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## **Proceedings of the nineteenth annual meeting of the Wisconsin Butter Makers' Association : held at La Crosse, Wisconsin, Feb. 10-12, 1920.**

Wisconsin Buttermakers' Association  
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NINETEENTH ANNUAL MEETING

**WISCONSIN  
BUTTER MAKERS'  
ASSOCIATION**



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FEBRUARY TENTH TO FEBRUARY TWELFTH  
NINETEEN HUNDRED AND TWENTY



PROCEEDINGS OF THE  
NINETEENTH ANNUAL MEETING  
OF THE  
Wisconsin Butter Makers'  
Association

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HELD AT  
LA CROSSE, WISCONSIN  
FEB. 10-12, 1920

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Compiled by G. H. BENKENDORF



F. M. WERNER  
Treasurer



R. P. COLWELL,  
Secretary



H. B. HOIBERG  
President

**OFFICERS—1920-21**

## OFFICERS AND COMMITTEES

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### Officers—1919-1920

President, J. H. MORAN, West Salem.  
Vice President, T. B. TOWLE, Baraboo.  
Secretary, G. H. BENKENDORF, Madison.  
Treasurer, F. M. WERNER, Waterloo.

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### Executive Committee

O. B. CORNISH, Ft. Atkinson.  
H. E. GRIFFIN, Mt. Hopeb.  
C. J. DODGE, Windsor.

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### Officers—1920-1921

President, H. B. HOIBERG, Coon Valley.  
Vice President, T. B. TOWLE, Baraboo.  
Secretary, R. P. COLWELL, River Falls.  
Treasurer, F. M. WERNER, Waterloo.

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### Executive Committee

O. B. CORNISH, Ft. Atkinson.  
ALBERT ERICKSON, Amery.  
C. J. DODGE, Windsor.



D. B. CORNISH



C. J. DODGE



A. R. ERICKSON

**EXECUTIVE COMMITTEE—1920-21**



LETTER OF TRANSMITTAL

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OFFICE OF THE SECRETARY,  
WISCONSIN BUTTER MAKERS' ASSOCIATION,  
Madison, Wis., 1920.

To His Excellency, EMANUEL L. PHILIPP,  
*Governor of the State of Wisconsin.*

I have the honor to submit the report of the nineteenth annual meeting of the Wisconsin Butter Makers' Association, showing the receipts and disbursements of the past year, also containing papers, addresses and discussions had at the annual convention at La Crosse, February 10-12, 1920.

Respectfully submitted,

G. H. BENKENDORF,  
*Secretary.*

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PROCEEDINGS  
OF THE  
NINETEENTH ANNUAL MEETING  
OF THE  
Wisconsin Butter Makers' Association

CHAMBER OF COMMERCE BUILDING  
TUESDAY, FEB. 10, 8 O'CLOCK P. M.

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**ADDRESS OF WELCOME**

MAYOR A. A. BENTLEY OF La Crosse, Wis.

"Mr. President, Fellow Citizens: This is one of the pleasant duties that falls to the lot of a Mayor. We are here primarily to extend to you a welcome, heartily, warmly, sincerely. We will try to make your stay among us so pleasant and profitable that you will want to return again.

You are here to study a special line of work and of course I am not expected to discuss anything touching on that work, and in fact it has been thirty-five years since I was engaged in butter making.

Way back that long ago, in the northern woods of Minnesota, I used to help my mother skim pans of milk with a hand skimmer, put the cream in the churn and jump the dasher up and down from one to four hours to get the butter to come; then when it failed, to turn warm water into the churn.

Even though in those days, however, with butter at ten cents, my mother made the best butter of any one in the neighborhood and she received twelve and one-half cents for hers. How often have you

heard of ladies who received a premium on their butter because it was better than the average butter on the market?

