At this point in the exercises Mr. Ben Dalley stepped forward, and on behalf of the association and as a recognition of the appreciation of the members for the services of the officers during the past year, he presented to Acting President Powell a watch and to Secretary U. S. Baer a seal ring.

Both gentlemen, in appropriate language, expressed their gratitude for the gifts.

Recess till 2 o'clock.

Convention met at 2 o'clock same day.

President Powell in the chair.

Upon the opening of the convention in the afternoon, the most attractive object in the room proved to be a fine Swiss cheese, made by Mr. Marty. This cheese having taken the first prize, Mr. Marty was asked to come forward and tell the convention how the cheese was made, but declined to do so.

Mr. E. L. Aderhold, the dairy critic, reported as follows:

Now, for the criticisms on this cheese which has been on exhibition and scored downstairs. We have made criticisms under the head of flavor under the following terms: heated, old, rank, musty, off, not clean, fruity, sweet, vinegar flavor, roots or turnips, wild carrot, acorn, sharp starter flavor, sour flavor, old milk flavor. I guess that is about all of them. The heated flavor comes from cheese that have been kept at too high a temperature at some stage of the game, usually while they were young. Most of you are familiar with that and you know the cause of it. The old and rank flavor sometimes come from unclean cans or filthy whey tanks are often the cause of such things, or sometimes unclean factory condition and surroundings. Old milk sometimes that is only a day old or two days old, or the starter sometimes gets too old and gives a kind of old, rank flavor, and there is the musty flavor. That might come from the absorption of odors by the milk or from some other unclean conditions, mouldy condition. Off-flavor, that means a good many things. I am not going to try to tell you all of them. Not clean. Of course when we come right down to the business, you will remember that ninety-nine per cent. of our
cheese is made from milk that is imperfect, more or less, and
you couldn’t have a clean flavor; it would be almost impossible,
it would be unreasonable to expect it when we know the condi-
tions the milk is produced under, in stables not well ventilated
and where the odor is pretty strong, and of course such milk is
imperfect to start with. That is the reason why less than one
per cent. of our cheese has got the clean flavor.

Then there are the flavors that come from fermentations, such
as sweety, fruity, and vinegar flavor. If you will take the re-
port of last year’s convention you will find where Professor
Dean treated of that subject very comprehensively. He had
two samples of cheese with him, one had a decided fruity flavor,
and the other a vinegar flavor. I found, while judging at the
State Fair last fall, quite a number of the cheese had that vine-
gar flavor, and the same is true here. Some call it fermented
wine flavor. It is very easy to catch it. This comes from
germs, as Professor Dean said, that were distributed in the sur-
face of the soil, in the roads and some have been found on trees
around farm buildings, and they fall into the milk and cause
these flavors.

Then there are the food flavors, such as roots, turnips, rape
and a number of others. Of course you will understand the
cause and the prevention of this. We had one cheese that
smelled just exactly like a sour crab apple and one of the judges
claimed that cows are very fond of wild crab apples, and these
cows had evidently been eating them. Another smelled like
acorn flavor. Then there are other flavors that are wrong,
that are due to the negligence of the cheesemaker in making
his starter. Some starters are too old and too sharp, or perhaps
too heavy, too thick, so that perhaps they affect the flavor of
the cheese; they have a kind of a sharp, sour, acidy flavor.
Then there is the old milk flavor. In the fall, when the weather
is cold, and you only make cheese every two days and you have
some frozen milk; of course that affects the flavor; you can’t
expect as fine and pleasant a flavor as when the cows are on
pasture. That is all about the flavor, unless there are some
questions. If not, I will pass on to the texture. The criti-
cisms under that head are mechanical holes, loose texture, gas,
coarse texture or not smooth, lumpy, harsh, soapy, sticky, weak,
young and curdy.
The mechanical holes are caused by insufficient pressure, or by pressure that is not continuous enough. I do not believe that it is necessary to have extreme hard pressure on cheese to close it up, especially the small varieties where you have a small diameter, but I do believe it is necessary to have continuous pressure, especially on the small varieties, because where they make the small cheese, they usually take them out the first thing in the morning one at a time, and they are not in the press as long as they ought to be. The pressure ought to be continuous for that kind of cheese.

