

shock, one hundred or more. No binder is needed at the top, for in a few days they will settle in and make a complete thatch. The inside sheaves should be as straight-up as possible. No wind can blow it down, nor anything upset it. I haul the corn to the barn as desired, and run through cutter driven by a wind-mill, piling them up on the barn floor to warm up; sometimes throw water on the pile. I have found very little waste in the field by feeding in this way.

FRANK C. BOGART.

Napanee, Jan. 14th, 1899.

### Lucerne Alfalfa

To the Editor of FARMING:

If our farmers understood this clover they would use it more, and as a result would have more cheese and butter to sell. When all other pastures are dried up in the hot weather Lucerne and orchard grass thrive well. It is easy to raise, the same as other crops, seed is no dearer, and for hilly land or dry weather there is nothing so good. It will keep the hills from running down. I think Lucerne sod, after being down two or three years, is equal to a coat of manure. I had oats on Lucerne sod last year, sowed one and one-half bushel per acre of Siterian variety, and harvested sixty bushels in return; and corn does just as well. Part of the ten-acre field was timothy and red clover sod manured, and yet was not so good as the Lucerne sod. You could easily see the difference.

Hogs will eat Lucerne before red clover. The only trouble is that hogs and sheep if fed too close will kill it, but I never saw any difference with any other stock. Some will tell you that cattle bloat on it; so they will on red clover if let on it empty; but I never had any trouble with it. I turn in about four or five o'clock in the afternoon when the cattle are full and never take them off until it is eaten down.

If this will be of any use to my brother farmers they are welcome to it.

Yours, etc.,

ALBIN RAWLINGS.

Forest, Ont, Jan. 13, 1899.

### Cheese and Butter Association of Western Ontario

The thirty-second annual convention of the Western Cheese and Butter Association opened on Jan. 17th in the Opera house, Guelph, under very favorable circumstances. The weather was all that could be desired, and the attendance on the initial day was good. The attendance at all the sessions was also good, considering that the locality of Guelph is not a strictly dairy section. The programme was well carried out, with one or two exceptions, notably that of Dr. Saunders, Ottawa, who was unable to be present through illness. The American celebrities advertised were present and gave a good account of themselves. Another notable feature was the presence of the Dominion and Provincial Ministers of Agriculture. If we had any criticism to offer in regard to the programme we would say that there were too many addresses and not enough time allowed for discussion. It is in discussion where the most valuable points are usually brought out and at every gathering of this character ample time should be allowed for discussion.

The convention was opened by President Eagle. He referred to the holding of the convention at Guelph, and pointed out that one of the reasons for going there was that the delegates might have the privilege of visiting the Dairy School and the Ontario Agricultural College. The Guelph district was essentially a cattle-raising section, and it was not expected that the holding of the convention in the locality would induce anyone to give up that line of farming for dairying. More instructors were needed than the association could employ. Good men for such positions were hard to get. On this account he regretted Mr. Millar's retirement from the work of instructor.

#### DIRECTORS' REPORT.

This gave a *resumé* of the work of the year. The Board of 1898 had carried on the work on the same lines as laid down by the 1897 Board. This work was that of giving instruction to makers. The work of 1897 had been largely experimental; but the results for 1898 showed that the means adopted had been eminently successful. At the end of 1897 the association was in debt, and therefore only \$1,200 of the grant of 1898 could be appropriated for instruction and in-

spection purposes. This necessitated the reduction of the number of instructors in the cheese factories from three to two. The funds of the association were supplemented by charging the factories visited a fee. This fee was \$15 for three visits of one day's duration each. In 1897 the eastern and western associations had jointly employed one butter instructor. Last year a new arrangement was made and two instructors were employed, one by each association. Though recognizing the great value of instruction in the cheese factories and creameries, the Board had adopted the policy of only giving help to those who were willing to pay a fair share of the cost.

The secretary-treasurer's report showed the finances to be in a good, healthy condition. The receipts were \$5,113.73 and the expenditures \$4,518.68, leaving a balance of \$595.05.