However, a century ago probably, there was a suggestion at least that there is more profit in better goods; and there is more profit in the butter business today because it is better, partly. However, I am not to discuss butter, because I do not know anything about the mod-



MAYOR BENTLEY

ern method of producing butter. I am afraid to attempt to interest you. If I tried to talk about butter making, I might be justly accused or have some discourteous remark made about me similar to that made about a young student who was sent out in a rural district to make a political speech. He was told by those who sent him out that he was to talk to fellows who were interested in dairying. They said, "You will find them common, ordinary folks and try and talk sense, if you can, on the great political issues." So this young man, wishing to make a hit with his audience and coming from the University, he was perfectly dressed; his trousers were creased very nicely, his hair was parted in the middle, he wore a high, choking collar, large number two cuffs; he was an altogether dandy—long toed patent-leather shoes with ping pong hose. He stood up on the platform and talked to those

men and was controlled by this idea, that he wanted to make a hit right away with the audience, so he began: "Mr. Chairman, Fellow Citizens: I think the dairying business is the greatest line in the world. The great American cow today is producing more wealth in the world than any other animal. Why, the country depends upon the cow. Look at me, my education in the University was paid for by a cow." He went on and told about the wonderful American cow. A Scandinavian who had recently come to that section of the country, didn't understand English any too well. He had received literature from the University telling about the value of cows, and how profitable it was to have thoroughbreds, and when the speaker finished, the Scandinavian stood up, and said: "Vell, I have been hearing about Durham bred calves, Jersey bred calves, Holstein bred calves, and Guernsey bred calves, but that is the first time I ever seen a college bred calf."

I shall not talk dairying or butter making, but you will excuse me possibly and bear with me a moment if I tell you something about the great city you are now visiting. I believe you will be glad to hear something about La Crosse and realizing that you will not remember all I could care to say to you, for your convenience, gentlemen, I have had prepared a few letters hastily this afternoon, with certain brought out facts about La Crosse. They are in this package on the table here, and I hope any and all of you will take one with you, and when returning on the train, if not before, glance through a few of the facts in this letter. It possibly will serve you as a reminder that you have visited one of the great cities of Wisconsin, one of the great cities made possible because of the wonderful prosperity in the state of Wisconsin, largely due to the dairying interest in the state. Anyone can observe this, I think that prosperity and a plentiful supply of ready cash always accompanies the development of the dairying interest. So La Crosse bids you welcome and we are glad that we are a conspicuous city in a conspicuous state. Our people are happy, optimistic, progressive, and La Crosse wants to serve in this great hour in the world's history when municipalities, groups of citizens, governments, and all organizations worthy of perpetuation must take hold of the problems about us and study them and contribute something to bring about a happy solution of the threatening problems, if you please, facing this country and the world.

La Crosse bids you welcome, because we are proud that our city is what it is. We are not satisfied, we are trying to make it better; we are trying to rank among the leading cities of the state, among the

cities of the country. It is the city of La Crosse to which you have come for the 1920 meeting, a splendid, prosperous, growing city. We want you to feel this upon your first day's visit, while you are here, and we want you to appreciate it that it is a fact when you leave.

A Socialist mayor in a city west of La Crosse was invited to welcome a large convention of editors recently, and he took advantage of the occasion to read his welcoming address, occupying two hours and a half of the first day's time of this busy convention—which only lasted two days—attended by over one thousand representative editors of the country. He read his speech very clearly, pressing his views on Socialism, and criticising severely the attitude of the editors toward the idea of Socialism. He spent two hours and a half of the time of the Convention and then sat down. The gentleman who was to respond to the address of welcome was from Nebraska. The forenoon had been spent on a speech on Socialism. The man who was to respond, arose and said, "Ladies and gentlemen, I want to announce as my response to the Mayor's address, that the scenery in Nebraska is far prettier than in Minnesota." That was his answer to the two and one-half hours' speech.

There's a lesson in that that I have taken to heart, so I am going to quit for fear that I may take up more time than I ought to. There is much more that could be said about our city, but there cannot be a warmer feeling for visitors than this city wishes to express to you. We welcome you, we invite you to take not only the key of the city, but to take our hand, and let us assist you if possible to make your stay as pleasant as possible. Gentlemen, the city of La Crosse bids you a warm welcome.

## **RESPONSE TO THE ADDRESS OF WELCOME**

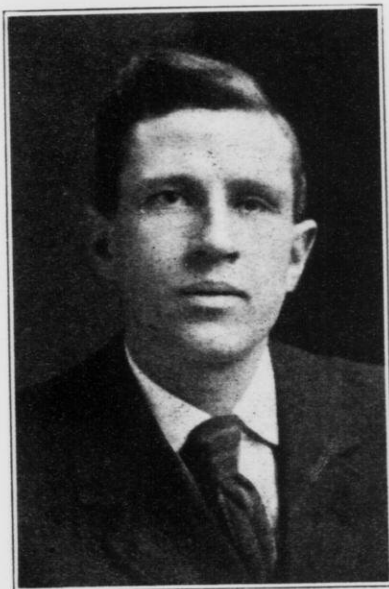
T. B. TOWLE, of Baraboo, Wis.

