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Proceedings of the Wisconsin Cheese Makers' Association thirty-fourth annual convention December 9, 10, 11, 1925 assembled in the Milwaukee Auditorium, Milwaukee, Wisconsin. 1926

Wisconsin Cheese Makers' Association
Madison, WI: Cantwell Print. Co., 1926

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PROCEEDINGS
OF THE
WISCONSIN CHEESE MAKERS'
ASSOCIATION

THIRTY-FOURTH ANNUAL CONVENTION
December 9, 10, 11, 1925

Assembled in the Milwaukee Auditorium, Milwaukee, Wisconsin

Compiled by
J. L. SAMMIS, Secretary



Madison, Wisconsin
1926



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LETTER OF TRANSMITTAL

Office of the Secretary,
Wisconsin Cheese Makers' Association.
Madison, Wis., 1926.

To His Excellency, JOHN J. BLAINE,
Governor of the State of Wisconsin.

I have the honor to submit report of the thirty-fourth annual meeting of the Wisconsin Cheese Makers' Association, showing the receipts and disbursements reported the past year, also containing papers, addresses and discussions had at the annual convention held at Milwaukee, in December, 1925.

Respectfully submitted,

J. L. SAMMIS,
Secretary.

**WISCONSIN CHEESE MAKERS' ASSOCIATION
THIRTY-FOURTH ANNUAL MEETING**

Auditorium Building, Milwaukee, December, 1925

Officers and Directors

H. A. RINDT, President (resigned)-----Clintonville
 H. A. KALK, Vice President-----Sheboygan Falls
 J. L. SAMMIS, Secretary-----Madison
 A. F. ZELM, Treasurer-----Plymouth
 A. T. BRUHN, Director-----Spring Green
 J. GEMPELER, JR., Director-----Monroe
 J. H. PETERS, Director-----Plymouth

Judges of Cheese

W. F. HUBERT-----Sheboygan
 JOHN CANNON-----New London
 FRED MARTY-----Monroe
 ALEX SCHALLER-----Barneveld

Superintendent of Cheese Exhibit

J. W. CROSS-----Milwaukee

Life Members

E. L. ADERHOLD, Neenah	J. B. MCCREADY, Fond du Lac
P. H. KASPER, Bear Creek	FRED MARTY, Monroe
J. D. CANNON, New London	T. A. UBBELOHDE, Glenbeulah
J. W. CROSS, Milwaukee	W. F. HUBERT, Sheboygan
JOHN KIRKPATRICK, Richland Center	MATH. MICHELS, Fond du Lac
JACOB KARLEN, JR., Monroe	C. E. REED, Plymouth
AL. WINCKLER, Cumberland	J. L. SAMMIS, Madison
	OSCAR DAMROW, Sheboygan Falls

December 1925 Honorary Members

W. F. HUBERT, Sheboygan	O. R. SCHWANTES, Clintonville
M. M. SCHAETZL, Edgar	R. C. JORGENSEN, Denmark
EDW. F. HORN, Beaver Dam	GOTTLIEB WERREN, Blue Mounds
J. GEMPELER, JR., Monroe	GEO. E. SEILER, Forestville
WM. J. GERLACH, Greenwood	OSWALD REITZ, Calvary
J. BERNIE SMITH, Rockbridge	P. H. KASPER, Bear Creek
S. D. CANNON, Neenah	E. J. SCHMITZ, Glenbeulah
FRED WUETHRICH, Juda	J. GRUNENFELDER, Dorchester
FRED BEYER, Spencer	H. J. HOWE, Nye
ED. F. WINTERS, Gillett	A. F. ZELM, Plymouth
H. J. LOEHR, Calvary	ULRICH FURRER, Hollandale
ALEX SCHALLER, Barneveld	EMIL ABEGGLEN, Eldorado

OFFICIAL REPORTER

MISS LIBBY MILLER, 490 Broadway, Milwaukee.

OFFICIAL ORGANS

The Sheboygan County News and Daily Market Reporter, Sheboygan Falls, Wis. The Butter, Cheese and Egg Journal, Milwaukee.

THIRTY-FOURTH ANNUAL CONVENTION
OF THE
Wisconsin Cheese Makers' Association

Held at the Auditorium, Milwaukee, Wisconsin

Wednesday, Thursday, Friday

December 9, 10 and 11, 1925

Vice-President, H. A. Kalk, presided as Chairman, and called the convention to order.

ADDRESS OF WELCOME

By Professor CARL E. LEE, Gridley Dairy Co., Milwaukee.

MEMBERS OF THE WISCONSIN CHEESE MAKERS' ASSOCIATION: On behalf of Milwaukee I welcome you to this, your thirty-fourth convention.

We have watched your progress with a great deal of interest because no industry can develop as you have without becoming state and nationally known. While in our city, take time too look us over; get acquainted with some of our people in order that we in the future may have a greater part in the development of a still greater cheese business.

There are four groups of men who are interested in the cheese game. All of them must work together. Not for one moment must there be the slightest sign of friction or discord. They are:

First—Producer of the Milk.

Second—The factory operator and maker.

Third—Dealers, no matter where located, which include the grocery stores, meat markets, etc.

Fourth—The newspaper man and the consumer.

Not a single group can be eliminated or overlooked if we are to go forward.

The dairy farmer's problem in a large measure is to see to it that every pound of milk is the best that can be produced. If he fails it means a loss not only to himself but to every other group.

along the line. The loss to the farmer due to off-flavored milk may result in a yearly loss of millions of dollars, yes, a sum sufficient to pay the total cost of operating our state government.

No one will deny the farmer the right to engage in the operation of factories and the making of the cheese, also to engage in the selling game if he can render a greater service to himself and the consumer. He should first make sure that he has good milk to start with otherwise someone will be disappointed.

The second group is made up of men who are here today. The cheese industry cannot get along without you nor can the farmer afford not to cultivate your good will. No one is in a better position than you to show him how he can save the loss that he now is taking because of unsuitable milk for the making of good cheese. Naturally you as a cheese maker must play your game fairly and squarely. The total income of the cheese factory operators and makers of Wisconsin can be doubled if the methods followed by the best are adopted by all.

Some day, this, your convention will be transformed into an organization that will work day and night to test out new and better ideas. Your secretary and his assistants will occupy a prominent place in the business life of Milwaukee. I said Milwaukee because no other city in the state can be of greater assistance to you. I shall return to this subject later.

The third group, the cheese dealers, have played an important part in our state dairy development. At times their efforts have not been received favorably by those who are not in favor of giving all a chance to live. In the early days it was the dealer who saw to it that Wisconsin's product was shipped to England and other foreign countries. As a whole the cheese dealer favored the idea of the cooperative movement as an agency in selling cheese because it gave the dairy farm an idea of how difficult it is to sell poor cheese. The cooperative idea in the selling game has a large field before it although we must remember that it is not to the best interest of future progress entirely to eliminate the men who have done so much to place us where we are today.

The cheese dealers are many, the large and the small. In this class we find the wholesale and retail grocer and meat market owner and we must have them all. If we should cut out the market around the corner the future selling of cheese would receive a tremendous setback. These few thoughts have been brought out to furnish a background for the statement that Milwaukee should be looked to as the logical place to establish a nation's cheese market.

The merchandising and Research Bureau of the Milwaukee Journal reports that Milwaukee had 2,327 grocery stores in 1924. This is nearly twice as many as the total stores for the other twenty-two larger cities of the state. In fact Milwaukee has more grocery stores and meat markets than the total for all cities of Wisconsin having a population of 1,000 and over. Racine being next to Milwaukee with 163 stores and Madison next with 124. Milwaukee has railroad and

lake service that connects her with the entire cheese producing territory of the state and the same transportation system can carry your product to the world markets. It is also of more than passing interest that more than one-fifth of the people of Wisconsin live within the greater Milwaukee territory. City folks are liberal users of dairy products. They know the value of milk, butter and cheese in making the family diet. There are more dinner buckets filled in Milwaukee for the working group every morning than in the entire state of Wisconsin. Cheese should find its place into a certain number of these buckets each day.

The city of Milwaukee is keenly interested in the cheese industry as a whole. Progress has been made but the surface has barely been touched when considering the large possibilities that are still ahead for those who are willing to see the light of a new cheese day.

Sell the dairy farmer the idea that he must produce good clean milk and deliver that product daily to large well managed factories. These plants or groups of plants should be in charge of men who are well trained and fully understand how to make good cheese. With the above conditions and ideals backed by the city folks and the press, there will not be enough cheese in Wisconsin to meet future demand.

RESPONSE TO THE ADDRESS OF WELCOME

By A. F. ZELM, Plymouth.

MR. CHAIRMAN, LADIES AND GENTLEMEN:

This hearty welcome so cordially given by Mr. Lee of the Association of Commerce, is not simply a happy jumble of meaningless phrases, but it comes from the heart of Milwaukee's greatest commercial organization and the spontaneous good will of her citizens, who for many years have gloried in the proud distinction of being residents of America's greatest and most popular convention city in this state. It is a great pleasure, therefore, to thank Mr. Lee for his kind words of welcome and to congratulate you, ladies and gentlemen of this convention, on having selected this city.

Milwaukee's welcome is expressed, not only in words, but also by this splendid room given us for the convention meeting. Friendliness is contagious and after the kindly way in which we are welcomed here, we should feel similar appreciation towards the fellows back home. A great many cheese makers throughout the state regret very much their inability to attend; but the Dairy business cannot close its doors to go to conventions like a good many other manufacturing industries can. If we can each absorb more of that brotherly spirit which really has made the city of Milwaukee famous and take it back home with us, when and where we go, we may be able to extend the benefit of this convention more widely over this state. We, as individuals have each benefited by work of this sort at all past conventions. Each one of us by our presence and assistance here today

is advancing the interests and benefiting the cheese industry as a whole. Whatever question may come up or lesson we may study and learn here this year about cheese making, cheese selling, advertising and tests of all kinds, laws in this state or in any other, the most important thing that we can carry away with us is a determination to share all these benefits with those that are now at their homes. It is not sufficient to be happy over all this unless we make some effort to give that emotion some form of expression. If anything is going wrong we make some effort to correct it, on the other hand if a thing is going along fine we should make an effort to push it along.

Let us strive for better standards and a product of better quality and uniformity and cleanliness, and do away with bad smelling factories, all of which our good old Dairy and Food Department and Dairy School are trying to build up in this state.

We should standardize the quality of our American cheese. There should become discussions on this subject here at this great convention of ours. The QUESTION IS—CAN WE DO IT? We buy raw material, such as milk from the dairies, on a standard test basis then use the differential point basis to pay on. For example, if you were to buy milk use your own standard test, say 3.5 test milk your price would be \$2.00 per cwt., then for 3.55 milk pay \$2.02,—3.6 milk \$2.04, taking it the other way, 3.45 milk would receive \$1.98,—3.4 milk \$1.96, or four cents a point differential. I believe that the same basis could be worked out on cheese, use your standard on moisture. Suppose we call 38% moisture as a standard basis and your market is 20 cents for cheese testing 38%, which also would include body texture and makeup. Then if cheese tested 37.5 moisture the price would be $20\frac{1}{4}$ cents per pound, or if cheese tested 38.5 the price would be $19\frac{3}{4}$ cents, or a differential of one quarter cent per pound. I am not saying that you should use this basis, but am just bringing out the idea for you to have something to think about. We are talking quality at every convention and all dairy papers are full of it with columns of write up, with large headlines—QUALITY IS WHAT WE WANT. How, are you going to get it? Money talks. Standardize your quality and pay on the moisture differential basis and there is no doubt in my mind that we will get a better product and I assure you that this is the only way you are going to get anywhere at this stage of the game.

PRESIDENT'S ADDRESS

By Vice-President H. A. KALK

Members of the Wisconsin Cheese Makers' Association, Ladies and Gentlemen:

As our President Mr. H. A. Rindt resigned a few weeks ago, it is my duty as Vice-President to give you an outline of what the officers of this association have done at the last Directors meeting September 8th, 1925, at the Republican House, Milwaukee. We proposed to raise the number of Directors from three to five, the two new members to be from the Northwestern part of the State. I appointed Bruhn and Gempeler on Auditing Committee. We reduced the salary of the President and Treasurer to \$15.00 per year and expenses and put as much funds as possible in the Pro Rata fund. The interim Legislative Committee is to be composed of Bruhn, Gempeler and Sammis.

There is no reason in the slightest, why this Association should not have a membership of at least 2,000. If each member will do just a little boosting, this can be very easily accomplished. Your officers can't do any more than they have done, unless they be placed in position to devote all their energy to this work. Unfortunately, none of us are in a position to do this, so it is up to each and every individual to help, in fact, do as the Irishman said, "Start something even if it is nothing more than a row, for as a rule, people who never start anything, never finish anything." We must not be content to rest on our oars and say, "Well done". We have not reached that point where we can fold our arms and say our work is finished.

Do not think because Wisconsin is the biggest cheese state in the Union and because she has the reputation of making the best cheese, that we are all perfect, for we are not, there are thousands of dollars lost by the Dairymen of this State every year, from poor milk that is produced, and poor and careless cheese makers who do not understand their business, and who are entirely unfit to be classed as cheese makers. These men will be weeded out in time, but it takes time, and we can help by being careful whom we recommend to positions as cheese makers. The efforts of this association in the past have been directed mainly towards educating the cheese makers in the technicalities of their profession and improving the character of the milk supply. It is the opinion of your President that during the life of this association the average skill of our cheese makers has increased very materially, and that improvement in our milk supply with reference to its purity has been much too slow.

Of course, the task of educating the milk producers is much greater than that of educating the cheese makers, owing to the difference in numbers, but I am satisfied that the association of this kind has been paying more attention to the manufacturing end of the industry than to improving the character of the milk supply. They have tackled

the smallest job first. What your President has to say at this time refers mostly to the bigger job. Better milk for cheese making.

The grading of cheese under the Wisconsin Department of Markets has not done as much good to the cheese industry as we hoped it would do. There is no uniformity in grading cheese in Wisconsin. There are too many grading cheese to their own personal advantage, often working an injury on the industry. We have been hoping that the Wisconsin Department of Markets would shortly submit for our consideration a more practical plan of supervision, one that we can find suitable to adopt, and recommend to our legislature at the next session.

We have on our program Thursday afternoon Mr. Carl Haberlach of Tillamook, Oregon, Secretary of one of the most successful cheese making enterprizes in the Country. He is going to tell the Wisconsin cheese makers how Oregon is grading and selling their cheese.

The Tillamook organization has for a number of years set its own price on all of its cheese, and this price is regularly several cents per pound higher than the prices received by Wisconsin or New York farmers factories.

I do not wish to take up any more of your time, but I can assure you that I believe it is good to be here, and I hope and trust that everyone in attendance at this convention will enjoy their visit to Milwaukee, and at the same time learn something that will be of benefit to you in the coming season's work. After this convention on returning again to your labors, impress on the mind of your neighbor who stayed at home that he missed something that he can never regain, but he can partially atone for it by doing like yourself, boosting for the 1926 convention, gaining a membership on the Honorary list and attending the convention.

The big list of prizes and special premiums will show that our friends, the supply men have responded with usual liberality. I am safe in saying your officers have all made a special effort to make this meeting a success and now then it is up to each and every individual member to get busy and do your share too of boosting not only at this convention, but also at the one to follow in the future. I thank you.

REPORT OF BOARD OF DIRECTORS

By MR. A. T. BRUHN, of Spring Green.

Mr. Bruhn was not present the chairman called on Mr. Peters.

Mr. Peters: The Board of Directors have examined the Treasurer's and Secretary's books, and we found them to be always correct. That is all I have to say. (Applause).

SECRETARY'S REPORT

Read December 9, 1925, by J. L. SAMMIS, Dairy School, Madison, Wis.

Association Growth

The past year has been one of growth for this Association. Our last Convention showed a gain of 109 members and 93 cheese exhibits over the preceding year. This year's prize list contains 564 prizes instead of 518 last year. Our 34 Conventions during the past 33 years, with steady growth show that this Association was started on a sound and practical basis, to do things which need to be done, which our people in the cheese industry want done, things that we could reasonably expect to make progress on each year.

The State Association has encouraged the organization of cheese makers in local associations all over the state, and many such have been started. While most of them succeed, yet from time to time we see one or another organization fail and go out of existence. When this happens, we recognize that they were attempting to carry out ideas and plans which were not found practical, and had to be given up. We welcome all new organizations among cheese makers to come here each year, tell us what they have accomplished, what they are doing and what they are aiming at, and we hope to hear reports each year from every part of the state. We want every new and old cheese makers' organization to come here, blow its horn, tell the world what they are doing, and let us all learn whatever you have that is good.

Honorary Members

Much of the credit for our growth in recent years is due to our list of Honorary Members, whose names are printed on the first page of the Program, and who have done the work in their own home towns to stimulate the interest of the community in the work of this Association. We succeed because everybody helps. While the officers may meet and lay out plans, it requires the assistance of all the members to carry out those plans to the best advantage.

Our Mutual Interests Demand Closer Cooperation

The Wisconsin Cheese Industry consisting of farmers, makers and distributors, is united on the job of supplying cheese to the nation. We are like a three legged stool, and if either leg fails, the whole thing falls. When the consumer gets a piece of poor cheese, he does not care whose fault it is. He simply does not want any more, and down goes the price, and the whole industry suffers.

We three, distributors, makers and farmers are all in the same boat. We are all interested in the prosperity of this big state cheese industry.

Recognizing this great truth, thirty-three years ago, the Constitution of this Association was made to read that any one interested in

the manufacture and sale of cheese may become a member. The interests of distributors, makers, and farmers are so closely allied in this industry that there is everything to be gained by working together, rather than by continually pulling apart.

Let us all therefore welcome each other, and welcome the men who have come in from other states to join in our discussions. Let us forget any personal differences, and avoid personal criticisms. Let us be thankful to those cheese judges who judge our cheese and award the prizes, to those cheese distributors, bankers, merchants and others who contribute the prizes, to those supply men who show us everything good in their lines in the machinery exhibit hall. Let all of us make up our minds now that we too, next year, will do something in our own town to arouse more interest, secure more prizes, and attract more makers to attend the next Convention.

Let us do all in our power to make this present convention attractive, interesting and instructive to all the new members who will be here this year, so that they will all want to come again every year.

Booster Dinner

These people who are really interested, these boosters, these honorary members, these officers, directors, these wideawake fellows who are always present and always help are going to have an opportunity to meet at six o'clock to eat dinner together up at the Republican Hotel. We will have dinner there for about a dollar and talk over some new plans for the convention next year. Now, you have got to elect yourself to this. The honorary members have already elected themselves. They have done helpful work and they are all expected to be there, and the officers are all expected to be there, and if you consider yourself a man interested in the welfare and the future of this association, this cheese industry, you are entitled and are invited to come to dinner with us at the Republican Hotel at six o'clock. It will not be a large meeting and it is not going to last very long, perhaps from six to half past seven or quarter of eight. We will get out in time to go to the theater if we want to, but we are going to talk about some real live topics there and we want your suggestions. We won't have any long speeches, but if you have got an idea about the improvement of anything, there is the place to present it.

Dairy School Students

Every year we bring down here from the Dairy School a group of twenty or thirty young cheese makers who have had various degrees of experience—some are licensed makers; some are helpers and with quite a range of experience, and if any of you want to hire a cheese maker or a helper, just come over here in the corner and look these boys over. They are able to give a good account of themselves. I have here the usual secretary's report and cash account, which shows that we had a balance of \$410.00 to start off this convention with, whereas last year we had a balance of \$276.00 to start off the pre-

vious convention with. We don't aim to carry any particular balance forward, just enough money to pay some incidentals, and any excess money we might have we put into the pro rata fund which goes back to the cheese makers. This report will all be printed. It contains each item of expenditure and receipts. It will of course be printed in the Annual Report where you can all read it. If anybody finds any error of any sort, we will be very thankful if they bring it to our attention.

REPORTS OF 1925 HONORARY MEMBERS

The Secretary: We want to read the names of the honorary members for this year, because we are proud of them. The list consists of:

W. F. Hubert, Sheboygan
M. M. Schaetzel, Edgar
Edw. F. Horn, Beaver Dam
J. Gempeler, Jr., Monroe
Wm. J. Gerlach, Greenwood
J. Bernie Smith, Rockbridge
S. D. Cannon, Neenah
Fred Wuethrich, Juda
Fred Beyer, Spencer
Ed. F. Winter, Gillette
H. J. Loehr, Calvary
Alex Schaller, Barneveld

O. R. Schwantes, Clintonville
R. C. Jorgenson, Denmark
Gottlieb Werren, Blue Mounds
Geo. E. Seiler, Forestville
Oswald Reitz, Calvary
P. H. Kasper, Bear Creek
E. J. Schmitz, Glenbeulah
J. Grunenfelder, Dorchester
H. J. Howe, Nye
A. F. Zelm, Plymouth
Ulrich Furrer, Hollandale
Emil Abeggen, Eldorado

Every one of these men have done good substantial work for the association in their own community and we will still have room next year to print the names of 25 or 30 additional members. We want all these men to work next year on the job that we have laid out for them, but we want 25 or 30 more of you to try it out to see whether you have got it in you to do this little job or not. It will take about a half a day maybe. Next September, write to the secretary's office and we will send you some directions.

W. F. HUBERT:—(Sheboygan) Mr. Chairman and members: During 1924 we started out to put Sheboygan County on the map, that is, by having the most exhibits at this convention. It took us at that time, I should judge about four months to get the money. This year it took us about three minutes. Our bank down there found out that it was all right to advertise Sheboygan County and when we went to them this year they said: "Well, we will let you know." I don't think it was over three minutes before I had an answer that we would get the same amount of money to spend on Sheboygan County. This year we are giving away a purse and pocketbook set to the first forty highest scores in Sheboygan County. Last year we had fifty-seven entries from Sheboygan County. This year we have sixty and we have got a pocketbook for each one of them.

MR. FRED C. STAPEL (Edgar):—Mr. President and members, this was my first year to do any work along this line and it looked kind of hard to me when I started out, but it worked better than I thought it would and as Mr. Sammis says, I will try to do better next year, but Marathon County, where I come from, is pretty big and I would like to say at this time if there are any makers down here from Mara-

thon County to help along in this work we would be glad to have them because there is a lot of work to be done in Marathon County yet, and it is quite hard for one man to do it all, and I would like Mr. Sammis to get some men who are willing to do something and I think it is the best thing that can be done for the cheese industry, because there is nothing more important to get the cheese makers interested in than to exhibit cheese and get a prize. I have made cheese for fourteen years and I always thought I would quit this job until I got so far that I was fortunate enough to win a prize. And it interested me so much that I think I am just starting in now making cheese and I think it will go that way with every maker that wins a prize.

Therefore, I think it is the best thing and the most inducing thing, to get the cheese makers to exhibit. There are a lot of them that are afraid to exhibit. I found it that way when I tried to get them to exhibit, they were afraid and they thought they wouldn't get anything and I want to say to the makers that are attending this convention here that if you don't win it don't make any difference, you learn just the same.

As far as Marathon County is concerned, there aren't probably very many down from up there, but I am willing to put a hand to the wheel and I think there ought to be more of them that will help along. See if it can't beat Sheboygan County in exhibits next year.

MR. W. F. HUBERT: Let me say, they had forty-three entries from Marathon County.

MR. HERMAN BILGRIEN: (Iron Ridge) I have not done anything this year because I was out West and in Canada and have been very busy, but I am going to be back on the farm this summer and I am going to beat Marathon County and Sheboygan County all to pieces without doubt.

MR. H. J. LOEHR (Calvary): I don't know, I never talked before a crowd. I haven't got much to say anyway. I have been on the list I guess three years, I think, but last year there was quite a few in Fond du Lac County that wouldn't exhibit. They won't exhibit yet. We can't get them to exhibit. I don't know why. But last year I made it a point to go to a few of the men and I helped them a little with the contents of their cheese, and, in fact, one of them beat me here at the convention and he exhibited cheese in two classes and he got quite a few prizes too. He beat me in one class a little bit at a convention here and this year he sent cheese down without my asking him to send it. I have two of them that way.

Now, I live pretty nearly on the eastern border of the county and the county is long towards the west. The western part is not much in the cheese game anyway but I don't get to the western end of our county very much and I am not acquainted there but you would think there could be a lot of improvement made on the western side of the county. I don't know, but we are away behind in exhibits; I don't know how many we have; I don't think we have thirty. I don't know, but there could be a lot of improvement made if we could get somebody on the western side of the county to help along. I thank you.

MR. ALEX SCHALLER (Barneveld): I haven't got very much to say. I am from a little town. This last fall when I asked for prizes it was not so difficult to obtain them, and this fall one of our merchants came to me, whom I had overlooked, and gave me hell for not asking him. So we are justified in asking everybody in every town, every storekeeper, every business man, to get a prize from them. (Applause.)

MR. P. H. KASPER (Bear Creek): The last couple of years we have been trying to interest Clintonville and New London, and they were willing to respond. The first time I ever tried to collect any money from the banks in New London I went into the Farmers Bank there

and told them what I wanted. Well, they said, "we never had much good out of the cheese factories, but I think we can contribute a little towards your fund," and he gave me five dollars. I thanked him very much and I went up to another little bank there doing a good deal smaller business than the other one and he was willing to give me ten dollars if I would take it. I told him that if the Farmers Bank could only give five dollars, that there is no use taking ten dollars from you. From there I went to a lumber man in New London and I got three dollars from him, and another fellow gave ten dollars. Well, this year I went down and did not get anything only from that little bank, they donated five dollars, the Independent Bank. We did not get any large donations and I think we will be ultimately shut out entirely because they have a milk plant there now and do not think much of the cheese makers. Taking the people as a whole up there, they don't take as much interest in the cheese business as they do in Sheboygan County.

MR. O. R. SCHWANTES: Mr. President, Ladies and Gentlemen. There isn't much to say but there is a chance for improvement, because as Mr. Kasper says, we have got a condensed milk factory in Clintonville and it makes it hard there especially while we are starting out. But, when I canvassed that town, the State Bank there was very liberal; you see their prizes here, but one thing that I want to see done in Waupaca County is a thing that can be done, I learned from Sheboygan County, and that is to organize a County Association, and when we get that going then we won't have to spend a lot of time doing a lot of work for a little money. We will get it in a few minutes and that is my intention, to make an attempt to do it. Thank you.

MR. PRESIDENT, these honorary members here have shown you that this work can be done easily, and as Mr. Schaller says, if he misses a man, goes by a store door without asking them for money, they get mad about it. When you start canvassing your stores in your neighborhood for prizes don't leave any one out. It will hurt their feelings. They want a chance to contribute something to the Cheese Makers Association. They are proud of it, so feel a little dignified about this thing. You are not asking for pennies for a blind beggar. You are asking for dollars for the State Cheese Maker's Association. It is a worth while thing. Let us make it bigger, and next year have about fifty or one hundred honorary members of this Association.

MR. T. A. UBBELOHDE (Glenbeulah): I have found very little trouble in raising funds for the advertising in the program. These business men have contributed to the Cheese Maker's Fund and they are taking it in the nature of advertising. They want to give something and do it in that manner.

MR. E. L. ADERHOLD: I have been attending some other meetings lately and I see a great many cheese makers all the time and I have been hearing quite a number remarks bearing on this association. Now, of course I am interested in this association because I am one of the founders of it. And I know we used to be a very lively association. I am afraid we need a little gingering up to throw more life than we have been showing in the last eight or ten years. We have been attacked in the press for not standing for anything in the last ten years. We have been the subject also of an editorial in one of our official papers along the same lines, and over north of us is a real young association along side of ours that is showing considerably more life, I think, this year than we have been showing. And I don't think we ought to let them get ahead of us at all. That is the Central Wisconsin bunch. They have shown a great deal of life and passed some resolutions showing that they have got a lot of life and pep in them, and I hope that this association will show that we are

by no means a dead bunch and just need gingering up a little and we can give the other association a run for their life. Thank you.

SECRETARY SAMMIS: Mr. Chairman: We expect to have a report from Miss Bruhn, Secretary of the Central Wisconsin Association this afternoon, and no doubt we will learn what their ideas are.

I have here a short communication that I am asked to present describing the farmers week program to be held at Madison, Feb. 1st to 5th. (Reads circular.)

CHAIRMAN KALK: I appoint as committee on resolutions, E. C. Damrow of Fond du Lac as Chairman, H. J. Loehr of Calvary, J. Gempeler of Monroe.

THE COST OF MAKING CHEESE IN 1925

By MR. T. A. UBBELOHDE of Glenbeulah

Mr. Chairman and Cheese makers: I haven't prepared anything on the cost of cheese making because Mr. Damrow has prepared something on that and he was better situated to get the figures on that than I, but I am going to tell you about something else that will probably be of more interest to you than that. For the last three months I have been checking over some Cow Testing Association books and I have been in that work in Fond du Lac County and Green Lake and Winnebago, and while I have known about this testing association for a good many years, I never considered it as important in connection with the cheese and butter industry as it is. I believe that it is of more importance to the cheese maker and butter maker to have this work done than almost anything else that was brought up. I find in checking over herds that lots of cows test but 2% or 3%. Now we find some herds that they have made a specialty of breeding for type and they have graded down the butter fat. The result of that is a lower yield of cheese in the factory, naturally, and you can't compete with a factory that has a high test if you have a 2.3 or 2.4 or 2.6 per cent milk to deal with.

There are two reasons for these cows testing so much lower than they did four or five years ago. Now this work covers the three years' test, and some of them have made wonderful progress in their herds since that time, while a few herds have just bred for type as they are selling breeding stock. One herd in particular with forty head of cattle in them, since we have commenced testing, have graded down their herd from a 3.3 test to 2.6 test for that herd. Now, you will readily see what effect that has on the yield of cheese in the factory. Another factor that causes the low test in some of these places is the wrong feeding. A cow is just a machine. She will do just a certain amount of work and if you balance the feed for her she will do a great deal of work. Some of these farmers have had a great deal of corn in that section this fall and they have put the cows on a corn diet, and a little silage and oats and grain. They figure on so many pounds of grain for a certain amount of milk and they make that ration mostly corn with silage, corn silage, and they get too much carbohydrates in their system, and down goes the test. Now

we see we can't feed butter fat into the test, into the milk, but we can feed it out by over feeding cows on certain feeds so that they overwork. If you give a cow an extra dose of corn for a few days you will find she will drop right down; she is sick; the machine is out of condition. The cow testers business is to weigh the milk morning and night, take samples of it, and test that milk. His most important work is to figure a ration for the cow and see what this ration contains so that the cow can produce milk economically. I have probably gone over about forty-six different herds during this time, and I believe that the production from the average herd in Wisconsin can be increased one-third in three years' time by this work if it is carefully done by the tester. We figure the rations for most of these farmers that want rations figured for the feeds they have got. Sometimes they have feed that balances up pretty good and sometimes they haven't. We suggest that they get feed to balance this up with. Sometimes we find that the feed they are feeding costs them more than to get a feed that will balance up. Then we find out what it costs to feed that cow, what it costs to produce one pound of butter fat and 100 pounds of milk so that the farmer can see it at a glance, and in that way they will discard unprofitable cows. There are lots of cows that have been discarded in the places that I have gone over in the last three years because they haven't paid. One cow will give twenty pounds of milk and another will give eighteen pounds of milk and the eighteen pounds might double the money for the feed invested over the other cow. And that is the tester's business, to pick out those cows and get the figures in shape so that the farmer can see at a glance. The cheese makers and butter makers ought to go over the books with the farmers and see that each farmer has a book that will show each month what the cow has done, what she has cost, what she has brought in, and that will tell whether she is an economical producer or not. They could persuade the farmers to discard more cows than they would ordinarily do and just keep the best producers, and you could increase the efficiency of your factory at least one-third.

COUNTY ASSOCIATION REPORTS

Second Session

Vice-President H. A. Kalk, presided and called the convention to order, whereupon the following proceedings were had:

CHAIRMAN KALK: Is Mr. Reidel of Hilbert in the room or Mr. Leon Laack, of Calumet County?

MR. LEON LAACK: We have had no meeting for three years and I have no report to make.

CENTRAL WISCONSIN ASSOCIATION

By MISS L. C. BRUHN, Auburndale

The growth of this organization calls me back to the day when I made my first address before the Wisconsin Cheese Makers, at that time not as large in number, and held in the little hall of the Republican Hotel. It demanded a lot of courage for I was only about 20 years of age, and not as well-qualified in the cheese making business as I might have been. I remember how my heart throbbed for fear that I could not make good. Perhaps my ideas were wrong and stood a big chance to be contradicted and corrected. Yet the great desire and thought as a chance for education gave needed courage, for I was very anxious to fit myself for a vocation to be in a position to help my stricken parents and blind father.

Friends, it has been wonderful work for me. I have enjoyed it, although the road has been rough and hard to travel. I love the art of cheese making and the work connected with the dairy business—not because it is a big money proposition, for it has meant only a home, a little saving and the necessities of life to me. Nor is it because it is a snap job, for a factory like mine of that size means work early and late and 365 days in a year. Yet I would give my heart and soul to make good—to manufacture and offer the world the best uniform product possible, besides planning advancement every day of the year towards cleanliness and the up-keep of our plant, so it may be a pride to the state of Wisconsin.

Furthermore there is a big chance to serve mankind; to give the world the best there is in you.

Central and Northern Wisconsin have every asset imaginable—the practical minded citizen can find wealth readily in this part of America, where farming has reached an advanced stage and opportunity beckons.

The Central Wisconsin Cheese Makers', Butter Makers' & Dairy-men's Advancement Association is in the field with new life, and a new program for the coming new year. We must bring about better understanding, more cooperation, more acquaintance. We must let the outside public know something about the value of Dairy Products.

