THURSDAY MORNING SESSION.

Meeting called to order at 9:30 o'clock by President McCready.

The President: The first on your program this morning is Brick Cheese Making by Mr. Gottlieb Marty. Mr. Marty is instructor in foreign cheese making at the University.

BRICK CHEESE MAKING.

GOTTLIEB MARTY, Madison, Wis.

Mr. President, Ladies and Gentlemen: At the beginning of the cheese industry, about fifty or more years ago, brick cheese factories were started in Green and Dodge counties by cheesemakers who came from the state of New York, where they had already been engaged in the manufacture of soft cheese. They found the conditions good for dairying in Wisconsin and obtained good results in making cheese, considering the condition of factories and the long distance of hauling the milk in those early days.

The number of factories increased rapidly and grew to such an extent that Wisconsin today not only manufactures the most Brick cheese, but also has gained the name of supplying the best cheese that is made in the Union.

However, notwithstanding the fact that there is an enormous amount of good cheese made in Wisconsin, there is still manufactured a vast quantity of second-grade cheese caused by too much fermentation during the hot season, and by much too slow acid development during fall and winter.

In those early days of dairying, conditions such as barns and factories were in a very primitive state. The factories were, therefore, in operation usually only during the months from May until October. With the advent of the hot weather, the flies and the dry weather, the latter causing a shortage of pastures, which usually drove cows to search for weeds and leaves, occurred a great fermentation and "huffing" of the cheese, consequently causing great losses,
Later on, when factories were in operation during eight or nine months or the whole of the year, it was mainly the spring and winter cheese, often containing too much moisture, which caused the most damage to the industry. Rennet at that time being made by each operator, by dissolving the stomach of calves in whey, was responsible for a great deal of the trouble. After rennet factories were established commercial rennet was used alternately with home-made rennet by some operators, in place of all home-made rennet as in former days, but the largest per cent of makers still are using the old method of rennet manufacturing today.

Just as in the beginning of the dairy industry so in the Brick cheese district, no fat or acid tests were found for a long time, and, therefore, the maker had no means by which he could determine these two chief factors. Therefore, the manufacturing process is varied. For instance, the temperatures for setting the milk ranged from 88 to 96 degrees F.; the time from cutting to cooking 5 to 30 minutes. the cooking temperatures were from 106 to 120 and over, and the time from cutting to dipping from 40 minutes to an hour and thirty minutes. This variation in the manufacturing process is today the same as it was thirty years ago, although the fat test and the different acidity tests, as well as the use of pure culture starters were introduced some twenty years ago.

Few modern methods of manufacture have been introduced. On the contrary the annual troubles, such as too much gas in summer, and in winter time the high per cent of moisture in the cheese, still exists. The uniform product of American cheese and the increased price for the same during the past ten years often bring as high returns as any Brick cheese factory, where the milk is hauled twice a day. Why do they gain the advantage over the brick cheese factory? Simply because they use all the modern methods offered; namely, the fat test, the acid test, the starter used before setting the milk, etc. These improved methods we find in all up-to-date factories.

For the benefit of all Brick cheesemakers let me say, that it is high time that more interest be shown in adopting the more modern methods.

I feel certain that the more general introduction of the fat test, the acid test and the proper use of starters would be a great
step forward. It would do a great deal toward the manufacture of a more uniform product and this cannot help but be, not only a great help to the individual maker, but also to the dairy industry as a whole. The modern methods resulting from the introduction of these various tests, etc., have been found not only satisfactory but rest on a sound scientific basis. We, as cheesemakers, cannot get away from them. Competition is so keen that a maker cannot afford to close his eyes and refuse to see the light. We must keep abreast of the times or be crowded out. It remains with us to decide the future of this great industry.

Wisconsin.

The Chairman: Are there any questions you would like to ask Mr. Marty? Anyone interested in the brick cheese industry has an opportunity now to ask questions. If there are no questions we will proceed to the next paper, Limburger Cheese Making by Mr. Jacob Andrea. I wish to say that Mr. Andrea made a proposition last night that I thought was good. He suggested that he bring one or two cheese here, even though they were Limburger, and have someone tell him what was wrong with them. We will now listen to Mr. Andrea's paper.

LIMBURGER CHEESE MAKING.

JACOB ANDREA, Monticello, Wis.

Mr. President, Ladies and Gentlemen: I do not feel called to come up before this convention and read a paper on Limburger cheese, but our secretary, Mr. Baer, thought different and he put me on the program, so I suppose I will have to make the best of it and beg you to have patience with my shortcomings.

I will now try and be brief in what I have to say. Last Spring I noticed that New York limburger cheese was quoted from 1 to 2 cents higher than Wisconsin limburger and it has been higher all summer. I asked myself, what's the reason? Is our Wisconsin limburger not as good as New York cheese? Can we not make just as good an article here, as they do in New York?