Mr. Chairman; Honorable Mayor: I don't see as I have any need to be up here, I think the address just given expresses the sentiment of the organization as well as it can be expressed, but I wish to assure the Mayor on behalf of the Association, that we appreciate these words of welcome.

When I was asked to respond to the Mayor's address, I began to look around and try to find out something about La Crosse, I wanted to find out something about the city. I asked some of my friends, and one



of the things they said is, "La Crosse is a brewery city, they have so many breweries there in La Crosse." Well you know what impression that made on my mind; of course we are under National prohibition now and these great buildings are vacant and lonely and solitary; and



T. B. TOWLE

then I found a clipping in a paper I ran across a few days ago which read as follows:

*City Is Invaded by Starving Wolves, Foxes Seeking Food*

La Crosse, Wis., Feb. 6.—Half starved and desperate with hunger, wolves and foxes are invading La Crosse today in search of food. Armed bands of residents are hunting the animals in the city streets. Miss Bernice Stifter, 17, was pursued by a large grey wolf at 10 p. m. yesterday, but managed to reach her home just as the wolf ran into the yard in front of her home. Armed only with a rope, James McCoy captured a fox in the heart of the city yesterday. Most of the animals seen in the city are extremely weak from lack of food. Tracks in the snow outside the city indicate the animals are crossing to Minnesota in large numbers.

You know I didn't know what to think of that, but I am glad of these words of reassurance from Mayor Bentley, and the hearty welcome given.

We feel as though we have something in common when he says he was a butter maker in his early days, and I believe that he had his problems in those days as well as ours, in fact he gave the secret away when he said he had to throw water in the churn. In this also, has he had the same troubles in his day as we have in ours, the matter of quality, and I want to assure him that in this organization, "Association" is to dairying what the term "United States of America" is to the world. The Wisconsin Butter Makers Association stands for everything that is good and true, and the higher things, the better things in dairying. On this principle this organization is founded, and for the study of these things we are met here in our convention. He said that his mother's butter being so much better than the other butter brought to the markets, received 100 per cent more in price. We do not receive that percentage at the present time, but the creameries that are making the best butter, are the most successful creameries."

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## PRESIDENT'S ANNUAL ADDRESS

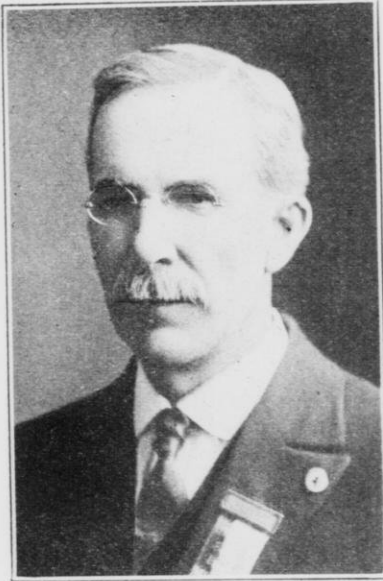
J. H. MORAN, West Salem.

Members of the Wisconsin Butter Makers Association, Ladies and Gentlemen: This is the place on the program where it becomes necessary as President of your association to inflict myself upon you for a few minutes and in a general sort of a way run over some of what to me appears to be the more important problems facing us today and the manner in which they can best be met. In this connection I have been requested to give special attention to the matter of condensary competition. We are just awaking to the fact that we have been taking too much for granted, leaving things to shape themselves and the sooner we realize that there is no industry having so many advantages that it can flourish without the necessary push back of it, the better it will be for us.

This is a hustling age and unless we do our share of the hustling some one else is likely to get the business. There perhaps never has been a time when greater opportunities were offered than right now, but they are for the man who is willing to go out and tackle the problems as he finds them and not for the one who waits for matters to

shape themselves in the way that he thinks they should be. We must meet and adjust our business to changing conditions and conditions have changed so rapidly the past four or five years, that it has been a real job to keep up with them.

