

substances, cream thickeners, etc. We recently had a sample of cream bought in a city, which contained a large percentage of formalin. The purchaser reported that the cream would not sour, no matter how long it was kept. No wonder it didn't sour! The wonder is that the persons using it were not seriously ill. It is evident from the indifference displayed by some cities and towns that they do not take that healthy interest in the milk question which its importance warrants.

By bringing together the milk inspectors, milk dealers and milk producers, we feel certain that a marked improvement in the milk supply of our towns and cities would soon be effected. By this means also, no doubt improved provincial legislation could be got. At present every municipality is practically a law unto itself, so far as milk supply is concerned. Milkmen feel that in some cases the local regulations are unjust and unworkable. The best way to remove these and bring about a better condition is to have a friendly conference, whereby these apparent grievances and injustices may be adjusted or removed.

Eastern Ontario Dairymen's Convention.

The dairymen of Eastern Ontario held their 28th annual convention at Brockville, on January 4th, 5th and 6th. The meeting was in every way an immense success. The town was for three days a veritable Mecca of the men who are behind what is undoubtedly Eastern Ontario's greatest industry, dairying. Brockville is a bright town—according to the President of the Association, it is the brightest and best town in Canada. Its citizens are broad-minded and public spirited, and everything the people of Brockville or of Eastern Ontario attempt to do is always well done.

THE PRESIDENT'S ADDRESS.

The President, D. Derbyshire, M. P., in his opening address referred to the early struggles of the association, and told of recent progress. Formerly it was individual effort that kept the industry alive; now they had co-operation and Government assistance. By means of the syndicate plan, and a definite system of instruction, they had succeeded in improving the quality of the product. Great credit was due Mr. G. G. Publow for his untiring efforts as Chief of the Instructors. The growth of the dairy schools was commented upon, and the assistance of both Provincial and Dominion Depts. of Agriculture highly commended. The dairymen had now assembled for a definite purpose—to correct errors and diffuse the best knowledge among dairymen, both farmers and manufacturers.

The make in 1904 was about 2,700,000 boxes of cheese, worth about \$20,000,000, or about 300,000 boxes and \$7,000,000 short of the product of the previous year. Butter, on the other hand, amounted to \$7,500,000, an increase of nearly \$2,000,000 over the previous year. The total export of dairy and bacon products amounted to \$41,000,000, or about \$6,500,000 short of last year. With the experience of the past year, the record of the future should be better. This can only be accomplished by united effort, by producing the cleanest and best milk, with the most up-to-date factories, improved curing-rooms, and better transportation facilities. With these things accomplished, 1905 should be the banner year of the association.

A CENSUS OF COWS.

The remainder of the morning session was taken up with a discussion of a very interesting cow census, taken by Mr. C. F. Whitley, of the Central Experimental Farm. By a series of charts, Mr. Whitley gave the audience some interesting food for thought. In one case 22 cows during June gave a yield of 171,845 pounds of milk, 722.5 pounds fat; average per cow, 811 pounds milk, with a test of 4.0; 32.4 pounds of fat, and a general June average of 652 pounds milk, 3.8 test 25 lbs. fat. In one herd of eleven cows every animal was below the average, the range being from 280 per cow to 805, and this herd consisted largely of Jerseys, Holsteins, Guernseys, Ayrshires, and native-bred stock. In contrast to this, in another herd of 12 cows, the yield per cow ranged from 830 to 1,115 pounds per cow, so that every cow in this herd was above the average; yet this herd was made up of practically the same breeds, which goes to show the importance of individuality in a herd of cows. In another case for July, in a herd of twenty-seven cows, the total yield was 13,760 pounds milk, 473.7 pounds fat; average per cow, 509 lbs., 17.5 lbs. fat, test 3.5.

Another record is that of six cows, which gave 2,515 lbs. milk, while another dairy of 12 cows gave 8,020 lbs. milk, or twice as many cows gave three times as much milk. In the month of September one lot of 23 cows gave 8,120 lbs. milk, and another lot of the same number gave 11,200 lbs.