Mr. Waterstreet: Are mechanical holes always due to insufficient pressure?

Mr. Aderhold: I should think so, generally, yes. Do you know of any cases where they are not?

Mr. Waterstreet: No, I do not.

A Member: If you have a sweet curd, you will have mechanical holes.

Mr. Aderhold: Who is making sweet curd cheese? Cheddar cheese is not sweet curd cheese ever.

The Member: I don’t mean exactly sweet curd, but any cheese that is a little too sweet, you will find mechanical holes with the very best pressure.

Mr. Aderhold: Next comes “loose.” You find cheese sometimes that is seemingly all right, and when you pull the plug, it isn’t all right; there seems to be a little gas formed in there that loosens it apart. Of course we have gases that form in cheese from imperfect milk or from too high a temperature in the curing room, and that makes open cheese.

Now, as to the texture, the feeling of the cheese. It should be smooth and silky and still firm. Where, when we mash it up, it is coarse, that is often caused by over-ripe milk, or by an insufficient cook or an imperfect cook, as Professor Barr explained. If you hurry it too much, you are going to have a coarse texture. Then we have some that seem to be plenty firm enough and when you come to mash them, they seem to be lumpy. I thought that might be caused by an imperfect distribution of salt for one thing. Perhaps the salt was not perfectly dissolved before it was put in the press. And another thing, the curd in maturing is uncovered and becomes very dry at the surface, so dry that it becomes red, and I know positively of cases where they would
make little lumps in the cheese that are harder than the rest of the cheese is, that was not exposed to this drying process. The curd should be turned in such a way that every piece will be in the center of the pile as much as another piece, so that the air will not have a chance to dry the surface.

A Member: Wouldn’t it also be caused by the curd being left in too large pieces?

Mr. Aderhold: That might be, if it is uneven, the small pieces will absorb the larger proportion of salt to the amount of curd, than the large ones, and they would be a little harder. Then we certainly have ferments in our cheese which prevent a good texture. I can’t give a scientific explanation of it, I don’t know that anybody can, but there are some of the ferments that injure the flavor and injure the texture also, so that while some cheese are very well made and are good cheese, there are some of those agents at work that prevent a real fine silky texture. A frozen milk, I believe, is always liable to injure the texture of the cheese; it is a little apt to be a coarser and looser texture than it would be if the milk was not frozen. The soapy texture, I believe, is caused by fermentation usually. Then there is the weak bodied and sticky cheese. Of course that comes from being too much whey or too little salt, too much moisture in the cheese.

A Member: Don’t the cooking and the salting have a good deal to do with it?

Mr. Aderhold: If you leave in too much whey, that might be the cause of too much whey being in there.

The Member: You have to scald it in order to get the whey out of it.

Mr. Aderhold: Certainly. I want to make one remark about the age of the cheese. I believe this association, before it closes, ought to pass a resolution to prevent in future any cheese being exhibited here that are so young that they are not well broken down. I believe it is an injustice for us to take in those cheese and score them. We don’t know what they are going to be when they are cured. We had cheese at the State Fair last fall that was less than two weeks old, simply a mass of curd. They ought to be at least two months old. If you have got any good cheese any time during the summer, put them in a good, cold place and keep them there and exhibit them.
The American cheese that got the highest score would have scored quite a little higher if it had been old enough to have had the texture that it ought to have had.

Member: That was made the 9th of October.

Mr. Aderhold: It was not old enough to have a full silky texture or a full flavor.

Now, as to the color. We had only a few that were off in color; we had one or two that had some white specks, I don’t know whether from an uneven distribution of salt. Of course the curd that gets the most salt, there will be the more moisture expelled from it, and the more moisture you expel from the curd, the higher the color will be. A few of them were a little streaky in between where the layers of curd were and I don’t know but what some of them used poor rennet or too much rennet perhaps, which has certainly quite an effect on the color. Then we had a few that were colored too high. I don’t think that any buyer commends such high color. A good many cheesemakers that use less than the usual amount of color do not have any kicks on that account from the buyers. I would rather see them use too little than too much.