In butter making, as in other lines of business, it seems to be necessary to take a broader view of things than has been taken heretofore. The old idea of a few farmers joining together and forming a cooper-



J. H. MORAN

ative creamery for the purpose of marketing their cream and then antagonizing everything else, was a very narrow view of cooperation and should have gone out of date long before it did. There is as much to be gained by neighboring creameries cooperating, as there is through the cooperation of individuals and true cooperation will not limit itself to any particular industry, but is broad enough for them all. We have heard much of the Universal Brotherhood the past few years, that would mean cooperation in its broadest sense, a willingness and desire on the part of each individual to cooperate with and help every other individual, and why not?

It seems to be so hard for us to realize that there is room for all and so hard for us to recognize the right of the other fellow to hustle, in whatever legitimate line he chooses, whether it interferes with our own business. It is this matter of competition that forces us ahead and compels us to keep awake on the job and see to it that our methods are at least not inferior to his. The tremendous demand created for milk by the late war, with no relative increase in the demand for butter, has given creamery men a sort of competition which has been hard to meet, in fact many creameries have been closed down and I think that it is up to us right now to show a stronger spirit of cooperation and a more united effort, or still others may be obliged to close. The condensary has done a splendid work, so far as the handling of milk is concerned and it is not our purpose to quarrel with them. No doubt the enormous demand for milk in this form during the war has given them an exaggerated importance and to some it would appear that the matter had been overdone, yet at least some of them are here to stay and we ought to be glad of it. If it were not for them, the cheese and ice cream manufacturers, we would not have churns enough to make the butter and we would likely get so slack that no one would want what we did make.

There is naturally a radical difference in views between the condensary people and creamery men, yet there is nothing to be gained by quarreling over it. The only way to harmonize such differences with a club is to have either one side or the other completely knocked out. The thing for us to do is to use the farmers for a jury and submit our differences to them. There are districts favorable for milk plants, while in others the creamery cannot profitably be interfered with and it is up to us to get busy on such matters and see to it by putting up such a strong fight in an educational way, that these plants get no encouragement where not wanted. The great trouble all along with our industry has been, that too little attention has been given to the educational side. We have found that by determined systematic effort along such lines, it is possible to hold the patrons of a creamery in spite of the tempting offers that have been made for milk.

One of the first and the all important requisite of the dairy industry is dairy stock and in butter making alone can stock raising and stock improvement be carried on at its best. This is one very important advantage that we have and to the dairyman looking to the future, this point alone, by far exceeds the difference between the amounts that have at any time been paid to the man selling milk or the man selling cream. We have here a full page ad of a milk plant which says: "Our

patrons know that they are getting \$1.40 per hundred for their skim milk. Do you?' Now the facts are that at the time this paper was printed in November, this company was paying one dollar per pound for butter fat. At the same time our home creamery was paying 81 cents. The condensary charged twenty-five cents per hundred for hauling milk, while the creamery charged fifty cents per hundred for hauling cream. If you will figure the matter out on this basis, you will find that the condensary patron delivering 3.5 milk was getting approximately .45 cents per hundred for his skim milk. Now the man that wrote that ad was either sorely in need of some enlightenment or else he was a crook who well knew that the people whom it was intended for would not know the difference. Whose fault is it but ours if such untruths are flagrantly displayed and let go unquestioned? The farmers in that locality already knew that they could not afford to dispose of their skim milk at forty-five cents a hundred and it is our place to show them by examples worked out with their own milk how far from the truth such a statement was. Now did the person who wrote that ad misstate the case knowingly, or for the reason that he did not know any better? Our part should be to make it clear to the farmer that neither the fool or the liar is a safe person to do business with and we need go no further than to make clear the facts in order to meet such competition.

We contend that butter making is the all important division of the dairy industry, notwithstanding there is reason for criticism at times for our not making the best possible use of our by-products. It is vitally important that somewhere the matter of stock raising and stock improvement be looked after and nowhere is this carried on with so uniform a degree of success as in the creamery districts. The man who forgets the future of his herds and sees no further than the immediate cash returns for milk, represents a dairyman to about the same extent that the old grain cropper represented a real farmer.

The condensary people claim to be wonders at developing the dairy industry, they claim to put two cows where one was before and this in a measure is true, for the seller of milk as a rule drifts to the one source of income method and he must of necessity increase that line in order to exist, but who ever heard of a condensary locating where dairying was not already well established by the creameries or cheese factories, who have always been the pioneers? New York was known as one of the most flourishing agricultural states of the Union at the time when it was pointed to as our great butter producing state. Now, since the milk business has replaced the creamery about all that we

hear of its agriculture is, that farms are selling for less than it would cost to replace the buildings.