#### INSTRUCTORS' WORK.

Instructor Millar, in presenting his eighth annual report, pointed out that the district over which he had control was too large, and urged the association to employ more instructors and make the divisions smaller. He visited thirty-three factories, and had to refuse a number of applications, as visits could not be made in a specified time. He began work on May 17th, and continued till the end of October. During this time he tested 3,032 samples of milk with the lactometer and 595 with the Babcock milk tester. The richest sample tested 6 per cent. and the poorest 1.6 per cent. Eight patrons were fined for tampering with milk supplied the factories. They all pleaded guilty and were fined from \$5 to \$20 with costs. Only two of the factories visited were paying for milk according to its quality. During the past few years a decided improvement had been noticed in the cleanliness of the factories, though there is still room for improvement. There was only one factory A1 from a sanitary point of view. The temperature in the curing-rooms varied from 60° to 88°. The quality of the cheese in many cases was not satisfactory. The makers seem as anxious to succeed as before in making fine cheese. This deterioration in quality is due to several causes; making the makers responsible for all losses, the low price of cheese causing the patrons to be careless, and the neglecting of the whey tanks and returning the sour whey in the cans. Referring to the dirty cans and bad flavored cheese, he saw some the worst he had ever seen at cheese factories.

Inspector Morrison visited forty-three factories in his district, giving from one to four visits each. Thirty-eight of these returned the whey to the patrons in the milk cans. Some of these factories keep the tanks clean, but at some of them the tanks are not cleaned from spring to fall. Elevated whey tanks should be used. He noticed great improvement in many of the making-rooms over the previous season. Many of them, however, had not proper drainage. Sanitary inspectors should be appointed to see that the factories are kept in a proper sanitary condition. The temperature in the curing-rooms ranged from 45° in the spring to 90° in the summer. These great variations could be remedied by the use of furnaces in cold weather and ice in summer. When ice is used the room should not be allowed to get warm before the ice is put in. Some of the makers, early in the season, were using too much starter and ripening the milk too much, while others were bandaging too soon. In a great many of the factories the patrons are to blame for a great many of the flavors that develop in the cheese after they are cured, by not straining the milk. He tested 3,382 samples of milk with the lactometer and 265 with the Babcock tester. The percentages of fat ranged from 1 per cent. to over 4 per cent. Five of the factories visited were paying for milk according to quality. Fourteen persons were fined for tampering with the milk supplied to the factories.

Instructor Struthers, who had charge of the summer creamery work, pointed out that only a few of the creameries took advantage of the arrangement to secure his services. He visited in all five creameries, and four out of these were in good condition. The fifth one was in great disorder when the visit was made. At all the creameries but two the drains were good; four were whitewashed throughout and four had excellent cold storage facilities, built on the government plan, registering 35°. He makes the rather startling statement that not more than 10 per cent. of the butter manufactured in the western part of the province would class as No. 1 creamery. This inferiority is ascribed in a large measure to improper methods of applying the salt, which is something that every butter-maker should be able to remedy.

#### THE PRESENT CONDITION OF DAIRYING.

In addressing the convention on these topics Mr. A. F. MacLaren, M.P., Stratford, Ont., referred to the present as being the accepted time. Many makers did not carry out the instructions received at the dairy schools. They lapsed too quickly into their old slovenly ways. There should be a better understanding between the patrons and the makers. In visiting several factories last season he had found them swarming with flies. To prevent this screens should be used on both doors and windows. Whey tanks should be kept thoroughly clean. If makers were better paid they would be able to engage more help to keep their factories clean. The trouble in connection with buying and selling cheese should be remedied, and, above all, the whole standard of the business should be raised.

#### BARNYARD MANURE.

This formed the subject of a very practical address, by Professor F. T. Shutt, Experimental Farm, Ottawa. He gave the results of some experiments, extending over two years, connected with rotting manure, protected and exposed conditions. Four tons of horse manure were put into a building, while four tons of cow manure, of practically the same condition and strength, were placed in the open, where it was