

still great need for inspection and instruction, but he suggested that one man do the work of inspection of milk, and leave the instructors to go on with their work, the milk inspector to be on the road and liable to drop down at any place at any time to look after the well-being of the good patrons or those not so good, and to assist to brace up the moral fibre of weak-minded patrons.

Hon. H. C. Adams discussed the cost of keeping a cow with a good deal of good humor and good sense. The right kind of a cow is one that turns her surplus food into milk and butter. A cow which becomes more profitable as the expense of her feeding increases, is the one that produces the golden calf. Heredity fixes the butter producing faculties. W. A. Mowray, New York, by proper breeding and feeding, raised the yield of his cows from 125 lbs. of butter in 1875 to 276 lbs. in 1886. So much for the saving grace of good blood. Proper rations of food are necessary to cheap production. There are two elements not to be lost sight of in making up rations, that is, the heat producing foods, and the flesh and bone producing foods. These classes of foods properly balanced will help to cheapen production of either milk or beef.

At this stage of the meeting Mayor Douglas, of Woodstock, on behalf of the town and Council of Woodstock extended a cordial welcome to the Dairymen's Association, to the Hon. Mr. Dryden, the Hon. Gov. Hoard and the Hon. Mr. Adams, of Wisconsin.

Mr. Grant, President of the Board of Trade, extended greetings of welcome to the Dairymen's Association, from the merchants of Woodstock.

Mr. C. E. Chadwick delivered an address on the history of the Association, having been its Secretary from its inception.

The Nominating Committee brought in their report with the following recommendations:—

President, Thos. Ballantyne, Stratford; 1st Vice-President, John Geary, London; 2nd Vice-President, Wm. Nessie, Bluevale; Directors, Robert Cleland, Harold Eagle, E. Caswell, John Ballantyne, Alex. McLaren, Wm. Symington and John Prain; Secretary, C. E. Chadwick; Treasurer, J. C. Hegler; Auditors, John S. Pearce and John Robertson.

Prof. Robertson and R. Ballantyne gave an exhibition of Prof. Babcock's system of testing milk for butter fat, which process takes about ten minutes to separate the butter fat from the milk of from 10 to 24 samples, according to the size of the machine, and, at the same time, gives the per cent. of butter fat each sample contains. We are getting nearer a simple and correct way of testing milk.

Moved by Prof. Robertson seconded by Mr. B. Hopkins, and carried, "That this Association has learned with deep regret of the sad and sudden death of the late Mr. Wm. Weld, the founder, and editor, and proprietor of the FARMER'S ADVOCATE of London, and hereby place on record its high appreciation of the valuable services which he rendered to the agricultural community of Canada by his long advocacy of improved methods and more intelligent practices in the carrying on of their business, and we deplore the great loss which the country has sustained by his decease."

It was also moved and agreed to, "That it is with sincere regret that we learn of the prolonged illness of our esteemed President, Mr. J. B. Lane, which has deprived us of the pleasure and benefit of his presence at our convention, and we hereby place on record an expression of our sympathy with Mrs. Lane in her affliction, and convey to Mr. Lane our earnest good wishes for his speedy and complete recovery."

Moved by Mr. J. S. Pearce and seconded by Mr. H. S. Lossee, and carried unanimously, "That this convention heartily approves the good work that has resulted from the employment by the Association of travelling instructors and inspectors, and recommend to the government the desirability of making such financial provision as will enable the Association to carry on that work in a still more efficient and extended way."

Mr. John Geary, First Vice-President, in the absence of the President, was called to the chair, and took charge of the proceedings. A vote of thanks was tendered to Mr. B. Hopkins

for the services rendered to the Association during the past year, which he replied to with much feeling.

The Hon. John Dryden, Minister of Agriculture, on rising to address the convention, was greeted with hearty applause. Mr. Dryden said it gave him extreme delight to meet with this great western convention of dairymen. This Association had in the past done much to promote the advancement of dairying in Ontario, which had added much to the general prosperity of the country. Some good reform farmers were a little conservative in their methods and slow to adopt new ways of improvements, such as building silos and studying economical ways of feeding and breeding of stock. Some did not like to be jostled out of the old ruts. In dairying, as in other things, there must be advancement and improvement to hold your own in the midst of so much keen competition, both at home and abroad. Quality will always be in demand. He would guarantee that. He felt satisfied that the work of instruction, which had accomplished so much good in the dairy interests in the past, should be continued with even greater efficiency and to a greater extent than it had been heretofore, and he considered the government was justified in assisting this Association to carry on and extend the good work which it has been doing to improve the quality of our dairy products in every way. He was glad and proud to see such a fine gathering of young men as were present at this meeting. When he went back to Toronto he would instinctively hold his head higher by reason of the thought that he was representing such a class of respectable, intelligent farmers' sons, who were the hope of agriculture and the country's future. After giving some kindly counsel, he closed his much appreciated address amidst the hearty greetings of the convention.