Weeding out must be done. Let us mix farming with figures. If we do this we can increase the average yield per cow in the next five years fully 40 per cent. Nearly every farmer has cows

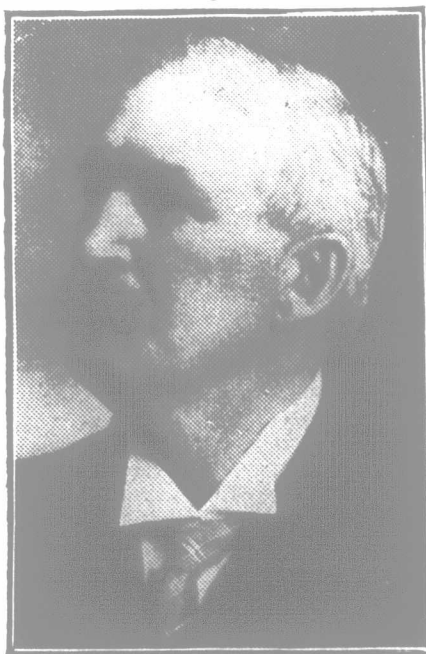
on which he loses money. You can't tell until you figure it out. Try it and see.

In a test of 14 cows for three months the cows ranged from 40 to 114 lbs. of butter. The best nearly three times the worst! The average was 81 lbs., while the average of all the cows tested in the same time was 98 lbs. In another herd a good average was struck, where for five months the yield was 190 lbs., or every cow above the census average.

These figures are encouraging. By use of the scales, the Babcock test, and by having a standard of at least 6,000 lbs. of milk or 250 lbs. of butter, and by weeding close to that standard, great improvement would be made in the Canadian dairy cow. Denmark has raised the average butter production per cow 47 lbs. in three years. What Denmark has done Canada can do, and do better. The work is before us. "It's up to us."

THE DAIRY HERD.

At the afternoon meeting Prof. Grisdale, Ottawa, gave an interesting address on the "Building up of the Dairy Herd." After discussing the proper conformation for a dairy animal, he took up the important question of care and feeding. He cited cases, showing where care in feeding and management had made an increase of over 30 per cent. in the yield of milk and butter, and an increase from \$25 to \$40 in the returns. In another case in a herd of Ayrshires, the return in three years had, by judicious feeding, been increased from \$37 per cow to \$51.22 per cow, and the yield of milk from 5,414 lbs. to 6,455 lbs. per cow, and at the same time the cost of feeding was lowered \$2 per cow per year. A record should be kept showing what each cow was doing, and in a few years a herd could be graded up. He mentioned the case of a farmer in the Ottawa valley, who gradually worked his herd up from



D. Derbyshire, M. P.

President Eastern Ontario Dairymen's Association.

\$30 per animal to \$40, then to \$54, and eventually to \$70.

Prof. Grisdale, in referring to the records at Ottawa, said that the most profitable cow they had was a small Canadian cow that gave 62 lbs. milk per day. Butter could be produced from her milk for 9c. per pound, as against 10c. in the case of a Guernsey and Ayrshire animal, and 13c. in the case of a Shorthorn, and her milk was of richer quality. Of her output of \$100, \$58 was clear profit. Speaking of Ayrshires, he said the average production had, during the past three years, been increased 1,000 pounds. In concluding, Prof. Grisdale said it pays to buy cows of a good milking strain.

THE MANAGEMENT OF THE HERD.

Mr. Henry Glendinning, the big man from Manilla, and a familiar figure on institute platforms throughout Ontario, spoke on the management of the dairy herd. The cost of production is the all-important factor to the farmer. He cannot control the markets, or the range of prices, but he has largely under his control the cost of production. In the management of the herd we should aim to produce as nearly as possible such conditions as we have in the month of June. Such conditions could be prolonged by growing lucerne. Then the next best substitute for June grass was corn ensilage and bran. Speaking of the fly scourge, Mr. Glendinning recommended the use of crude petroleum. It was cheap, and if sprayed on the cows three or four times a week would generally prove effective. Speaking of ensilage, someone inquired what kind of a silo? Round, cement silo, was the reply. What about frozen

ensilage? Not very objectionable, but if the edges of the pile are kept somewhat lower than the middle it would not freeze. Of course freezing in the field is injurious, but better have it frozen than cut too green.