Now, the make-up is a good deal better than it used to be three or four years ago, since we have had this educational contest going and the criticisms are sent to the makers. We have a little trouble yet from the high edge that comes from the follower being too small and we have quite a few that are too long in the bandage, turn over too long, and sometimes little wrinkles, not quite well dressed, but, on the whole, the make-up is a good deal better than it used to be.

Mr. McKinnon: Will not age overcome those little lumps you speak of?

Mr. Aderhold: No, sir; of course, it will overcome it to some extent, but we have cheese here that are well broken down and they still show it.

The Chairman: There is a thought that occurs to me very often in regard to the scoring of cheese where we have the flavor maximum 45 points, and texture, 30 to 35. Now, don’t you find that it has always been in a large majority of the factories that the maker gives his whole attention to the texture and appearance, and neglects the flavor entirely?

Mr. Aderhold: The cheesemakers never try cheese for the
flavor, and the buyers hardly ever reject cheese on that account, and still in scoring, it has a higher number of points. Of course, the idea is that they ship cheese out so young that they can’t have much flavor in the factory. One of the resolutions passed here was to request the Dairymen’s Association to send their instructors out early enough so that they could attend the annual meetings at the factories. Last spring I asked the association to turn me loose early enough so that I could do that with the idea that I could accomplish a good deal at the annual meeting, and they turned me loose the first of March, and during the season I held meetings in sixty factories and thirty-three of those sixty meetings were what you might call business meetings where the farmers made rules for the operation of the factory for the ensuing season. My object in attending these meetings was to start up a demand by the farmer for better factories, better equipment and cleaner whey tanks, and I could show them that they could not afford to have the factories run as the average factory is being run; that they were wasting a lot of money in that way; that the cheesemakers ought to do a good deal better job, and if they were willing to do it, the farmers ought to be willing to pay a little more for it. Out of those thirty-three business meetings I arranged, at nineteen I succeeded in getting the farmers to raise the price of making; in two instances it was one-eighth of a cent; in one instance three-eighths of a cent, and at the rest of them it was a quarter of a cent raise for making, on condition that the cheesemaker should keep the whey tank cleaner and improve the factory in other respects as fast as he could, and in some instances on condition that he put in curd agitators, and in that way increase the yield of his cheese. Now, I believe that an outsider can do a good deal more in persuading the farmers to such action than the regular maker can, and there are reasons for that. They often know too much about the maker to believe everything he says, but you get a stranger there and they often take a lot of stock in him because they don’t know him. If a man makes it his business and he knows just how to put it before the farmers to make them see that it is not alone how cheaply we can get our cheese made, but also what kind of a job we will get for our money. I tried to show them that it depended as much or more on the kind of a job they were getting than the price they
were paying for the job. In one instance the cheese maker was receiving a cent and a quarter for making. I told him when I got through with my talk he should ask a cent and three quarters, because I expected they would pull him down some. When I got through talking, they asked him, "Now, what do you want, what do you think about it?" and he couldn't talk for sour apples. He says, "I will be well satisfied with a cent and a half," and that is all he could say. One farmer says, "If you will make the improvement that this man is talking about, I just as soon pay you a cent and three-quarters." Another farmer says, "How is it, are you willing to improve your factory as fast as you can?" He says, "Of course I am." Then one of the farmers made the motion that they pay a cent and five-eighths, and it was seconded and carried, without a dissenting vote. They paid him more than he asked, and if the association turns their men loose early so that they can attend these annual meetings, can arrange a date with them that won't conflict with other dates that he has made, it will be a good thing. Let the instructor know about three or four weeks ahead when you want to hold your meeting. I want to say something in answer to what Mr. Scott said the other day. He said he was making more money than he did when he worked on a farm. Well, I don't know what kind of a farmer he was, or how much he earned when he was working on the farm, but I believe that he has got patrons today that are making more money off their farms than he is making off his factory, and they know what their farm is going to pay them next year, while Mr. Scott doesn't know what his factory is going to pay him. There have been some arguments made here in opposition to the idea of raising the price of making at factories that were very poor arguments. When a farmer comes to hire a man, he finds that he can get one man for fifteen dollars, while for another man he has got to pay at least twenty, and he knows that while he pays him that much more, he may do twice as much work, and he won't eat any more than the other fellow. Now, if I can apply that same principle to your patrons and show them that it pays to work on business principles, convince them that the business belongs to them, to the farmers, the milk belongs to them, the cheese belongs to them, they are simply paying the maker for the job he is doing, and if I can convince them that
by paying a little more, they can get a good deal better job and
the maker is willing to give them the better job, it is better all
around.