Are you going to stand for quality? Are you going to reward the maker who has the good of the republic at heart, who from day to day is doing his utmost to manufacture an article the people will relish and consume in larger quantities, giving special attention, time and labor to quality, cleanliness and the up-keep of his plant?

Can we afford to let Wisconsin dairy leaders broadcast the statement that Wisconsin cheese was better in quality 25 years ago than it is at the present time?

Are you ready to help boost the sale of Wisconsin's best cheese or are you one of those who believes conditions are alright as long as you get yours, and get by with it?

Dozens of similar problems are confronting the cheese making pro-

fession of today. Something should be done, and something must be done—to become more united, work together, plan together, all aiming for the same common goal.

Way down in my heart, I am hoping that the influence of the different organizations working through the state will bring about conditions that will rouse out the back numbers and uninterested parties. Then shall we have better understanding, be prepared to meet Dairy Competition from every state in the union and nation, and safeguard prosperity through greatest production and increased consumption.

With practically 2,800 cheese makers in the field and only a few hundred represented here, there should be no reason why every seat in this auditorium should not be taken by a full fledged cheese maker, and that the officers of this association would find it necessary to call upon the city of Milwaukee to donate the largest and best hall in this auditorium to show Wisconsin's best cheese on exhibition.

Not long ago, an article appeared in the *Butter, Cheese & Egg Journal*. I believe I recall the article unsigned and written by a cheese maker, stating he had 14 years of experience in the cheese game. He seemed very much dissatisfied with the results of the Wisconsin Cheese Makers' Association. And it seems to me he mentioned something about spending a lot of money coming to Milwaukee and deriving no benefits from it.

The last few months we have studied these problems a great deal, and we have in mind a new program to be drawn up for the Central Wisconsin Association for recognition at the coming business meeting to be held in the city of Marshfield in the very near future.

Perhaps it would be wise to adopt some of the rules constituted by a little organization in Northern Wisconsin, similar to the *Butter Maker's Association*, and it may be possible by planning quarterly educational and social meetings in the different districts such as Neillsville, Marshfield, Wausau, Merrill, Antigo, perhaps by offering the best of programs including the advertising work on dairy products, you could create the good will and interest not only among cheese makers, but dairymen as well. It is true that it is quite an expense for the individual to come to Milwaukee and I believe the shorter distance to attend a meeting would count a great deal. I believe it could be worked out that at our yearly convention we could select a delegation to attend the Milwaukee meeting that would answer the purpose for those who found it impossible to come and to bring the problems from the Central and Northern District for recognition before your resolutions committee. Some of these plans would have been wrought before the Merrill Meeting, by Mr. Winder and other speakers, and we are planning strong to give it our keenest and special efforts the coming new year.

Each one of us have our own callings in life. How few are willing to sacrifice or work for the benefit of others or even lend a helping hand unless a big promise for compensation. Yet I feel a word of appreciation is necessary for Central Wisconsin co-workers in arranging and preparing for the Merrill Convention—for the Conven-

tion city, its hospitality and cooperation, the good fellowship, interest and attendance at the session, banquet and dance, to all we owe oceans of thanks.

I wish everyone of you could have been with us. We boast of over 325 entries, and had reason to be proud of that fine exhibit and more so of those boys showing their pride, effort and interest in preparing for this contest. Never in its history did we have the opportunity to report the excellency in quality of high scoring cheese and butter. We are going to work harder than ever the coming year, not only to increase the number of exhibits but quality as well.

In closing I want to state that I can not give any definite plans, how, when, or where our 1926 convention will be held. Antigo, Marshfield, Neillsville, Medford are in the field for the regular October session and contest.

Whatever the decision of the coming business meeting will be, I want to take this opportunity to extend to you in behalf of its membership an invitation, wishing you would plan to attend the convention in our neck of the woods next year in the golden month of October.

We are very anxious to work hand in hand with the Wisconsin Cheese Makers' Association to further strengthen organization work, increase good fellowship, that we may be of greater service to our friends, state and country. No matter what your funds may be, the greatest compensation that can come to you tomorrow or the next day or the closing day of your life, will be the consciousness that you have somehow been of help to someone, somewhere.

I assure you that the Central Wisconsin Cheese Makers', Butter Makers', and Dairymen's Advancement Association is with you in your problems and wish you God Speed and the best convention ever. I thank you.

CHAIRMAN KALK: Is any body here from Manitowoc County? If not, I guess I will call on Mr. Robert A. Perry of the Sheboygan County News, one of our official reporters, and he wants to give a little talk. He is the head of the Sheboygan County News and the Dairy Market Reporter.

MR. ROBERT A. PERRY: Mr. President, ladies and gentlemen: It is very kind of the officials of your organization to allow me to say a few words.

Mr. Kalk mentioned the Sheboygan County News whereas he should have said the Dairy Market Reporter because we are now devoting one paper exclusively to cheese, The Dairy Market Reporter. I believe this is the only paper of this kind that is devoted exclusively to cheese and we are trying to build it up and make it into a state wide paper. It is published in Sheboygan County, the county that has the greatest number of cheese exhibits at the convention this year.

I think the most of the people in Wisconsin, and for that matter all over the country feel the same way I did at one time about cheese, that is, they give it no thought whatsoever. Some probably do like it very much but I think the majority of the people are indifferent to it. It has occurred to me many times that if some kind of an educational campaign were carried on to tell people more about cheese they would eat a whole lot more of it.

VARIABLE SUPPLIES

Single Daisy

15,000	Bandages 13½x6½ A Grade	per thousand	\$20.00	\$300.00
30,000	Circles 12½"	per thousand	8.40	252.00
600	Press Cloths 14"	per hundred	3.00	18.00
15,000	Boxes	each	.16	2,400.00
30	Bundles Scale Boards, 13"	per bundle	2.90	87.00

\$3,057.00

Twins

9,380	Bandages 14½x8½ A Grade	per thousand	\$28.00	\$262.64
18,760	Circles 13"	per thousand	9.00	168.84
500	Press Cloths 14"	per hundred	3.00	15.00
4,690	Boxes	each	.27	1,266.30
9½	Bundles 14" Scale Boards	per bundle	2.95	28.03

\$1,740.81

Daisy and Long Horns

7,500	Daisy Cheese. 150,000 lbs.	11,540	L. Horn Cheese	150,020	lbs.
11,540	Bandages 13½x6½, A Grade	per thousand	\$20.00	\$150.00	
11,540	L. H. Bandages 6x15½	per thousand	20.85	240.00	\$390.00

15,000	Circles 12½"	per thousand	8.40	126.00
23,080	L. H. Circles 5"	per thousand	1.50	34.62
300	Press Cloths 14"	per hundred	3.00	9.00
800	L. H. Press Cloths 6"	per hundred	.55	4.40
				13.40

7,500	Daisy Boxes	each	.16	1,200.00
2,885	L. H. Boxes	each	.27	778.95
				1,978.95

15	Bundles 13" Scale Boards	per bundle	2.95	44.25
6	Bundles 14"	per bundle	3.10	18.60
				62.85

\$2,606.42

COST OF MAKING ONE POUND OF CHEESE IN A LARGE FACTORY

	Single Daisy	Twins	Long Horn & Daisy
Cost of Different Styles	\$.01019	\$.00580	\$.00868
General Supplies	.00437	.00437	.00437
Total Cost of Supplies	.01456	.01017	.01305
Fixed Expenses	.00595	.00595	.00595
Cost without Labor	.02051	.01612	.01900
Labor Cost	.01	.01	.01
Cost of Making One Pound	\$.03051	\$.02612	\$.029

Whey Cream .3% 9,000 lbs. a year at \$.45 \$4,050.00. Cartage done by the farmers.

EQUIPMENT FOR AN AVERAGE CHEESE FACTORY

6,000 lbs. Milk Daily (in flush) 1,000,000 lbs. Milk Annually
100,000 lbs. Cheese Annually

MAKING DAISY CHEESE

	Cost	Years in Use	Dep. in Year
1 6 100 lb. 20 Gauge Vat	\$270.00	6	\$45.00
1 2 L S Cheese Press	194.00	12	16.00
1 4 H. P. Steam Engine	104.00	20	5.20
1 12 H. P. Boiler	535.00	15	35.70
30 Daisy Hoops @ \$4.00	120.00	12	10.00
1 5,000 lb. De Laval Separator 41W	750.00	12	62.50
1 6,000 lb. Tin Whey Tank	143.00	10	14.30
1 7,875 lb. Round Redwood Tank, 31½ bbl.	55.40	12	4.65
1 Mandel Agitator	125.00	10	12.50
1 Set Hoisting Cranes & Irons	10.50	15	.70
1 80 Gal. Weighing Can and Opener	31.00	15	2.00
1 Weighing Can Strainer	15.50	10	1.50

	Cost	Years in Use	Dep. in Year
1 20 Gal. Starter Can. Power	80.00	8	19.00
1 700 lb. Fairbanks Scale	55.00	10	5.50
1 100 lb. Howe Scale	23.00	10	2.30
1 Set Curd Knives	10.00	10	1.00
1 Curd Mill,—Power	33.50	10	3.35
1 2x2x4' Galv. Water Tank	7.56	6	1.26
Steam Pipe and Fittings, Valves, etc. & Labor	60.00	16	3.75
Transmission, including			
24' 1 1/4" Shaft @ 34¢	8.16		
1 Shaft Coupling	4.80		
4 1 1/4" Hangers 14" drop \$4.55	18.20		
2 24x6 Wood Pulleys	\$9.90		
2 12x6 Wood Pulleys	\$4.90		
1 4x4 Wood Pulley	\$2.90	26.00	
	57.16	16	3.60
Sanitary Fittings	35.00	10	3.50
1 2" Sanitary Jet	23.00	10	2.30
1 1 1/4" Common Rotary Pump 12,500 lb. No. 2	16.00	4	4.00
1 6" Wood Whey Pump	12.00	3	4.00
1 Adjustable Conductor Head and Spout	6.50	2	3.25
1 7' Cond. Head and Spout	7.00	7	1.00
1 Strainer Curd Pail	1.75	4	1.45
1 Small Tin Tank 13x26x10"	6.50	5	1.30
1 Galv. Wash Sink, Round Bottom	18.00	4	4.50
1 16' Vat Cover	7.00	3	2.35
1 Curd Fork	2.50	3	.85
2 Dozen Pint Sample Bottles with num- bers	5.50	3	1.85
1 24 Bottle Babcock Tester	46.25	12	3.80
1 Marschall Rennet Test	3.50	10	.35
1 Marschall Acid Test	5.00	3	1.60
1 Vacuum Sediment Tester	10.00	8	1.25
1 20 Sample Moisture Oven	15.00	10	1.50
1 No. 1715 Torsion Balance	39.00	10	3.90
1 Test Bottle Bath, 24 Bottles	3.00	5	.60
1 Cheese Knife	1.00	10	.10
1 Daisy Curd Scoop	2.50	5	.50
1 4 Quart Dipper	1.75	2	.80
1 Cheese Trier	3.00	2	.15
1 Divider80	5	.16
1 Pay and Record Book, 50 Patrons	3.00	4	.75
	\$2,954.17		\$285.62

Depreciation a year 9.8%.

EQUIPMENT FOR A LARGE CHEESE FACTORY

18,000 lbs. Milk Daily (in flush) 3,000,000 lbs. Milk Annually
300,000 lbs. Cheese Annually

MAKING DAISY AND LONGHORN CHEESE

	Price	Cost	Years in Use	Dep. in Year
2 9,300 lbs. 20 Gauge Vats	\$355.00	\$710.00	6	\$118.40
2 2 LS Presses	194.00	388.00	12	32.40
1 4 H. P. Steam Engine		104.00	20	5.20
1 14 H. P. Boiler		590.00	15	39.40
Two Sets of Hoops				
85 Daisy Hoops	4.00	340.00	12	28.40
96 Longhorn Hoops	3.90	374.40	12	31.20
1 10,000 Titan Separator No. 65		1,000.00	12	83.40
1 11,500 lbs. 20 Ga. Round Bottom Whey Tank		243.00	10	24.30
1 20,500 lbs. Round Redwood Whey Tank		110.00	12	9.20
2 Mandel Agitators	125.00	250.00	10	25.00
1 Hoisting Crane and Irons		10.50	15	.70
1 100 Gallon Weighing Can and Opener		36.00	15	2.40
1 Weighing Can Strainer		17.50	10	1.75
1 50 Gallon Power Starter Can Belt		125.00	8	15.70
1 1,000 lb. Fairbanks Scale		70.00	10	7.00

	Price	Cost	Years in Use	Dep. in Year
1 200 lb. Howe Scale		32.00	10	3.20
1 Curd Knife 1/4" Cut		6.00	10	.60
1 Set Curd Knives, Regular		10.00	10	1.00
1 Curd Mill—Power		33.50	10	3.30
1 2x2x4 Water Tank		7.56	6	1.26
Steam Pipes, Fittings, Valves, Etc., and Labor		150.00	16	9.40
Transmission, including 30 ft. 1 1/2" Shafting, 48¢	14.40			
4 1 1/2" Hangers 14" drop, \$5.50 each	22.00			
1 Shaft Coupling	5.40			
2 14x8 Wood Pulleys	6.80			
2 4x4 Wood Pulleys	2.90	15.52	57.32	16
Sanitary Fittings		60.00	10	6.00
1 3" San Jet		30.00	10	3.00
1 1 1/4" Perfection Rotary Industrial Pump No. 3		34.00	4	8.50
1 7" Wood Whey Pump		15.00	3	5.00
1 Adj. Whey Cond. Spout		6.50	2	3.25
2 7' Conductor Heads and Spouts	7.00	14.00	10	1.40
2 Strainer Curd Pails	1.75	3.50	4	.85
2 Small Tin Tanks 20x27x13	9.50	19.00	5	3.80
1 Galvanized Wash Sink, Round Bottom		18.00	4	4.50
2 18' Vat Covers	7.80	15.60	3	5.20
2 Curd Forks	2.50	5.00	8	.70
4 Doz. Pint Sample Bottles with num- bers	2.75	11.00	3	3.70
4 Double Deck L. H. Truck 80 cheese..	30.00	120.00	10	12.00
1 36 Bottle Babcock Tester		54.00	12	4.50
1 Marshall Rennet Test		3.50	10	.35
1 Marshall Acid Test		5.00	3	1.70
1 Vacuum Sediment Tester		10.00	8	1.25
1 Farrington Moisture Oven		17.00	10	1.70
1 No. 1715 Torsion Balance		39.00	10	3.90
1 36 Bottle Test Bottle Bath		4.25	5	.85
1 Cheese Knife		1.00	10	.10
1 Speed Knife		1.50	8	.20
2 L. H. Scoops \$2.00 & \$3.25		5.25	10	.50
2 Daisy Scoops \$2.00 & \$3.25		5.25	10	.50
2 4 Qt. Dippers 19" handle	2.60	5.30	8	.70
1 Cheese Trier		3.00	20	.15
1 Divider80	5	.16
1 Pay and Record Book, 60 Patrons...		3.50	2	1.75
		\$5,174.73		\$523.02

Depreciation a year—10.1%.

In the table there is summarized the cost of making one pound of cheese in the average factory taking the different styles. First we take the cost of the different styles, or the variable styles of cheese on daisies, twins and longhorns. And the general supplies and then the total cost of supplies followed by the items of fixed expense which most of the cheese makers and cooperative factories leave out, which is approximately 1c a pound. You take the depreciation of equipment, is about 10% and the depreciation on building is figured at 3% and the interest on investment at 6%. The investment in the factory is \$8,450.00. I am taking this mostly from cooperative factories where the farmers hire the cheese maker, when they have to have a residence in the most of the cases for that purpose and there are several of such places where I have had an opportunity in our vicinity to get the actual costs from factories of about one million pounds of milk during the year. The 6% I first had figured at 5% but there is nobody that I know of that will loan money to a cheese maker on building and equipment for less than 6% unless the risk is very low, that is, where he has an equipment of about eight thousand dollars and factory and maybe he is to borrow only \$2,000.00 but if he has got to borrow quite a good percentage of this money that is invested in the factory, I don't believe it is possible to get it at under 6%.

Some may not figure this investment in the factory as the cost of making cheese but it actually is and should be figured and added into the cost of making cheese.

A press will last more than 12 years on the average, but there are quite a number that may buy a press for just large cheese, conditions change and they have to make small cheese and not having the equipment will have to take an extra loss on the press in trading it in or selling it, and in that way of course raise either the depreciation of the press or take an actual loss. There are several items that way, you might take separators for instance. There have been lots of separators that have been changed where they get larger capacities, which of course increases also the depreciation. In this item on the 3,000,000 pound factory I figured two sets of hoops, namely Longhorns and Daisies. I figure a factory of that size ought to have at least two sets of hoops. There are lots of factories that have three or four sets of hoops and I wish to say right here for your benefit if the hoops are set aside, or not used, grease them. I prefer a workman to use common unsalted lard. If they are well covered your hoops can be set aside for an indefinite time without deteriorating or rusting the hoops. The same should be done with your faucets on your vats and on your intake cans. If you just put a little lard on your finger and rub it over the surface of your gate it will always keep it easily working and it don't wear or rust. I know quite a number of factories that state they have to get a new gate for their intake can every year but a lot of that can be eliminated, this expense, if the gates are taken care of in such a way.

In the footing of these items, on either the 1,000,000 pound factory or the 3,000,000 pound factory—take the 1,000,000 pound factory you have a cost of equipment of almost \$3,000.00. In the other column is a total depreciation of \$285.00. By just dividing the annual depreciation of \$285.00 by the cost of equipment will give you the actual depreciation which in this case is 9.8%. I was of the opinion when I started to formulate this cost of making cheese that the larger factory's depreciation would be less, but on tabulating our figures that is 3/10 of 1% greater on account of the double set of hoops which in most cases will make that practically just 3/10 of 1% variation.

I would like to ask how many are there in the room that are keeping a cost or keeping a tabulated list of their costs and expenses each year on their cost of making cheese? It ought to be done at every factory. It is about one evening's work if you keep a list of your bills as you pay them, itemize them, then it is about one evening's work to get to the actual cost or the result of what it costs to make cheese.

I set the labor item on a factory running about 6,000 pounds daily in the flush at \$100.00 a month. I don't believe that a good cheese maker can hardly be procured with a very few exceptions at that price. That will make it, say, make single Daisies cost .012 cents for labor. We have quite a number of factories in our neighborhood, cooperative factories where the cheese makers are getting 1c a pound. I know of one instance where a cheese maker getting 1-1/8c a pound—he was working for a cheese maker first, and he left and bought a factory of his own and he was gone for four years and for four years the farmers were after him to come back and make cheese for them and he came back on 1-1/8c. He has now left to go in another line of business and when he left the farmers told him any time you want to make a change you can come back here and make cheese at 1-1/8c. A good cheese maker is worth his hire any day but there are a lot that are careless and of course are not worth their hire. On this tabulated cost including labor the cost of making Daisies runs to nearly 4c per pound. Then there is your

why cream which most of the farmers' factories distribute to the farmers without taking anything out for that, but that still leaves them 3c for making cheese, almost 3c a pound net. Yet we find cheese factories making for $2\frac{1}{2}$ to $2\frac{3}{4}$ —yes, I know of one factory made it for 2c, a farmer's factory running about 13,000 or 14,000 pounds, and he was paying off a back debt of \$2,000.00 on this 2c a pound that they charged for making cheese. I told them "You can tell that to yourselves and tell it to the farmers but don't tell it to me, it can't be done." I went up there. The first question they asked of me was, "Do you make all your vats undersize? You have got a vat supposed to hold 7,000 pounds and it only holds 6,400 or 6,500." I got out my book and looked up the capacity and now I says, that is a funny thing—this vat is listed 7,200. Could it be possible that I made a mistake in figuring the vats? After I figure, my sister goes over the figures. Could we both make a mistake? So I measured up the thing and refigured the vat, and I said: "Gentlemen this vat plumb full holds 7,200. Now I can see how you can make cheese for 2c a pound and have money left." The scale was their cheese maker. (Laughter). How would you like to be in a neighborhood like that and compete? That factory is closed up now.

SOUTHERN WISCONSIN CHEESE MAKERS' ASSOCIATION

By MR. FRED MARTY, Monroe

Mr. Chairman and Members of the Association: It seems to me that a lot of the American cheese makers are making cheese just for the pleasure that there might be in making it, and I can't understand why there should be such a lack of cooperation amongst the American cheese makers, that they should not be paid for their labor as well as other men are paid for their labor in equal occupations.

Mr. Damrow referred to a cheese factory in his county using 6,000 pounds of milk and, a man at one hundred dollars a month. I don't know how that would compare generally throughout that section there. But down in our section you have an awfully hard time to get a helper for \$100.00 a month. You take the cheese makers in our section years ago, and I will say right now that the competition among cheese makers in our section perhaps is just as keen as it has been in other sections. But somehow or other they held fast to their work—that work was worth the money. I actually believe that the farmers, the producers of your section, are coming down a little bit too heavily on you fellows right along. In our section down there among the Swiss cheese factories, the maker receives something like 12 or 14 and in some cases 15% of the gross income of the sales of cheese and the sales of whey cream. Now, for your own information, when you get back home remember these figures and figure it out for 6,000 pounds of milk at the percentage that is given to the Swiss cheese makers.

Cheese makers in our section down there only own the tools, but not the building. The farmer keeps up the building but the cheese maker furnishes on that percentage basis, the fuel for manufacture

and all other necessary supplies that go with it, hoops, bandages, etc. in American cheese, but you can see that he at least is being reimbursed to a considerable extent better than your American cheese makers are. We have got cheese makers down in our section that make in one month more than that 6,000 pound man of yours makes in one year. Now it would seem that our man is overpaid and yours are surely underpaid.

The Southern Wisconsin Cheese Makers' and Dairymen's Association, is nearly as old as this organization. We were in our 26th Annual Convention a week ago, so you can see we are only about eight years younger than this organization. We invite the dairy men right in with the Cheese Makers. The Cheese Makers problem is the Dairymen's problem and our object is for the furtherance and advancement of the Swiss cheese industry of that section.

WISCONSIN AMERICAN CHEESE MAKERS' ASSOCIATION

By MR. KURT GERKEN, Hudson

Mr. Chairman, Ladies and Gentlemen: On December 12, 1923, we organized a cheese makers' association, under about the same constitution and by-laws as the older cheese makers' associations, and after holding meetings for over a year we discovered that we were not accomplishing anything.

We realized something was wrong with the cheese industry, with the cheese makers as a body.

We began to study the situation from every angle, from the viewpoint of experienced cheese makers anxious to better the cheese industry, to better the conditions under which we were working. And to arrange a program that would help us solve our problems throughout the entire year.

After looking over the Wisconsin Butter Makers' constitution and by-laws we decided to organize on the same plan. This was done. A constitution and by-laws were adopted July 16, 1925. And the association is to be known as The Wisconsin American Cheese Makers' Association.

We believe that if the Cheese Makers of Wisconsin are to progress and make the cheese making profession what it should be, improve the quality of our cheese, and continue to keep the Wisconsin cheese industry in the proud position it has attained, it is necessary that there be more unity of thought and purpose and greater cooperation in the future than there has been in the past.

Many of us have been and still are members of the older cheese makers' associations and we know and appreciate what they have done. But the things that ought to be done and must be done if we are to continue to prosper we believe cannot be done under the constitution and by-laws of the older cheese makers' associations.

To convey to you what our aims are and if time permits I will read from the first two pages of the constitution and by-laws.

NAME

1. This organization shall be known as the Wisconsin American Cheese Makers' Association, with its principal office at New Richmond, Wisconsin.

OBJECT

2. The object of this association shall be to improve and protect the position of the cheese maker and manager and promote the welfare of the dairy industry.

MEANS

3. The association shall employ lawful means only to obtain its object and especially the following.
 - (a) By each member pledging himself to support and abide by the constitution and by-laws of this association.
 - (b) By establishing and maintaining districts of the members, as provided for in this constitution.
 - (c) By regulating and supervising the apprenticeship and training in cheese making and factory management.
 - (d) By increasing and maintaining the efficiency of our members.
 - (e) By improving working conditions of our members in respect to safety, healthfulness and sufficiency of help.
 - (f) By obtaining and maintaining the proper relationship between the compensation and the efficiency of our members.
 - (g) By eliminating from membership in this association as far as lies in our power, the inefficient cheese maker and manager.
 - (h) By promoting and supervising the participation of our members in cheese scoring contests, cheese judging contests, meetings, courses, and all other means of education and training our members and their apprentices in the art of cheese making and management of factories.
 - (i) By collecting, compiling the disseminating data, figures and other information covering matters of interest to the members and for the promotion of the welfare of the association and the dairy industry.
 - (j) By assisting the members to obtain desirable and suitable positions, and cheese factories and managers from among our members.
 - (k) By adjusting disputes and disagreements between members and employers, and between members and those with whom they or their employers do business.
 - (l) By promoting legislation which protects and promotes the interest of the dairy industry and of the members of this association.
 - (m) By establishing and maintaining offices, educational field service, laboratories, agents and other agencies for the protection and promotion of the welfare and interests of our members and the dairy industry.

The plan is and the constitution provides for the organization of local units throughout the various cheese making districts of the state, such organization to have the President, Vice President, and Secretary. Such organization to be subject to the constitution and by-laws of the association. And we hope soon to be in a position to employ a secretary who shall be known as state secretary and will be the association manager, and executive agent of the board of directors.

Thirty-six cheese makers in St. Croix, Polk, and Barron Counties have signed up as members of this organization, and it is our confident belief that if the directors and members of the older cheese makers' association will carefully consider our movement, and what it means to the future of the cheese industry and to the welfare of the cheese makers, they will eventually agree to a reorganization along the lines we are working upon. All members shall be required to pay annual dues of \$10.00.

It is for that purpose I am appearing before you to ask the support and cooperation of every cheese maker, for the future of the cheese industry, and the position of the cheese maker. (Applause).

HOW TO AVOID UNFAIR TEST COMPETITION

By O. R. SCHWANTES, of Clintonville

Mr. President, Ladies and Gentlemen: Anybody that has been or is a licensed tester I feel sure can make a broad statement in regard to unfair test competition, that it is going all over the State, and has been going. In fact, it makes it hard for any man who is fair to remain in business. I found it that way myself. Furthermore, every year as long as I have attended the convention, we say that we "Must raise the quality of cheese and we are lacking in quality," and as far as I can see during all these years we have not raised it. In fact, I was told by dealers that they claim this last year we have made more off grade cheese than we have in the past five years. So that does not show much improvement. Where does the trouble lie? I feel positive that it lies in the fact that we never have gotten down to the root of the evil. We are simply brushing over the top and trying to keep the facts and truths buried, but it will always be there and will always come up and we will run up against the same thing every day in the year. We know at Clintonville that we will have unfair test competition because we have got a condensery there.

Now, as I have said here three or four years ago, I feel positive that if we could get a larger inspection force, large enough that we could expect something from the Dairy and Food Department, we would be much better off. As it is now we do expect something from them but we can't get it because they cannot make the territory. I feel that the testing should be done by the inspector at least once a month and if there is any further testing done why the maker can do it in between. But once a month the State should do the testing and do instruction work which we absolutely need, because we have in regard to the milk the same situation as the dealers say they have, if the grade the cheese off grade the other dealer takes it and will not off grade it. Here in the factories we have the same thing. If one man demands milk which he should have, the other fellow says "Bring it here, I will take care of you, you don't have to do that" and the result is the other fellow gets the business and the fellow that does right loses out. But by having an inspector do the testing and doing instruction work, you can work out a system where he could do grading, if necessary and in time, with enough inspectors, you could see whether one territory was advancing over the other. Some may say that is too big a cost. But what is the cost now, and we don't get anywhere? I feel positively sure that that cost would be very easily and highly paid by the quality which would keep this cheese up and raise the price and that would absolutely bring it where it would raise the quality.

And now furthermore, we have got testing associations. They are hired by the farmers. Farmers can afford to hire testing association men and pay them. Well, those fellows practically get just as much money as what the Dairy and Food Department men get on the

road. I have talked to some of these fellows belonging to the Testing Association and wanted to know where they were benefited by having a cow tested once a month and supplementing that with a monthly statement. They bring it out in this way. "Now that I belong to the Testing Association my cheese maker gives me a higher test. That is why it pays me to belong to the Testing Association." Well, I says, "why not tell your other fellows, the other patrons in the factory to go and belong to the same Testing Association?" "Oh, heck, then it wouldn't do me no good." Well, why? Gee Whiz, if it is a good thing let us all get in the boat and ride or otherwise let us all swim. So looking at it from every angle, there is no reason why we shouldn't get to something where we could build from the bottom up and do the right thing.

(Here followed a short discussion on Mr. Schwantes' remarks, out of the hearing of the Reporter.)

SEDIMENT TEST PRIZES FOR FARMERS

By MR. CHARLES A. KENNEDY, Spring Green

In 1923 the Wisconsin Cheese Producers' Federation started to do something to get a better grade of cheese. I knew that if I was going to make better cheese I would have to do something to get better milk. The milk that I was getting was not very good.

I learned from Mr. Aderhold about the sediment test. He was there at our factory and took some sediment test samples of the patrons' milk. I thought to myself if I would give a prize to the farmer that brought the cleanest milk, that would help the quality. I went to see the directors of the factory, and told them if they would furnish the sediment tester I would give a prize to the farmer that brought the cleanest milk for the year. They thought that a good idea, they got the sediment tester and I went to work taking sediment tests once a week.

Some of the farmers did not think that their milk was that dirty, and asked me to take a sample again which I did with the same results. If I had just told them that their milk was that bad they would not have believed me. This alone will not give good milk. Milk must be set in good cold water right after milking and stirred.

I ran the contest again in 1924 and 1925. In 1924 some of my patrons used cotton dish strainers, others used chicken wire or none at all. Now all of my patrons but two use cotton dish strainers. Difficulties; I had them all at first when a farmer saw his neighbor's milk was cleaner than his he felt ashamed and tried to better it. I think that if some of you cheese makers would run a contest at your factory like this you would not have half the trouble that some of you do have. I had some farmers quit getting cheese at the factory when they saw how dirty some of the milk was. It does not take long to take these samples and it is very simple.

DISCUSSION

MR. OTTO O. YORDI: Referring to the suggestion of improving the quality of milk by inducing your patrons to use cotton strainers, it looks to me that it is a better plan to have the farmers produce clean milk than to have them strain the good out.

MR. KENNEDY: I increased it from 40% to 75%.

MR. YORDI: Are you sure you secured these results by this test?

MR. KENNEDY: I would say it is the cause of the cleaner milk.

MR. YORDI: Are you sure they are producing the same kind of milk but being more careful now or taking better care now than they were before?

MR. KENNEDY: Taking better care.

MR. YORDI: Of course, the cotton strainer by itself would not be responsible for all the good results you have got.

MR. KENNEDY: It takes out quite a bit of the poor flavored stuff you get. It isn't going to stay in your milk over night.

MR. YORDI: That is true, but there is no need of straining it out if you take care and produce clean milk in the first place.

A VOICE: What do those strainers cost, Mr. Kennedy?

MR. KENNEDY: I think they come around \$3.75.

SEDIMENT TEST PRIZES FOR FARMERS

By A. C. F. WITT, of Marshfield

Mr. Chairman, Ladies and Gentlemen, Members of the Association: When Mr. Sammis asked me to give a talk on sediment test prizes, for factory patrons, I at first suspicioned that this was to punish me for bothering him for one whole year with my sediment test samples, which Mr. Sammis judged for me when I run my contest, but on thinking it over, I came to the conclusion that I was wrong, well knowing from former experience that Mr. Sammis always is trying to dig up something for the benefit of the Dairy Industry, so I wrote Mr. Sammis that I would try and do the best I could, so here we go.

In the year 1924 I experienced considerable trouble with receiving milk that was unclean and not properly taken care of, and competition was bad, I suppose as you find in most all communities. If I refused milk on account of poor quality, someone else would be glad to take it, so I got to thinking how I could clean up my milk supply without offending anyone, and I finally decided to offer a prize of \$50.00 to the patrons who delivered me the cleanest milk, for a period of one year, I divided this money into four prizes, first prize to receive \$20.00, second prize \$15.00, third prize \$10.00, fourth prize \$5.00.

I took sediment samples every month, on any day of the month that I happened to decide upon, so that none of the patrons ever knew when I was going to take the samples, and I would then send them to Madison and Mr. Sammis judged them for me, he divided them into five classes, and scored them 1, 2, 3, 4 and 5, the highest score being the cleanest.

And then he sent the scores to me and I would post them in the intake, and also put down each patron's score for the month on a separate sheet, and at the end of the year I added the monthly score of each patron, those receiving the highest score for the year, received the prizes, a couple of the patrons that won the prizes, at once bought new milk cans for the money, so you can see, even though their cans were not of the very best, the contest aroused enough interest in the patrons, to take good enough care of their milk, to be able to win a prize.

In this way I was able to clean up my milk supply, as my score sheet will show, at the end of the year none of the patrons receiving one and two for a score, and it was done without losing a patron on account of returning their milk for poor quality.

I paid the prizes out of my own pocket, and I feel repaid by having so much less trouble with the milk, the patrons all take considerable better care of their milk now, I think some of the patrons did not realize that there was anything wrong with their milk before this contest.

This next year I will run a contest for sweetest and coolest milk delivered at the factory, if there is any question that anyone may wish to ask, I will be glad to answer them to the best of my ability. I thank you for your kind attention.

DISCUSSION

MR. E. L. ADERHOLD: How do you determine which is the sweetest milk?

MR. WITT: By the Marschall test.

MR. CARLSON: How do you determine if there is bacteria from dirty milking machines?