STABLE SANITATION.

Hon. John Gould, of Ohio, speaking on the above subject, made a strong plea for more light and air in our stables. He unhesitatingly condemned the bank barn, and stated that a cow would throw off 8 lbs. moisture in 24 hours. This, if proper ventilation be lacking, is precipitated on walls and windows. The stable should be as tight as a house; therefore, there is great need of ventilation. Each cow should have 600 cubic feet of air space. The air should enter at floor and leave from near the floor, with a ventilator going about two feet above ridge of roof. The barn problem is a difficult one; it requires care and thought in this country, for remember that in the barn you must have as nearly as possible similar conditions to those outside; in fact, the ideal barn would be all outside boxed up, warm, dry, light and comfortable.

Evening Session.

The evening meeting is not usually devoted to a discussion of the technical problems of the dairy industry. It partakes more of the nature of a gala performance, as the Hon. Sydney Fisher stated. At the same time the speeches were excellent, and on Wednesday evening Brockville listened to some of Canada's best speakers. After the Mayor and Mayor-elect had extended on behalf of the town a hearty welcome to the members and friends of the association, and Mr. John R. Dargavel had responded on behalf of the association, the chairman introduced Dr. Moore, of Ottawa. Mr. Moore spoke on the question of tuberculosis, pointing out the relations between human and bovine forms of the disease, and showing how the dairymen of the country should be interested in the subject. He pointed out the danger of infection by taking into the system the germ of the disease. Proper sanitation, open air and wholesome food are the remedies.

AGRICULTURAL EDUCATION.

Prof. Robertson, in making his farewell remarks as an officer of the Dominion Department of Agriculture, gave one of his usual rousing addresses. Speaking of the cow census, he said that he thought one-half the cows should have been slaughtered. The attention of the Association should be directed to the producer. Leave the manufacturer and buyer, and get at the producing end of the business. In 1886, Ontario sold \$40,000,000 worth of food products, and for the year ending June, 1904, our sales amounted to \$100,000,000, and besides this the Province fed more people, and fed them better. Speaking of the value of education along agricultural lines, Prof. Robertson pointed out that Denmark received \$85,000,000 more than is received for the same quantity of the average quality usually placed upon the English market. In conclusion, he made a strong plea for better education for the boys and girls. They had, during the past six years, improved the buildings of the farm to the extent of millions of dollars. They could afford to spend a large sum on race meets and attractions at our fall fairs. Then, why not give something out of the fullness of their prosperity for the better education of the children?

DAIRY-INSTRUCTION WORK IN EASTERN ONTARIO.

Mr. G. G. Publow, Chief of the Dairy Instructors for Eastern Ontario, was the first speaker on Thursday morning. During the past year, over six hundred and fifteen factories applied for the services of an instructor. This was an increase over last year of sixty-four factories, and required an increase in the number of syndicates from twenty-two to twenty-five. Some applications for help were not received until late in the season, and some difficulty was experienced in giving all the assistance needed. Twenty-five men were employed during the past season. These men received a salary of \$700.00, out of which they have to pay their own expenses, and the thoroughness of the work and the painstaking efforts of the men cannot be too highly commended.

These 615 factories received a total of 4,263 visits; 60,450 tests were made for adulteration. Of these, only 306 proved to be tampered with, 209 showing a deficiency of butter-fat, 97 contained added water. In some cases, the instructors visited the patrons, giving instruction in the proper care of milk. Some 3,841 personal visits of this kind were made, and the effect is clearly noticeable in the improved quality of the milk. Besides the visits to factories and patrons, 108 meetings were held, with an average attendance of 37, but, unfortunately, those who attend the meetings are generally those who need instruction least. But they do serve to bring before the people the work of the instructors, and the need for improvement, and, as a result, \$99,085 was spent in the building and equipment of new factories, and remodeling and beautifying old ones during the past year, as compared with an expenditure of \$40,536 during the season of 1903.