss M. Carrick, Roseville, \$30; third, Miss M. L. Carrick, Galt, \$20; fourth, Miss Ada M. Smith, Scotland, Ont., \$10. On Saturday, Sept. 1st, the "free for all" competition came off. This class was open to anyone from the farm; five started, but only four finished. Miss Smith, who had been in the contest during the two previous days, could not stand the nervous strain, and after the first churning on Saturday was compelled to give it up. Miss Jayne again won first place, \$25; Miss M. L. Carrick, second, \$20; Miss M. Carrick, third, \$15; and Mr. L. H. Jenkinson, of Toronto, fourth, \$10. On Monday, Sept. 3rd, the professional class came on, and in this class there were eight entries. Part of the class competed during Monday and Tuesday, and the balance on Thursday and Friday. On Wednesday the "free-for-all" class had their innings, and made two batches of butter each. This class was made up of the same competitors as the professional class, and resulted as follows: First, Miss Anna A. Orr, Galt; second, F. H. Dennis, Ealing, Ont.; third, Miss M. L. Green, Loyal; fourth, Miss A. W. Green, Loyal. One very interesting feature of these competitions, and one which has heretofore received but little attention, is the amount of butter made by each competitor from a given amount of cream of the same quality. The cream is all put into a vat, and constantly and thoroughly stirred while it is being drawn off and weighed for each competitor. Each competitor receives two lots of cream of equal weight and quality, one to be churned the following morning, and the other the following afternoon. Each competitor handles his or her cream over night, as he or she pleases, and in the class above mentioned, the amount of butter produced from the churnings was as follows: (7 lbs. 2½ ozs.—6 lbs. 13 ozs.), (7, 5½—7, 2½), (7, 4—7, 5), (7, 6½—7, 6½), (7, 7½—7, 6½), (7, 9—7, 5½), (7, 9½—7, 8½), (8, 9½—7, 11½), making a difference between the lowest and highest of eight competitors, of 1 pound 13 ounces, or an increase of over 13 per cent. Those weights were the weight of the butter, regardless of the number of prints. The questions naturally arise, was the quality of the heaviest lot equal to that of the lightest, and where does the difference come from? The answer to the first question is that the heavier lot scored higher than the lighter lot on account of mottles, showing the lighter lot should have had more working, which would have further reduced its weight. The answer to the second question is not so easy, and the matter needs further investigation before a satisfactory explanation can be given, and this can only be done by a chemical analysis of the butter.

The creamery class, opened their work on Friday afternoon, and the award was as follows: First, F. H. Dennis; second, Miss Anna A. Orr; third, Miss A. W. Green; fourth, Miss M. L. Green. In the butter competitions was Mr. Jas. Smith, of Galt.

THE APIARY DEPARTMENT.

As was to be expected from a fair of this kind, the honey crop this year, the exhibit of which was not so large as usual, and the number of exhibitors fewer, some of the old-timers being absent on their absence. The quality of the honey was

ever, was pretty well up to the mark, and the exhibitors, having plenty of room at their disposal, had a better opportunity to work for display than they have sometimes had, and, as a consequence, the casual observer would be struck more by the attractiveness of what was there than by the absence of what was not. Taken as a whole, the quality of the exhibit, both in material and display, was as good or better than the average, considering the resources, at the disposal of the exhibitors. The prizes were pretty well scattered around, some exhibitors excelling in one direction, and some in another. The first prize for general display went to Mr. R. H. Smith, of St. Thomas, while Mr. D. Anguish, of London, whose exhibit was not quite so extensive as Mr. Smith's, but was about equally as well set up, came in for second prize. There was the usual crowd of visitors, each with the usual fund of ignorance and inquisitiveness about the whys and wherefores of the doings of the busy bee.

CONVENTION OF FARMERS' INSTITUTE WORKERS.

A most successful convention of Institute Workers was held in the Farmers' Institute tent, on the Exhibition grounds, under very favorable conditions of weather, attendance, and growing interest in the work.

President Creelman, Ontario Agricultural College, in taking the chair, opened the meeting with one of those characteristic little speeches of his, full of pithy observations. He thought we could congratulate ourselves upon the success of another season's work on the farms of Ontario.

Supt. Putnam spoke of an increased attendance during the last year over recent years, and of the popularity of special features which had been introduced during last season in the shape of judging classes and live-stock demonstration work. He proposed to continue this line of work in the future, and asked for suggestions. In order that the teaching of the delegates be as uniform as possible, he intends to call them together at an early date, when special instruction along certain lines will be given.

Hon. Nelson Monteith, who had just come in, was introduced by the chairman as a "working minister," a sentiment which was heartily endorsed by those present. Among other things, he said the Department of Agriculture belonged to the farmers, and he was anxious to help solve the problems of the farm, to lighten the burdens as far as possible, and make the farmer's work remunerative. He observed, with grave apprehensions, the spread of noxious weeds, and thought a good deal of attention should be given to this problem.

Major Sheppard, in opening a discussion on some special features which might be introduced in the Institute work, thought that delegates should not attempt to handle subjects which they were not familiar with in a practical way. He thought that more attention should be paid to the improvement of country roads, and discussions at Institute meetings would further the interests of good roads.

T. G. Raynor spoke of some features in which the Seed Branch of the Dominion Department of Agriculture were prepared to co-operate with the Provincial Department. Some features he would like to see pushed were weed destruction, seed fairs, seed-judging classes and co-operation.

Simpson Rennie spoke of the danger threatening the farmers in the rapid spread of perennial sow thistle, against which strenuous measures should be taken at once; and Mr. Rennie speaks with authority on the weed question.