MR. WITT: I can do that by running the Wisconsin Curd test, but I am not doing that now. I am just running a test of the coolest and sweetest milk.

CHAIRMAN KALK: How cool, Mr. Witt, do you expect them to deliver it in the summer time?

MR. WITT: As cool as they can get it.

CHAIRMAN KALK: How cool?

MR. WITT: 53 or 55 degrees.

CHAIRMAN KALK: Can they get it down to 53 and 55?

MR. WITT: Well maybe they can't get it down to that. If they can get it down to 60 I will be well satisfied.

CHAIRMAN KALK: I see. Don't you think after you have milked a cow the quicker you can cool the milk the less bacteria you will get and the longer it will keep?

MR. WITT: Sure.

CHAIRMAN KALK: The trouble is a farmer milks and an hour or two later he cools it. That is the time during which the milk spoils. I find the quicker you can cool it after you milk the better condition it is in.

MR. CARLSON: Do you have milking machines?

MR. WITT: Yes.

MR. BILBEE: Do you have any trouble from salty milk direct from the cows, salty milk?

MR. WITT: I couldn't say that I have.

MR. BILBEE: You never have had any experience of that kind?

MR. WITT: No Sir.

EMPLOYMENT TABLE

CHAIRMAN KALK: I want to announce that if there is anybody in this audience looking for a Cheese maker, or a Cheese maker looking for a job, come right forward to this table and put down your name, if you are looking for a good man or a man looking for a good job. We will try to help you out. Mr. Peters is in charge of this Employment Table.

HOW TO GET GOOD MILK IN WARM WEATHER

By MR. H. L. NOYES, of Muscoda

Mr. President, and fellow Cheese Makers, Ladies and Gentlemen: When Professor Sammis asked me to come down here this year and talk, I told him that he had better get some other person on the program as I thought it was a good idea to get the program spread out among other cheese makers and friends throughout the state and not to hear from the same ones all the while. But he wouldn't listen to that and he put me on to head this discussion and I think it is a very important one. I wrote a little paper and came down here with it and get disgusted with it and threw it in the waste basket. Today's program I think is the most important for the American Cheese Maker, at least, and if you are going to get the best out of this program you must get up and say something.

Professor Lee here made the statement that all of the boys that are learning to make cheese should be better than of the oldest Cheese Makers in the state. Well now, I don't just agree with that and I don't expect you people to agree with it. The reason, I think, a young cheese maker does not have a chance with the old one—he may make just as good cheese, with the same quality of milk, but things come up in the factory every day and the only way he can get there is by experience, which is costly to you. Those things that are costly to you, you will remember.

In getting good milk to the factory I would say the most important factor is cleanliness in the milk that you receive, and the complaints that I have had on cheese and the complaints from the different cheese makers when making their cheese, when traced down, I have found have been caused by dirtiness.

Now, we have some of our own cheese makers down here, and they told me if I would say anything about them they would throw me out, so if you see a rush up here why you will have to protect me.

I can't see how a cheese maker can ask his patrons to be clean in their milk, utensils and everything else about the farm, when their own factory is in a dirty condition. In certain factories the

past year or so I have found cheese makers that have asked me for help, and going there I found the trouble right in the factory. There was one factory's cheese that came in last summer in which the flavor did not appear right. I drove over to see him and he said he was having an awful time, working, until six or seven or eight o'clock, trying to get the flavor out, using hot water, washing his equipment, etc. I looked around the factory. Things were pretty clean in the factory, quite neat, and I asked him questions, and I went out in the boiler room and looked at his whey tank and I do not believe it had been washed all summer. I told him to clean his whey tank, scrape it, get a gallon of B. K., wash it with B. K. water and run it through his troughs and then make curd tests of his different patrons' milk and see what he could find, and so from that day on he did not have any trouble with his flavor. I am convinced that that cheese maker's trouble was with his whey tank. We had the same experience with another factory two years ago. He was having all kinds of trouble. We asked him to make curd tests of his farmers' milk and find out. He did not know how to make a curd test. That cheese maker did not receive the right instructions on making cheese because every cheese maker ought to be able to make curd tests and use other methods in determining the cleanliness of his milk, how gassy or how bad it is, besides your nose. We went over to that factory and we spent three days making curd tests and cleaning up, and we found that one day one curd test would be very bad and the next day another one, and we narrowed it down to about five farmers who we were convinced were not washing their cans clean, and we also believed it was in the whey tank there because after we got it cleaned out, cleaned properly, the trouble stopped.

I had a farmer call me up this past summer, and he said that he guessed he would have to quit hauling to a little factory that I operate. The cheese maker was sending home his milk and he could not get it to suit the cheese maker. He thought the cheese maker was pretty crabby. I told him all right I would be out and see him, and see if we could find out what the trouble was. I went out to the factory and saw the cheese maker first and I asked him what the trouble with the man's milk was. Why, he said, it is in bad shape. It stinks horribly. I can't make cheese out of that kind of milk. I said what did you tell him? "I told him to take care of it better." And that seems to be about as far as he went. I went over to the farm and had a talk with the farmer and found that he was not getting very much milk, about 200 pounds, using an old-fashioned aerator, and so any bad flavors going through the air would eventually catch that milk and I asked him if he didn't have two cans. He said, no. I got him another can and I asked him to set those cans in water and stir it every night and in the morning, cool his milk in the morning in water and stir it thoroughly, and two days later I saw the farmer and I said, "Did the cheese maker say anything to you about your milk?" He said, "First class." I haven't had any more trouble with that farmer.

We had another cheese maker last summer down in the southern part of the state who was getting very bad milk. I was after him continually. He came down there to the warehouse one day and he said, "I am going to clean my bunch of patrons in the morning." I said, "I am glad to hear it." The next afternoon I drove over to his factory and I found that in the morning he took a big hunting knife and he had poked eight cans, drilled the cans through with a big knife, so that the farmers could not use those cans any more, and the milk all came in good condition the next morning in new cans with the exception of one patron and his milk came very poor. I went over to this farmer's house and looked around and I couldn't find anything and went to his milk cooler which was a drum affair with cold water on the inside and milk flowing down the outside, which is a very good cooler, and I found one place there that looked a little rusty and I said to the farmer, "I am going to cut this open," and I said, "if I am wrong I will pay for the cooler, or for fixing it, and if you are wrong, if that is dirty or in a filthy condition, you will have to pay to fix it or get a new one. I poked my knife into the cooler and it was one of the dirtiest things you ever saw, and for the rest of the season that cheese maker had very little trouble with his milk. However, this might cause a little hard feeling which sometimes cannot be helped. But he got along fairly well. The farmers expect to bring good milk and he is making a good deal better cheese at the present time.

Last summer we got in the cheese from one factory of nice appearance, nice texture, very desirable cheese as far as you could tell in every manner, and put them in cold storage until June and they came out this fall and had very nearly a rancid flavor, so bad that you couldn't ship them to the trade. They had to be sold for what they would bring. The State Inspector happened to be in the warehouse and I asked him to look it over and see what he could find and he found a very clean factory. He took tests of the milk for dirt and found a few samples very dirty, one exceedingly so, and he went to this farmer and he found a milking machine that was so filthy that I would not know how to describe it. We immediately told him if he used this milking machine any more it would have to be cleaned and kept in a good manner so that the cheese maker could make cheese that would not spoil after being made some time. I found three cheese in this cheese maker's curing room that showed this same flavor, and as far as we can determine it came from this one patron.

Another cheese maker in the southern part of the state, the first year he bought his factory, had lots of bad milk and he gave the patrons notice that they would have to bring good milk. And farmers or any other class of people will bring you the produce as nearly off, or just as good as you demand it, and he demanded good milk. He had quite a lot of trouble the first summer, lost a few patrons but he just kept on and in the last three years his patrons that he lost have all come back perfectly satisfied. He is outpaying his neighboring factory to a more or less extent and has had very little trouble in any manner.

We also have had very little trouble in any manner. We also have one factory down there that last year at their annual meeting got all the farmers to cool their milk well and then set it in tanks to keep the milk cool all night. This past year their yield advanced $\frac{1}{2}$ pound of cheese to 100 pounds of milk, and if you cheese makers can show the farmers that it is money in their pocket, and that is about the only way you can get at them to take good care of their milk, cool it well, I think that your troubles will be eliminated to a more or less extent. You can't ask a farmer to bring good milk unless you can show him that he is going to benefit greatly by it. Otherwise you are going to have trouble with him. Some cheese makers have trouble with their neighboring factory when they send the patron's milk home because the next cheese maker will take it. You must get out among your farmers and work. Go to your neighboring cheese makers and get on good terms with them and get them to agree, if possible, not to take any farmer's milk that way. But it is being done every day and if a person will go at it the right way and work with the farmers to the best of your ability, you will be surprised at the results that you can obtain.

DISCUSSION

CHAIRMAN KALK: Has anybody any questions to ask? How would you advise to cool the milk, for the farmers, as soon as it is drawn or leave it stand for an hour?

MR. NOYES: I would cool the milk just as quickly as possible. We advise them to use some kind of a water cooler where it is poured over right from milking and get that milk cooled just as quick as you can. Some farmers try to insist on using the old fashioned aerator which I believe is a very great detriment because any flavors or impurities in the air go right through it and the milk takes that on and it makes a bad milk out of it even though it is cool.

MEMBER: What is your opinion of stirring the milk before putting it into cold water, to get the animal heat out of it?

MR. NOYES: If you stir it after you have the water around it you get the animal heat out in good shape. I find a long handled gallon dipper is very good for this purpose and we have had the best results in cooling it with water just as quickly after milking as possible. And if the farmer has got running water and he can get the milk as cool as the water is, we never have any trouble with that milk.

MEMBER: I have always tried to get the animal heat out first and then cool it and have always had good results. I never have any trouble with cheese.

MR. NOYES: You probably get as good results that way possibly, but the quicker you get that milk cool the less the bacteria has a chance to work in it. In milk the bacteria growth is pretty fast and the quicker you can get it cool the quicker it stops that bacteria growth.

MR. VOGT: Animal heat is not any different than any other heat. I have always advocated and instructed my farmers to in the first place have clean cans. When the cans are clean and you put healthy milk, clean milk into the cans it don't make much difference how you cool it. When it is cooled the animal heat goes out of it. You can put the cover on the can or take it off but when it is cooled the animal heat is gone. I don't know how it gets out, sweats out or what?

A CHEESE DEALERS ADVICE TO MAKERS

By MR. H. C. DAVIS, of Plymouth

Mr. Chairman, Ladies and Gentlemen: The cheese factory is the pioneer of the milk industry of the country. The cheese factory, the small one with one operator, goes into sparsely settled districts and allows the farmer to bring their milk to be manufactured into a form to be moved to distant places. It balances up the dairying of a section. More farmers, more cows, more milk, more cheese factories. When you commence to get a decent flow of milk to pay you for your work a competitor starts in a short distance away. You both commence to build your factories up and another competitor comes in and then in a short time along comes the butter factory and the condensed milk factory and the powdered milk factory and they want some of your milk to ship to the city or cream to do some other things and you are under constant competition because you don't occupy your time. There is a very few of you that really put in your full time in the manufacture of goods and the consequence is that the cheese factory in the older dairying district is many times crowded out.

Now, why is that fault, and how can it be corrected? I believe that the small factory in the intensive dairy districts is pretty nearly obsolete and is going to be eliminated; that you must build your factories larger to occupy more of your time, to handle more milk and do it economically, getting your supplies at prices to enable you to compete better than you have in the past. You have got around to a point where pretty nearly 85% of you don't care what you make, just so that you can get rid of your goods. That has been exemplified and shown clearly to the dealer, particularly the past year, by cheese coming in of very inferior quality. Goods that have been put into cold storage have turned rancid, turned off flavor and turned bad. So that the cheese dealer feels that the present Three Day Holding law is an absolute detriment to the general cheese situation of the state of Wisconsin and that that law should be changed so that cheese shall be properly cured and held in the factory up to the time that you and the dealer know whether that cheese is good or poor cheese. Now, in a three day shipping, I will defy anyone to tell the quality. We can't do it. And I am an advocate of a change of that phase of the law. I believe that the three day quality grading is not operative. We find a great many factories have stamped and branded as number one and fancy, a poor number two and a fourth grade, and I believe that the grading of cheese as the present law works is ineffective, that it can't be done in the factories. It has got to be done at central points and probably disinterested inspectors or graders under the direct supervision of the state will be the best solution of that phase of the matter.

Now I want to say to you gentlemen and ladies, you cheese makers, that I believe the resolution committee ought to draw up a resolu-

tion to send to the State Legislature, prohibiting a cheese maker from operating an automobile between six o'clock in the morning and three o'clock in the afternoon. (Laughter and Applause).

I have repeatedly been to cheese factories along about between twelve and one o'clock and find that everything is done, finished, and they are gone. Now you can't make cheese that way. So it seems to be the attitude of some of these gentlemen who only work for the purpose of selling their cheese and getting rid of it, that they have no pride, it is a temporary job that they are taking for the present to do something different later on, and the consequence is that we find that the quality of the cheese in Wisconsin, I am sorry to say, has been lowered in grade. If we can't, through the makers, get better goods, then I am afraid that the state has to take hold and that you will be compelled to hold your cheese in your factories to cure them a longer time, which will necessitate larger curing room and turning your cheese and holding it.

I would like to ask you gentlemen of the cheese makers, at what point does heat kill acid in your milk? Is anyone ready to say that? Answer me. Do you know that heat will kill acid in your milk, or high acid sour milk pretty nearly at 113 or 114?

DISCUSSION

MR. P. H. KASPER: Heat will kill acid as soon as it gets above 104.

MR. DAVIS: Well, but won't it entirely kill it at 112 and 113?

MR. KASPER: No it won't.

MR. DAVIS: Well, I asked that question for the simple reason that I have this past year seen a vat where it is set in two minutes, the acid entirely eliminated and a good cheese made. I just simply put that to you as a leading question for a lot of you to consider when you have acid milk next year.

Now, we cheese dealers are in favor of doing away with the present three grades, having 90 and above for the Wisconsin No. 1, or Wisconsin cheese—and below that as under grade.

MR. GILLESPIE: You said the dealers are in favor—what dealers, all the dealers?

MR. DAVIS: All I have talked to. We have got about 32 members of our association.

THE WISCONSIN DAIRY CLUB

By MR. L. S. OLSON

Mr. Chairman: This organization comprised of every branch of the dairy industry in Wisconsin, is going to hold a banquet tonight in honor of the Wisconsin Cheese Makers' Association, and every one of you are invited to come. We are going to have as a headliner of the program John Kelley. Many of you know him as the famous show man, famous circus man. He has been with Ringling Brothers and many other shows for many years. He is a business man and advertising man and a publicity man supreme. He has gotten more people into one tent than any other man in the world and he is going to be

our headliner tonight. He has something intensely interesting to tell you tonight about cheese, especially. He is coming all the way from New York City. I have a wire here that he sent from his train as he was passing Syracuse, "Will arrive at Milwaukee at the Northwestern station Thursday evening at 7:00." That means he will be here a little after seven. And the banquet starts at 6:15 sharp. We are going to have an excellent program. It will be short and snappy. We are going to have music, an orchestra and some singers and it will be over in time so that you may all go on your sight-seeing tour tonight. It will be over early, in other words. You can bring your wife and sweetheart if you can find one. It is going to be held downstairs. You won't have to leave the building at all this afternoon. The girls, who are selling subscriptions to the Butter, Cheese and Egg Journal are going to sell tickets to this banquet tonight. The girls will pass quietly through the aisles selling these tickets. They are \$1.00. Thank you very kindly.

PASTEURIZED MILK CHEESE METHODS

By PROF. J. L. SAMMIS, Dairy School, Madison

Mr. President, and Ladies and Gentlemen: I want to call your attention again for just a moment, to the splendid work which our honorary members have done this year in the seven leading counties which have sent over 50% of all the cheese in the exhibit.

I want to show you a group of Dairy School students we brought down from Madison. How many of you are here, boys, stand up. Now here is a fine bunch of young cheese makers. All right, boys, sit down.

The making of cheese from pasteurized milk began a great number of years ago and they have been able to make soft cheese, limburger and camembert cheese from pasteurized milk in Europe for some time. But there is considerable difficulty in making cheese of the American type, or make a cheddar cheese from pasteurized milk. And so about five years ago the Dairy Department at the University undertook to study this thing and got out a method for making pasteurized milk cheese. There are several aims which we can lay down as an ideal in such work. We may say first, that we wish to pasteurize milk in order to kill all the disease germs in the milk. That may be our main aim. On the other hand, we may say that we care nothing about disease germs but we want to make a simpler process for the cheese maker to use, regardless of disease germs. These are two separate aims entirely. In the Dairy School seven years ago we got out a method intended to kill disease germs. The bacteriologist's influence was so great that they made it appear that a process was of no value unless the pasteurization was high enough to kill disease germs and so we proceeded on that basis. However, we recognized that the cheese maker may be interested in pasteurizing milk and making cheese without paying any attention to those disease germs, or the temperatures

necessary to kill them. About a million and a quarter pounds of cheese were made by the Wisconsin Dairy School method of pasteurizing milk, which consisted of heating milk to 165° in a flash pasteurizer.

Since that time, New Zealand and other agencies have taken up the practice of making cheese from pasteurized milk, and they have adopted the other standard. They don't care anything about the disease germs. They want to pasteurize to simplify the manufacturing process and they accomplish that by using somewhat a lower temperature of pasteurization. That is to say, they pasteurize at a temperature which will not effect the coagulation of the milk with rennet, at about 155 or thereabouts in the flash pasteurizer. In New Zealand, their factories are all large sized and this process works very well. In this country we have never recommended that any small size factory should buy a pasteurizer because one man in a factory wouldn't have time to run the machine and he would soon get tired of it, but the process is well adapted to large factories because when you can pasteurize six or eight vats of milk one after another, fill up the vats with the pasteurized milk, you can set them with rennet one after another and you can then cut the curds one after another and keep heating them up one after another, about fifteen minutes apart and after a while draw the whey one after another and you will not be bothered with excessive acid. You don't find high acid in one vat and low acid in another. You treat them all alike. They all work alike on a fixed time schedule, just like a railroad train. When you put the rennet in the vat you can write on a slate the schedule of all the work of making that milk into cheese, and that is the advantage of using pasteurized milk, for simplifying the process. This is suitable to large factories, six or eight or ten vats, but I doubt if any one vat factory should undertake it. However, that is a question and I would like to have you discuss that with some of the manufacturers of pasteurizing machines in the exhibit room who have an argument in favor of the use of this process, in a one or two vat factory. There are many new things to be studied about pasteurization. One is, we hope to find a way whereby a one vat factory can pasteurize successfully with a reasonable amount of labor to do a good job, without having to have an expensive machine. We have experiments under way already to accomplish this end, which looks as if they might have a favorable result. We are going to know more about that in a year or two.

Now, there are many possibilities which time hardly permits me to discuss, but I believe there is a future to the process and in the course of time we will know more about it.

DISCUSSION

MR. W. H. PAULY: We made some experiments in pasteurization and we worked out the small factory proposition. As Mr. Sammis has told you, in New Zealand they have worked out pasteurization successfully in large factories, but our factories here are not like they are over there. In New Zealand it is not unusual to have factories

using 50 and 60 and 75,000 pounds of milk—some of them run higher than that—and they use the continuous process. With our numerous small factories, and to work this out in small factories and overcome their difficulties, it is a different proposition and we started to work on this process early last Spring. Brother Charlie made some pasteurized milk cheese out of fodder milk. He got a very nice flavor out of fodder milk. This summer he made some experiments with gassy milk, bad fermentation, bad bacteria, and overcame the difficulties and made a nice flavored piece of goods.

Now, this vat that we constructed, we think is economical for the small factory. We built a circulating device in the cheese vat that looks similar to the vat that you have at the present time. We do the heating by circulating hot water instead of using dry steam and we get away from giving the pasteurization any attention. It don't require any attention because the pasteurization is mild. The temperature of the water is 180 instead of 212 and the same water is circulated over and over and over, with a steam jet injecting the steam as it is required. Then the cooling is done with cold water. Of course, if ice machines were available, it would work probably better and could be done more quickly, but with cold water we can cool a vat of milk, a vat of 8000 pounds of milk in a little less than an hour and we get a pasteurization that seems to be satisfactory for cheese making. We don't know to what extent we kill all bacteria or disease germs, but we know we handle so that it is satisfactory to make American cheese. And we make this cheese with a much lower acidity. The cheese doesn't require the high acidity that raw milk cheese does during the hot months when one is afraid of cheese bloating. We do not use any chemicals. We use 1½% starter the same as they do in New Zealand, and we do not wait for the action of the starter. We set the milk, and the action of the starter during the setting process seems to give us sufficient lactic acid to get the proper development of acid later on. And the acid comes along very nicely and regularly and no interruptions are necessary. The cheese has a little cooked flavor, but in my opinion and in the opinion of people who have tasted this cheese, they seem to think it is a very pleasing flavor.

DISCUSSION

A VOICE: How high a temperature?

MR. PAULY: 145.

A MEMBER: When do you cool?

MR. PAULY: We cool immediately. The heating is started as soon as you have 1,000 pounds of milk in your vat and it takes it an hour or an hour and a half to take in the milk, some of that milk has been held at 145 degrees temperature for an hour or more.

CHAIRMAN KALK: What temperature did you say that was, after cooling?

MR. PAULY: We bring it down to 85; 85 or 86.

CHAIRMAN KALK: How much rennet do you use?

MR. PAULY: The same amount of rennet.

CHAIRMAN KALK: How quick does it set?

MR. PAULY: It sets very nicely in the usual time.

A MEMBER: Do you use the Marschall test before you set it?

MR. PAULY: No, you see, we are starting out with normal milk and we have found that using a 1½% starter, no test is required.

A MEMBER: How long does it take from the time you put in the rennet until you cut it?

MR. PAULY: I think between twenty and twenty-five minutes it sets very nicely, gives you a nice clean set.

MR. DAVIS: Mr. Pauly, after this cheese is made what is the texture?

MR. PAULY: The texture is very fine. It is a nice texture and the moisture seems to be distributed very evenly. It is a nice smooth velvety texture.

THE AMERICAN CHEESE EXHIBIT CRITICISMS

By MR. W. F. HUBERT of Sheboygan

Mr. Chairman, and Ladies and Gentlemen: I would like to have six of those boys pass the first and second prize cheese amongst you. By doing that and by having you look at that cheese, I won't have much to say.

I might say, that the colored cheese is the first prize winner and the white takes the second prize.

I might also state that this colored cheese took third prize at the Merrill Convention. The white cheese took, I think, first prize at the Merrill Convention. Here they are just the reverse.

I would like to have you pay particular attention to the flavor of that colored cheese, if there is enough to go around. That cheese took a score of 99 points, and it was won by Adolph E. Deuscher of Pulcifer.

The second prize went to Edwin F. Winter at Gillett.

The third prize cheese we haven't cut. That was the one that took first prize at Merrill. The third prize cheese was made by Otto H. Yordi of Manawa.

In class two, the first prize cheese was made by Emil W. Gutknecht of Merrill, second, L. J. Breher, Sheboygan Falls, and third Ben. J. Hrabik of Luxemburg.

In class three the first is Edward F. Minnicheske of Clintonville, second A. W. Hahn of Plymouth and third Arthur Jones of Luxemburg.

In class four Rose H. Schuh of Greenwood is first, second Joseph L. Steinwand of Colby and third Ernest Mandel of Colby.

I wish to call your attention to twenty entries made from Waupaca County. These twenty entries have an average score of 95.8 and the sixty entries from Sheboygan County have an average score of 92. The average score of all your cheese at this convention is 92.93.

We have only got twenty cheese in this convention that we scored down into the number two class. Those cheese, part of them, were thrown into the number two class on account of the flavor. We have found in scoring cheese not only here, but in other places, that cheese of very good texture are often rank stinkers. I couldn't tell you why. Some of them have the idea that it is the milking machine.

In class one there is 82 fancy cheese, 32 number one and 3 number two. That is the old cheese. In class two, which is the September

and October, we have 122 fancies, 60 number one and 8 number two. In class three, which is the fresh cheese, we have 55 fancies, 26 number one and 9 number two.

There is one other thing that I would like to call your attention to, those who are going to compare the scores here with the scores at Merrill. Most of you got probably the same cheese in both cases. Our class one here is old cheese. In Merrill it was class two. And I would like to suggest to Miss Bruhn to try to get your classes to conform to these, that is, make your old cheese class one, because it would stop a lot of them from getting mixed up on their scores.

MISS BRUHN: We will do that.

MR. HUBERT: We had four or five rank acids. Two of the cheese that we had here were dead sours. Now we don't know if they sent them down here to find out if we knew if they were sour or acid or not. We found them just the same.

LEADING AMERICAN CHEESE SCORES AND PRIZE WINNERS

By Secretary J. L. SAMMIS

Secretary Sammis distributed the lists of the leading prize winners on American cheese, and then indicated to the Convention corrections, because of typographical errors, in the printing of such lists.

SECRETARY SAMMIS: The entire list of prizes numbers 564, a considerable increase over last year. All of these prizes will be delivered to you this week. Probably by the time you get home your check will be there. The checks for the entire outfit will go into the mail before Sunday.

Just as soon as we get the prices for which the cheese sells we will be able to complete the list of payments. If any of you find any errors or think that any mistake has been made, you should write to me at Madison and we will look into the matter thoroughly. We have had very good luck in avoiding errors in recent years, but we never know when the lightning is going to strike and we will make a mistake with somebody, but we will be just as quick to correct the mistake as you are to let us know what it is.

CHAIRMAN KALK: We have got about ten minutes time to hear from some of those prize winners. I want them to come up here and sit on the platform and we will take them one at a time.

HOW THE PRIZE AMERICAN CHEESE WERE MADE

MR. EDWIN F. WINTER: Mr. Chairman: The first thing I did was to get my farmers to bring in good milk. And second I selected a good starter. Then I did not work it very fast. I gave it very little acid in the whey. I worked it in about two hours from the time of setting until I had drawn the whey. After the whey was drawn off, I gave it a lot of time, and then I rinsed it with luke warm water of about 110 or 115.

A VOICE: How high did you cook it?

MR. WINTER: To 106. I set my milk somewhere around 8:00 or 8:30 o'clock and I dressed it about 4:00 o'clock.

A MEMBER: You didn't have to go to town that day?

MR. WINTER: No I didn't go to town that day.

A MEMBER: How much acid did you run in the whey?

MR. WINTER: Oh not very much, $1/8$ of an inch.

A MEMBER: I would like to ask Mr. Winter, when did you rinse your curd, right after drawing the whey or after milling.

MR. WINTER: About two hours after milling, just before salting.

A MEMBER: Was there any white whey?

MR. WINTER: A little, not much.

A MEMBER: About how much acid did it have at the time of milling?

MR. WINTER: About an inch.

THE MEMBER: And how much acid did it have when you salted it, just before you rinsed it?

MR. WINTER: An inch and a half.

THE MEMBER: I would like to ask Mr. Winter to tell us at the time of drawing that whey, was that curd all matted in the whey and left that way or did you stir it at that time?

MR. WINTER: I kept that a little fine for a while.

THE MEMBER: Did you stir it?

MR. WINTER: No, not after the whey was off, but while the whey was running off I stirred it.

THE MEMBER: You did not put water on after the whey was off?

MR. WINTER: No.

THE MEMBER: How big a vat did you have?

MR. WINTER: 8,500.

THE MEMBER: Did you have it full?

MR. WINTER: Just about.

A MEMBER: I would like to ask Mr. Winter what time he added his starter?

MR. WINTER: I added the starter when I had about 1,000 pounds of milk in the vat.

THE MEMBER: How long was it from drawing the whey until grinding?

MR. WINTER: It was about an hour and a half to two hours.

THE MEMBER: Then, from grinding to salting?

MR. WINTER: About two.

CHAIRMAN KALK: This is Mr. Otto H. Yordi, who won third prize in class one with a score of 98.50. (Applause) This is the same cheese maker that got first prize at the Merrill Convention with 97.87, something like that.

MR. OTTO H. YORDI (Manawa): Mr. Chairman: I haven't made any particular preparations but just took the morning's milk. But I will admit I have no milking machine milk in this particular vat of milk where this cheese was made out of, because I find that the average cheese that I make from milking machine milk after it gets a month or two old it runs off flavor a little bit, and I suppose most of you find the same thing. I set it about 8:00 o'clock and run off the whey in two hours; it always runs off in two hours, as a rule. And after I had the whey off, I think in about two hours I milled it, and after I had it milled I run it about two hours, I should judge, until I salted it, and after I had it salted I noticed I had a few sweat holes

in it and I never put it through press until about 5:30 that evening, then. That is the way that cheese was made that I got the score on today. Otherwise I was ready to put it to press at about 3:30.

A MEMBER: How high did you cook it?

MR. YORDI: 104.

A MEMBER: Did you rinse that before salting?

MR. YORDI: Two pails of water at about 115 on it, to take the loose fat off. On normal curd I never put on water over 115. I had about 4,500 pounds of milk in that one vat.

A MEMBER: How much salt did you use to 1,000 pounds of milk?

MR. YORDI: 2½ pounds.

A. W. HAHN: Ladies and Gentlemen: I set the milk and the whey was drawn off real sweet and we worked it about two hours after milling before salting. At the time I got done, as the other boys said, it was in the evening, maybe 5:00 o'clock. It was quite a while ago. I did not realize it then but it was dark. I could not tell you exactly what time I put it to press. And we heated it up, I think to about 102 in the whey.

A MEMBER: How fine did you cut that?

MR. HAHN: With a 3/8 knife. We cut it three times just the way we always cut them every day. We always cut them horizontally and perpendicularly and that way.

GRADING CHEESE IN THE FACTORY

By MR. P. H. KASPER, Bear Creek

Chairman Kalk: You all know that Mr. Kasper is one of the best cheese makers in the United States. He has been at his home factory for the last thirty years every day in the year. (Applause)

MR. P. H. KASPER: Ladies and Gentlemen: Two years ago or three years ago when they had the big signs up here, studying out the grades, what you should have for grade Wisconsin No. 1 and Wisconsin No. 2 did not concern me much because I have always graded my own cheese, and as long as I have been there I did not care where the buyer was from, New York, St. Louis or where he was from, if I told him my cheese was O.K., it was O. K. too. If I had a box that was not just right I would put a little cross on the box and called his attention to it. And the only way, I think, to grade the cheese is right at the cheese vat. You can do with it as you please. You can make good cheese or poor cheese and I think the right way is to make good cheese out of the milk you use.

There is never a time when you can tell so much about your cheese as in the vat there. That cheese has got to be three or four or five days old or maybe older before you can tell as much about it again as when you have it in your vat. If you make that cheese and put it on the shelf and plug it, you can't tell anything about that cheese. At least I can't. I can tell more about it when I have it in the vat.

I always follow up my cheese when I make it and I know whether I am making good cheese or poor cheese. Lots of fellows make cheese which is thrown together in three or four hours. I have come

in factories here and seen cheese that has got a little too much acid. They think it will cure out. I tell you a defect will never cure out in five years. Good cheese will always cure out good and poor cheese will always cure out poor.

I am not going to spend any more time talking on grading. We have got men here who are state graders and I would rather let them talk and you will get much more information from them than I can give you. But, I grade my cheese in the factory and get more information than any other way. I thank you.

STATE GRADING OF ALL CHEESE PRODUCED IN WISCONSIN

By MATH. MICHELS, Wisconsin Department of Markets, Madison

All Wisconsin American and foreign cheese has been graded since 1922 by state licensed men. All of the graders so licensed are either employed by cheese assemblers or as cheese makers without pay from the State of Wisconsin. The six cheese grading supervisors, now employed, however, are paid by the state. In other words, all of this work is done by men that have a direct financial interest in the cheese that they grade. This system, while it has accomplished much, has so far not brought the expected price differentials necessary for the production of highest quality cheese.

We feel that a system of cheese grading such as is now practiced in New Zealand, Canada, Australia, Switzerland, Denmark, and other countries—whereby all grades would be placed by disinterested men paid by the state from funds collected from the cheese industry or state must be inaugurated before real headway can be expected.

While much has been accomplished making for a better quality of cheese and a better understanding in the marketing of same, full benefits have not been reached and never will be reached until the grading is done by disinterested men. The fault found with the present grading is that proper price differentials are not forthcoming because assemblers of cheese dare not make a lower price for low quality nor offer the proper reward for high quality cheese for fear of losing shipments. This fear on the part of assemblers of cheese is the cause of much indifference of milk producers and the cheese makers in particular.

New Zealand experienced the same difficulty in bringing about improvements in the quality of their cheese until they adopted government grading which now is wholly paid for by the cheese industry. The New Zealand government a year ago was able to do this work by taxing each 160 pounds of cheese 1.4 d. This would be at the rate of about 2 cents per 100 pounds of cheese. In Canada all grading expenses are borne by the government.

Cheese is all being graded now and has been for many years. The only difference between the grading now and thirty years ago is that now most cheese is graded at the warehouses while thirty years ago

the cheese was graded at both warehouses and cheese factories. The work at the cheese factories used to be done by the buyers driving from factory to factory, a very expensive but quality producing work. Such expense of grading has always been and now must be charged against the cheese.

In the case of state grading the charge would be direct. We would know that this work cost so much for 100 pounds while under the present system the charge is indirect by receiving at the factory on the average a little lower price for our cheese. It is plain that this work must be paid for and that such pay must come out of the cheese marketed.

To the question as to why make any change so long as the cheese must foot the bill, I would answer that under state grading by disinterested men we surely would get more uniform and better results. All cheese would be graded strictly as to quality at all times regardless of market conditions. There is no question that at the present time market conditions may greatly influence grading leaving at all times much uncertainty in the work, so much so that price differentials to the factories are not forthcoming as had been expected.