Now comes nearly last, but not least, Hon. W. D. Hoard, who is always made welcome to Canadian dairymen's meetings. His shrewd observation and great experience makes him a tower of strength in the dairy interests wherever he goes, and his addresses are always looked forward to with great expectation, and the large gathering was not disappointed on this occasion. By his inimitable way of putting things and bringing figures to support his statements, his arguments are convincing, and sometimes are convicting to the heedless and careless farmers and dairymen. He said it was the man who makes the milk he was after. The factory and creamery can generally take care of themselves. As far as he could learn the average production of the Ontario cheese factory cow was 2,700 pounds of milk at 70c. per 100 pounds, amounting to \$18.90; add to this \$6, for butter outside of the cheese, gives a return of \$24.90. Anybody with common sense knows that a cow cannot be kept for a year for that sum. Then, there is nothing left to pay for labor but some manure, which the average farmer tried to make as worthless as possible. The trouble is, farmers get mentally lazy. He had enquired by circulars of 1,000 cheese factory and creamery patrons if they had ever made any honest effort to find out what it cost them to keep a cow for one year. Nine hundred and eighty of the one thousand never had—they ran by guess, and were the most talented guessers he ever struck. He asked two hundred cheese factory patrons to tell him what their cows were producing yearly, and one hundred and ninety-seven out of the two hundred could not tell him anything about it, only guessing. He had made a careful calculation of the cost of keeping cows. To keep a cow on pasture in summer, including rent and taxes, cost \$12.60, and for winter \$19; total, \$31.60. As we saw, the return of the average cow was \$24.90, the loss on that average cow was \$6.70. Dairymen were putting good food into poor cows, hence the enormous loss when totaled up. The question now comes up, How shall the dairymen get a good paying cow? Breed her; use a thoroughbred dairy bull; don't fool with a grade bull; the native cow has enough mixed blood in her already; get something pure and potent that will improve your breed of cows; breed your cows in January and February, so they will come in in September or October. You will grow better calves, and your cows will give more milk

in a year than to have them come in in April or May. Winter butter-making would make a man study the fine economics of cow care and feeding; furthermore, it would give the factoryman ten months' business instead of six, as now. He was down on the dairyman who let his cows out to stand in the cold, or roam over the farm just as they pleased during the winter months. In reply to a question, Mr. Hoard said: "For butter-making, Jerseys or Guernseys were, as breeds, preferable, but there were worthless cows amongst them. There were also good families of Holsteins, and others gave very poor quality of milk. And these things had led up to this point, that the pooling of milk must go. It is most decidedly wrong; it is unfair to the man who produces good milk and a premium to the man who produces poor milk."

Mr. Hoard closed his most interesting and instructive address by giving some sound advice on the improvement and breeding of dairy cows for milk and butter, so as to make the dairy business more profitable.

Mr. John Robertson, sr., addressed the convention on the past history of the quality and prices of Canadian cheese under three heads: First, the condition and relative value of our Canadian cheese compared with Scotch and English cheese fourteen years ago; second, the comparison between them four years ago; and third, what comparisons do they have now as to price. Fourteen years ago the Scotch and English Cheddars were from fifteen shillings to twenty-five shillings per cwt. higher than Canadian cheese; but by perseverance and study and discussions at conventions and other meetings we kept improving our quality, as well as increasing our quantity, till we reached the long looked for goal. And four and five years ago our finest Canadian cheese were selling in London as high as Scotch Cheddars, and in some instances ours were preferred before them at the same price. This was clearly brought out at the great Colonial Exhibition in London, where our cheese were admired and drew considerable attention from the public, as well as from the merchants. This awakened the Scotch and English dairymen to a sense of their danger in being outstripped in the business by us, and since then they have made great advancement and improvement. And now, this last season and at the present day, the Scotch Cheddars are from ten to fifteen shillings higher in price than our Canadians are. Are we to remain in this position? I believe we will not. I believe our lost ground can be regained; but it will require an earnest effort with a good deal of expenditure, both of means and brain power. Financially, our industry was of great importance to not only the dairymen but the whole community. One most important factor in the dairy business must be more closely studied; that is, cheap food for cows. Not poor food, but cheap food. A most instructive lesson may be learned from the tests made with milk cows at Toronto fair in competition for Mr. Weld's prize. The three cows that showed the greatest profit, after paying for all their food, and which gained the prize, were fed on cheap food, but good food, at a cost of 9.30 cents per cow per day. The second prize cows were fed on food which cost 12.02 cents per cow per day, and the third prize cows were fed on food which cost 14.26 cents per cow per day. The first prize cows' milk averaged 4.43 per cent. of butter fat; second prize averaged 3.99 per cent. of butter fat; the third prize averaged 5.37 per cent. butter fat. The third prize cows gave the richest milk and most of it, but the cost of production was too great, as shown by the net profits after paying for all their food. First prize profits, \$1.10; second prize profits, 95 cents; third prize profits, 84 cents.

Mr. Robertson next gave some of the faults and defects which our cheese showed on the English market last season. Our cheese had two very serious defects, which affected their money value very much. One was they were too stiff and dry, and checked and cracked when cut.

Mr. Hoard asked for the cause of cheese checking or cracking in the rind or when cut.

Mr. Robertson—it was due in many cases to using too little rennet; other things might cause it, but this had been the cause in several instances.