Here in the butter making section of Wisconsin, we have the best system of agriculture known and we need only to make the necessary investigation and comparison in order to be convinced of it. We need to educate ourselves as to the merits of the business we are engaged in. The sum and substance of it all is, that all along we have been neglecting the educational side of the butter industry. We have taken it for granted that butter was a good enough article to fight its own battles and at this late day we learn that it has still other virtues that until now we knew nothing of. On the farm there is still much room for education along the line of furnishing a more perfect cream. While the very great importance of perfect barn ventilation is not realized to the extent that it should be, this is a matter in which every one is interested and every one should make an effort to have some part in bringing about improved conditions. The dairyman and stock raiser should be made to feel, if they do not already know, that they are engaged in the best business possible.

The public needs educating to at least that point where they will understand that they cannot permanently reduce the price of an article by discouraging its production and to the point where the well meaning housewife and mother will not pay thirty-five cents for twenty cents worth of oleomargarine, thinking she is getting a bargain, while in reality she is making a fifteen cent donation to a conscienceless corporation and cheating her own children in order to do it. The pressing need of the times is education of the kind that will arouse the spirit of enthusiasm in the producer and manufacturer and a realization of the importance and indispensable nature of our product to the consumer.

Taking this matter locally, the most practical way to carry on such a work is for one or more creameries to have a field man right on the job for this purpose. While an occasional meeting of the creamery patrons, with some good speaker to talk matters over with them, has a splendid effect in creating an interest in the work. So far as the general public is concerned we have exactly what is needed in the Dairy Council, which has already done a splendid work, although I am obliged to say with regret that it has not been given the whole-hearted support of the dairy industry that it deserves. For the sake of the penny we have been losing the dollars. Now let us each one resolve to take some part in putting a little more push into the business and work for the betterment of this worthy industry which is the greatest home builder known, at the same time we will be advancing the interests of



our Grand Old State, which is deserving of the best that we can give.

Pres. Moran: The next number on our program will be "The Wisconsin Dairy Council and Its Work" by Mr. A. J. Glover, President of the Wisconsin Dairy Council, Ft. Atkinson, Wis.



A. J. GLOVER

## THE WISCONSIN DAIRY COUNCIL AND ITS WORK

By A. J. GLOVER, Editor *Hoard's Dairyman*.

The purpose of the Wisconsin Dairy Council is to promote the dairy industry of our State, to further educate the public regarding the necessity of dairy products to the welfare of the human race, to encourage adequate production of high quality dairy products, and to improve marketing methods and conditions.

Our main purpose is to educate the consumer regarding the necessity and food value of milk and its products. It is not the purpose of the Wisconsin Dairy Council to duplicate or usurp the activities of other dairy and agricultural organizations already in existence. It is our desire to cooperate with all associations organized for the purpose of

developing our dairy and agricultural interests and with those devoting themselves to educational activities and such agencies as have to do with the general welfare of our people.

Our constitution requires the Board of Directors to be composed of four actual and bona fide milk producers, one breeder of pure-bred cattle, one butter manufacturer, one cheese manufacturer, one manufacturer of condensed milk, one manufacturer of cheese, creamery, or dairy farm machinery or equipment, one dealer in dairy products, one milk distributor, one representative of the Wisconsin College of Agriculture, one representative of the Dairy and Food Commission, one representative of the State Department of Agriculture, one representative of the State Department of Public Instruction, one representative of the Press, one representative of the Consumers (preferably of the State Women's Clubs or Child's Welfare League) and ten members at large. We have, besides these mentioned, in the membership of the present Board of Directors, representatives from the Society of Equity, Wisconsin Dairymen's Association, Wisconsin Cheese makers' Association, Wisconsin Butter makers' Association, and the Wisconsin State Grange. Earnest endeavor has been made to have the Wisconsin Dairy Council truly representative of our dairy and other agricultural interests, and to bring into its service men who are interested in the development and progress of our dairy industry and who thoroughly believe that dairy products should form a larger portion of the consumer's diet.