Assemblers of cheese can not agree on a quality price differential, so long as each does his own grading although licensed by the state with a certain amount of state supervision. As long as the low quality cheese can be disposed of for about the same price as high quality cheese no serious efforts will be made to produce a high quality cheese.

Now a word of explanation as to how cheese is marketed at the present time. Wisconsin markets each week throughout the year an average of about 5,000,000 pounds of cheese. Assemblers of Wisconsin cheese meet each Friday p. m., at Plymouth. At this meeting, known as the Plymouth Cheese Exchange, some of the cheese assemblers offer while other assemblers bid on such offerings. The two per cent of our make of cheese offered establishes the price not only on that two per cent but on the entire 100 per cent of Wisconsin's make.

At the present time we hear much about grading and holding of cheese. The Wisconsin Department of Markets undertook to lend a helping hand in the marketing of our cheese. The first two cheese orders issued are known as the fractional weight and holding orders. The weight order compels the recording of all $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ pounds. These weights were formerly all lost by the cheese factories. This loss amounting annually to about \$1,000,000. The 3-day holding order was not intended to deliver a better cured cheese but for the purpose of eliminating rind rot, by having all surfaces dry before being paraffined. Rind rot has cost losses of hundreds of thousands of dollars some years. Since this order was made effective such losses have been practically eliminated.

To my mind state or government cheese grading must be adopted if we expect to hold our position as a cheese producing state. Wisconsin produces annually over 300,000,000 pounds of cheese valued at

about \$75,000,000. I fully realize the immensity of such a proposition and if adopted it must necessarily move slowly. It matters little how slow if the movement is in the right direction. To stand still means to fall behind in the procession. That the cheese makers of this state can wield a tremendous force was proven conclusively in our first and second year's grading. Cheese makers were led to believe that if they produced a high quality of cheese, price differentials would follow. With this thought in mind much improvement in the quality of Wisconsin cheese was seen. Now that the expected price differentials are not realized, much indifference is again shown by the cheese makers and producers of this state.

For the first time in many years Canadian cheese producers are receiving a better price for their cheese than the Wisconsin cheese producers. This condition, without question, is due to their present system of government compulsory cheese grading put into operation in 1923. This fact was very forcibly expressed at the Central Wisconsin Cheese Makers' Convention held at Merrill, by Mr. Gillespie, a former Canadian cheese dealer, now operating at Wisconsin Rapids. Mr. Gillespie pointed out how he had been opposed to the Canadian law, that he had written articles in opposition which were printed in leading dairy publications. He also told how he had to change his mind as soon as the work got under way, and that at the end of the first six months he apologized for his former opposition because of the great improvement in the quality of Canadian cheese which had reached beyond the highest expectations.

Briefly, Canadian cheese is placed in four grades, as follows:

- Special scoring 94 and over
- No. 1 scoring 92 and under 94
- No. 2 scoring 87 and under 92
- No. 3 scoring under 87

In discussing quality cheese, at the Merrill Cheese Makers' Convention, one prominent speaker pointed out that the quality of Wisconsin cheese had fallen with the entrance of the packers into this business, and that their aim had been quantity as their first consideration paying little attention to quality. This speaker also pointed out that the packers were not interested in any increase in the consumption of cheese because every pound of such increase would take the place of two pounds of meat and that meat was their first consideration.

What Wisconsin needs is a cheese grading system by which all quality grade marks are stamped on the cheese by disinterested men paid by the state, and such grade marks be put on the cheese before it leaves the shelves at the cheese factories. The proper place to grade cheese is at the factory, by men that have a knowledge of cheese making and are able to assist in the planning of how to overcome difficulties that may come up in the making of a uniform high quality cheese. All Wisconsin cheese factory laws and regulations to be under the same men that do the grading.

In addition to state grading done at the cheese factories, I would change the grades to No. 1, 2, 3, and allow the Wisconsin Fancy brand to be used only on highest quality ripened cheese held for 60 days or longer.

In conclusion, I will say that the reputation of Wisconsin as a cheese producing state rests with the cheese producers, the farmers, and cheese makers. The cheese producers must be made to realize that the structure of cheese making must rest on "quality" as its foundation. What Wisconsin is most in need of is a standardized uniform high quality and well ripened cheese. It is up to the producer to see that the cheese consumers are protected against low quality unripened cheese at unreasonable high prices.

The present low consumption of 4.2 lbs of cheese per capita in the U. S. can be increased by giving the consumer a better ripened high quality cheese. An increase of only one pound per capita means an additional 100,000,000 pounds of cheese consumed.

I was glad to see that Mr. Carl Haberlach of Tillamook, Oregon, is on our program this afternoon. I am sure that Mr. Haberlach will tell us of the great value of their cheese producers organization. Give us some first hand information as to methods by which they were able to receive on an average, for 1924, five to six cents more per pound for their cheese than our producers received in this state. What Tillamook, New Zealand, and Denmark and other countries have done, Wisconsin can do if we unite our forces and pull in the same direction.

Twenty per cent of our cheese makers are turning out fine cheese at all times, even though little difference is made in price. With adequate price differentials many may do even better and get into the Wisconsin Fancy or Held Cheese class. No quality program, lacking price differentials, will ever get us anywhere.

The opposition met with in putting over a quality cheese program in Wisconsin is due to the depth of the rut in which we are traveling, so long as cheese remains cheese will we not only stay in the present rut but that rut will wear deeper as time passes.

If there ever was a need for "one big union" or "get together" the Wisconsin cheese industry has it. What we need is proper cheese standardization followed by price differentials, which can be obtained only through organization. What other organizations are now doing, Wisconsin can and will eventually do.

What we must and will eventually have in Wisconsin is a grading system by which all grades are placed on all cheese by disinterested, well qualified state or government graders, such as now enjoyed by New Zealand, Australia, Denmark, Switzerland and Canada. Such a system if put into operation would cost in the neighborhood of 6 cents per 100 lbs. of cheese. This cost however, would be a trifle as compared with the gains over us by the Tillamook organization last year. In fact, if we could only gain one-half as much, we would still be \$7,000,000.00 to the good.

DISCUSSION

MR. KIRKPATRICK: I would like to ask the gentleman a question. He has just stated that Canada this year has received more for their cheese than the Wisconsin cheese producers. I would like to know how he figures that out.

MR. MICHELS: Do you mean to say they didn't?

MR. KIRKPATRICK: Well, you say they did. I would like to know what is the reason?

MR. MICHELS: Because the price is higher.

MR. KIRKPATRICK: Now?

MR. MICHELS: Yes; it was here a while ago.

MR. KIRKPATRICK: Well, the market in Montreal last Saturday was 17½c delivered in Montreal. The price on the Plymouth Board, you know, was 7c a pound more than that. I think there were only two months this year when the Canadian markets were any higher than the Wisconsin markets.

MR. MICHELS: How about last year and the year before?

MR. KIRKPATRICK: You spoke of this year. I am only figuring this year.

MR. MICHELS: Mr. Kirkpatrick, I said this year was the only year that they are ahead of us, and they are ahead and you admit they were two months ago.

MR. KIRKPATRICK: The last two months?

MR. MICHELS: And there never were any two months in any other year when they were. That is what I meant.

MR. KIRKPATRICK: You didn't say so.

MR. MICHELS: That is what I meant.

A MEMBER: You said the Canadian cheese this year brought more money than the Wisconsin cheese?

MR. MICHELS: Yes.

THE MEMBER: It isn't so. The price today in Montreal is 17½c. Now, in regard to the New Zealand cheese we hear so much about, the market in London last month was 106 shillings per 100, which amounts to something like 19c, wouldn't it, in London? 106 multiplied by 24 and deduct 10%, gives you the actual value of these cheese in London based on these cable quotations of 106 shillings, and that is not for hay cheese like we are getting now here. The question is this: Was Mr. Michels correct when he stated that those countries were getting more money for their cheese than the Wisconsin producers? I say not at any time except two months this year when there was a speculation in Canada in which everybody lost money.

MR. MICHELS: We have several others that are to be on the program this afternoon and I believe we ought to defer that question until later. I believe it will all be answered before we get through.

A MEMBER: Mr. Gillespie understands that question better than anyone in the room.

MR. W. F. HUBERT: I want to say the four grade system in Canada works out. Canada exports most of their cheese and they have got to sell them on that kind of grading. Here in the United States we are a large country. We have various sections in this United States of ours that want different kinds of cheese. For instance, one section wants a firm body cheese. Another section wants a softer cheese. Some other section wants it with holes in it. It is all right to have a fancy grade in the state of Wisconsin, if that

fancy grade is going to take in a cheese that scores down to 92 points, but if we are going to have a cheese that a man calls fancy in the state of Indiana, state of Ohio, and other parts, those states like Illinois, that cheese may not be a fancy cheese in Texas, Mississippi and Louisiana, and I don't believe that we can ever put across in the State of Wisconsin four grades of cheese. I believe we have got to have grades of cheese that will suit the various states in the United States. We are not an exporting country and if we were, like Canada, I would say four grades, but it cannot be put across in the United States. (Applause).

MR. MICHELS: I want to answer that. Mr. Hubert would like to have us believe that a good cheese was not a good cheese anywhere, that in some states it might be considered a poor cheese, and in other states a good cheese. Now I don't believe that for one minute. I don't believe there is a state in the Union in which the Ford would take the place of a Cadillac or a Lincoln car. A Ford is always a Ford and no matter where it goes and I believe the same is true of cheese. I believe that a good cheese is a good cheese anywhere it is sold, in Indiana or in Liverpool or in any other place; a good cheese is a good cheese all around the world.

MR. WILLIAM PAULY: Mr. Michels, you made some statements with reference to Tillamook County, Oregon. You did not analyze their figures. Did you?

MR. MICHELS: Yes I did.

MR. PAULY: You analyzed them and found them correct and verified them?

MR. MICHELS: Yes. I think those figures are as pointed out there. They are my figures varying a little bit from those on the sheet there. But they don't vary from anything I have mentioned here. Mr. Chairman, I would like to have you call on Mr. Gillespie at this time since he has been mentioned. I would like to hear from him at this time. Mr. Gillespie is the man who spoke to the Merrill Convention, you know.

MR. R. T. GILLESPIE (Wisconsin Rapids): Mr. Chairman and Gentlemen: I figure that price of Mr. Kirkpatrick's about 20% net to the dealer here, allowing \$1.20 or \$1.25 to the Sea Board and .75c Ocean freight and insurance. But Mr. Michels meant, I think, that for the first time in his recollection the people of Canada received more for their cheese at any one time than the American people did. Under your present system I can't see any opportunity for a maker to get a reputation if he can't get more for his superior goods than for his inferior goods.

But I am here to describe the dairy act in Canada. I will tell you how it is worked. Every factory has a register and number, and every vat is numbered consecutively. Our men must pick out a sample of each lot and throw it to one side. The grader comes in with a boy and he looks at a sample of each lot and it is marked on a paper just what points it scores, flavor, texture, finish, etc. He comes around twice a day or as often as you want him. The boy then stamps the goods on the box, not on the cheese but on the box, whether it is one, two or special grade. The grader then reports to his superior, who is chief dairy grader, and the certificates are made up in the evening of all cheese graded showing the points given for each lot, so many points for flavor, texture, etc., and the dealer is handed or mailed a copy of the certificate, the factory is mailed a copy of the certificate, and the department keeps a copy. In the case of inferior goods there is a letter written the factory at once stating the defects and recommendations to correct them. In case these corrections are not noticeable in the next few shipments there is a

man sent there to see what the trouble is and to make the corrections, and if the maker can't make cheese up to standard he has his license withdrawn.

Now, I have taken the pains to write to all the different elements in Canada to ascertain how it is being accepted and I will read with your permission, Mr. President, how it is being received.

Dear Sir: "In reply to your query, I would say that the producers and cheese makers are strongly in favor of Government grading of cheese and butter, in comparison with the old order of things. There have been very few complaints regarding the grading this year, and there is no doubt that it is here to stay."

Dear Mr. Gillespie: "With reference to the quantity and grades of cheese since official grading began in Canada the results are as follows:

Year	Total Cheese Graded	Percentage			
		Sp.	1st	2nd	3rd
1923 -----	1,458,129	.97	77.03	19.78	2.22
1924 -----	1,445,534	.04	83.9	14.6	1.1
1925 -----	1,712,414	.04	85.8	12.8	1.0

I say that the figures for 1925 are up to the end of October. The complete figures for this year will not be ready until the end of December, however we will no doubt have a slightly better showing than last year.

Dear Sir: "Yours of the 20th inst. duly at hand; I in reply would say in reference to Cheese and the Dairy Standard Act it was at first strongly opposed by most of the producers, but after two seasons find most sections are in favor of its continuance as the quality of cheese has greatly improved both in quality and finish and farmers begin to realize that care of milk on the farm pays in increased value of butter fat test, etc. Cheese in this section has improved 75% in quality under government grading and it is still improving.

Cheese here now are all graded at point of shipment and that saves buyers going to factories for that purpose.

Most milk to factories here is now paid for by the Butter fat test."

Dear Sir: In answer to your query we would say that Government grading in Canada is proving successful, inasmuch as it is improving the quality of production. Mr. Gillespie will remember at the outset that this innovation caused quite a lot of inconvenience to the Trade generally, but now things are running smoothly owing to matters being systematized. The various graders who have just returned from the annual country fairs report that generally speaking the producers throughout the country are well satisfied with the work during the past season.

Dear Mr. Gillespie: In a general way I think I may safely state that all parties are satisfied with the change in the grading of the cheese by a government representative. I have heard no complaints in this district.

Dear Sir: We are in receipt of your letter of the 27th ultimo, and as regards your inquiry as to Government grading of cheese, we think that you will find various opinions regarding the desirability of Government grading. Some consider it has decided advantages, whilst others feel otherwise. There are always some inexperienced graders to be found who cause a lot of trouble and do

more harm than good, and this is always the danger as regards the Government grading of cheese.

Personally, we do not think the Government grading has improved the quality of cheese, but it has the one advantage, as all exporters from Canada now sell on the basis of Government grading and it puts a stop to any claims from England on account of quality.

Dear Sir: We beg to acknowledge receipt of your favor of November 27th and we note by it the Department of Agriculture are considering government grading of cheese for the United States.

And in reply to your inquiry as to how it is working out in Canada we really do not feel qualified to answer you regarding it.

We were always in favor of government grading but were opposed to a system of government grading that would demand that the whole output of Canadian cheese should be centralized to one point of grading. We have argued that grading should be performed at central points nearest to the point of origin of the goods to be graded and after this was agreed upon we have been in hearty accord with the method.

It of course increases considerably the maker's responsibility, he has to number his vats each day showing the number on the cheese so manufactured and on the boxes when they are shipped along with the registered number of the factory, the weight of the cheese and in some cases the stencil of the factory. This of course in itself is sufficient additional labor imposed upon the cheese maker to make him opposed to it. The registered number has to be shown on the invoice and the vat number as well as the weight of the cheese and I have heard a great many makers say that if there is much more to be added to their duty as cheese makers they were ready to discontinue it on account of it. This I think will explain the maker's position.

From the standpoint of a shipper or exporter the grading has worked satisfactorily. When the grader's certificates are attached to the invoices of a shipment showing the date of the grading, the number graded and all of the particulars for the individual lots it at once places before the purchaser of the goods the relative standing of his shipment and we have had no complaints.

It has created with the maker a competitive issue that has prompted most of them to buck up and do the best they could while with those who never were capable they have had an opportunity of finding it out to their entire satisfaction and have either quit the business entirely or have accepted positions under those who were capable as indicated by and through the grader's certificate.

The efficiency of the grading of course depends entirely on the selection of graders who are qualified to do the work and who have no friends or enemies in the business and when it is properly introduced and diligently carried into effect we are of the opinion that it must and will benefit any section in which it is in operation.

Dear Mr. Gillespie: I think there is no doubt that everybody here now is satisfied that the introduction of grading of cheese has turned out very satisfactorily. I do not think that any of the operators would willingly go back to the conditions when there was no grading. For one thing, it facilitates settlements with the factories, where the cheese are defective. Formerly, as you know, it was somewhat difficult to persuade a factory salesman that his goods were really inferior. Now, when he receives a Grade Certificate, he has no come back to the representations of the buyer. Also, it has stabilized the cut as between No. 1 grade and No. 2 and No. 3. It is 1c from No. 1 in the case of No. 2 and 2c from No. 1 in the case of No. 3.

Dear Sir: I must inform you that the grading is giving satisfaction to the producers and makers and it has improved the quality of dairy products. Regarding the trade, I think that dealers are satisfied in general.

Dear Sir: We think, generally speaking, the factory men in the country have become accustomed to the grading and are well satisfied. The Montreal houses find it to be working well, because it eliminates any disputes with the factory men regarding grade and claims. The certificates are in use in interhouse trading with satisfactory results, and the English Importers are mostly now asking for the grade certificates to accompany documents.

Dear Mr. Gillespie: In reply to your enquiry would say that the system of grading and licensing the manufacturers has resulted in the elimination of some of those small unsatisfactory factories and makers, so that taking the standard altogether it has improved the general average of the make, and now that we have got used to it it is working fairly satisfactory so far as the export trade here is concerned, so we would say that the dealers, makers and producers are now in favor of it.

As you know these are days when they even seek to standardize brains with the result that our colleges and universities are turning out men of certain type. This is the same thing in regard to cheese, and there is no opportunity now for the initiative of the private individual. Before, our various districts used to make a special cheese peculiar to their own district, but now cheese are more and more becoming the universal make and type, which the promoters claim is a distinctive advantage, but this is something I am not now going to debate.

Dear Sir: Yours of the 25th to hand. As regards the Government Grading of cheese in Canada, we consider this has been an entire success and had worked to the advantage of everybody concerned. You have had enough experience in the cheese trade in Canada to know that it has done away with a lot of crookedness. The cheese are graded on arrival and stamped and there is no way of passing No. 2 cheese as No. 1, and settlements with the factories are made accordingly. It has been, we think, more to the advantage of the dealers here than anybody else; probably the farmers would obtain more for their No. 2 cheese, but there would be a lot of crooked work done if the cheese were not stamped. From our point of view we highly recommend it and believe it would work as advantageously on your side as it has here. Of course there are always differences as regards inspection and some slight disputes regarding quality, but on the whole there has been very little trouble and it has worked very much better than anybody could have anticipated.

Dear Sir: Referring to your letter of 20th inst., we find the makers of cheese are better satisfied with the government grading of cheese than with the methods pursued formerly.

Dear Sir: Referring to your letter of Nov. 20th, the grading of cheese has undoubtedly been a benefit in various ways, and has had a tendency in my mind to improve the product in quality. It has made the maker take more pains in producing a better line of goods and in this way has been a benefit to the producer.

During the past season the grading of cheese in this district has in a majority of cases passed as No. 1 and I believe that this has been made possible through the adoption of the dairy act enforced since 1923.

MR. E. L. ADERHOLD (Neenah): Gentlemen: My name appears on the program to help discuss this subject of grading. There has been quite a bit of dickering when this subject was under discussion and I think that that is unnecessary. We believe in the standardization of grades, when that is properly done, we admit there is a chance of improvement yet. You know it is an awfully big proposition. You can't do it all in a very few years. The silo is a very simple proposition, but it took about 25 years of hard talking to put that across. The Cow Test Association is a wonderful thing. Nobody has ever found a word of fault with it. They can't find a word of fault with it, and it has been pounded into the farmers for over 20 years and only 3% of the cows are under test.

Now, we have been on this grading for about three or four years and it is a very big proposition. So instead of dickering, let us try to get together and see what can be done and try to cooperate to do it. We will get it in time, but it takes a little time.

The early cheese dealer did a wonderful work building up the dairy industry in Wisconsin, in two ways: They insisted upon quality and they found markets for it. Later on, as Mr. Glover told us at the Merrill Convention, when the packers came into the game they said that they would rather distribute poor cheese than good cheese because they were in the meat business and wanted to sell meat and if they gave the people poor cheese to eat they would sell more meat. Now I don't know whether it is true or not, but I am reminded of the story of the little boy that had a bow and arrow and he shot the arrow into the neighbor's cat and the cat ran away with it and then he blamed the cat for carrying away his arrow. And I believe that the packers have as good an alibi as the cat had. They would not have distributed a lot of poor cheese if we had not been making a lot of poor cheese. The harm was done when we made it. The men who made it are to blame, not the men who distributed it.

How are you going to reach the men who made the poor cheese? That brings us away from the dealer and to the cheese producer, that is, the farmer who brings the milk in the factory and pays to have it made into cheese. We must wake him up. That fellow has been sleeping. And we have got a lot of makers who try to make fancy cheese and they say, they will make it fancy when the dealer pays more for it or when the farmer appreciates it. And I tell you when a man has put in an extra effort to make a fancy article and his patrons don't appreciate it, you can hardly blame the cheese maker for getting tired of that in time. We have got to wake up the farmer.

You know, to the average farmer, a can of milk is just a can of milk and if the cheese maker don't reject it he is going to wait until pay day and expect his check. What that farmer ought to do is to see to it that his milk is made into a fancy article and put that cheese maker under a contract whereby he can't afford to do anything different than make a fancy article, where he can't afford to do anything different. We have makers now, who say they can't afford to make fancy cheese. Now do you know what those farmers remind me of? The patrons of an average factory have an investment as milk producers of a quarter of a million dollars and 80% to 90% of the output of that property and investment goes to the factory and yet some of the cheese makers say we can't afford to do a good job. I don't know what has got to happen to those farmers to wake them up. The farmers should boost their business by putting out a fancy article, and when they don't do it they are boosting their business, not in the right direction, but in the wrong direction. Those farmers are sound asleep. That reminds me of something that happened once in a medical college where the professor was quizing the student and he called the student by name, and he said, "Mr. Smith, what would

you do if you had a patient that had fainted? What would you do first?" and he said, "First I would bring him too." And then the professor said, "Flannigan what would you do next?" Flannigan said, "I would bring him two more." (Laughter).

Something like that ought to happen to the farmers. Hand him one to bring him too, and then hand him one to keep him awake for a while.

And I have got a plan in my noodle where we can wake him up and pay that cheese maker for the the kind of a business he does. We have cooperative factories where they probably object to making a fancy cheese. Why? They are doing it to spite the dealer. The dealer will not pay any more for it and they say, "We will be darned if we are going to give him fancy cheese if he won't pay any more for it." They are doing it to spite the dealer. That reminds me of a little fellow who needed a pair of mittens. Winter was coming on and his Dad wanted him to do some work and earn the money for the mittens. He wouldn't do it and he finally froze his fingers and he said, "That serves my father right." Now, if the farmer is turning out an inferior article to spite the dealer I would like to know who is freezing his fingers, whether it is the dealer or the farmer himself?

We have got to wake that farmer up and we can do it. We had the first cooperative farmers institute at Abbottsford two weeks ago and I put this thing up to the farmers and they passed some resolutions. I told you a little while ago what a wonderful work the cheese dealers did in the early days in building up the business, and the cheese maker. That cheese dealer insisted on quality and the cheese maker had to put quality into his products. And those are the two parties who carried the burden for the farmers, the burden of quality, and when those two stopped carrying it, nobody did. The farmer never did it and does not today.

At this Abbottsford meeting of farmers, in the cheese section, the farmers passed these two resolutions. Here is one:

"Whereas, the per capita consumption of cheese in this country is very low; and

Whereas, more than half the cheese produced in Wisconsin can be materially improved in quality; and

Whereas, the situation is in part due to the indifference on the part of the farmers; and

Whereas, we believe that a demand for cheese can be greatly increased by a general improvement in the quality; therefore be it

Resolved, that we feel that cheese factory patrons should take pains to deliver only high grade milk; and be it

Resolved, further that we appreciate the importance to the industry of the competent cheese maker and his faithful cooperation and we feel that the patrons of every factory should put their cheese maker under a contract whereby he will receive financial benefit for all the fancy cheese he makes."

Now what do you think of that coming from the farmer? And that is the first time in the history of Wisconsin cheese making that the farmer has proclaimed to the world that he appreciates the competent cheese maker. He has always kept it under his hat before. But that is coming from the farmer, so you see we can wake the farmer up.

Now, they passed another resolution on grading. I am not going to read the whole of that but among other things it says, "Resolved, that we ask our State Commissioner of Markets to provide a bigger force of state graders; such graders to be men competent to give instruction." It refers before that, to education in the field—"To give instruction and to be held responsible for proper grading and field work."

The farmers are asking for more state graders and those graders, part of their duty will be to go to the factory and to the farmers and keep track of the cheese that comes from the factory, keep in touch with the maker on quality and wake the farmer up and get him behind the quality program.

Now those two resolutions came from the farmer. And we got some other good resolutions through for the cheese makers at Merrill and at Rice Lake, and we want them here, and the Commissioner of Markets has power to do those things; to raise the quality of the cheese, and he wants a good excuse to do it. We don't want to make it seem as if he is forcing it on the industry, but if there is demand enough for it, and he can show that the people want it he can go ahead and do it. I thank you.

WISCONSIN DAIRY CLUB

By THE OFFICERS OF THE CLUB

PROFESSOR LEE: I realize your time is getting short and I don't want to take too much of it. The Dairy Club of Wisconsin is here and we believe it is here to stay. It is the outgrowth of the Dairy Show a year ago. A number of men in Milwaukee were interested in getting something started in Wisconsin that would help to boost Wisconsin's Dairy production. The Dairy Club of Wisconsin is made up largely of men that are actually engaged in the business. It has for its members men and women from practically all the organizations of the state. We have the makers of both butter and cheese. We have a large group of milkmen and we have a large group of dealers and we have a large group of what you might call consumers, that belong to the Dairy Club, and back of all of them we have the machinery men, and it is always well to have the machinery men behind any of our state organizations because it seems as though they have more money than the rest of us.

Now what can we do? Most of you know what we did this last summer with the Dairy Week in Wisconsin and certainly appreciate what the cheese men of the state did, the dealers and makers, and in fact many of the farmers got behind the movement.

A number of men and women in the Dairy Club feel that when it comes to matters of legislation it is well to have committees representing all lines of the Industry. And we feel that they should all work together and not concern ourselves with getting over any amount of legislation for one group and not for another.

In closing I will say that you can't afford to miss the banquet tonight. You are going to get a lot of eats and besides Kelly is on the program. It is right downstairs at 6:15. The price is one dollar.

RESOLUTIONS ADOPTED AT 1925 CONVENTION

1. *Resolved*: That this association tender the city of Milwaukee our hearty thanks for the courtesies extended to our association, prior to and during this convention.

2. *Resolved*: That our thanks are hereby tendered to the various boosters, dealers, supply men, merchants, bankers and others, who offered prizes, bought our cheese and in other ways helped to make this convention a success.

3. *Whereas* the County leading within this state as to prizes offered and leading in number of exhibits, through the co-operation of County Banks, Honorary members and other donors in arousing interest throughout such Counties to an extent hitherto unsurpassed

therefore be it *Resolved* that this organization tender its hearty congratulations and thanks to citizens of these counties for their successful efforts in promoting the fame of Wisconsin cheese throughout the nation and in aiding our 34th Annual Convention.

4. *Whereas*, it is our understanding that the U. S. Tariff Comm., is to conduct a hearing for the purpose of considering a revision of the tariff on Swiss cheese; *Therefore* be it resolved, That we, the Wisconsin Cheese Makers Association, here assembled this 10th day of December, 1925, are not in favor of lowering the tariff on Swiss cheese, as it now stands. Be it further resolved that the U. S. Tariff Comm. be notified of this resolution by a night letter.

5. *Whereas* the Whey Butter Labeling Law is still on the statute books and is not enforced as whey butter can not be distinguished from other butter. *Therefore* be it *Resolved* That we ask the Wisconsin State Legislature to repeal this law.

6. *Whereas* a number of cheese warehouses are operating without cooling facilities and *Whereas* a large amount of cheese handled during warm weather at such warehouses is subject to severe injury in quality, therefore be it *Resolved*, that we urge the operators of such warehouses to provide suitable coolers.

7. *Whereas* our present board of directors is composed of only three members and whereas our Association can do more efficient work by a larger board and have the directors selected from the various sections from the state. *Therefore* be it resolved that we increase this board to five members and that Article IV. of the Articles of Incorporation be so amended and they are hereby so amended to change the word "three" to "five" so that Article IV., Section 1, reads as follows: The general officers of said Association shall consist of a president, vice president, secretary, treasurer and the board of directors shall consist of five members of the Association.

8. *Whereas* there are various cheese makers and other manufacturers of the dairy products who are using unfair practice in short weighing and over-reading or under-reading the Babcock test. *Therefore* be it resolved that we request the cheese makers or other manufacturers of the dairy products who are neighbors to those using such unfair practice to notify the Dairy and Food Department at once so that immediate investigation can be made and *Whereas* the average quality of cheese can be materially improved and whereas a continuous campaign of inspection, education and instruction is needed to put the cheese quality on a higher basis; therefore be it *Resolved* that we ask our State Legislature to provide funds for a larger force of competent inspectors and instructors in the field so that the desired higher quality of raw material and cheese can be procured.

9. *Whereas*, up to the present time the standardization of American Cheese into state grades has not been entirely satisfactory because of an inadequate force of state graders and *Whereas* the cheese industry is suffering from the fact that dairymen in general who patronize cheese factories are asleep as regards the necessity of the production of high quality cheese, therefore be it *Resolved* that we ask the State Commissioner of Markets to provide a bigger force of disinterested graders, such graders also to act as field men in educational work at cheese factories and among the patrons.

10. *Whereas* the cheese factory beautifying contest which has been conducted for the past three years, has been fruitful in stimulating a pride in factory operators for attractive surroundings and which has in fact, caused such improvement at numerous factories, therefore be it *Resolved*, that our thanks are due to all those who institute such contests.

11. *Resolved*, that we commend the Railroad Commission of Wisconsin in their present action of opposing the advance of cheese rates for freight.

12. *Resolved*, that all factory operators equip their factories with shelves for curing cheese.

ELECTION OF OFFICERS

The officers elected for the year 1926 are:

President—H. A. Kalk, Sheboygan.

Vice President—Ed. Winters, Gillett.

Secretary—J. L. Sammis, Madison.

Treasurer—Otto Weyer, Manitowoc.

Directors:

John H. Peters, Plymouth.

M.M. Schaetzel, Edgar.

O. R. Schwantes, Clintonville.

A. T. Bruhn, Spring Green.

J. Gempeler, Jr., Monroe.

WHAT CAN WISCONSIN LEARN FROM TILLAMOOK

By E. J. CLAUSSEN, Tillamook, Oregon

MR. E. J. CLAUSSEN (Tillamook, Oregon): Mr. President and Gentlemen: I regret very much that I have to stand before you here in the capacity of a substitute and that Mr. Haberlach could not be here.* Unfortunately Mr. Haberlach had a death in his family late last week and it was not possible for him to get away.

However, I have his message here which I will read to you, or as much of it as I dare to in the time that remains and I will then attempt to answer any questions that you may wish to put.

Gentlemen: "What can Wisconsin learn from Tillamook", has often been asked. Tillamook County, Oregon, as some of you know, borders the shores of the great Pacific Ocean for a distance of fifty miles. It is of an average width of twenty-five miles and contains all told 594,879 acres. Of this, according to the County Assessor's notes, 19,213 acres are tillable land, 161,730 non-tillable, and 413,936 heavily timbered. It contains close to thirty billion of as fine timber as can be found anywhere. The assessed valuation is over thirty million dollars.

The county lies between the Pacific Ocean and the Coast Range, the latter heavily timbered and rising to as high as 3,000 feet. Several small valleys lie between the ocean and the mountains and dairying is the principal occupation of the farmers in the county.

As the great light which shines from the lighthouse six miles west of Tillamook City has for years guided ships going between San Francisco and Portland, so has Tillamook's cheese industry been a beacon light to other sections of the great Pacific Western country. It has been pointed to countless times as an outstanding success. It is not great in a financial way as far as an array of figures is concerned, nor is the volume of its cheese large when compared to the

production of your great state. But it has been a successful pioneer, and as such its fame has spread both far and wide.

If you will bear with me for a time, I will give you the history of the industry, and the causes which contributed to its outstanding success.

Distance lends enchantment to the view. If what I say to you this afternoon shall give you a clearer idea of our success and if it will aid and assist you in your problems, I shall feel repaid for the trip of two thousand miles from the shores of the Pacific to those of Lake Michigan.

In order that we might have an intelligent discussion of the subject mentioned, I think it would be well to lay before you the situation that formerly prevailed in Tillamook County and that which now prevails so that by comparing your conditions, past and present, you can judge whether or not it would be possible to improve conditions in your state. By this, I do not mean conditions of improving the quality of cheese particularly, because I am not a cheese maker and cannot take up the matter from that angle. I would like to take up the matter from the standpoint of better prices for cheese and uniform control.

I believe that our experience shows that three things are necessary to bring about the proper improvement in the cheese industry of Wisconsin, and these are the things which we believe finally brought about our improvement.

When I first became connected with the Tillamook cheese business in 1903, there was nothing like grading or uniformity in production of Tillamook cheese. Tillamook cheese at that time sold for $9\frac{1}{4}c$ a pound and we were glad to get within $1c$, or $1\frac{1}{2}c$, of Wisconsin prices. Being quite young at the time, I often tried to make the buyers believe that Tillamook cheese was worth as much as Wisconsin, but often without results.

You know how things were a long time ago and they are run that way yet in many sections of the country. The cheese makers at that time when they had any poor cheese would mix the same up with the good, thinking that the good would sell the bad. It usually worked the other way. After working until 1908, or a period of five years, and having accumulated a string of eighteen cheese factories and having life made more or less miserable because of many complaints coming to us on quality, we organized the Tillamook County Creamery Association. This association was at first organized solely to inspect and grade cheese and to have the proposed inspector teach the various cheese makers to make a uniform grade of cheese.