Wm. Slater, Secretary of South Waterloo Institute, thought more encouragement should be given to those Institutes which were doing the best work, and that it would be a good proposition for the Government to have a model farm run by a college graduate on a paying basis, to convince our young men that the best of opportunities were afforded here in Ontario to make a success on the farm.

The topic of Farmers' Clubs was introduced by Mr. Cumberland, Secretary of Peel Farmers' Institute, who had organized two or three during the last winter which were very promising in results.

Jabel Robinson, a veteran Granger, emphasized the value of that organization, which had been working along the lines proposed for farmers' clubs, and did more.

Mr. Reynolds, Secretary of East York, spoke of their plans along this line, which met with the hearty approval of those present. They are planning for two seed fairs. Mr. Foster, of South Ontario, thought the clubs would prove to be the missing link in the splendid Institute organization.

As a variation in the programme, Mr. Andrew Elliot gave the convention the benefit of his observations on his experience in New Ontario. He said we could scarcely realize the rich heritage we have in that part of our Province, and he maintained there were as good opportunities for Ontario settlers there as in our much-lauded and almost too-much-advertised Northwest. The sentiment expressed by him that our press was paying too much attention to Western Canada and not enough to Eastern Canada, was strongly endorsed. "We should grow our own horn more," said John Campbell, when speaking on this point.

Mr. Alex. McNeill, of the Dominion Fruit Exhibition, stressed the value of co-operation in the marketing of fruit. This was the weak link in the chain. Farmers and fruit growers, he said, could do better by co-

sacrifice a little personal gain for the greater good to the whole which would be the result of co-operation.

At the morning session, on Sept. 6th, Chairman Creelman called upon a visiting Pennsylvania Farmers' Institute worker to say a few words. His fraternal greetings were timely, and his remarks practical and encouraging. He noted that we had a good exhibition, and our convention got down to solid business in its deliberations.

John Campbell, of Woodville, in speaking on the specialization of features in Institute work, thought we could with pride pat ourselves on the back as being the best all-round farming country under the sun. He spoke of the quality of our live stock, and thought we were the Great Britain of America in that line. He instanced the value of a Shorthorn heifer which fifteen months ago was worth \$1,000. Later she sold for \$2,500, and no less an authority than Mr. Duthie, of Scotland, had said that if she were in calf and he could get her into Scotland, he would pay £1,000 to own her. Mr. Campbell further said that he thought a strong feature to stimulate the best in farming would be to once more offer group prizes for the best-managed farms in the Province, and also county prizes.

Mr. G. V. Christie, of Prince Edward Co. Institute, spoke of the influence of canning factories and dairying in increasing the farmers' bank accounts in that county. Even English immigrants, in two or three years, were buying farms in his neighborhood and paying for them. He put in a plea for the use of wide tires for wagons.

Mr. Kidd, of Simcoe, thought the question for us to try to solve now, was (1) How shall we interest those who have been coming to the Institute meetings; and (2) how can we interest those who do not come? He thought we must specialize, and demonstrations in stock-judging were a useful way. Institute Secretaries as a rule, he thought, should be better paid, in order that they might give more of their time to details.

In the discussion a number of delegates expressed their approval of special features in maintaining and increasing an interest in the Institute work.

The weed problem, and how the laws of our country help us in fighting weeds, was a subject introduced by T. G. Raynor. He thought the Seed Control Act of 1905 had been a strong factor in improving the quality of the seed offered by the trade during the last season. He explained that "Government Standard" and lead seals were no safeguard that the seed sold was of the best quality. It might be that, or it might be polluted with weed seeds to the extent of 5 in 1,000—the maximum percentage of weed seeds allowed to be sold for seed purposes by the law. He thought the Ontario laws could be amended to name more weeds in sections where weeds are specified; that it should now be made compulsory, not optional, with a council of a municipality to appoint weed inspectors, and that a mower should be run along those roadsides where the grader has been used, to prevent weeds going to seed. He also advised the sowing of grass seeds in such cases, to get a good sod as soon as possible.

In answer to a question being raised about fences being kept up along roadsides, Hon. Mr. Monteith said that his opinion was, and it was borne out by the judgment given in a number of courts, that no farmer was required to fence against stock on the public highway.

Thos. Southworth spoke on the farm-labor problem. He did not know how we could stop the tide of our young men going to the West or centralizing in the cities. He believed that the latter was decreasing, but judging from those who went out with the harvest excursions, he could not see that even the Old Country immigration would help us to the extent we hoped. He claimed a better class of immigrants had come out this year, and that there was a surplus in the rural population of England which must find employment somewhere.

Major Hood, speaking on the appropriation of the surplus funds of their Institute, said they were encouraging seed fairs, school exhibits of weeds and other plants, of seeds, and competitions in naming varieties of apples.

Mr. Pratt, of North Simcoe, was a strong advocate of farmers' clubs, and instanced a saving of \$1,400 this season to their locality, in marketing apples alone.

There were a number of other subjects dealt with, but space prevents further reference. It was generally voted that a very successful convention was held this year, and it must have strengthened Supt. Putnam's hands.

T. G. R.

The International Live-stock Exposition, Chicago, has been favored annually in its selection of foreign judges, by securing men of international reputation and of high character. This year, the gentleman who has accepted the invitation to judge the grade and champion steers is well known among cattle men. Mr. Arthur P. Turner, of Penbridge, Herefordshire, England, comes well commended for his work in the show-yards of England, as a breeder, feeder and judge.

Prof. T. L. Lyon, who has been associated with the Nebraska State University and Experiment Station for the past fifteen years as an instructor, and who for the past eleven years has been professor of agriculture and associate director of the experiment station, accepted a call to the position of Professor of Experimental Agronomy at Cornell University, Ithaca, New York.