Producers and manufacturers of dairy products have been silent too long concerning the necessity and value of their products. Thinking and observing men of every age have recognized the superiority of dairy products as foods. A few nations have made milk the chief diet. We find that the Jewish mother under all circumstances will provide her children with an adequate quantity of milk, but our American mothers do not hold the same views, for if they did we would not have so many children who do not receive any milk.

In 1900 W. D. Hoard, in testifying before the House Committee on Agriculture in Congress, made this statement: "Butter fat is found in the milk of all mammals. It is chemically and physically unlike any other fats in existence. It was designed by nature for the food and sustenance of infant offspring having the most delicate of all digestions." He took this position long before scientists discovered vitamins and before investigations had been made to demonstrate the difference between milk fat and other fats. His reason and common sense told him what neither he nor the chemists could prove. Since that time it has been proven that milk fat does contain a growth producing substance not found in vegetable fats, oils, or in all animal fats.

The British Food Journal, November, 1919, contained the following statement: "Dr. Howard Sutherland, consulting tuberculosis officer to the St. Marybone Tuberculosis Dispensary, lecturing recently on 'The Early Diagnosis of Tuberculosis', made a strong plea for the abolition of the control of butter. 'During the war,' he said, 'I have noticed more cases of acute forms of tuberculosis than before. And the moral is this: If it is necessary to control our imports, the last thing that should be controlled is butter. At present the country is living on margarine, and yet I am told that in Holland there are hundreds of tons of butter which could be imported into this country. That is a very shortsighted policy on the part of the Government.' Dr. Sutherland said that during the last five years the death rate from pulmonary tuberculosis had risen 12 per cent. The reason is to be found in a tremendous change that has taken place in the dietary of this nation for the past five years, and that was due to the lack of animal fats. The epidemic of influenza last winter was attributable to the same cause, because without animal fats the people were less resistant to infection."

Dr. E. V. McCollum has for more than a dozen years carried on dietary investigations with rats at the Wisconsin Experiment Station and at Johns Hopkins University. He used these animals to demonstrate the relative value of foods, the part they play in the human diet, and the combinations required for growth, health, and development. Through his study of the various diets of people, he has come to the following conclusions:

"There can be no doubt but that the small stature and poor physical development of many people, especially the poorer classes in the Orient and in various tropical regions throughout the world, are the result of faulty diet. I have shown very clearly by my investigations in nutrition during the last decade that it is impossible to make a satisfactory diet from cereal products, legume seeds—peas and beans—tubers, edible roots, and lean meats of the kind representing the muscle tissues of animals. We can make reasonably satisfactory diets by the use of food-stuffs just enumerated, together with very liberal amounts of the leafy portion of plants, but this type of diet does not prove entirely satisfactory for those species which have the omnivorous type of digestive tract with its limited capacity, which prevents the consumption of a sufficient amount of bulky foods. Vegetarian diet is successful only in those types of animals which can consume quantities of leafy foods. It is because of the use of what we should term extraordinary liberal amounts of leafy foods together with a certain amount of eggs that the Chinese, Japanese, and most tropical peoples have succeeded in maintaining existence.

"With experimental animals we have been able to make up successful diets only by the use of the seeds, tubers, roots, and meats, either singly or in combination, supplemented either with fairly liberal amounts of milk or eggs, or with very liberal amounts of leafy foods. Furthermore, only those peoples who have made use of dairy products have attained high standards of physical development, together with low infant mortality, and mental keenness and aggressiveness which has enabled them to succeed in science, literature, or invention, and only those people who have had dairy products as an abundant source of food have ever developed such political systems as offer opportunity for the individual of humble origin to develop his natural talents.

"I have repeatedly stated in my public utterances during the last year that the promotion of the dairy industry is the greatest single thing we can do as a public health measure, and the more I correlate the results of animal experimentation with human experience the more I am convinced that this is true. It is indeed up to the dairymen of the country to educate the general public as to the wonderful qualities of milk as a food."

It is perhaps well to consider some of the properties of milk in order to bring clearly to mind the important part it plays in the human diet. The protein of milk is what may be termed a complete protein, complete because protein from no other source is required. The protein of wheat, oats, peas, and beans isn't a complete protein. It has been demonstrated at our Wisconsin Experiment Station that cows fed on a ration made of wheat alone became physical wrecks and never gave birth to living calves. Because milk protein is complete, it is a splendid supplement to the ration for all kinds of young, and it is important in the diet of the child and of the adult.