The first year only nine of the factories had their cheese inspected, but by getting better prices, due to better grades, all the factories were finally persuaded to join the association. For several years some of the privately-owned factories kept out of the association, but for a long time we have had one hundred per cent support from the twenty-three factories in the county.

The matter of inspecting and grading has brought the various communities closer together, and for years all have pulled for the

Tillamook County Creamery Association. It used to be that each section of the county thought it could make the best cheese, but it is now conceded that an expert could not tell the production from the various factories apart. Of course, each make is not the same for each day of the year, but we are so trying to make our product uniform that the word "Tillamook" stands for a greater uniformity of cheese than that found in any section of the world today.

To do effective work, it was necessary first to get various units together, which took five or six years. We then standardized our product, and this took several years. Still, we did not seem to get very far, which convinced me that something was lacking. Our comparatively high prices in those days encouraged other sections to get into the cheese business, and it was quite a temptation for both the manufacturers and dealers to state that their cheese was the genuine Tillamook. Of course, none would do that in this day and age, but this was a long time ago.

The foregoing conditions convinced us that it was necessary to brand or trade-mark our cheese, and this seemed to be hard to overcome. It seemed a hard matter to place our name on the rind, although we experimented considerably. Finally the proper method of placing "Tillamook" on the rind occurred to me as if by accident. Since then, and since we did not get the patent on the method of putting the name on the rind, most of the cheese made in the West is now being branded in this manner. It is now as easy as falling off of a log to brand cheese, and many have become better experts at branding cheese than they have shown ability to become good cheese makers or makers of good cheese.

I believe that this will be a good place to speak to you of our aims, aspirations, and accomplishments.

Our aim for a long time has been to make the best American cheese possible to make under ordinary farm conditions, and this we have been able to do by inspecting and grading our cheese.

Our aspiration has been to get an average of 10c a pound over similar cheese made in other sections of the country. This we aspired to do on account of making better cheese and adopting better selling methods and because we felt our farmers needed the money.

Our accomplishment has not been as great as our aspiration, but, as the poet says, "Hope springs eternal in the human breast," and we have not given up hope as this we expect to keep until the end of the chapter. (We are in a fair way of accomplishment but if your ideas of prices remain as high as they have this year our task shall be more difficult and we will probably have to reduce somewhat our ideas of overage which we should get for Tillamook cheese.)

I wish now to call your attention to this chart prepared by your dairy school from information supplied by our office. You will note by this that Tillamook Triplets sold for 30c Tillamook, and Loaf and Longhorns for 31c Tillamook on January 1, 1924. At the same time, the Wisconsin Call Board price at Plymouth showed the market to be 20¾c on Daisies and 21¼c on Longhorns. At the end of the year,

Tillamook Triplets were selling at 26c and Wisconsin Daisies for 21½c. I wish to call your attention, however, to the spread between our price and the Wisconsin price as shown by this chart. The average weekly price of the Wisconsin Call Board was 18.62c. The average Tillamook price for the year was 25.48c—a difference of 6.86c. Our price is the f.o.b. Tillamook price, while the Wisconsin is the primary market price. We have at times been as much as 10c higher, but have found that when the spread is greater than 6c to 7c we have difficulty in moving our stock. However, as I said before, we still have hopes.

From the above, it will be seen that Tillamook prices on the various styles of cheese were 8¼c above Wisconsin on the first of January. It is to be remembered that this difference has prevailed during the season of heavy production.

It should be remembered that the production of Tillamook cheese is greatest from the first of April to the first of November. Nearly all dairying is what might be called summer dairying. The total production for last year was 7,386,100 pounds of cheese. This made the equivalent of 103,000 cases Triplets. This chart will show in detail the production per month and also the number of boxes produced each month over the average of 8,583 boxes, and the number of boxes lacking for those months short of 8,583 boxes. The table also shows the percentages over and short each month.

Month	Total Boxes	Boxes Over	Percent Over
April	11,925	3,342	16.0
May	14,596	6,013	29.0
June	14,586	6,003	28.9
July	12,677	4,094	20.0
August	9,866	1,283	6.0
September	8,677	94	0.1
	<u>72,327</u>	<u>20,829</u>	<u>100.0</u>

Month	Total Boxes	Boxes Under	Percent Under
January	3,175	5,408	26.0
February	3,842	4,741	22.8
March	7,795	788	3.8
October	7,281	1,302	6.3
November	5,014	3,569	17.0
December	3,566	5,021	24.1
	<u>30,673</u>	<u>20,829</u>	<u>100.0</u>

From this chart you will see that our problem is so to dispose of our cheese that the market is at no time glutted. To keep any market active it is necessary to feed it just enough product so that the dealers are always anxious to buy. When this is accomplished to such an extent that we get from 6c to 8c over similar articles elsewhere, it must be conceded that there is some merit in our methods.

I wish to call your attention to the increase shown in production of Tillamook cheese for the years 1910 to 1917 and between 1917 and 1924. You will note from this that our production has principally been during the months of April, May, June, July, August, and September, and further that while the winter production has been in-

creasing, the summer production has been increasing even faster. It has taken considerable finance to finance our holdings, but I figure that it has always paid us.

The market for Tillamook cheese is confined to the Pacific Coast. Of our production last year, Los Angeles and vicinity took 2,590,000 pounds, San Francisco and adjacent territory 2,228,524 pounds, the State of Washington approximately 900,000 pounds, and Oregon 1,667,576 pounds. It should be remembered that the city of Los Angeles and the larger cities of Washington are made up largely of Eastern people and these are all acquainted with Wisconsin cheese. This makes the matter of selling them on Tillamook to the extent of 10c over Wisconsin all the more difficult.

We sell Tillamook cheese to the jobbing trade only and through brokers only in Los Angeles, San Francisco, Seattle and Spokane. No exclusive sales agencies exist in any section, i.e., we sell to all jobbers who have the required financial standing.

The average we receive over Wisconsin has been of steady growth. Up to and including 1918, Tillamook was only slightly higher than Wisconsin; in fact, for six years during the twenty preceding 1918, Wisconsin received an average greater than Tillamook. Since 1918, when our branding method was successfully consummated, the larger spread commenced until, as we said before, it now figures about 6c per pound.

In 1918 we commenced to advertise Tillamook cheese, commencing with \$5,000.00 and increasing the amount until during the last three years the advertising appropriation equals four-tenths cent per pound on each pound of cheese made, and in 1924 was slightly over \$30,000.00. Our advertising consists of newspaper copy, trade papers, and a small amount of specialty work. The newspapers in the six largest cities on the Coast are used as mediums. The advertising consists of attractively-written and illustrated ads, and all feature our slogan, "Look for Tillamook on the Rind." Scenes about the various farms and factories are often depicted. A successful advertising agency has always been employed to assist in mapping out our plan of campaign and to determine the work necessary to get out the best copy.

Economies are effected in the manufacture and sale of the product, and supplies are purchased at wholesale and in car lots whenever possible. Advantages are taken of market conditions, as may be illustrated by the fact that during the war the Association factories never used any substitutes for rennet and also by the fact that some of the factories had several years' supply of cotton on hand at the beginning of the war.

While the volume of Tillamook cheese is comparatively small, the matter of overage we get over other sections figured on last year's production figures from \$500,000.00 to \$600,000.00 per year more for Tillamook farmers than if we took other sections' prices. Taking it the other way, could Wisconsin get Tillamook prices instead of its own, it would get \$25,000,000.00 more for its dairymen than they are

getting now. This would be five per cent interest on \$500,000,000.00 and would perhaps pay five per cent interest on the valuation of all the Wisconsin dairy farms.

We hold the value of our trade-mark at \$5,000,000.00 and consider this a reasonable valuation, as the following will show: We are getting at least 5c a pound on our reputation, and figuring this on 7,000,000 pounds of cheese made annually would bring this to \$350,000.00, being seven per cent interest on \$5,000,000.00. It should be remembered that when we started on our present period of accomplishment, other sections of Oregon and Washington were equally well situated to attain the same results.

You are only slightly interested in our organization, and will state that the various factories are individual corporations organized under the general Oregon laws. Each factory is owned by the farmers living in that community, and not half of them pay dividends on stock. Others pay ten per cent dividends, and in some cases the surplus amounts to as high as eighteen times as much as the par value of the stock.

The Tillamook County Creamery Association is a \$25,000.00 corporation with twenty-five shares divided between the various factories. Each factory has three directors, while the Association has twenty-five, and the Association attendance last year was twenty-two per monthly meeting.

Getting back to our subject of grading and packing, or standardization: We have in our employ a regular inspector who inspects one cheese made out of each vat of each day's milk. He makes the various factories once a week. He sees that the product is up to standard as regards finish, flavor, color and texture. If the cheese maker gets off, he usually sets him right.

We also have a county veterinarian, who tests each cow in the county every year. This is paid for by the county paying a regular salary and 15c per cow paid by the owner for each cow inspected annually.

We also employ a dairy inspector, who inspects the various dairies for cleanliness.

The county employs a county agent, but since ours is mainly a dairying county, his activities are largely centered on matters pertaining to dairying.

I might also say that we have a Calf Club leader, whose work is largely to teach the young idea the lessons pertaining to dairying and inculcating in them a liking for pure-bred stock.

I might say that our success could never have been possible had we not early adopted proper selling methods. During the last few years we have adopted the policy of carrying our surplus stock ourselves rather than dumping same on the market. You will see from this price chart that both during 1923 and 1924, when Wisconsin cheese declined, that our market was held, and this was only possible by our placing our surplus in storage and holding it against later needs. This has often entailed considerable financial assistance, i.e.,

we have had to borrow heavily from the banks. However, it will be conceded by everyone that it has paid us handsomely, as we have always gotten much more for our cheese by storing the surplus than we would have received had we dumped the same on the market. Then, too, we have felt that the proper way to build up a permanent business was to see that our distributors made money on their early purchases, and whenever possible we have held the market up after we have sold large cold-storage holdings. Only once in recent years have we declined in the fall, which was the day after the November election. However, there have been five advances in our market since then and no declines.

You will note by our price chart that there were thirty-five changes in the Wisconsin market last year, while there are only seven in the Tillamook market.

We have in our office charts showing the average price received for Tillamook and Wisconsin during the last twenty-two years. These charts show that prices the first sixteen years were close together. During the twenty years, Wisconsin prices for six several years were greater than ours, three in the early period and three during the late war. The last three were due to the fact that economic conditions were better in the East during the early part of the war.

Our chart shows that commencing with 1919, our prices continued to show a greater spread over Wisconsin each year, viz., 1919, 2½c; 1920, 3c; 1921, 5c; 1922, 6¼c; 1923, 4½c; and 1924, 5.46c. The prices received over cheese made in other Pacific Coast states are fully as great and have grown with the years in about the same ratio.

Our chart shows, also, that the average price of Wisconsin cheese for 1921 to 1924 was approximately two cents higher than the average pre-war prices from 1909 to 1915, both inclusive. Tillamook prices, on the other hand, average close to seven cents higher for the years 1921 to 1924 over the same pre-war period of 1909 to 1915, both inclusive.

Our situation and the results we have obtained are similar to what they would be should you be able to get, for instance, for Sheboygan County cheese from 5c to 6c a pound more than for similar cheese made in other counties of your state. I might add that we are constantly importuned to take other sections of our state in our organization, but for various reasons this has not been done.

It should also be stated that our association now comprises the twenty-three cheese factories of a commercial size in this county, that every factory is owned by the farmers in its immediate vicinity, and that all are co-operatively operated and with the end in view of returning to the producer the maximum amount for his milk. All the other things done are means to this end.

The fact that our dairymen know they are getting all that their product can get under given conditions encourages them to advance. Feeling satisfied, our dairymen have improved their cows, improved their farms and erected modern dwellings and barns. The report of cow testing associations published in "Hoard's Dairyman" of Sept.

1, 1922, shows that of 2,617 cows in one of our testing associations, 890 cows produced over 40 pounds of fat during July. The psychological effect upon any given set of men when they know they are getting all that their product ought to bring is greater than the mere monetary value thereof, renewed efforts are put forward to improve conditions in their craft.

Thus it is that our dairymen, hemmed in as they are by high freight rates and high feed (both hay and feed having to be shipped here in large quantities, corn, oats, and barley from the Middle West, alfalfa from Eastern Oregon and Eastern Washington), are making greater advances than many communities more favorably situated and closer to primary markets for hay, grain, and feed.

The physical value of the cheese factories, all of which came out of operations, total \$422,355.91; surplus funds were \$202,705.99.

The average received over Wisconsin prices last year amounted to approximately \$570,000.00, or over twice the cost of manufacturing and selling our cheese.

You are interested in knowing what our cheese makers receive for their services. The one vat factories pay a minimum of \$150.00 a month; the two vats, \$175.00; and the larger factories up to \$205.00 a month. The cheese makers are also furnished free a residence, wood, water, milk, and lights. These are conservatively valued at \$50.00 a month, so that it might be said that the salaries range from \$200.00 to \$250.00 a month.

Our average making cost is 4c a pound. Out of this there is spent four-tenths cent for advertising and the office expenses, inspection, telephone, telegraph, and directors' per diem total approximately another four-tenths cent. The actual costs of making cheese are about 2¾c a pound. The accumulations of the various factories have all come out of the making funds.

- I was unable to ascertain just the extent or the scope of business you wished me to go into because of the distance between Oregon and Wisconsin and the time it requires to get an answer to an inquiry. I assumed that you would be interested in getting our slant of your problem. On account of the lack of intimate knowledge of your exact conditions, this has been difficult. I believe, however, that you will welcome our ideas as to what would be necessary to put the cheese industry of Wisconsin on a proper footing.

Upon a visit to some of the cheese sections of Wisconsin three years ago, I was forcibly struck with the lack of organization in the cheese industry. I understood that most of the factories were in the hands of the cheese makers and where owned by the farmers were usually leased to the cheese makers who operate the same upon an agreed cost. In our section each factory is owned by the farmers residing in that community, although in former years many of the factories were privately owned. It always seemed to us that our communities were best able to put up the kind of factories we wanted because if the cheese maker attempted to put up a factory costing from

\$10,000.00 to \$20,000.00, there would be a great deal of dissension as many people would feel that he was making too much money. Many of our factories cost from \$15,000.00 to \$20,000.00 and we are just now completing a make room on The Tillamook Creamery in Tillamook City, which is 40 ft. by 96 ft., and will cost close to \$12,000.00 before it is completed.

When I first became connected with the cheese industry, we had nothing to guide us but we felt that there was no royal road to success and the only way to do was to start from the bottom and work up. As stated before, it took several years to improve the quality of Tillamook cheese and imbue the cheese makers with the idea of making the best cheese they could possibly make and to make the farmers see that it was necessary to bring the best milk that could be maintained, before we adopted the methods which afterward gave us our good prices. Without the co-operation of the cheese makers and farmers, it would have been folly to attempt to advertise Tillamook cheese and we believe that without advertising our cheese and storing the surplus, we would have been unable to obtain our price.

It seems to me that the only way things can be improved in Wisconsin is along the lines adopted by us. All of these call for hard work. However, given correct principles, all else is only a matter of detail. From our experience it would seem that three things are necessary to success, and these in their order are as follows:

1. Organization. There should be some sort of organization of the various communities so that market control might be had of the cheese produced. Simply standardizing the cheese and selling it for what it will bring at auction would not get you very far. It is absolutely necessary to have unified control of the selling of the cheese, if Wisconsin is to receive the most it is possible to get for its cheese. It would be necessary to store vast quantities of cheese during the summer months, or the season of flush production, which is often the season of least consumption.

We have had as much as ten per cent of our cheese in storage at a time and I believe that your problem would be similar to ours. I will state here, however, that large quantities of Tillamook cheese are stored by dealers in the various Pacific Coast cities, especially Los Angeles, San Francisco, and Seattle. I wish to state that when we sell a lot of cheese for storage purposes in the spring, we always try to hold up our market and advance the same during the fall months so that the people who buy from us may make a profit, if at all possible, because we feel that any business proposition should show a profit to the buyer as well as to the seller. For that reason, I call your attention again to the fact that during the months shown on this chart for both 1923 and 1924, we held up our market on Tillamook cheese during times when Wisconsin had severe declines. We felt that it would be better for us to suffer a temporary loss than to have the people who bought our cheese earlier in the year take a loss. By doing this, we have experienced no difficulty in selling large quantities of cheese during the season of heavy production.

2. Standardization. Standardization is absolutely necessary if Wisconsin expects to get what it should for its cheese. This could be done by organizing the various communities and putting the various sections under the control of the inspectors in that a uniform article of cheese could be made. At first, we encountered some resentment from some of the cheese makers because they felt that they were as able to make cheese as our inspector, but it was not long before they found that they had less trouble by following the rules of the inspector than they had encountered before. If anything went wrong, they were not to blame. I might state again that last year our production of second grade cheese was less than half of one per cent of the total production.

In order to standardize your cheese, it is necessary to have the cooperation of the dairyman. He must know that when he brings better milk he is to get the direct benefit. We have wonderful cooperation from our dairymen in this respect. Cheese must be made of a uniform grade. We can place cheese from any or all our factories on a table, and no one can tell in which factory a cheese was made. Standardization also covers branding of the cheese. It should be a privilege to put the name "Wisconsin" on a cheese and any factory and cheese made should qualify before being permitted to use the name or brand adopted. In your state branding was once compulsory. It appears to us that it should be a privilege much sought after by the cheese makers.

3. Modern selling methods. This presupposes an up-to-date selling organization. Tab must be kept on general conditions in all lines, production of dairy products in various states, and especially on the cheese markets. Any association controlling the cheese market of Wisconsin is large enough to control the markets of cheese of this country. Besides brokers in the various large cities, storage houses for cheese in the various parts of the state, possibly to the number of fifteen, it would be necessary to have cheese stored in the various large cities of the country. And after the product is standardized it would be in order to advertise the brand to the consumer. This is necessary in this day and age. I know of no product that is not advertised in the country today that could be advertised to better advantage than Wisconsin cheese after it is standardized. The United States is not using nearly the cheese it should and this is because too much of the cheese produced is of questionable quality.

Modern selling methods necessarily include the matter of storage, that proposition of carrying cheese from the time of much production to that of slack production. The time of heavy production is also in many cases the time of little consumption, since not much cheese is eaten during the hot weather. We would never have been able to hold our market with only one decline during twenty-two months, had we not adopted the storage method of holding our surplus. Advertising alone would not have sold all of our cheese as produced. On the other hand, a reasonable storage helps the quality of cheese.

It would not be necessary for any organization controlling the

marketing problem to have absolute control of all of the cheese made in Wisconsin. Fifty per cent under one control could control the market absolutely with the exception that the law of supply and demand would still be working if the market got too high. Any arbitrary stand taken by a large organization would avail nothing, if it put the price too high, because people would cease buying under those circumstances.

I do not know your exact conditions and without a full survey of the same, it would be difficult to attempt to work out a solution. The cheese business of Wisconsin is so vast and possesses such ramifications over your wonderful state that it would take considerable preliminary work to work out a solution. However, since I have been asked what Wisconsin might learn from Tillamook, I wish to re-iterate again the following:

First, that Tillamook has been successful because it learned first to organize itself into one complete whole, and has sold every pound of cheese produced in the county under one head for many years.

Second, that it has standardized its cheese and is, today, placing upon a discriminating market a more uniform article than we think is produced in any other section of the country.

Third, that we have adopted modern selling methods, such as advertising our goods, storing our surplus and feeding the same to the markets as needed.

Taking the Tillamook proposition and its success as the first premise, and taking as the second premise, that a larger business can succeed by following substantially the lines laid out by a smaller successful business, it seems to me that it would be necessary:

1st. That the cheese makers and diarmen of Wisconsin unite their forces to the end that market control might be had of the cheese produced.

2nd. That Wisconsin cheese be standardized.

3rd. That modern selling methods be adopted.

1st. The first proposition is not insurmountable, because this association, through its members, could virtually control the Wisconsin cheese markets if you wished to unite for that purpose.

2nd. Whenever the first proposition is attained, the second would be comparatively easy of attainment. You make in Wisconsin some of the finest cheese made anywhere during certain seasons of the year. It would be a comparatively easy matter to standardize your cheese if the co-operation of the cheese makers and diarmen were obtained, and each would certainly profit greatly thereby.

One of the greatest stumbling blocks toward standardization you have is the making of fodder cheese. We have this competition to meet on the Pacific Coast each year. The cheese is sold for what it will bring. Often, it seems to me, it would pay the factory to separate the milk and sell the cream, rather than injure your good name by making poor cheese and letting the same go out to the world under your name. Large quantities of winter or fodder cheese go to the consumer in the original package, and this is no credit to you.

The processed cheese manufacturers and grinders are getting your best grass cheese and their business is growing by leaps and bounds. Could not a lot of this be retained if you used only your best milk and paid every attention to quality? A quality article almost sells itself, and a good name is valued above rubies.

3rd. The united sale of Wisconsin cheese is a vast undertaking, but it is not impossible. If built upon a proper foundation, it would be simply following along the lines of many another successful business. As stated before, given correct principles, all else is only a matter of detail. As a tentative proposition and without a full survey of your exact conditions, the following is given as a basis for complete control of Wisconsin cheese making and market control:

1,000 cheese factories.

150,000,000 lbs. cheese handled annually.

50,000,000 lbs. cheese stored annually.

12,500,000 lbs. cheese stored per average month.

Operating probably 25 local storages.

Carrying stocks in 30 cities.

Brokers in 75 cities.

\$5,000,000.00 value of cheese factories.

\$5,000,000.00 operating capital required.

1c per pound for cheese handled by association, this to include advertising, operating costs of storages, organizing, inspecting and grading, selling costs, etc.

Distance lends enchantment to the view. To us, away off on the shores of the mighty Pacific, your problem does not seem insurmountable. To us, it appears that the matter of obtaining several million dollars more for Wisconsin cheese than is now obtained rests entirely with you cheese makers and the dairymen of Wisconsin. We firmly believe that such results can be obtained if the principles laid down are carried out.

Organization will give the proper market control, standardization will give you the uniform quality, and modern selling methods will give you the extra price. Our best wishes will be with you always.

The following figures taken from our last year's annual report will be of interest:

66,801,174 lbs. milk received.

7,386,100 lbs. cheese received.

Average yield, 11.05 lbs. cheese per 100 lb. milk.

\$1,855,354.43 received for cheese.

\$48,467.97 received from whey cream and whey butter.

Average test for the year, 4.18 per cent.

Average yield per pound of butterfat, 2.64 lbs. cheese.

Average price received for cheese, 24.46c.

Average price paid patrons for butterfat, 55.17c.

Average price paid patrons per 100 lbs. of milk, \$2.31.

The following is taken from our October, 1925:

The Tillamook Creamery received 6,333,411 lbs. of milk, which contained 29,601 lbs. butterfat, an average test of 4.67 per cent. The cheese sold for \$21,828.58 and \$1,956.80 was received for whey butterfat. Patrons were paid 70c for butterfat net, or an average of \$3.27 per 100 lbs.

The Holstein Creamery received 510,963 lbs. milk, containing 22,400 lbs. butterfat, an average test of 4.38. Cheese sold for \$16,721.48 and \$776.31 was received for whey cream. Patrons were paid 70c for butterfat.

The Maple Leaf Creamery received 489,850 lbs. of milk, which contained 22,506 lbs. of butterfat at an average test of 4.59. Cheese sold for \$16,523.27 and \$883.62 was received for whey cream. Patrons are paid 70c for butterfat, or an average of \$3.21 per 100 lbs.

Due to the high butterfat contents, the yield was 12.36 lbs. of cheese per 100 lbs. of milk at the Tillamook Creamery and 12.02 lbs. of cheese at the Maple Leaf Creamery.

DISCUSSION

MR. CLAUSSEN: Now, gentlemen, as I said before, I am not Mr. Haberlach, and perhaps I can't answer your questions in the same manner that he would, but, if any of you have any questions regarding the Tillamook industry that you would like to ask, I would surely be glad to attempt at least to answer them.

MR. PAULY: Mr. Claussen, supposing we analyze this chart over on this side here (indicating).

MR. CLAUSSEN: Yes, sir.

MR. PAULY: You take the 1924 prices.

MR. CLAUSSEN: Yes, sir.

MR. PAULY: Which show a difference of \$5.06 a cwt.

MR. CLAUSSEN: Yes.

MR. PAULY: In the first place, you charge your farmers four cents for making.

MR. CLAUSSEN: Absolutely; yes, sir.

MR. PAULY: We only charge three; which will cut down that figure \$1.00 a hundred to begin with, won't it?

MR. CLAUSSEN: I presume so.

MR. PAULY: Yes, sir; because your farmers get so much less for their milk. Now, you also make a statement that all your cheese is marketed on the Pacific coast.

MR. CLAUSSEN: Yes, sir.

MR. PAULY: It costs us \$4.00 a hundred to ship cheese from here to Portland. Well now, if our price is 22c, your price in Portland should be 26c to be on the same basis with our price.

MR. CLAUSSEN: Our price in Portland today—

MR. PAULY: No, but answer my question; isn't that the fact?

MR. CLAUSSEN: Yes; at this time; yes, sir.

MR. PAULY: All right. Now, when we compete with you on the west coast, and our price is 22c, our goods cost the merchant in Portland 26c, don't they?

MR. CLAUSSEN: Yes, sir.

MR. PAULY: And you are selling your cheese—That would bring that figure (indicating) down to zero, wouldn't it, to start with?

MR. CLAUSSEN: Well, now, you are taking our last year's figures, Mr. Pauly.

MR. PAULY: Yes; I was taking last year's.

MR. CLAUSSEN: And today's prices of your Wisconsin cheese.

MR. PAULY: No. I am just taking this figure up here (indicating) \$5.16, and deducting one cent as the difference in the making price.

MR. CLAUSSEN: You shouldn't deduct that. That has nothing to do with the selling price.

MR. PAULY: It hasn't?

MR. CLAUSSEN: Not over there (indicating).

MR. PAULY: The farmers get so much less for it to begin with.

MR. MACKLIN: Mr. Chairman, the farmers of Wisconsin got \$1.52 to \$1.73 last year, in their vats, while Tillamook farmers got \$1.83; does that answer the question?

MR. PAULY: That does not answer it at all. It is a fact that the people out there got 4c a hundred more, but they got it because they had no competition. When we compete with Portland, they are not going to buy cheese in Wisconsin and pay us 26c for it when they can buy it for 26c out there. Now, isn't that a fact?

MR. CLAUSSEN: All right. When you have finished, Mr. Pauly, I would like to answer you.

MR. PAULY: All right. That brings that figure down there (indicating), to the same basis as our prices, except that your farmer got a great deal more for his milk, but Wisconsin prices did not compete at that. If we want to sell cheese in Portland today, and their price is 26c, the best we can get would be 22c because the merchant out there pays 4c freight. And I don't dispute your statement, Mr. Macklin that the farmers got more money, but it is because of their isolation out there and because our competition wasn't able to cut in on them because of the four cents difference in transportation charge. I wish the speaker had given us the figures for 1925 and they might better reflect the entire situation. What did you get for your May and June cheese this year?

MR. CLAUSSEN: I couldn't say.

MR. PAULY: 23c?

MR. CLAUSSEN: 23c; yes, sir.

MR. PAULY: And didn't you sell a lot of cheese for 22c?

MR. CLAUSSEN: We sold some.

MR. PAULY: And our Wisconsin prices this year were 22c. (Applause) And isn't it a fact that when you raised your price this fall to 26 and 27c that you were still delivering cheese at 23c?

MR. CLAUSSEN: To some extent, yes, sir; that happens every year.

MR. PAULY: It happens every year. Now, then, the idea of coming out here and trying to make these people believe that an actual difference of \$5.00 a hundred existed is an outrage (Applause).

MR. CLAUSSEN: Now, if I might answer that to some extent; I can't answer it completely, but I would like to say this: Mr. Pauly is basing his figures on the Portland market, where we are paying $\frac{1}{4}$ or 28/100 cents per pound freight rate, or, rather, the dealers are paying it. Those prices are all f.o.b. Tillamook. However, I want you to remember that we are also competing with Wisconsin cheese in San Francisco and in Los Angeles where the dealer has to pay a considerably larger freight on Tillamook cheese than he does have

to pay in Portland. So that when Mr. Pauly says that this whole business is reflected in the difference in freight rate, he is not absolutely correct, because our market is based upon the prices that we can get in the city of Los Angeles, for instance. As I read you this afternoon, probably 60% or more of our cheese is marketed in the state of California, in San Francisco and Los Angeles. The balance, a good share of it, in Seattle and in Portland. Now, in Los Angeles and in San Francisco, our differential in favor of Tillamook County cheese is not nearly so great as it is from here to Portland. Your freight rate to Los Angeles is the same as the rate to Portland.

A MEMBER: Exactly.

MR. CLAUSSEN: Our rate to Portland is quite a bit different than that to Los Angeles.

THE MEMBER: Do you ship by boat to Los Angeles?

MR. CLAUSSEN: We ship by rail exclusively in refrigerator cars.

MR. PAULY: How much do you think you could get for your cheese, competing with Wisconsin, in the Texas market?

MR. CLAUSSEN: I don't know what the freight rates are to Texas at this time. We have never gone into Texas.

MR. PAULY: The big thing on this proposition is entirely a matter of freight rates, because of our high freight rates out to the west coast, and our markets here, our markets based on the milk industry in the state of Wisconsin. If we had, for example, a 30c price on cheese, that would mean a 75c price on butter. We would drive every creamery out of the state of Wisconsin. We would drive a lot of condensers out of the state, and that is an absolute impossibility. Our cheese prices are based on the prices for milk paid by the condensers and creameries, because of that active competition, and the butter interests in the state of Wisconsin are quite large, and for that reason you have these fluctuations in the market. Furthermore, we produce in the state of Wisconsin more cheese in one week than you produce the entire year (Applause).

MR. CLAUSSEN: I will grant that statement that we produce about as much cheese in a year as you do in a week. There is no argument on that.

MR. PAULY: I will say, Mr. Claussen is entitled to a great deal of credit, but he is mistaken in some of the statements he makes because of the differential that exists by reason of the high freight rates to the west coast.

(Mr. Michels then touched upon the way the Tillamook industry has benefited by modern organization methods, that by doing business in a modern, cooperative, business-like way they had shown an increase in price from 2½c to 6.45 c during the last few years.)

(Mr. Pauly then stated that at the time Tillamook was getting so much less than Wisconsin, their product was very scarce and of an inferior grade, and remained so until Mr. Haberlach got out there and improved it; and he also stated that at the time, the factories out there had no selling organization, and no dealers, and they were trying to make cheese and market it too, and were shipping their product willy-nilly.)

(Mr. Michels then spoke about the necessity of Wisconsin paying the farmers an adequate price for good milk, and turning out a quality product, as well as the cheese makers to work in close cooperation constantly, which he said was the reason Tillamook had made such rapid strides in later years.)

(Mr. Pauly then stated that the Wisconsin makers encountered a more difficult situation in the way of condenser and creamery competition; and that it was unfair to try to compare the state of Wis-

consin with one county in the extreme west, and in his opinion the Wisconsin prices this year, averaging around 22½c could not very well be increased without overcoming almost insurmountable difficulties.)

(Mr. Michels then stated that the only point he was endeavoring to stress was that when any group, like the Tillamook makers, could make the improvement they had made, through organization and the adoption of business-like methods, they deserved a great deal of credit for their accomplishment.)

(Mr. Pauly said he wished Mr. Haberlach were present so as to explain why Tillamook sold cheese, commencing on April 27th up to June 29th, at 23c and 22c, which was 5c below Wisconsin prices. He stated that there was no necessity for it, especially with the wonderful organization they have developed in Tillamook county.)

(Mr. Michels then answered that there were many slips between the cup and the lip, and the way to judge the accomplishment of any individual or organization is the record of their achievement throughout the period of at least a year; and that the charts exhibited show a good record, and that the fact that Tillamook cheese is standardized while Wisconsin's isn't, helps the Tillamook industry.)

(Mr. Pauly then stated that Wisconsin cheese was standardized, that they have a grading system, and that the Tillamook charts were misleading, on account of the matter of freight rate.)

(Mr. Michels stated that that did not properly enter into it. That that was comparing Tillamook that was with what it is.)

(The discussion follows:)

MR. PAULY: Oh, no. This man brought out persistently throughout his entire paper that they were getting from 5 to 10c more per pound for their cheese.

MR. CLAUSSEN: An average of 6c.

MR. MICHELS: Well, Tillamook has beaten its own record by 6c, and if we would do as well by our cheese industry as they have done by theirs we could take our hats off to ourselves.

A VOICE: We have done better.

MR. KIRKPATRICK: (To Mr. Claussen) Tell the cheese makers how long they carry those cheese on the shelves before they are marketed.

MR. CLAUSSEN: Why, our cheese is shipped within 20 days after it is made.

MR. KIRKPATRICK: Yes; we have been shipping ours 3 days from the hoop. And New Zealand cheese is kept on the shelves ten days and then sent down to the ports, put into a cooler ten days, and then graded, and shipped to London, and they bring 106 shillings per cwt., 2c a pound less than we are getting here for our cheese right now.

MR. CLAUSSEN: We do not ship any cheese until it has been inspected in the factory. That inspection is not made for a week or more after the cheese is made.

MR. KIRKPATRICK: At what age?

MR. CLAUSSEN: A week or ten days.

A MEMBER: As I understand, you are operating 23 factories. Do you expect to operate more factories or increase that production some time in the future?