A Member: But don't you know that we may have our
meeting and the other fellows have their meeting, and they say
to him, "Come around," and some other maker comes along and
offers to work a little cheaper, and before you get through you
will probably lose one or two thousand pounds of milk, and
our money is invested in the business, and we don't like to lose
any of it.

Mr. Aderhold: I know how things go. The other fellow
is a cheap skate, and when you send milk away he will take it.
Now, you mustn't be so afraid of losing a patron. If you lose a
thousand pounds of milk, or fifteen hundred, and you get a
quarter of a cent more for making, you are better off financially,
and that milk is going to come back unless the other fellow gets
the same improvements that you are getting in. I know of in-
stances where the farmers have raised the price and the factory
man is cleaning his whey tank every day, and you couldn't get
those farmers to go to any other factory and take their dirty
whey, even if they only paid a cent and a quarter for making.

The Chairman: It was suggested that there be a commit-
tee from this association on the Wisconsin Exhibit at the
World's Fair. If there is no objection, I will appoint a com-
mittee of three, viz.: Mr. Aderhold, Mr. Noyes and Mr. Baer.
These three men are traveling over the country and have had
experience in this line before, and will act as the committee un-
less there is objection.

Mr. McKinnon: The question of competition up with us is
a very serious question. I live not very far from the village
of Sheboygan Falls and am running a large factory now. I
have been making for the last year at one and a half cents a
pound. They are making in the village of Sheboygan Falls
for one and a quarter, and they are able to pay better dividends
than I can pay, and consequently there is an inducement to our
patrons to go to the Falls, and they have the same inducements,
of course, to make their factory first class that I have to make
mine first class; that is, they give first class accommodations to
the patrons, the same as I do, and I have that to contend with,
TWELFTH ANNUAL MEETING.

and I know of no means of overcoming that unfair competition. I do not believe in forming the cheesemakers into a syndicate and controlling the whole thing, but I do believe that we should have a cent and a half for making and that we should do the very best we can under those circumstances. Mr. Scott, who spoke here the other day, is in the same position; he would be very glad to get more for making his cheese if he could, but if he raised his price a large number of his patrons would go to Sheboygan Falls, which is almost as near to many of them as his place is. Now, if there was any way of reaching those factorymen who are cutting their own throats, so to speak, we would like very much to reach them. On this question of one factory taking milk rejected by another, our boards of trade have wisely passed a resolution, that no man can belong to our board of trade or sell cheese upon it who has taken milk that has been refused at any factory, consequently, we do not have that trouble of a man running from one factory to another. We are attending these conventions year after year, aiming to reach the weak spots in our system of making cheese, and I hope that during the next year we can so far come together that we will be willing to stand together upon a fair basis for manufacturing cheese.

HINTS UPON THE CONSTRUCTION AND EQUIPMENT OF CHEESE FACTORY BUILDINGS.

U. S. BAER, MADISON, WIS.

LOCATION OF FACTORY.

In the location of a cheese factory no one thing is more important than to secure a well drained site, and yet, this is, in many cases, the last thing thought of. The foundation of cleanliness in a cheese factory begins with the sewer. Other things being equal, then, elevated ground should be selected as a proper site for a factory. Another matter that may prove of