MR. CLAUSSEN: Well, the increase will only come as the country improves. There are other communities producing cheese out there. The natural sequence is that there is more production of cheese going on in that section of the country year by year.

THE MEMBER: Do you believe that the time is fast approaching when there will be a surplus over the demand?

MR. CLAUSSEN: Of our product, do you mean?

THE MEMBER: Of your product and other products on the Pacific coast.

MR. CLAUSSEN: No, I do not.

A MEMBER: Have you ever marketed any of your goods as far east as Chicago or New York?

MR. CLAUSSEN: No, sir; none.

THE MEMBER: Won't the situation of a possible overproduction bring about a condition like we have here, where you may have to seek the markets of the world to dispose of your goods?

MR. CLAUSSEN: Not in Tillamook county, because our production is too small a factor in the industry to get so far. You say you are eliminated from the Pacific coast markets, but you are not. We see Wisconsin cheese and New York cheese in all of the markets on the coast, New York cheese now perhaps to a greater extent than Wisconsin cheese. We are not by any means furnishing all of the cheese that is produced on the Pacific coast.

MR. CHAS. VOIGT: Isn't it a fact, or have I been wrongly informed; isn't there some organization north or south of Tillamook that have asked to come into the Tillamook organization and were refused admittance? How about it?

MR. CLAUSSEN: Not officially. Mr. Haberlach has been approached unofficially on one occasion to join the cheese makers of Goose Bay County, which is about 100 miles south of us. He declined the offer which was made him, and it has never been repeated. I don't believe the offer came from any official source.

MR. VOIGT: What was the reason for the refusal?

MR. CLAUSSEN: Why, he could not see where he could do it with profit, to tell the truth about it, to himself or anybody else.

MR. F. E. CORNEIA: Gentlemen, it is quarter of six. I don't know how you men feel. I am quite hungry. I am inclined to go home. I don't think anything would be gained by prolonging any argument here. I thank you for the courtesy of putting my name on the program, but I have nothing to say. Thank you.

MR. BRINKMAN: I take exception to the statement made by the gentleman that early in the history of Tillamook, there was no difference between Wisconsin and the coast at that time, the rate was the same. That is an absolute mistake. The freight rate, the carload rate on cheese some years ago, I don't know how long back, was \$2.00 per cwt., and \$2.60 L. C. L., and today the rate is \$3.00 a carload, plus refrigerating charges, and the L. C. L. rate is \$4.43.

MR. CLAUSSEN: I would like to say in connection with that that our carload rate to Los Angeles is \$1.54½.

MR. BRINKMAN: I just wanted to make that correction, because I was afraid the impression was gained that there was no difference.

MR. PAULY: Mr. Claussen, on account of the large quantity of feed that you are importing into your section every year, have you any idea what it costs your farmers to produce this milk?

MR. CLAUSSEN: I haven't any figures on that.

MR. PAULY: You admit, though, that Mr. Haberlach is bringing in a good deal of feed from the middle west?

MR. CLAUSSEN: I will say this: I think the production costs are greater than here, and the net rates to the farmer might not be so

big as Prof. Macklin pointed out, that is, when they get \$2.50, compared with your \$1.75 or so.

MR. PAULY: Possibly there might not be any difference in the net rate.

SWISS, BRICK AND LIMBURGER SESSION

Friday, December 11th, 1925

MR. JACOB GEMPELER, JR., as Chairman

CHAIRMAN GEMPELER: We will call this meeting to order, and, as you will notice by the program, our program for today consists of discussions for the foreign type cheese industry. Now, although we only represent a small percentage of the total production of the cheese in the state, we nevertheless produce 80% of the Swiss cheese in the United States. So, in conducting our discussions we will try and keep on the subject, and will also try and keep the discussion in the English language, so a record can be made of the different discussions. However, if anyone here would rather talk in the Swiss language, he is permitted to do so.

Now, the first thing on the program this morning is by a man who is a veteran in the merchandising of Swiss Cheese, in all foreign types, as well as a practical cheese maker, and anything that he can tell you along the line of foreign cheese is based upon long years of experience and knowledge.

A DEALERS ADVICE TO SWISS CHEESE MAKERS

By JOSEPH ACKERMAN, Monroe, Wisconsin

Mr. Chairman, Ladies and Gentlemen: What I have to say isn't a great deal, and is very much along the same lines as has been threshed out for almost a half a century. The only trouble that we find is that things are not followed out according to instructions, and more attention should be paid to the manufacturing of the foreign type of cheese in different ways. If I accuse anybody wrongfully I want to hear from them after I am through.

In order that the situation is handled in a most profitable manner to all parties interested, it is of great importance that the farmer, the cheese maker and the dealers work closely together. The farmer must bring good milk to the factory, and must be extremely careful in feeding his cows, also in milking at regular hours and in keeping his utensils clean. The cheese maker must also try to do everything in his power to handle the milk to his best knowledge and ability to produce a good cheese. Practical and theoretical knowledge is necessary to accomplish this end.

In delivering the milk, whether once or twice a day it is of great importance, that not too much time be allowed to elapse from the first to the last delivery, and the quicker the process of manufacturing can start the better, before allowing the milk to become too ripe.

When the cheese maker begins his work, careful attention is necessary in developing the curd until same is ready to be taken out of the kettle, from there it goes into the press, and must be turned at the required hours until the whey is out of it. Then it is removed into the cellar and placed in salt brine, where it is kept about 48 hours, from there it is placed on shelves. When new it should receive proper care, for the first 10 days it should be salted and turned daily, after that time every two days. Each loaf should be watched closely and salted, some more, and some less, according to how fast or how slowly the eye formation takes place. It is also very necessary to change lids whenever they become damp, in order to build a good rind, if this is done the cheese is not so apt to crack and become damaged.

Swiss cheese should be kept on shelves and salted at least two months, longer would be beneficial, as salt is very necessary and I might state is the life of the cheese. It helps to develop a better flavor, and after it has sufficient salt it can then be placed into tubs, and if there is no immediate market for it, and it must be placed in warehouses it will not deteriorate, instead it becomes better.

The writer had experience some years ago, when he was forced to ship cheese to a Chicago warehouse on account of a dull market, this cheese was kept in storage for 16 months before being sold, and to the surprise of everyone it came out of the tubs, as if it had been placed in them the day before, clean with sound and bright rinds, and the salt-water dripping from the eyes when plugged. This cheese was kept in the factory until it was about 6 months old. I am sorry to say that it is quite different today, as I have since found the opposite. If the cheese is placed in storage for a month or six weeks it already becomes dished, the round eyes become flat and often times rind-rotten, and is therefore an unsatisfactory article on the market. What is the cause of this?

A large per cent of the cheese makers do not salt their cheese properly, and many of them do not own a cheese brush anymore, which in my cheese making days was a very necessary tool. It required about 30 minutes of time at least twice a day to brush this cheese, so that it could be turned every other day and become evenly dry on the surface, and I therefore do not believe in the new methods.

I realize in many instances that the cellar room is positively too small to cure the cheese sufficiently, before it must be removed, but I ask in all sincerity that you at least do all you can while the cheese is yet in your possession.

We must make every effort to produce the best goods possible, and cure it as well as can be done under present conditions, before it enters into the channels for consumption. If the consumer buys it and finds it palatable they will return for more, and the demand will increase, which will cause higher prices and better returns for our labor, and the work has not been in vain.

To help the industry it is of great importance, that the farmers should take enough interest in building larger curing rooms, and by so doing the situation can be handled in a satisfactory manner. Often times if the market is stagnant, they would not be forced to sell their product under abnormal conditions and the additional cellar space would reimburse them ten-fold.

We have many good cheese makers who come to this country from Switzerland, where they have learned their trade from the most successful and experienced men, however they are handicapped in doing their work on account of insufficient cellar room. Realizing that when the cellar is filled to capacity the cheese must go into the market, they are forced to open up the cheese too quickly, and by so doing it does not turn out as well. The cheese will set too many eyes to be termed Fancy or No. 1 Swiss.

We also have other problems to figure with, the State of Ohio is trying hard to take the honors away from our State for quality, as well as other states in the Union, and we must make every effort to maintain our reputation.

Another serious matter is the large importation of Swiss cheese from almost every country on the earth, and by our determination and efforts for quality we can keep much of this cheese from our shores. I am a firm believer in clarifying, and since this new method has been in operation, I find that these factories produce a larger percentage of Fancy Swiss than the ones who still hold to the old methods, and I sincerely hope that the farmers will all be convinced in time, to join in this good work.

The dealer should be very careful on his part, not to buy and remove any cheese from the factories until it is a finished product. In this way we can place a good article on the market which would give uniform satisfaction. If they refuse to take on goods that are not cured, other methods would follow and larger curing rooms would have to be erected. If the farmers would refuse to do this, and would find themselves compelled to market their cheese they would soon come to the conclusion of what the trade demands. No one knows this as well as the dealer, as he comes in constant contact with conditions on both ends, and is familiar with the situation.

Let us work in harmony together, as this is the only way to gain results. I have not mentioned any other cheese than the round Swiss, but block cheese should be treated much on the same lines, and by so doing good results can be obtained.

In the manufacturing of brick cheese, all I wish to impress very strongly, is uniform size—smooth clean goods of good flavor and texture.

Limburger is not manufactured in such large quantities, and I find the quality very good with small exception. Uniform size is also very essential in this class of cheese.

I make a strong plea to all cheese makers not to fail to attend the Dairy School at Madison, under the able and very capable man-

agement of Professor Sammis, as it will prove of great benefit to all who attend. I thank you.

CHAIRMAN GEMPELER: The next thing on the program is "Swiss and Brick Cheese Marketing" by Mr. Frank Schujahn of Fond du Lac, but he is unavoidably detained, and I understand he has not sent in any papers. Of course, if the paper shows up before we get through with this program we will read it.

So we will go on with the next paper on the program, by the so-called veteran in that particular process, a man that started in when this process was still in its infancy down there in our territory, and he is a man that can give you a lot of good information.

WHEN TO USE CLARIFIERS AND RESULTS IN 1925

By ADOLPH ALPLANALP, of Monroe

Mr. Chairman, Ladies and Gentlemen: The subject which I am asked to discuss today is one which has been an important factor in the development of a high quality of Swiss cheese at our factory. We are running a large volume of milk,—probably larger than any other factory in the county, and it is the only factory that is manufacturing Swiss cheese out of milk delivered once a day.

Since we are making Swiss cheese under these conditions, it therefore is necessary that the utmost care be given the milk from the time it leaves the cow until it arrives at the factory and also after we receive it.

Different methods are employed in making Swiss cheese. I have, at different times, tried to make Swiss cheese out of this milk delivered once a day without clarifying, and in each and every case they turned out to be strictly Number Two cheese, so the clarifier has become an absolute necessity in our factory in order to produce a high quality of Swiss cheese.

However, we have not been able to accomplish these results due to clarifying alone, although a lot of people may think that the clarifying is the important part of making a good Swiss cheese.

In order that clarification is successful, it is necessary that the milk be cooled as well as aerated, as soon as it leaves the cow. In other words, each one of our patrons is equipped with a milk cooler with running water. The milk is cooled immediately from the point of animal heat down to sixty degrees Fahrenheit. The night's milk is all kept in well-equipped, well-ventilated, clean milk houses with cool water. The morning's milk is also run over the cooler and kept in the cold water in the milk house for a short time before it is delivered to the factory.

We have also found it very practical, during the very hot season, upon removing the milk from the tanks to the wagons, to take a canvas and wet it in cold water, throwing this canvas over the cans after they are on the wagon and throwing a dry canvas over this. You would be surprised how little variation there is in the temperature of

this milk even though it may take an hour or more before the milk is delivered to the factory.

I find that in using these methods the cheese turns out with a firmer body, of good texture, than can always be obtained by using the old methods.

In conclusion I would say that good results at a Swiss cheese factory are not due entirely to clarifiers and good equipment. They are due mainly to the cooperation between the farmers and the cheese maker in taking care of the milk properly from the time it leaves the cow until the cheese is taken out of the kettle.

Last but not least, the success of our factory is a great deal due to the splendid cooperation given by Professor Hastings, bacteriologist of the Department of Agriculture at Madison, who took care of me in furnishing the Bulgarian starter and cultures which he sent me regularly every two weeks. (Applause)

DISCUSSION

A MEMBER: Do the patrons take their whey back in the same cans they bring their milk in?

MR. ALPLANALP: No. They have a different set of cans. The cans are all washed at the factory after we receive the milk.

THE MEMBER: You consider that a very important part of the program, don't you?

MR. ALPLANALP: It is. It won't do any good to wash the cans if they take the whey back in it.

THE MEMBER: But I mean the taking of the whey back in separate cans is very essential?

MR. ALPLANALP: It is.

A MEMBER: I would like to ask about what temperature the milk comes into the plant?

MR. ALPLANALP: Well, at about between 60 and 70. It shouldn't go over 70. We have sent milk back already where it isn't cooled properly in the summer.

CHAIRMAN GEMPELER: Any further questions? If not, the next thing on the program is a general discussion, "Is Bulgarian Starter Better Than Sauer? Is Milk or Whey Better for Growing Bulgarian Starter?" And we have reports here from 18 factories. Before we get into the general discussion, we will go over some of these reports.

Reports were received from John Sager, Mt. Horeb, Wis.; John Schmid, Stockton, Ill.; Alfred Kunz, Bridgeport, Wis.; Nick Krebsbach, Marshfield, Wis.; Joseph Lauber, Barneveld, Wis.; Adolph Alplanalp, Monroe, Wis.; Carl Minnig, Mazomanie, Wis.; E. Schuerch, M. Baumgartner, Monroe; Martin Suter, Blanchardville; Gottlieb Werren, Blue Mounds; Paul Hilfiker, Verona; Walter Scheidegger, Riley; John Zukirchen, Monroe; John Frey, Blanchardville; Fred Locher, Argyle; Val. Zibung, Argyle; Werner Wanzenried, Fred Wuethrich, Brodhead; Willy Ernst, Darlington; John Blickenstorfer, South Wayne.

QUESTION: How long have you used Bulgarian starter?

ANSWER: 1 maker has used it 4 years, 4 for 3 years, 5 for 2 years, 4 for 1 year, 3 for several months, 2 for short trials, and 2 not at all.

QUESTION: Has it helped you?

ANSWERS: "When the milk has .18-20 acidity, the *Bulgaricus* in milk gives better results than whey starter or sauer."

"I always get good results with it."

"I got better cheese than last year", using the starter this year.

"I like it very much."

"I would not like to work any more without *Bulgaricus* starter."

"Last year, this factory sold 53 loaves stinker cheese, this year only 1 loaf. This year, I began using the *Bulgaricus* in June. I made

	Round Swiss		Block Swiss	
	No. 1	No. 2	No. 1	No. 2
May -----	3	27	57	191
June -----	42	18	103	56
July -----	39	22	118	61
Aug. -----	48	14	143	18

"Yes, I would not like to be without it."

"Yes, in Spring and Fall, for last 2 years."

"Yes, it is a great help for any cheese maker."

12 makers answered "Yes"; 1 maker answered "No".

QUESTION: Does it make better cheese than sauer?

17 said "Yes", 1 said "No", 5 made no reply to this.

QUESTION: Do you grow *Bulgaricus* in milk or in whey?

11 used whey; 3 used milk. 1 used both. 6 no report. 1 used milk in spring, and whey in summer.

QUESTION: Do you recommend it to other makers?

2 replied "No". 14 said "Yes". 6 no answer.

QUESTION: Have you ever used the Methylene Blue test? Did it help you get better milk?

9 answered "yes" to both questions. 7 had never used it. 5 made no reply. 1 said "The methylene blue test, I favor above all others, because it shows me in the shortest time with what kind of milk I have to figure. I have made all the season round Swiss and block cheese, so that I had a good chance by using the Methylene blue test to use the better milk for the round cheese.

MR. HARDELL: In Ohio we used skimmed milk all together in making the starter. At times we have used whole milk but the cream generally rises to the top and it isn't very good. It is kind of thick after heating, and when we do use whole milk we generally skim off the cream that happens to come to the top, and that is the only way I would advise, if you use whole milk.

MR. FRANK BRANDT: I used a whey starter last year, and this year and have got good results. I never used a milk starter and never used a *Bulgaricus*, and have as good a cheese as anybody has as far as the buyers tell me. So I think I shall do it yet for my part.

CHAIRMAN GEMPELER: There is a man that won second premium here at this Convention for Swiss cheese and is still using the old method. Has anyone else any questions along this line of *Bulgaricus* Starter?

MR. ARMANDO SANCHEZ: Mr. Chairman, I wish to make a statement in this connection before we leave the subject, now that we are considering the use of whey as a starter in the making of Swiss cheese.

I spent the last summer in investigating methods followed in the manufacture of Swiss cheese and to this end I visited a number of factories and found in every instance that the makers were advocates of the use of whey, both for soaking rennet stomachs and for a starter, regardless of the repeated failures in obtaining the desired results.

The maker, whom I observed, invariably turned out cheese of an un-uniform quality, from day to day, most of which was graded as Glaessler and Nizler, notwithstanding the fact that he was an experienced maker of many years work and observation, but he lacked in scientific principles, especially those concerning the bacteriological nature of the work.

Whey, at the time it is drawn from the kettle, is well known to contain great numbers of bacteria, among which are to be found many undesirable types, as for instance gas forming yeasts and other types decidedly harmful, such as spores from disease producing bacteria, as Typhoid Fever, Tuberculosis and Anthrax Bacillus. Some of these will resist high temperatures, such as 230 degrees Fahrenheit and more, without being seriously hurt, as is the case with the so-called Thermophilic Types living in Hot Springs.

Therefore, as the temperature at which the curd is being cooked is admittedly favorable for the rapid growth of bacteria, and whey used for the soaking of the stomachs is drawn under such conditions and kept at incubating temperatures to be used in the next day's milk for curdling it, this process being carried on from day to day it will easily be deducted that if in that whey, are spores present of deadly diseases, those specific maladies might effectively be spread in a short time throughout the communities consuming cheese of such nature.

This being so, I have arrived at the conclusion that the use of whey for the purpose of diluting or soaking rennets is altogether unscientific if it is not properly handled by responsible men.

Whey, in order to be used for that purpose, must, under all circumstances, be pasteurized thoroughly and properly inoculated with a pure culture of the desired type of bacteria, be it the Bulgaricus Bacillus or the lactic acid of the Eveci Family. This important step should always be kept in mind if a healthy uniform in texture, flavor and odor product is wanted to be turned out.

In regard to the question, "Is Whole and Skimmed milk better than whey for growing a Starter?" I believe milk in any of the above forms to be the best. If a starter with the right strength is desired, nothing but clean, pure, fresh milk should be used for growing starter. A milk rich in nutritive elements, must be selected.

Whey makes a poor cheese for bacteria culture from every viewpoint. This is my humble opinion.

FACTORY RESULTS USING THE METHYLENE BLUE TEST

By PROFESSOR E. G. HASTINGS, College of Agriculture, Madison

There is constant discussion concerning the need of improving the quality of cheese made in this state. I suppose the idea usually in mind, when this subject is presented, is that a larger proportion of the cheese should conform to the standards of the expert cheese judge. It seems to me, however, that we may consider it from a somewhat different and simpler point of view. I suppose that every cheese maker knows the type of cheese which he would wish to make each day in the year. He knows the type which he can most profitably make and market. It may well be that this cheese will not conform exactly to the standards of the cheese experts. If, however, it can find a ready market, with satisfied consumers, all that need be accomplished will have been done. Under present conditions it is not possible for the average cheese factory to make a uniform product from day to day. One reason for the lack of uniformity is the constantly varying content of the milk in both kinds and numbers of bacteria. Any change which will result in a factory being able to overcome, even in part, the daily inequalities of the raw material would help in the making of a uniform product and be of distinct advantage to the factory.

For many years the farmer was paid for the milk on a flat basis per hundred pounds, irrespective of its content in cheese-forming constituents. With the coming of the Babcock test, the possibility was presented of paying the farmer for the cheese-making value of his milk. I am sure that no one will question the value of the Babcock test in the cheese-making industry.

It seems to me that possibly the time has come when the industry must take another step. I trust you may consider it a forward one. So far as I am aware, every factory in this state is paying a flat price for the raw material, irrespective of its quality. One speaks of good milk and of poor milk for cheese purposes. By these very expressions one admits that some of the milk delivered to our factories tends to raise the quality of cheese and other milk tends to lower the quality. We are paying the farmer who delivers poor milk, who is careless in its production and care, the same price as the man who delivers milk which tends to increase the value of the product. So long as this condition obtains, it does not seem possible to have any great advancement in the improvement of the quality of milk or of cheese. We can do something through the stimulation of the pride of the milk producers, but we cannot go far with this agent alone. It seems necessary to introduce a more effective stimulant to the production of a high grade milk. The only effective stimulant is a financial one. In other words, I believe that sooner or later the cheese factories must begin to pay a differential price for

different grades of milk. This involves the division of the milk coming from the various sources into two or more groups. Any such grouping involves the use of some test which must reveal as completely as possible the kinds and numbers of bacteria contained in the milk supplied by a particular farm. The tests which have been used in the past have accomplished this in a very imperfect manner. They have lacked one or more of the characteristics which a satisfactory test must possess. A test must be accurate and reliable. Its answer as to the quality of a particular sample must be a definite one, into the determination of which neither the opinion nor the prejudice of the inspector enters. The answer must be one doing full justice to all concerned, to the producer of the milk in question and to the producers of all milk with which it shall be mixed, and the return for which it shall help determine.

The time-honored method of inspection at the weigh-can by the sense of smell leaves much to be desired in accuracy as a means of grading. A sample of milk will show no detectable change in odor or taste due to bacteria until they have grown therein to such an extent that they are numbered in the many millions per drop of the milk. Such immense numbers mean that the milk has passed out of control of the maker, since any addition of starter can be effective only in a slight degree in determining the fermentation in the curd and cheese. Both intrinsically good and intrinsically poor milk will be classed as good, since the products of the bacteria are not enough to be detectable. Injustice may be done to the producer of a really good milk by not differentiating his product from another actually poor.

In such a test the personal factor is at the maximum, and constant trouble would result if odor were to be made the basis of grading and of price.

A satisfactory test must be absolutely impersonal, just as the Babcock test is impersonal as a means of determining the fat content of the milk.

The sediment test as a means of grading milk has the weakness that it is easily circumvented, and this results in injustice to someone. It is very easy for a farmer who produces dirty milk to strain it thoroughly before its delivery so that it will show as favorable a test as that of the clean milk produced by another farmer. When dirt is introduced into milk, the harm has been done, and cannot be remedied by its removal. Clean milk, not cleaned milk, is therefore the aim. The sediment test can never, I believe, be used as a factor in grading or in determining price.

The fermentation test has been used in cheese factory inspection. Here again, is a test which may do a distinct injustice to someone. The very best milk for cheese making, as I will outline it later, is likely to give the same results in the fermentation test as will a milk of the poorest quality. The fermentation test also involves a personal factor in its interpretation.

I am sure every cheese maker will agree with me that the best

milk for his purpose is that which has been produced under clean conditions and kept in clean utensils, and which has been so handled as to prevent the growth of bacteria therein. In other words, clean milk and fresh milk is the ideal. An important property of such milk is that it is always low in bacteria. Few will have been introduced into it and there will have been a limited growth of those which have entered. When such milk is delivered to the cheese maker, he will be able to control the type of fermentation in it through the addition of proper starters. If, on the other hand, a milk high in bacteria is delivered to him, he will have lost control of the fermentation, since the bacteria contained in the milk as delivered will carry out a considerable part of the fermentation, even though good starters are added to the milk.

It may be urged that there are good bacteria and bad bacteria, and that if the milk contains only the former, it will be of high quality for cheese making in spite of its high bacterial content. Granted. But so long as the maker allows the farmer to determine the number as well as the kind of bacteria in the milk delivered, a large part of it will be poor, because it will contain great numbers of harmful bacteria. By making the farmer supply milk low in bacteria, we shall, at least, solve some of our improvement problems.

The number of bacteria in the milk, is, therefore, of greatest importance to the cheese maker, and the test, which will be of most value to him will be the one which reveals this condition. Such a test must not demand trained help and must not be expensive in time or money.

All these conditions are met by the methylene blue test, which is now in use by some cheese makers in the state. It is based on the rapidity with which the dye is decolorized when it is added in a small percentage to samples of the milk, and this rapidity depends on the number of bacteria which the milk contains. Thus it is purely impersonal, accurate and reliable. A certain length of time can be adopted as dividing the good from the poor milks, and at the end of this period the presence or absence of color will give a perfectly definite answer as to the value of the milk for cheese making. This test requires only very simple apparatus and is not at all difficult to perform.

There is a tendency to regard all tests at first as too intricate and too expensive. The wide use of the Babcock test is an answer to such objections. If a test can pay for the effort it requires in improved quality and consequently increased profits, it will be generally adopted, and I am convinced that the methylene blue test will prove itself to be in this group.

The chief advantage of a plan of testing, of grading and of price differential is the application of a slight but constant pressure on the producer of the milk to keep him moving slowly in the desired direction. A slow motion maintained over a long period will accomplish wonders in the improvement of the quality of the milk. This has been exactly the history of events in the improvement of market milk. Through the pressure brought by the public health

officials and distributing companies, the farmers of the market milk districts have constantly improved their methods, until today, much of the milk supplied to our large cities is of a high quality and low in bacterial content. This same movement must, we believe, come in the cheese-producing districts, as regards the raw material.

It is not possible, nor will it be for a long time, if ever, to outline a grading scale which can be used by factories in general. One factory will find itself situated under quite different conditions from another with reference to the average quality of its milk supply. The grading scheme must be such in any factory as will place a considerable part of the producers in the group receiving the higher price for their product. If too small a portion of the farmers are receiving the higher price, there will be little encouragement to improve conditions. It would probably be necessary to change the plan from time to time in order to bring sufficient pressure to bear on the producers to keep them constant in their improvement.

There must be an ample differentiation of price between the grades, whether two or more grades are established, so that there again will be sufficient incentive for the producer to seek to get his milk into the higher grade. Along with the grading and price differential must come, of course, education of the producers with reference to methods which they can employ in order to improve their product.

I realize that many objections may be brought against such a grading plan. It will involve a certain amount of labor and expense. It seems to me that the advantages must be weighed against the disadvantages in determining whether such a scheme is worthwhile.

Some claim that it can be used only in a factory of considerable size, in which at least two vats are used, so that the different qualities of milk may be segregated for manufacturing purposes. I do not think this objection a valid one, since, if we admit that some milk tends to raise the quality of the cheese and other milk to lower its quality, the average will therefore be determined by the average quality of the milk, and one would be just as much justified in paying a lower price for some of the milk when all is to be worked as a unit as when the different qualities might be worked in separate vats.

It will be urged that the test does not exclude the milk being tested from the making process. In other words, the milk must be used before the test is completed. This, again, is no valid objection, since the test is designed to determine the average quality of milk coming from individual sources, rather than the quality of the milk delivered on a specific date. The determination of this average quality can be ascertained by making tests two times a week and determining the grade for the milk by the average of these tests.

Again, it is stated that the cheese is purchased irrespective of quality. In other words, that the same price is now being paid for what we think is poor cheese as for good cheese. If this is true, then all work and all talk concerning improvement is useless.

OHIO SWISS CHEESE PROGRESS IN 1925

By MR. R. E. HARDELL, Dairy Bureau, U. S. Dept. of Agric.

It is the purpose of this paper to deal with the progress which has been made in Ohio in the improvement of Swiss Cheese manufactured by the use of bacterial cultures.

Co-operation between all the parties concerned is necessary for the progress of any industry. The Swiss Cheese industry is not an exception to this rule. For this reason, an agreement was entered into by the factories desiring to use the cultures and the extension service. The agreement is as follows:

In order to improve the quality of Swiss Cheese at the Ladrach Dairy, the Agricultural Extension Service representing the Ohio State University and the United States Department of Agriculture agrees:

First: To furnish, equip and maintain a laboratory at Sugar Creek for the purpose of propagating the eye forming and bulgaricus cultures.

Second: To furnish such cultures to the Ladrach Dairy that they may need from August 1st, 1925, until the end of their 1925 season.

In consideration of the service as given above the undersigned patrons of the Ladrach Dairy agree as the Ladrach Dairy to the following:

First: To pay the sum of (\$25.00) twenty-five dollars on or before the first of September, 1925, for the purpose of assisting in maintaining the Extension Service. The money is to be paid over to the agent of the Agricultural Extension Service and made payable to the Ohio State University.

Second: To follow in detail the recommendations of the dairy specialist of the Agricultural Extension Service.

Third: To keep an accurate record of the manufacture of each cheese as requested by the dairy specialist.

Fourth: To permit the dairy specialist to obtain grades of cheese at time of sale.

Fifth: To produce milk in a manner prescribed by the dairy specialist.

Sixth: To give the factory manager, dairy specialist and committee the right to reject any milk not produced in the prescribed manner or milk unfit for cheese making.

It is understood that if the majority of the patrons of the Ladrach Dairy or the sales committee sign this agreement, all are nevertheless bound by its provisions.

The Agricultural Extension Service reserves the right to withdraw their support in this project at any time the provisions of this contract are not properly filled.

I feel that this agreement has contributed in no small way to the success of the project and hence the progress of the industry.

In the manufacture of Ohio Swiss Cheese by the culture method a quarter per cent of the *Lactococcus Bulgaricus* is used. This starter is propagated in skim milk which has previously been sterilized and is carried by each factory. The sterilizing equipment consists of a gasoline drum which has been converted into a pressure sterilizer and vessels and flasks for carrying the starter. The skim milk is sterilized at a pressure of 15 pounds for 30 to 50 minutes.

Last season we used a half per cent of starter, but by reducing the amount of starter this season we have obtained a more mellow bodied cheese. The starter milk is made up twice a day. An incubation period from 12-14 hours at a temperature of 42° C. or 33.6° R. is generally ample enough to give us a desired acidity of 1.3%.

The use of the above mentioned organism has been very successful in over-coming undesirable fermentations, especially gassy fermentations of the coli and aergenes types. So far, however, our observations agree with those of Professor Burri when he states the inability of overcoming anaerobic spore-formers with cultures, for we still get niszler cheese which we attribute to the presence of this type of organism. At present, improvement of the milk supply seems to be our only means of combating this defect.

The factories have not had any trouble whatever with stinker cheese. Where non-culture factories have experienced trouble with wet blow holes which give off offensive odors, the few blow holes which the culture factories have found resemble eyes of extraordinary size and do not give off a disagreeable odor.

A pure culture of the eye forming Bacterium is used to insure the formation of eyes and the development of the characteristic flavor. We have used five cc of this culture to every hundred pounds of milk the year around with good results. This culture is distributed from our laboratory at Sugar Creek, Ohio.

Hand in hand, with the two above mentioned pure cultures goes the commercial rennet extract which makes results more uniform and definite than where home made rennet is used. Eight to ten cc of rennet extract were sufficient to get the desired coagulum in thirty minutes.

The clarification of milk has been a very important factor in the improvement of Ohio Swiss Cheese. It has decreased the number of eyes and at the same time increased the size of the eyes. These improvements, as every one connected with the Swiss Cheese industry knows, are today most desirable ones. In addition the body and texture of the cheese also seems to be bettered through this operation.

In Ohio, we clarify milk which is delivered twice a day without cooling. This milk has a tendency to foam excessively during real warm weather, but this foaming was overcome to a large extent by the addition of a couple of buckets of cold milk to each kettle of milk.

Some farmers and cheese makers have an idea that this operation is a cure all. This view, however, should be discouraged, for it is detrimental to the industry. Clarification does not overcome niszler cheese so that a good milk supply is just as essential or more so,

when this method is used on account of the additional handling of the milk.

You may be interested in knowing that ten years ago, a home made rennet factory at Kidron, Ohio, used a clarifier to cut down the set of their cheese, but discontinued the use of the same when the cheese failed to open. At the present time every culture factory in Ohio is clarifying. Their results substantiated the work of the Bureau of Dairying, U. S. Department of Agriculture which consistently demonstrated the value of clarifying milk for Swiss Cheese manufacturers.

This season, every culture factory has sold by the grade and the time of adoption of this method of selling by all of the factories in Ohio is near at hand. The advantages of selling and buying this way is a matter of common knowledge in Wisconsin.

The sale of the cheese by the month rather than by the season is encouraged and those factories following the former method are practically always better off financially.

All of the factories in Ohio with the exception of one pay for the milk by the pooling system. This one factory pays for the milk on the butter fat basis and has done so for the past four years.

More than likely, the Wisconsin cheese makers are interested in the wage question. In Ohio, the cheese maker receives ten per cent of the total receipts at the factories where the farmers own the factory and furnish everything except the helpers. Cheese makers who own their factories and furnish everything except the hauling of the fuel and cheese get fifteen per cent of the total receipts.

This season ten factories are aiding in supporting at Sugar Creek, Ohio, a laboratory which furnishes to the factories, the eye forming culture and mother starter of the *Bulgaricus* organism. Support of the laboratory and the maintenance of field man by the factories is the ultimate aim of the project. Every factory is required to keep a record of each cheese manufactured. This record includes the per cent of fat in the standardized milk, the amount of starter, the starter acidity, etc. We feel that these records are an important part of a cheese maker's work and aid materially in improving their products.

In Wisconsin, the factories have available in their vicinity, cold storage plants. We are not so fortunate in Ohio. Last season, however, five factories organized to build a cold storage room. It has a capacity of 450 cheese on the shelves and its sole purpose is the firming of the wheels of cheese before shipping. Shelving arrangements permit a farmer to haul twelve cheese on an ordinary farm wagon without the cheese resting on one another. When the cheese reach the storage, they are placed on the shelves. Just before shipping, they are tubbed. The temperature of the room is kept around 56° F.

This season, the storage has answered its purpose very well and is looked upon with favor by farmers and cheese makers.

The quality of our cheese this season, far surpasses that of any other season. They have been very well-eyed and their flavor clean and appealing. The body and texture of the cheese which have been faulty to a large degree other years, have been improved to such an

extent that buyers now commend the cheese instead of criticising them.

As I look back over the season's work, I feel that great progress has been made. However, I do not lose sight of the fact that further work upon the body and texture of the cheese is essential, for there is still room for improvement along this line.

Another big problem confronting us is the elimination of niszler cheese. The presence of such cheese does not generally become evident until two or three weeks after the cheese are made. The cheese makers call it sneaky for this reason. I do not believe that the ordinary quality milk tests will detect this type of organism and feel that the only way of combating it, is by educating the farmer in the care of his milk and demanding prompt delivery of same to the factories. Only two of our factories have had this trouble to any extent.

The culture factories in Ohio will pay a price of from \$2.00 to \$2.25 per hundred pounds of milk for the season compared with a price of from \$1.60 to \$1.75 at the non-culture factories. The exact figures, however, are not yet available.

Too much credit cannot be given to the Ohio cheese makers for the progress made this season. They have faithfully carried out the instructions of representatives of the Bureau of Dairying and the Ohio State Extension Service. Interested primarily in quality and realizing the possibilities in improving quality by the use of the cultures, they have stood by this method even in the face of adverse criticism.

DISCUSSION

MEMBER: In Ohio, we feel that it is absolutely necessary to standardize during certain periods in order to obtain not only a uniform product but the desired body and texture so necessary to normal eye formation. This is more true of the culture factories, for they only get a loss of .7 to .8 per cent fat in the whey compared with a .9 to 1 per cent loss at the home-made rent factories. During certain months, however, both types of factories aim to keep the fat content of the finished product down to normal either by standardization or by such manipulations of the making process as will increase the loss of fat in the whey. The latter method is very uncertain and is rejected in favor of former.

As stated by Van Slyke and Publow in their book on Cheese making, the purpose of fat in cheese is two-fold.

- (1) On account of its influence on the yield of the cheese.
- (2) On account of its effect upon the quality of the cheese, for it gives:
 - (1) Characteristic mellowness of body.
 - (2) Smoothness of feeling.
 - (3) Richness and delicacy of taste and
 - (4) In general palatability.

Excessive standardization, therefore, should be avoided, for cheese lacking the quality fostered by a certain amount of fat is certain to be discriminated against by the trade. This discrimination will result in a lower financial return to both the farmer and cheese maker.

In May, without any standardization the milk had the desired ratio of fat to casein. We have aimed to keep the same ratio from month to month by standardizing when necessary. The results obtained have been most encouraging. Tough hard cheese has been an exception.

FOREIGN CHEESE PRODUCERS FEDERATION, REPORT OF PROGRESS

By PROFESSOR H. H. BAKKEN, Department of Economics, University of Wisconsin

It is nearly two years since the agricultural leaders in the foreign cheese sections of Wisconsin assembled for the purpose of making up a definite program for the improvement in assembling, grading, and marketing of foreign cheese. It was with the aid of the state departments namely, Department of Markets, Department of Agriculture, and the College of Agriculture that these men had the plans for the proposed Wisconsin Foreign Cheese Producers' (Co-operative) drawn up and recommended to the producers as the best steps to be taken in the improvement of their industry.

Since that time, a score of general meetings have been held throughout the foreign cheese districts at which the plans of the proposed organization were presented. The favorable comment and expression of encouragement at these meetings justified a more intensive educational campaign among the producers, dealers, and makers in order to make the plan better known and to assist those who elected to become members of the organization. At least 125 individual factory meetings have been held where the plans of the organization were also presented and the necessary steps for organization were discussed.

What work has been done in this way merely makes a good beginning. The magnitude of the task that is before the producers in the building of their cooperative is best expressed, I believe, in the biblical words, "The harvest is great, but the laborers are few."

There are over 600 foreign cheese factories in the two leading producing districts of this state that should be interested in any changes that may improve their business. Only 125 factories have to date been reached with the explanation of this program because of the limited time which the volunteer workers have been able to devote to this work. It is evident, then, that there is a need for more local leaders who are willing not only to thoroughly familiarize themselves with every phase of the plan of improvement, but to give some time in securing neighboring factories as members of the organization.

Not over a dozen factories have been reported voting to join the new federation, and only half of this number have actually applied for membership to the secretary of the organization with the required fee. However, the above numbers are no indication of the total number that may become members because there are many necessary legal steps to be taken before the factories are even in a position to join the federation. At least 80-90 of the factories visited of the 125 have begun reorganization for the purpose of incorporating that they may become members of the federation. If this

can be considered an indication of the numbers that are favorable to a federation, then it is only a matter of time before there will be another cheese producers' selling organization in the state.

Reasons for Slow Progress

Mushroom growth is not always desirable in cooperative organizations, as a matter of fact, the most successful cooperatives in the country today were slow to organize some of them being formed and perfected over a period of five years. The reasons for slow growth of sound business-like cooperatives are many and sundry causes. Perhaps the main retarding force is that no great business organization can be built and perfected over night.

The chief reasons for slow progress in the formation of the Wisconsin Foreign Cheese Producers' (Cooperative) are the legal obstructions. Approximately only 15 per cent of the factory associations in the Southern Foreign Cheese District are incorporated. In order for a factory to become incorporated, its member stockholders must unanimously vote to incorporate. A reorganization agreement must be completed before the necessary steps are taken to fill out, file and register incorporation papers. Then a meeting of the new association is necessary to elect officers, transfer stock and real estate and finish the business of the old partnership. When all these steps are taken, and they are all necessary to comply with the letters of law, then the new association is in position to vote on the resolution to join the federation.

Some of the other conditions that retard the movement are the lax business methods in the operation of local factory associations. The attitude of its officers and members reminds one often times of the maxim, "nobody's business is everybody's business." The make-up of the population throughout the foreign cheese districts is undoubtedly another influence in the growth of the organization. A slow conservative, and relatively wealthy community of people, do not make rapid changes in the mode of doing business. The other predominating and ever present influence in all communities is the lack of appreciation and knowledge of the opportunities for the improvement of their industry. A well planned and executed educational program is necessary to bring these opportunities to their attention.

The Value of an Organization

Is it possible that one part of an industry—closely allied with the other—can make great progress without influencing the other part? If the Wisconsin Cheese Producers' Federation has improved the American Cheese industry in all the ways its proponents claim for it, can the foreign cheese producers continue with its present methods of marketing and production? If so, what will be the outcome? If there are more efficient methods of assembling, grading, curing, financing, packaging, and distributing cheese, and the American producers have already taken advantage of some of these new methods,

it can not be long before the foreign producers must adopt the new methods also in order to meet their competitors in the markets.

The Welfare of the Industry is Common Property

The right to render services in an industry belongs to the most efficient. If it becomes evident that those who have possession of the marketing machinery are not as efficient as another agency would be, they should not be reluctant to give up their part and support the establishment of the newer methods. The industry does not owe anyone a living unless he earns it. Those who have an interest in the progress of the industry will not insist otherwise. In this connection it might be well to point out that there is always room for the talented and proficient in the industry whatever remodeling may take place. Life in general consists of eliminating and discarding the least fit and putting in their places the most efficient. If they are confirmed in this philosophy, then, its practical application would require the leading producers, cheese makers, and dealers to give unstinted support to a program of improvement acceptable to all who are concerned.

DISCUSSION

PROFESSOR BAKKEN: I would like to call attention to the Cooperative Marketing Institutes that are furthered by Mr. Luther, the leader of institutes at Madison to show the importance of better quality of product and how to get that better quality, etc.

It is important that producers understand the Methylene Blue Test in order to encourage them to bring it into their factories. If they do not understand it you will find difficulty in introducing it. It is not until you can get that sympathetic attitude upon the part of the producers in the improvement of the industry as a whole that you can make very much success.

You cannot expect better quality from your factories until you pay for that quality. The farmer is a good business man as well as anyone else. If he can get by in delivering a poor quality product and get just as much money for it, he is not going to the trouble and expense of producing a better quality product. And you have got to have some method of remunerating your producers for producing a better quality before you will get it. These are only sound economic business principles.

If an organization were put in the field that were able to build up a reserve, the producers would be better satisfied with their payments. It will take some time before you can get an organization up to that point. But then you have the advantage of putting a large volume of cheese into the organization, and where you have a large volume of this cheese put into one organization you are able to cut down overhead expenses. You are able to standardize, like Mr. Kelly brought out last night, and sell this cheese under a Trade Brand Name.

I feel that the Wisconsin Foreign Cheese Producers Cooperative deserve the support of every producer here because it is not an organization to eliminate dealers, who have just as big a part in the industry as we have, whether you have an organization or not. It is evident that it has to be continued for three or four years in order to get an efficient organization. I thank you. (Applause)

Swiss Cheese Makers School at Madison

SECRETARY SAMMIS: I just want to take one minute to state that the Seventh Annual Cheese Makers School, of two weeks duration will be held in Madison from February 8th to the 19th, the Brick Cheese Makers School from January 6th to 29th, American Cheese Makers School, February 2nd to 15th. We will be glad to have you all down there.

The Honorary Members' Dinner

A jolly crowd of 34 Life Members, Honorary Members and officers sat around the dinner table Wednesday night from six to eight o'clock, at the Republican Hotel. Stunts, stories, cigars and features too numerous to mention filled the time after dinner. Plans for more members and prizes next year were discussed. The vote for another dinner next year was unanimous.

LEADING PRIZE WINNERS DECEMBER, 1924, WISCONSIN CHEESE MAKERS CONVENTION

CLASS 1. AMERICAN CHEESE MADE BEFORE SEPTEMBER 1, 1925

No.	Score	
152	99.	P. H. Kasper, Bear Creek
180	98.75	H. G. Wiskow, Clintonville
157	98.	Edw. F. Winter, Gillett
133	97.25	Ed Miniecheske, Marion

CLASS 2. AMERICAN CHEESE MADE IN SEPTEMBER OR OCTOBER

290	98.50	W. H. Thurk, Fremont
2219	98.	L. J. Breher, Sheboygan Falls
230	97.50	Bert McKinney, Mineral Point
236	97.	Adolph E. Duescher, Pulcifer

CLASS 3. AMERICAN CHEESE MADE IN NOVEMBER OR DECEMBER

360	97.	Paul C. Kleinschmidt, Merrill
316	96.50	W. H. Thurk, Fremont
321	96.25	Walter Reisner, Bonduel
323	96.12	Oscar H. Schreiber, Cecil

CLASS 4. COLBY

406	96.	Joseph L. Steinwand, Colby
409	95.	Roland E. Scheel, Colby
410	94.50	Alfred Mandel, Colby
413	94.25	J. F. Tesmer, Colby

SWEEPSTAKES ON AMERICAN CHEESE, CLASSES 1, 2, 3, 4

152	99.	P. H. Kasper, Bear Creek
180	98.75	H. G. Wiskow, Clintonville
290	98.50	W. H. Thurk, Fremont

CLASS 5. DRUM SWISS

508	96.	Eugene Wirz, Darlington
510	95.5	Otto Blasser, Orfordville
516	95.	Franz Brand, Brodhead
515	94.	Paul Hitz, Antigo

CLASS 6. BLOCK SWISS

607	94.50	Robt. Scheidegger, Mt. Horeb
606	94.	Franz Brand, Brodhead
608	93.50	Gottlieb Werren, Blue Mounds
603	91.50	Ernest Aeschlimann, Barneveld

CLASS 7. LIMBURGER

709	96.50	Rudy B. Lengacher, Monticello
702	96.25	Anton Motz, Monroe 8
711	96.	Werner Blum, Monticello
710	95.	John Minnig, Monticello

CLASS 8. BRICK

836	96.	John Feutz, Oconomowoc
865	95.75	Otto Schaller, Blue Mounds
870	95.5	Rudolph Schaller, Riley
803	95.25	Fred Schneiter, Turtle Lake

LIST OF CHEESE EXHIBITS, SCORES AND PAYMENTS, 33D WISCONSIN CHEESE MAKERS' CONVENTION, DECEMBER, 1924

Class 1—Made Before September 1, 1924

	Prizes Won	Score	Checks	
101	C. H. Schneider, Merrill	95	\$5.25	
102	Albert L. Wagner, Chilton, R. 4	91	2.71	
103	Geo. Kust, Casco, R. 2	93	2.73	
104	Emil Bartz, Deerbrook, R. 1	94	2.93	
105	Edwin A. Krause, Shawano	94	4.14	
106	Fred C. Stapel, Edgar, R. 1	491	22.14	
107	James E. Payne, Antigo	93.75	2.83	
108	Otto E. Heller, Chilton	91.5	3.00	
109	John Reynolds, Kewaunee	95	4.55	
110	Herman Hoesly, Antigo	91.5	2.12	
111	H. J. Howe, Nye	96	6.66	
112	O. W. Bartelt, Campbellsport, R. 5	94	4.14	
113	John Tischhauser, Tilleda	1/5-361, 1/5-369	96	4.35
114	Theo. W. Treptow, Clintonville, R. 2	96	4.55	
115	Emil Sonnenberg, Cato	91.5	3.32	
116	Ben J. Hrabik, Luxemburg	94	3.93	
117	Geo. E. Seiler, Forestville, R. 2	315	93.75	7.83
118	O. W. Bartelt, Campbellsport, R. 5 (Comp)	94	10.37	
119	Wm. Rockwell, Bloom City	430	96.25	16.06
120	Raymond A. Larsen, Bonduel	87.5	2.08	
121	Erwin O. Wunsch, Cleveland	95	5.22	
122	Oscar Stock, Manitowoc	93.5	4.61	
123	Edw. R. Garling, Glenbeulah	10	87	2.77
124	Otto W. Sixel, Cleveland, R. 3	401	95.25	6.11
125	J. C. Colstad, Rice Lake	95	6.65	
126	Robt. F. Ott, Wausau, R. 2	93	2.93	
127	Adolf E. Duescher, Pulcifer	91.5	3.32	
128	Otto A. Rehme, Mosling	94.75	4.45	
129	Conrad Jakebi, Unity	87.75	.89	
130	John Frauley, Soldiers Grove	90.25	3.71	
131	Edward F. Peck, Coleman, R. 2	1/2-351	95.75	6.26
132	Alva Abbys, La Farge	94	5.04	
133	Ed. Miniecheske, Marion	4, 7, 52	97.25	9.76
134	Wm. F. Preuss, Seymour	93.25	3.03	
135	A. A. Miller, Star Prairie	96	6.06	
136	H. O. Zick, Lindsey	382	93	6.64
139	Paul E. Ott, Wausau, R. 2	90.75	2.01	
140	C. J. Fokett, Reedsville	93.75	4.71	
141	Arthur Johns, Luxemburg, R. 1	95.25	5.53	
142	Reinhard Jacob, Sheboygan	91	2.60	
143	O. H. Stoltzmann, Kiel	91	3.01	
144	A. W. Hahn, Plymouth, R. 1	95	5.22	
145	Herman W. Behrens, Plymouth	90.75	3.48	
146	Nick Henseler, Marshfield	77, 378, 380	96.5	16.62
147	E. R. Wiskow, Adell	90	2.39	
148	Ed. Steinberg, Appleton	67, 1/2-347, 1/2-352	94.75	12.54
149	L. E. Kopitze, Marion	464, 467	94	5.34
150	Louis A. Schneider, Two Rivers	94.5	3.13	
151	Louis K. Korth, Antigo	93.25	2.62	
152	P. H. Kasper, Bear Creek	1, 6, 9, 49, 71, 96, 100, 105, 373, 384, 504, 507, 173, 178	99	54.48
153	Wm. F. Braatz, Shawano	90	1.71	
154	Martin H. Parsons, Antigo	62, 334, 337	95.5	10.54
155	Fred C. Stapel, Edgar, R. 1	96	3.89	
156	Edw. Gruenstern, Marion, R. 2	364, 469, 463, 466, 474, 478, 482, 483, 484, 485, 488	94.75	7.45
157	Edw. F. Winter, Gillette	3, 92, 349, 449, 452, 199	98	35.82
158	Henry J. Loehr, Calvary	207	94	5.93
159	L. B. Kohlmann, St. Cloud	94	3.14	
160	A. F. Schwartz, Clintonville	1/3-104, 1/5-361, 1/5-369	96	4.45
161	C. C. Kraak, Richland Center	90.25	4.91	
162	A. H. Kaufman, Cascade	93.5	4.82	
163	Geo. Koenig, Stangelville	94.75	3.91	
164	A. Chada, Denmark	94.25	3.70	
165	Ewald W. Moth, Denmark, R. 2	308, 396	94	6.02
166	Mat Tuma, Soldiers Grove	93.5	4.35	
167	C. S. Mickle, Twin Bluffs	93.75	16.34	
168	John H. Peters, Plymouth	95	5.43	
169	Mike Slegler, Maribel	91.25	2.69	
170	J. F. Kalk, Cleveland	1/2-81, 182	96.25	12.96
171	Bert McKinney, Mineral Point	95.75	6.95	
172	L. J. Breher, Sheboygan Falls	175	95.75	5.05
173	L. J. Breher, Sheboygan Falls (Comp)	96.75	4.30	

	Prizes Won	Score	Checks
174	H. A. Kalk, Sheboygan Falls	94.25	3.83
175	Linda Bruhn, Auburndale . . . 1/2-78, 1/2-379, 1/2-381	95	8.65
176	Mike R. Lauer, Hilbert 83	94.5	6.22
177	John Babler, Campbellsport	94	2.32
178	H. W. Hahn, Plymouth, R. 1 (Comp)	96.25	3.89
179	Harvey Danke, Dale	95	5.43
180	H. G. Wiskow, Clintonville 2, 5, 50, 72, 97, 101, 79, 374, 505, 179, 385	98.75	49.28
181	A. L. Richardson, Dodgeville 8, 53, 60	96.5	6.36
182	A. H. Hein, Clintonville	95	4.75
183	G. H. Scannell, Campbellsport, R. 5 197	93.5	7.61
184	C. A. Bremmer, Chili 55, 311	96.25	22.73
185	Alfred F. Schulz, Phlox	94.5	4.22
186	Wm. M. Lauer, Colby 1/3-(56, 312), 209	96	12.25
187	Irwin Hill, Muscoda	94	3.14
188	Otto H. Yordi, Manawa	95.25	4.65
189	A. W. Hahn, Plymouth	94.75	6.40
190	John Draheim, Hilbert 103, 310	95.5	7.59
191	John Lemkuil, Plymouth, R. 2	91.0	4.21
192	H. A. Rindt, Clintonville (3 Mammoth Cheese)		

Class 2—Made in September and October

	Prizes Won	Score	Checks
201	Harry A. Olson, Abbotsford	94.75	\$5.73
202	Otto Ebel, Cecil 1/2-(363, 371)	95	5.74
203	Otto W. Sixel, Cleveland, R. 3	91.5	2.90
204	Wm. E. Bast, Gillett	91.5	2.11
205	Walter Reinsner, Bonduel 1/5-(361, 369), 503	96	7.54
206	John Tischhauser, Tilleda 1/2-370, 1/2-362	95.25	5.64
207	J. P. Zehren, Coleman, R. 2	91.5	2.11
208	E. F. Hrudka, Peshtigo 90, 344	94.5	12.33
209	Herman Hoesly, Antigo	94	3.33
210	C. H. Schneider, Merrill, R. 8	94.5	6.43
211	Wm. Hefty, Rice Lake	93	5.62
212	Martin Kubitz, Edgar, R. 4	95	4.33
213	John Levy, Kewaunee, R. 3	95	2.91
214	Emil Bartz, Deerbrook	95	4.74
215	Paul E. Ott, Wausau, R. 2	95	4.74
216	Ben J. Hrabik, Luxemburg 327, 330, 391, 394, 403	96.25	19.24
217	A. A. Miller, Star Prairie	94.25	6.93
218	W. E. Bresemann, Granton 313	95.5	7.03
219	Albert A. Rosenow, Wausau, R. 2 . . . 1/2-(65, 305, 341)	96.5	14.56
220	H. A. Harbarth, Wittenberg	94.25	3.23
221	David Gobell, Chetek	93.25	5.92
222	Albert Patckak, Stanley	91	3.11
223	W. H. Krumsey, Platteville	93	2.72
224	Mrs. Margaret Reynolds, Kewaunee	93.5	3.93
225	Fred Winkler, Augusta 57	91.25	6.21
226	Otto Froehlich, Edgar, R. 3 493	93.25	15.61
227	Aug. Ehlert, Thorpe	94	3.33
228	Otto A. Rehme, Mosling	93.5	3.93
229	John Greiner, Appleton, R. 1	93.5	3.93
230	Bert McKinney, Mineral Point 14, 59, 383	97.50	10.65
231	Joseph Bergs, Edgar, R. 5 494	93	10.51
232	Oscar H. Schreiber, Cecil	93.75	4.03
233	August Brandt, Kewaunee, R. 6	94	3.92
234	C. C. Kraak, Richland Center 95.25	95.25	6.74
235	Ed. Kaufman, Rice Lake, R. 2 405	96	10.33
236	Adolf E. Duescher, Pulcifer 15, 306, 390, 402, 395	97	19.35
237	Jos. Siebold, Ringle 1/2-343	95.25	6.09
238			
239	Joseph L. Steinwand, Colby	90.5	4.61
240	Vic Miller, Richland Center	92	5.02
241	Walter L. Schaller, Van Dyne	91	1.91
242	Ralph Aschbrook, Dancy 1/2-343	95.25	5.20
243	Emil Sonnenburg, Cato 340, 398	95.75	9.94
244	John Reynolds, Kewaunee	94.25	4.41
245	Albert L. Wagner, Chilton, R. 4	94	4.23
246	Reinhard Jacob, Sheboygan, R. 1	93	3.61
247	Walter A. Liebetrau, Sheboygan Falls 186, 171	95.25	9.74
248	Ed. Rosenow, Wausau, R. 2	94	1.13
249	Tos Pirola, Reeseville 318	94.25	6.14
250	Geo. Mintzloff, Juneau 1/3-21	87	1.62
251	A. J. Blahnik, Kewaunee, R. 3	94.25	3.54
252	Albert Gruenstern, Marion 470, 475, 479, 480, 481	95	4.43
253	A. F. Schwartz, Clintonville 1/3-104, 1/5-(361, 369)	96	5.64
254	Raymond A. Larsen, Bonduel 1/2-363, 1/2-371	95	5.52

	Prizes Won	Score	Checks
255	Rob Voecks, Fredonia	94.25	4.11
256	Hugo Schuster, Sheboygan, R. 4	91.25	3.68
257	C. F. Heckmann, Cleveland	94	5.80
258	H. H. DeKarske, New Holstein	95.5	7.20
259	J. B. Fellenz, West Bend	95	8.42
260	Oswald Reitz, Calvary, R. 1	95.25	15.40
261	Otto E. Heller, Chilton	93.5	4.81
262	W. L. Sommer, Cleveland, R. 2	93	4.81
263	Joseph Lakatos, Manitowoc	91.25	7.87
264	Frank D. Cootway, Reedsville, R. 3	91.25	3.10
265	Oscar Stock, Manitowoc	95	7.92
266	Len Lange, Fox Lake	91.25	9.49
267	William F. Meyer, Fredonia, R. 2	91.25	5.89
268	Henry Nolte, Cleveland	96	24.03
	339, 392, 393, 404, 1/2-(176, 177)	91.25	3.89
269	Albert J. Gafner, Brownsville	95.25	8.52
270	Frank J. Slegner, Stangelville	96.25	30.94
271	C. A. Bennin, St. Cloud	95.5	10.83
272	Erwin O. Wunsch, Cleveland	94.75	10.10
273	Ewald Moth, Denmark, R. 2	94.75	2.61
274	Walter R. Schmidt, Sheboygan Falls, R. 1	90.75	3.90
275	Val Rach, Random Lake	91.25	3.10
276	Oscar Roeder, Plymouth, R. 5	96.25	4.77
277	Erwin O. Wunsch, Cleveland (Comp)	96.5	45.35
278	M. M. Schaeztl, Edgar	92.75	4.50
279	Henry Siewert, Dale	94	4.01
280	Arno Wiehr, Plymouth, R. 2	94	4.02
281	Casper Holzschuh, Elkhart Lake	91.5	3.20
282	Theo. Wegner, Random Lake	94	4.11
283	Wm. C. Lindow, Plymouth	90	8.87
284	Leonard Sommer, Neeah	94	5.01
285	Julius Wessel, Plymouth	94.5	3.74
286	Ernest Rolli, Platteville	96	10.14
287	Henry Bolli, Kewaskum	96	11.04
288	Arthur Johns, Luxemburg, R. 2	91.25	2.89
289	John Gosse, Sheboygan, R. 4	98.50	29.96
290	W. H. Thurk, Fremont	94.5	4.33
291	Edw. Gruenstern, Marion, R. 2	94.5	7.33
292	Henry J. Loehr, Calvary	94.5	6.23
293	P. H. Kasper, Bear Creek	94.5	4.53
294	Wm. F. Braatz, Shawano	92.5	4.40
295	Herman W. Behrens, Plymouth	96	4.33
296	Hugo Raddant, Embarrass	93	5.01
	1/5-(361, 369), 1/2-(176, 177)	91	2.32
297	Fred J. Chapman, Sheboygan Falls	95.25	11.40
298	Fred Schroeder, St. Cloud	91	2.32
299	L. B. Kohlmann, St. Cloud	95.25	11.40
	189, 1/3-213, 204		
2201	Ira Conger, Greenbush	94.25	5.32
2202	Jake Otto, Malone, R. 1	95.75	26.72
2203	E. Knickel, Boardman	93.75	5.13
2204	John H. Peters, Plymouth	93	3.97
2205	Edw. F. Winter, Gillett	96	21.99
2206	Louis H. Schneider, Two Rivers	93.75	4.23
2207	L. E. Kopitzke, Marion	92	3.32
2208	Alvin F. Jindra, Two Rivers	91	3.20
2209	Albert J. Locher, St. Cloud, R. 2	95	9.42
2210	C. S. Mickle, Twin Bluffs	93.5	15.23
2211	Martin H. Parsons, Antigo	95.25	7.64
2212	J. F. Kalk, Cleveland	95	4.54
2213	Earl Culver, Spring Green	93.25	2.82
2214	Gottlieb Schubiger, Beaver Dam	91	4.58
2215	J. J. Voith, Junction City	93.5	23.23
2216	Albert J. Reiss, Cascade	87.25	2.98
2217	Walter Podartz, Marshfield	87	1.98
2218	L. J. Breher, Sheboygan Falls (Comp)	94	5.19
2219	L. J. Breher, Sheboygan Falls	98	19.42
	13, 16, 80, 102, 301, 302, 174	93.5	6.03
2220	L. Bernie Smith, Rockbridge	94	3.13
2221	W. F. Scholl, Spring Green	93.5	3.81
2222	Aug. J. Hintz, Stratford	87.25	1.89
2223	Frank Wentlan, Readfield	93	3.72
2224	Edwin H. Schroeder, Wayside	94	5.45
2225	Geo. Mohr, Plymouth	95	5.42
2226	John Babler, Campbellsport, R. 1	95	5.42
2227			
2228			
2229	H. G. Wiskow, Clintonville	96.75	10.45
2230	H. D. Schmidt, Sheboygan Falls, R. 2	96.25	11.92
	1/2-81, 183		

WISCONSIN CHEESE MAKERS' ASSOCIATION

	Prizes Won	Score	Checks
2231 Otto H. Yordi, Manawa		95.25	4.64
2232 A. H. Hein, Clintonville	208, 506	96.5	14.04
2233 Wm. Peshky, Peshtigo	1/2-351	95.75	5.04
2234			
2235 Paul C. Kleinschmidt, Merrill, R. 4		95.5	3.74
2236 Alfred F. Schulz, Phlox		95	5.42
2237 A. J. Bjornberg, Merrill	1/3-21	87	1.10
2238 Thomas S. Martin, Navarino, R. 1			
.....1/2-(69, 70, 94, 99), 1/2-(304, 359, 365, 367)		96.25	19.92
2239 Jos. Siebold, Ringle		94.75	4.84
2240 W. B. Schroeder, Seymour, R. 3		91	1.91
2241 Carl Greiner, Little Chute, R. 1		91	1.50
2242 Gust Moede, Suring	461	91	3.91
2243 Leon A. Laack, Brillion, R. 3	18, 54, 82, 309	96.25	24.92
2244 Reuben Abraham, Van Dyne, R. 1	376	94	7.13
2245 John Fisher, Boaz		95	5.15
2246 Ludwig A. Kuehn, Edgar	492	94.25	19.43
2247 John Von Allmen, Mineral Point		93	4.82
2248 Albert Alberts, Thorpe	1/3-(56, 312)	96	7.64

Class 3—Made in November

	Prizes Won	Score	Checks
301 M. M. Schaetzel, Edgar	1/2-(66, 342)	96	\$10.83
302 Edw. F. Winter, Gillett	451, 454	95.5	12.95
303 L. J. Breher, Sheboygan Falls		95	6.00
304 John H. Peters, Plymouth		91	3.50
305 Henry J. Loehr, Calvary	187, 1/3-213, 205	95.25	16.79
306 A. W. Hahn, Plymouth, R. 1		95	6.00
307 L. B. Kohlmann, St. Cloud		93	5.07
308 Mike R. Lauer, Hilbert		93.75	5.21
309 Louis F. Perronne, Plymouth, R. 5		91	2.93
310 Walter A. Liebetram, Sheboygan Falls, R. 2		93.75	4.43
311 August Brandt, Kewaunee, R. 6		94	4.44
312 Reinhard Jacob, Sheboygan, R. 1		91.25	3.04
313 Ernest Looser, Waupun, R. 3	319	94	6.11
314 Martin Kubitz, Edgar, R. 4	27, 1/2-(66, 342), 490	96	33.42
315 Albert J. Gafner, Brownsville		90.5	3.00
316 W. H. Thurk, Fremont	23	96.50	5.82
317 C. H. Schneider, Merrill, R. 8	64, 170	95.75	9.56
318 Henry Haesler, Beaver Dam, R. 4		91.5	3.47
319 W. H. Krumsey, Platteville		93	4.18
320 Earl F. Albrecht, Foresville, R. 2		91.25	2.94
321 Walter Reisner, Bonduel	24,		
1/2-(69, 70, 94, 98), 1/2-(304, 359, 365, 367), 502		96.25	13.00
322 Theo. W. Treptow, Clintonville, R. 2		95.25	5.23
323 Oscar H. Schreiber, Cecil	25, 28, 95, 360, 366, 368	96.12	10.64
324 Andrew Peterson, Muscoda	415	95	7.61
325 Herman Kalkofen, Greenwood	1/5-30	90	2.77
326 Otto A. Rehme, Mosling		93.5	4.00
327 Jacob Preisig, Willard		94	3.44
328 David Gobelt, Antigo		91.25	5.05
329 Oscar Stock, Manitowoc		92.75	4.95
330 Walter H. Miller, Antigo		92	2.49
331 Andrew L. Bjornberg, Merrill		91	3.02
332 Albert L. Wagner, Chilton, R. 4		91	3.35
333 Arthur Lawrence, Fond du Lac, R. 6	198	91	4.35
334 Emil Sonnenburg, Cato	192	94.25	7.45
335 Erwin O. Wunsch, Cleveland		93	4.60
336 J. F. Bachmann, Fremont	1/5-30	90	4.73
337 Henry Nolte, Cleveland		91	4.13
338 Jake Balsiger, Pardeeville		93	3.97
339 Roy J. Hrabik, Luxemburg		94	4.23
340 Otto Froehlich, Edgar, R. 3		91	2.83
341 Reuben Abraham, Van Dyne, R. 1		91.25	3.15
342 Julius Wessel, Plymouth, R. 3		90.75	4.21
343 Albert J. Loehr, St. Cloud, R. 2		94.25	5.44
344 George E. Seiler, Forestville, R. 2	314	94.25	11.23
345 C. K. Kalkofen, Greenwood	1/5-30	90	2.45
346 Alfred F. Schulz, Phlox	61, 333, 336	95.75	16.93
347 Edward Peck, Colman, R. 2	1/5-30	90	2.77
348 Aug. Ehlert, Thorpe		90.5	2.80
349 Ewald Jung, Horicon		91.5	3.27
350 Bert McKinney, Mineral Point		93.5	5.91
351			
352 Edw. Gruenstern, Marion			
.....1/2-(362, 370), 480, 481, 470, 475, 479		95.25	8.03

		Prizes Won	Score	Checks
353	Jesse J. Spieles, Wisconsin Rapids	1/2-(78, 379, 381)	95	8.70
354	Wm. F. Braatz, Shawano		93	3.98
355	Fred Winkler, Augusta	58	91	5.04
357	Martin H. Parsons, Antigo		94.25	4.56
358	E. F. Hrndka, Peshtigo	91, 345, 346	91.5	8.27
359	Adolf E. Duescher, Pulcifer		93	4.08
360	Paul C. Kleinschmidt, Merrill, R. 4	22, 26, 63, 424	97	26.55
361	John Gruenfelder, Dorchester		94	6.74
362	Jake Otto, Malone, R. 1	325, 215, 212, 195	95.50	17.82
363	Arthur Bartelt, Oshkosh, R. 6		93.50	7.09
364	Fred Sieber, Oakfield, R. 2		91	3.71
365	Henry Nolte, Cleveland		94.25	4.30
366				
367	Herman W. Behrens, Plymouth		93.75	5.21
368	Alvin F. Jindra, Two Rivers	1/2-191	95	8.70
369	George E. Seiler, Forestville, R. 2	316	93	5.44
370	Floyd Clemons, Medina		93.25	5.38
371	Earl B. Whiting, Gillett, R. 1		91.5	3.36
372	Walter R. Schmidt, Sheboygan Falls, R. 1		91.75	1.78
373	Douglass Cheese Ass'n, Gardenville, Nevada		93.25	4.33
374	P. H. Kasper, Bear Creek		95	7.01
375	A. W. Hann, Plymouth (Comp)		95.5	7.80
376	Fred C. Stapel, Edgar		95	4.50
377	J. F. Kalk, Cleveland, R. 1		94.75	4.59
378	Tos. Pirola, Reeseville	317	95.75	10.16
379	Otto Yordi, Manawa		94	4.44
380	A. H. Hein, Clintonville		96	4.44
381	H. G. Wiskow, Clintonville	29	96	15.58
382	E. H. Peters, Sugar Bush	68, 348	94	9.44
383	Wm. M. Lauer, Colby, R.		95	4.91
384	Albert Gruenstern, Marion	469, 472, 474, 478, 488	96	5.58
385	F. G. Welke, Bonduel, R. 2		94	3.44
386	Wm. F. Teschke, Bonduel		91.25	2.15
387	Louis J. Horn, Conrath	1/5-30	90	7.22
388	John Lemkuil, Plymouth, R. 2		92	4.60

Class 4—Made by the Colby Process

		Prizes Won	Score	Checks
401	Fred W. Lemke, Merrill, R. 9		92	\$3.78
402	Otto L. Baumgart, Colby	46	90	8.83
403	L. J. Breher, Sheboygan Falls		94	5.04
404	L. J. Breher, Sheboygan Falls (Comp)		91	3.89
405	Henry Nolte, Cleveland		91	4.18
406	Joseph L. Steinwand, Colby	32, 38, 42, 1/3-(56, 312)	96	41.92
407	Wm. J. Hemb, Kiel		91	4.24
408	Henry J. Loehr, Calvary		91	4.03
409	Roland E. Scheel, Colby	33, 36, 45	95	14.68
410	Alfred Mandel, Colby	34, 43	94.50	11.47
411	Frank Mock, Fox Lake		91.25	3.72
412	M. M. Schaetzi, Edgar	47	89.50	1.89
413	J. F. Tesmer, Colby	35, 44	94.25	4.20
414	Walter H. Miller, Antigo	41	87.25	2.08
415				
416	Edwin A. Krause, Shawano		90	2.83
417	A. W. Schulte, Cumberland	497	93.25	11.68
418	Ernest Mandel, Colby, R. 2		93.75	7.00

Class 5—Drum Swiss

		Prizes Won	Score	Checks
501	Fred Wuethrich, Juda	1/2-118	93.50	\$44.09
502	Ernest Hermann, Neillsville		91	25.46
503	John Bodertacher, Rice Lake		91.50	44.10
504	Alfred Reber, Brodhead		93.75	60.16
505	Carl Niedermann, Brodhead, R. 6	1/2-118	93.50	45.22
506	John Blikenstorfer, Gratiot		91	46.92
507	Fred G. Bahler, Brodhead		93	23.65
508	Eugene Wirz, Darlington	106, 107, 108, 422, 508	96	90.39
509	Herman Bilgrien, Iron Ridge	115, 515	90	13.89
510	Otto Blasser, Oxfordville	109, 432	95.50	45.47
511	Ernest Schlaginhaufen, Brodhead, R. 4		92.75	28.73
512	Mike Von Weissenfluh, Beloit, R. 27		92.75	31.59
513	Casper Jaggi, Beloit, R. 27		93.25	33.39
514	Val Zibung, Argyle, R. 4		93.50	50.16
515	Paul Hitz, Antigo	111	94	49.28

WISCONSIN CHEESE MAKERS' ASSOCIATION

	Prizes Won	Score	Checks
517 Otto Bodertscher, Rice Lake		93	49.35
516 Franz Brand, Brodhead, R. 2	110, 117	95	48.36
518 Fred Steinmann, Almaena		92.75	54.73
519 Jacob Miffenegger		93.25	42.23
520 Joseph Lauber, Blanchardville		93	33.01

Class 6—Block Swiss

	Prizes Won	Score	Checks
601 Leopold Hiltbrand, Mt. Horeb		91.25	\$3.97
602 John Bleisch, Mt. Horeb, R. 3	127, 131	90	3.90
603 Ernest Aeschlimann, Barneveld...122, 128, 129, 130		91.50	4.75
604			
605 H. Bilgrien, Iron Ridge	516	90.25	12.07
606 Franz Brand, Brodhead	120, 133	94	12.50
607 Robt. Scherdegger, Mt. Horeb	119, 132	94.50	9.85
608 Gottlieb Werren, Blue Mounds	121	93.50	13.95
609 Carl Niedermann, Brodhead, R. 6		95	5.20
610 Henry Von Weissenfluh, Blue Mounds		91	4.60
611 Ulrich Furrer, Hollandale		94	7.10

Class 8—Brick Cheese

	Prizes Won	Score	Checks
701 Ernest W. Jung, Juneau		89.25	\$2.02
702 Anton Motz, Monroe, R. 8	136, 417	90.25	14.86
703 Gottlieb Schubizer, Beaver Dam		89.25	1.50
704 A. Blatter, Rice Lake		92.50	4.01
705 Carl Bachofen, Beaver Dam	144	87.50	1.32
706 August Martini, Monroe, R. 8		90.50	3.48
707 William Gempeler, Monroe		93.50	2.27
708 C. F. Franke, Ashippun		90.25	3.78
709 Rudy B. Lengacher, Monticello...135, 143, 326, 509		96.50	31.79
710 John Minnig, Monticello	138	95	4.73
711 Werner Blum, Monticello	137	96	5.78
712 Lorenz Huttner, Watertown, R. 8		93.5	1.92
713 Lorenz Huttner, Watertown, R. 8		95	1.57
714 Peter Bernet, Monticello		95	5.73

Class 7—Limburger Cheese

	Prizes Won	Score	Checks
801 A. Blatter, Rice Lake.....		94	\$5.65
802 Fred Ogi, Kilbourn		92.75	2.92
803 Fred Schneider, Turtle Lake	149, 158, 406	95.25	8.91
804 Werner Rechsteiner, Juneau		92.50	3.95
805 Anton Koller, Mt. Horeb.....		94.75	3.79
806 Alfred O. Schneider, Hartford, R. 4		92	2.85
807 Julius Heusser, Clear Lake		94	5.12
808 John Dwitschi, Barneveld	154, 166	93	8.52
809 Emil Schneider, Lomira		94	3.42
810 Adolf Gurtner, Rubicon, R. 1.....		91.75	4.76
811 John Hammerli, Cross Plains		94.5	4.23
812 Fred Gurtner, Jackson		93.25	4.01
813 Karl Berger, Juneau, R. 3.....		94.5	5.23
814 Carl Bruni, Iron Bridge, R. 1.....1/2-(513, 514)		92	6.35
815 Ben R. Williams, Cambria, R. 2.....160, 411		94	10.32
816 R. Ganschow, Bonduel		89.75	2.02
817 Fred Steinmann, Almaena		94.25	3.86
818 Otto Badertscher, Rice Lake, R. 3.....155, 159		95	12.16
819 Jost Hoesli, Black Earth		92.50	3.43
820 Ewald Jung, Horicon		93.25	4.54
821 Frank Schmidt, Oconomowoc, R. 3.....		91	3.17
822 Edward Seiler, Sun Prairie.....		92	3.90
823 Walter Huegli, Juneau, R. 4.....		94.25	5.26
824 Geo. Schram, Beaver Dam.....		91	1.07
825 Fred Feutz, Rubicon, R. 1.....		91	3.47
826 Frank Mock, Fox Lake.....		94	5.12
827 Henry Rantzon, Woodland		91	2.47
828 John Blickenstorfer, Gratiot, R. 1.....		92	4.55
829 Jacob Tschan, Rosendale		92.25	1.94
830 Jake Bolarger, Fond du Lac.....161		93.75	7.69
831 John Rufener, Hartford		88	2.72
832 Fred Bachmann, Cross Plains.....		88.75	.50

THIRTY-FOURTH ANNUAL CONVENTION

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		Prizes Won	Score	Checks
833	Fred Bleuier, Beaver Dam.....		92.75	3.27
834	Oswald Schneider, Appleton.....	1/2-(347, 352)	94.75	9.02
835	Ernest Herrmann, Neillsville.....		92	3.85
836	John Feutz, Oconomowoc.....	303, 146, 152, 156, 162	96	21.06
837	Alfred Seiler, Dalton.....		93	3.22
838	Jacob Disler, Waterloo, R. 1.....		93.25	4.40
839	Henry Haesler, Beaver Dam.....	157, 163	95	9.51
840	Emil Jenni, Marshall.....		93	5.62
841	Marcel Steiner, Cambria.....		92	2.67
842	Gust Drachenberg, Watertown, R. 8.....		93	5.27
843	Emil Abegglen, Woodland, R. 1.....	1/2-(511, 512)	92.5	10.18
844	Albert Gertsch, Mayville.....		92	4.72
845	John Tietz, Iron Ridge.....	1/2-(513, 514)	92	4.47
846	Frank Tietz, Jr., Woodland.....	1/2-(511, 512)	92.5	7.43
847	Carl Riesen, Sun Prairie, R. 2.....		92.5	3.95
848	Gottlieb Warren, Blue Mounds.....	164	95	5.51
849	Adolf F. Feller, Mayville, R. 3.....		92.25	3.29
850	Carl Bachofen, Beaver Dam.....	517	93	6.02
851	John Badertscher, Rice Lake, R. 3.....		92.75	3.57
852	E. F. Indermuehle, Brownsville.....		93	4.05
853	Sam Scholer, Monticello, R. 3.....		93	2.87
854	Jac. Krapp, Juneau.....	172	92.75	3.92
855	Gottlieb Schubiger, Beaver Dam.....	518	92.25	4.79
856	Max Prag, Randolph.....		93	2.52
857	Albert Reutmann, Oconomowoc, R. 3.....		94	5.00
858	Gottlieb Raber, Cambria.....		90	1.75
859	Gottfried Freidli, Mosha.....		93	5.10
860	Ben J. Weber, Rubicon.....		91	3.00
861	John Bleisch, Mt. Horeb, R. 3.....		90	1.87
862	Jake Muetzenberg, Burnett.....		93.5	5.03
863	Walter Huegli, Juneau, R. 4.....		93	4.75
864	Gottfried Zurbuchen, Burnett, R. 1.....		91	9.77
865	Otto Schaller, Blue Mounds.....	147, 150, 165, 167	95.75	11.52
866	John Bremser, Watertown, R. 1.....		93.25	10.31
867	Herbert Tietz, Ixonia.....		88.5	6.27
868	John Beemster, Oconto, R. 1.....	455, 458	90.5	12.50
869	Ernest W. Jung, Juneau.....		92	2.97
870	Rudolf H. Schaller, Riley.....	148	95.5	7.88
871	Joseph Willi, South Wayne.....		93.25	4.41
872	Arnold Zumbach, Calamine.....		92	4.25
873	Rudolph Streit, Brandon, R. 1.....		89	1.85
874	H. Bilgrien, Iron Ridge-Muenster.....		90	2.40
875	Emil Gruber, Dalton.....		93	2.87
876	Fred Baertschy & Son, Mayville.....		93	4.57
877	Lorenz Huttner, Watertown, R. 8.....		90	3.80
878	Ulrich Furrer, Hollendale.....		95	4.80
879	John Wuethrick, Rock Grove.....		96	4.20
880	Chr. Krakenbuhl, Orangeville, R. 2.....		94.75	4.12
Total.....				\$3810.67

LIST OF 57 SHEBOYGAN COUNTY CHEESE EXHIBITS

Entry No.	Score	Names to go on Pens	Prize Pens	Pro-rata Checks
367	93.75	Herman W. Behrens, Plymouth...	1	\$1.90
295	92.5	Herman W. Behrens, Plymouth.....		1.40
145	90.75	Herman W. Behrens, Plymouth.....		.70
287	96.	Henry Bolll, Kewaskum.....	2	2.80
2219	98.	L. J. Breher, Sheboygan Falls.....	3	3.60
173	96.75 (Comp)	L. J. Breher, Sheboygan Falls.....		
172	95.75	L. J. Breher, Sheboygan Falls.....		2.70
303	95.	L. J. Breher, Sheboygan Falls.....		2.40
403	94.	L. J. Breher, Sheboygan Falls.....		2.00
2218	94. (Comp)	L. J. Breher, Sheboygan Falls.....		
404	91. (Comp)	L. J. Breher, Sheboygan Falls.....		
297	93.	Fred J. Chapman, Sheboygan Falls	4	1.60
2201	94.25	Ira Conger, Glenbulah.....	5	2.10
258	95.5	H. H. De Karske, New Holstein...	6	2.60
123	87.	Edw. R. Garling, Glenbeulah.....	7	
289	91.25	John Gosse, Sheboygan, R. 4.....	8	.90
306	95.	A. W. Hahn, Plymouth.....	9	2.40
189	95.	A. W. Hahn, Plymouth.....		2.40
144	95.	A. W. Hahn, Plymouth.....		2.40
178	96.25 (Comp)	A. W. Hahn, Plymouth.....		

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Entry No.	Score	Names to go on Pens	Prize Pens	Pro-rata Checks
375	95.5 (Comp)	A. W. Hahn, Plymouth.....		
281	94.	Casper Holzschuh, Elkhart Lake..	10	2.00
142	91.	Reinhard Jacob, Sheboygan.....	11	.80
246	93.	Reinhard Jacob, Sheboygan.....		1.60
312	91.25	Reinhard Jacob, Sheboygan.....		.90
174	94.25	H. A. Kalk, Sheboygan Falls.....	12	2.10
2212	95.	J. F. Kalk, Cleveland.....	13	2.40
377	94.75	J. F. Kalk, Cleveland.....		2.30
170	96.25	J. F. Kalk, Cleveland.....		2.90
162	93.5	A. H. Kaufman, Cascade.....	14	1.80
388	92.	John Lemkuil, Plymouth.....	15	1.20
191	91.	John Lemkuil, Plymouth.....		.80
247	95.25	W. A. Liebetrau, Sheboygan.....	16	2.50
310	93.75	W. A. Liebetrau, Sheboygan.....		1.90
283	94.	Wm. C. Lindow, Plymouth, R. 2....	17	2.00
2225	94.	Geo. Mohr, Plymouth.....	18	2.00
309	91.	Louis F. Perronne, Plymouth.....	19	.70
168	95.	John H. Peters, Plymouth.....	20	2.40
2204	93.	John H. Peters, Plymouth.....		1.60
304	91.	John H. Peters, Plymouth.....		.80
275	90.75	Val Rach, Random Lake.....	21	.70
2216	87.25	Albert J. Reiss, Cascade.....	22	
276	91.25	Oscar L. Roeder, Plymouth.....	23	.90
2230	96.25	H. D. Schmidt, Sheboygan Falls..	24	2.50
372	91.75	Walter R. Schmidt, Sheboygan Falls	25	1.10
274	94.75	Walter R. Schmidt, Sheboygan Falls		2.30
256	91.25	Huga Schuster, Sheboygan.....	26	.90
255	94.25	Robert Voeks, Fredonia.....	27	2.10
282	91.5	Theo. Wegner, Random Lake.....	28	1.00
285	94.	Julius Wessel, Plymouth.....	29	2.00
342	90.75	Julius Wessel, Plymouth.....		.70
280	94.	Arno Wiehr, Plymouth.....	30	2.00
147	90.	E. R. Wiskow, Adell.....	31	.40
277	96.25 (Comp)	Erwin O. Wunsch, Cleveland.....	32	
335	93.	Erwin O. Wunsch, Cleveland.....		1.60
272	95.5	Erwin O. Wunsch, Cleveland.....		2.60
121	95.	Erwin O. Wunsch, Cleveland.....		2.40
				\$88.20

SECRETARY'S REPORT FOR DECEMBER, 1924, CONVENTION
(READ IN 1925)

By J. L. Sammis, Madison

State Treasurer's Account

Receipts

1924			
July	1	Balance forward from last report.....	\$276.78
July	1	State appropriation.....	600.00
Dec.	12	Membership fees deposited.....	690.00
			\$1,566.78

Disbursements

1924			
Aug.	1	State Printer, 2,000 envelopes.....	\$7.14
		Cuts for annual report.....	6.34
Oct.	1	Letter heads, circulars, envelopes.....	39.16
Nov.	1	900 Annual reports.....	271.95
		Envelopes, score cards.....	20.95
		Certificates and warrants.....	10.06
		Lease, Milwaukee Auditorium.....	335.00
1925			
Jan.	15	Secretary J. L. Sammis.....	400.00
Jan.	30	President H. A. Rindt.....	133.55
Apr.	29	Envelopes, state printer.....	10.31
May	2	500 exhibit record sheets.....	6.54
June	1	Supt. Public Property, postage on 1923 reports.....	21.99
July	1	Balance forward.....	303.79
			\$1,566.78

Secretary's Donation and Program Fund

Cash prizes, offered for fine cheese exhibits at the convention, are awarded and paid to exhibitors as directed by the donors, the Secretary acting as the agent of the donors for this purpose. As these funds are at no time the property of the Association, and as they are paid out to winners at the Convention, or returned to the donors, these donations are not deposited in the State Treasury, but the receipts and disbursements are published here, and in the list of prize-winners.

To raise additional funds for the support of the Convention, the Secretary, acting as a private individual, published a Convention program, and rented booths and the proceeds from this enterprise were used for Association purposes, the balance to be finally deposited in the State Treasury, as a donation to the Association, from the advertisers. The program receipts and the disbursements of this fund are shown below.

The Convention cheese exhibits were sold by the Secretary, acting as the agent of the exhibitors, and the proceeds paid at once to exhibitors, as shown in the list of exhibitors in this report.

Receipts

Balance forward from last report.....	\$58.62
Brookshire Cheese Co., booth.....	50.00
Chris. Hansen Laboratory, booth.....	50.00
Marschall Dairy Laboratory.....	50.00
Damrow Bros. Co., two booths.....	105.00
J. B. Ford Co., Milwaukee, booth.....	50.00
Pyramid Oil Co., Minneapolis, ½ booth.....	30.00
De Laval Separator Co., 2 booths.....	100.00
Morton Salt Co., Milwaukee, ½ booth.....	20.00
Creamery Package Mfg. Co., booth.....	50.00
A. H. Barber-Goodhue Co., booth.....	55.00
Stoelting Bros. Co., Kiel, booth.....	50.00
Wisconsin Dairy Laboratory, Green Bay, booth.....	50.00
Ruggles & Rademacher, Milwaukee, booth.....	50.00
D. and F. Kusel Co., Watertown, 2 booths.....	100.00
Oakes & Burger Co., Cattaraugus, N. Y., booth.....	50.00
Eagle Chemical Co., Milwaukee, booth.....	50.00
Howell Electric Motor Co., Milwaukee, booth.....	50.00
Toledo Scale Co., Milwaukee, booth.....	50.00
Lavo Co. of America, Milwaukee, booth.....	50.00
Schwab-LeZotte Boiler Co., Milwaukee, booth.....	50.00
Sharples Separator Co., booth.....	50.00
Badger Electric Branding Machine Co., ½ booth.....	25.00
Viking Pump Sales Co., Milwaukee, booth.....	50.00
Brillion Iron Works, ½ booth.....	25.00
Worcester Salt Co., ½ booth.....	25.00
Super Products Co., Milwaukee, booth.....	50.00
Diamond Crystal Salt Co., Minneapolis, booth.....	50.00
C. L. Santee Co., Fond du Lac, ½ booth.....	25.00
Creamery and Milk Plant Monthly, ½ booth.....	25.00
Cream City Chemical Co., Milwaukee, booth.....	50.00
Cream City Chemical Co., Milwaukee, page.....	20.00
Marschall Dairy Laboratory, program page.....	20.00
Wisconsin Dairy Supply Co. cover page.....	22.00
Republican Hotel, Milwaukee, page.....	20.00
Woodland Box Co., ½ page.....	10.00
Union Terminal Cold Storage, N. Y., ½ page.....	10.00
J. G. Cherry Co., St. Paul, ½ page.....	10.00
A. D. DeLand Co., Sheboygan, 1 page.....	20.00
Mojonnier Bros. Co., Chicago, 1 page.....	20.00
Damrow Bros. Co., Fond du Lac, 2 pages.....	40.00
Kiel Woodenware Co., 1 page.....	20.00
Dairy Supply Co., Minneapolis, ½ page.....	10.00
Schwaab Stamp and Seal Co., Milwaukee, ½ page.....	10.00
J. B. Ford Co., Milwaukee, 1 page.....	20.00
Kraft Cheese Co., Plymouth, 1 page.....	20.00
Brillion Iron Works, ½ page.....	10.00
Sheboygan County News, 1 page.....	20.00
Champion Sheet Metal Co., N. Y., ½ page.....	10.00
Hotel Brown, Milwaukee, ½ page, credited on bill.....	
Colonial Salt Co., Chicago, ½ page.....	10.00
H. B. Stanz Co., Milwaukee, ½ page.....	10.00
De Laval Separator Co., Chicago, page.....	20.00
Sheboygan Falls Creamery Co., ½ page.....	10.00
Pauly & Pauly Co., Manitowoc, ½ page.....	10.00
C. E. Blodgett Co., Marshfield, ½ page.....	10.00
Chris Hansen's Laboratory, 1 page.....	20.00
Walter Voechting & Co., Sheboygan, page.....	20.00

Creamery Pkg. Mfg. Co., Chicago, cover page.....	22.00
Hunter, Walton & Co., N. Y., ½ page.....	10.00
A. H. Barber-Goodhue Co., Chicago, page.....	20.00
Doyle-Cluter-Carlisle-Braham Co., page.....	20.00
Stoelting Bros. Co., Kiel, Wis., 3 pages.....	60.00
Nafis, Inc., Chicago, ½ page.....	10.00
Brodhead Cheese and Cold Storage Co., ½ page.....	10.00
Wisconsin Dairy Laboratory, Green Bay, ½ page.....	10.00
Conley Foil Co., N. Y., 1 page.....	20.00
Xtermo, Milwaukee, ½ page.....	10.00
Paul Saegesser, Blanchardville, ½ page.....	10.00
A. & P. Tea Co., Chicago, page.....	10.00
Phenix Cheese Co., Plymouth, page.....	20.00
Reinhold & Meyer, Plymouth, ½ page.....	10.00
Torsion Balance Co., N. Y., page.....	20.00
Lehmaier, Schwartz & Co., N. Y., ½ page.....	10.00
C. A. Straubel Co., Green Bay, page.....	20.00
Schmitt Bros., Blue River, page.....	20.00
D. and F. Kusel Co., Watertown, page.....	20.00
Oakes & Burger Co., Cattaraugus, N. Y., page.....	20.00
Butter, Cheese and Egg Journal, ½ page.....	10.00
Nor. Wis. Produce Co., Manitowoc, ½ page.....	10.00
Fountain City Dairy Co., Fond du Lac, ½ page.....	10.00
Johnston Tin Foil Co., St. Louis, ½ page.....	10.00
Grunert Cheese Co., Chicago, ½ page.....	10.00
Rogers & Johnson, Marion, ½ page.....	10.00
J. S. Hoffman Co., Chicago, ½ page.....	10.00
L. O. Rehm, Kiel, ½ page.....	10.00
Eagle Chemical Co., Milwaukee, 1 page.....	20.00
Howell Electric Motor Co., Milwaukee, 1 page.....	20.00
Brookshire Cheese Co., Plymouth, 1 page.....	20.00
Stabley Woodenware Co., ½ page.....	10.00
Winnebago Cheese Co., Fond du Lac, ½ page.....	10.00
Michael Ert Garage, Milwaukee, 1 page.....	20.00
General Laboratories, Madison, ¼ page.....	10.00
Pyramid Oil Co., Minneapolis, 1 page.....	20.00
Laehn Coal and Wood Co., Shawano, ½ page.....	10.00
D. Picking Co., Bucyrus, Ohio, ½ page.....	10.00
Jas. Leffel & Co., Springfield, Ohio, 1 page.....	20.00
Bingham & Risdon, Green Bay, ½ page.....	10.00
Midwest Creamery Co., Plymouth, 1 page.....	20.00
H. L. Mueller, Sheboygan, ½ page.....	10.00
Puerner Creamery Co., Marshfield, ¼ page.....	10.00
Wm. Rindt Hardware Co., Embarrass, ½ page.....	10.00
Plymouth Refrigerating Co., ½ page.....	10.00
A. H. Barber Cheese Co., Chicago, page.....	20.00
H. Iwen Box and Veneer Co., Shawano, page.....	20.00
Lincoln Box Co., Merrill, page.....	20.00
Valley Sheet Metal Works, Neenah, page.....	20.00
Badger Electric Branding Machine Co., page.....	20.00
Stoelting Bros. Co., Kiel, ½ page.....	10.00
Plymouth Exchange Bank, ½ page.....	10.00
First National Bank, Brillion, prizes.....	8.00
First National Bank, Brillion, ½ page.....	10.00
John Kirkpatrick, Richland Center, ½ page.....	10.00
Sharples Separator Co., cover page.....	22.00
W. F. Hubert, list, Sheboygan Co. prizes.....	260.00
Plymouth Exchange Bank, prizes.....	10.00
Kraft Cheese Co., Plymouth, prizes.....	75.00
C. A. Straubel Co., Green Bay, prizes.....	48.00
A. Grossenbach Co., Milwaukee, prize.....	15.00
Sheboygan Falls Cry. Co., prizes.....	50.00
Pauly & Pauly Co., Manitowoc, prizes.....	40.00
C. E. Blodgett Cheese Co., Marshfield, prizes.....	15.00
Morton Salt Co., Milwaukee, prizes.....	10.00
Stoelting Bros. Co., prizes.....	30.00
Brodhead Cheese and Cold Storage, prize.....	5.00
Conley Foil Co., N. Y., prize.....	5.00
Dow Cheese Co., Fond du Lac, prize.....	10.00
Wis. Cheese Prod. Federation, prizes.....	15.00
Phenix Cheese Co., Plymouth, prizes.....	40.00
Lehmaier, Schwartz & Co., N. Y., prizes.....	15.00
Suring State Bank, prize.....	5.00
Atlantic & Pacific Tea Co., prizes.....	10.00
S. D. Cannon, Neenah, prizes.....	15.00
Oakes & Burger, Cattaraugus, N. Y., prize.....	25.00
Rogers & Johnson, Marion, prizes.....	6.00
First National Bank, Marion, prize.....	6.00
Manitowoc Cheese Makers Assn., prizes.....	10.00
Brookshire Cheese Co., Plymouth, prizes.....	50.00
P. H. Kasper et al., prizes.....	38.00

State Bank of St. Cloud, prizes.....	10.00
First Fond du Lac National Bank, prizes.....	25.00
Farmers State Bank, Calvary, prizes.....	10.00
R. C. Jorgensen et. al., list prizes.....	41.00
General Laboratories, Madison, prize.....	5.00
Fred C. Stapel et al., list prizes.....	105.00
A. W. Schulte, Cumberland, list prizes.....	20.00
Ray Larsen, list prizes.....	25.00
Ed. F. Winters, list prizes.....	4.00
Beatrice Cream Station, Blue Mounds, prize.....	2.00
D. Picking Co., Bucyrus, Ohio, prize.....	5.00
Kraft Cheese Co., Brodhead, prizes.....	28.00
Barneveld State Bank, prize.....	5.00
E. Mandel, Colby, prize list.....	45.00
Fond du Lac Dairy Assn., prize.....	15.00
Embarrass State Bank, prize.....	5.00
First National Bank of Neenah, prize.....	5.00
E. H. Bilgrien, prize list.....	27.00
Johnson & Ecklie, prizes.....	5.00
Farmers State Bank, Beaver Dam, prize.....	5.00
De Laval Separator Co., prizes.....	40.00
Kraft Cheese Co., projector rental.....	25.00
Cheese sales to dairy school.....	41.61
Cheese sales by W. F. Hubert.....	65.35
Cheese sales by J. W. Cross.....	34.50
Cheese sales to J. L. Kraft & Bros. Co.....	2,790.57
Banquet tickets sold by A. F. Zelm.....	189.00
Memberships sold by A. F. Zelm at door.....	559.00
Memberships sold by J. L. Sammis by mail.....	131.00
Booster banquet tickets sold.....	32.00
Check No. 133 returned by E. M.....	9.76
Total receipts.....	\$7,925.41

Disbursements

Secretary's book.....	\$2.00
Postage, 1,000 2-cent stamps.....	20.00
Schwaab Stamp and Seal Co., rubber stamp.....	.42
Postage on convention programs.....	50.00
Postage, 500 2-cent stamps.....	10.00
1,000 waxed envelopes for banquet.....	1.80
Telephone and telegraph.....	1.55
Sheboygan County News, printing.....	56.55
Convention prize chairs.....	126.00
Express on cuts and envelopes.....	1.84
Postals and rubber stamp.....	1.70
Postage on returned programs.....	1.45
Freight and drayage on programs.....	2.08
Dix Printing Co., 3,200 92-page programs, mailed.....	421.98
Postage stamps.....	10.00
Schwaab Stamp and Seal Co., badges.....	64.50
Postage on returned programs.....	5.00
Convention signs.....	1.30
Express on programs, dray and transfer.....	2.25
Eleanor Ring, orchestra and 5 dancers.....	125.00
Wanda Saslouski, clerk.....	5.50
Prize hand bags.....	56.00
Ribbon badges.....	1.50
J. E. Krines, 189 banquet tickets.....	141.75
Harold L. Berg, usher expense.....	7.00
Walter Griese, usher.....	8.00
Otto Burow, usher.....	9.00
Alex. Kaempfer, reporter, part payment.....	50.00
Edna Jung, clerk.....	21.68
Check to State Treasurer.....	690.00
H. B. Stanz Co., cheese boxes.....	9.75
Geo. C. Mansfield Co., handling cheese, and cartage.....	34.60
J. W. Cross, expense.....	8.96
Mrs. Geo. Meyer, stenographer.....	1.00
Repairs on office trunk.....	3.00
Paid for 32 booster dinners.....	32.00
Republican Hotel.....	63.50
H. A. Rindt, hotel bill.....	15.50
Exhibitors checks, books 1-2, see page 100.....	3,810.67
Secretary, travel, office, convention expense.....	69.23
Milwaukee Auditorium bill.....	553.75
W. F. Hubert, judge, expense.....	49.28
Geo. Buchanan, entertainer, expense.....	7.64
John Cannon, judge, expense.....	39.82

Hazel Dubiel, clerk	15.75
J. W. Cross, superintendent.....	70.00
Elizabeth Landgraf, clerk and expense.....	62.00
Juliet Manske, clerk	38.25
Wanda Saslowski, clerk	20.00
Alex Schaller, judge, expense.....	26.56
Fred Marty, judge, expense.....	25.67
Thos. S. Martin, refund.....	1.00
Leopold Hiltbrand, refund	1.00
Postage, 250 2-cent stamps.....	5.00
Johnson and Ecklie, refund.....	5.00
Kraft Bros. Co., refund.....	7.00
Phenix Cheese Co., refund.....	7.00
Office Specialties Co. bill.....	23.60
Embarrass Bank, refund	5.00
Badger Pharmacy, 32 prize pens.....	168.00
Postage and insurance on pens.....	3.70
Postage, 250 2-cent stamps.....	5.00
C. A. Bennin, St. Cloud, prize 303.....	6.00
L. B. Kohlmann, prize 204.....	4.00
Wm. J. Hemb, Kiel, error.....	4.56
Jake Otto, Malone, prizes 214-215.....	8.00
A. J. Loehr, St. Cloud, prize.....	1.00
John Babler, Campbellsport, prize.....	1.00
List of 57 Sheboygan Co. prizes. See page 00.....	88.20
Carl Bachofen, Beaver Dam, prize 517.....	2.50
Gottl. Schubiger, Beaver Dam, prize 518.....	2.50
Brown Hotel, Milwaukee, balance due.....	5.00
Express on chairs to winners.....	6.82
Brookshire Cheese Co., refund.....	6.50
The Company Store, Cumberland, refund.....	5.00
W. S. Hines Mercantile Co., refund.....	5.00
Postage on diplomas	20.00
M. M. Schaetzi, Edgar, to correct error.....	1.00
W. F. Hubert, judge	15.00
John Cannon, judge	15.00
Fred Marty, judge	15.00
Alex. Schaller, judge	15.00
200 Mailing tubes for diplomas.....	3.20
Ed. Minicheske, cheese 133 and prorata.....	4.26
Mrs. T. R. Ubbelohde, clerk, expense.....	15.50
First National Bank, Marion, refund.....	1.00
Ed. Gruenstern, to correct error on 463.....	1.00
L. E. Kopitske, Marion, to correct error.....	1.00
Ed. Gruenstern, to correct on 466.....	1.00
John H. Peters, director, expense.....	19.85
A. F. Zelm, treasurer, and expense.....	71.15
Florence Moeller, treasurer, clerk, expense.....	16.94
Jac. Gempeler, Jr., Monroe, director.....	27.34
H. A. Kalk, Sheboygan Falls, vice-president, expense.....	13.98
A. T. Bruhn, Spring Green, Director.....	17.40
Membership list, and express charges.....	8.32
Addressing and mailing circular letter.....	2.25

Balance forward	\$7,515.35
	410.06

Total.....	\$7,925.41
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O. K.

A. F. ZELM,
JOHN H. PETERS,
H. A. KALK,
Auditing Committee.

WISCONSIN
CHEESEMAKERS
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REPORT 1925

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