Milk sugar is believed to be of importance in preventing putrefactive fermentation in the digestive tracts.

Milk is rich in lime and it is especially important for children for bone development. A quart of milk contains more lime than a saturated solution of lime water. Milk is rich in phosphorus which is also needed for the building of bone.

It has been shown through experimentation that milk fat contains a growth producing substance called Soluble A, because this substance is soluble in milk fat. Besides, there is another substance known as Soluble B, which is soluble in water, and it is also important for growth. Diets that do not contain Soluble A or Soluble B do not produce growth and certain diseases follow. The cow is the concentrator of these important substances. She gathers them in the grasses of the fields and meadows, from the leaves of alfalfa and clover.

Milk, besides containing all these essential elements for growth, health, and reproduction, has other highly desirable properties. No less authority than Dr. Percy Stiles of Harvard University states that in the digestion of milk an alkaline residue is left in the body. There is a greater resistance to disease when the alkalinity of the blood is maintained. In the treatment of influenza the doctors prescribe soda to produce an alkaline condition of the blood. This is the most effective remedy at the present time. What a wonderful food product we have in milk and what a splendid opportunity is before us for furthering its consumption when all these facts about it are known to the consumer.

Our present consumption of milk in this country averages about one glass per person per day; cheese about .01 of a pound or 3.3 pounds per year; butter about .02 or about 7½ pounds per year; and ice cream about one tablespoonful. In other words, we do not consume one-quarter as much dairy products as we should.

Recently the Oregon Dairy Council made a survey to determine the amount of milk consumed by all of the school children in that state up to and including the eighth grade, which shows that about one-third of the children receive no milk to drink, one-third receive a glass, and about one-third a pint or more a day. Professor Brandt, in writing me, said: "The remarkable part of the survey is that the children from the small towns receive less milk than those in Portland, and the children in the country drink less than those in town."

It was discovered in one public school in Milwaukee that only a few children received any milk to drink and that a large part of them came to school on a breakfast of bread and coffee. The physical and mental development of those children was not up to standard, so provision was made to give each child a glass of milk and a graham cracker each day. With this small quantity of milk, the children not only improved physically but mentally.

It has been stated that we have a surplus of dairy products. We have never had a true surplus, but we do have an under-consumption. If people would consume the proper quantity of dairy products that their bodies require to be properly nourished, instead of the United States having 23 millions of dairy cows we would require from 75 to 100 millions. Our leading authorities, men not connected with the dairy industry, urge that every child be given at least a quart of milk a day and every adult a pint.

Many dairy farmers use oleomargarine instead of butter and in this way show neither wisdom for themselves nor for their industry. The members of a local milk producers' association recently agreed to use

no oleomargarine and the local creamery in the following month sold 1,700 pounds more butter than any month since its organization. There is need at all times for the milk producers to support their own industry and particularly now in view of the loss of our foreign market for dairy products and the importations that are being made. If every creamery could sell 1,700 pounds more butter per month locally, there would be little danger of the present production of milk depressing the prices of dairy products below the cost of production. Our so-called surplus of dairy products can be easily taken care of if the producers will do their part. They must use their own products and contribute to the support of the Wisconsin Dairy Council to permit this organization to carry on its work effectively.

The total value of live stock production of Wisconsin for 1919 totaled 272 million dollars, of which two-thirds is credited to milk. This is from the crop reporting department of the federal and state authorities, which has previously reported the total crop value for 1919 as 396 million dollars.

An estimate of the production and value of milk produced on farms shows that 88,785,000 hundredweight valued at \$250,596,000 were produced in 1919, as compared with 87,229,000 hundredweight in 1918 valued at \$215,465,000, and 57,075,000 hundredweight in 1909 valued at \$65,064,000. The average price received by producers for milk in 1919 was \$2.82 per hundredweight, as compared to \$2.47 in 1918 and \$1.14 in 1909. Average production per cow in 1919 was 4,926 pounds, compared to 4,870 pounds in 1918 and 4,780 in 1917.

The ready market for milk and dairy products is reflected in the numbers and value of milk cows. The number increased 3% over a year ago, while the farm price per head increased 18.3%. It is estimated that there were 1,846,000 cows on Wisconsin farms on January 1, 1920, compared to 1,792,000 in 1919, 1,549,000 in 1914, and 1,493,000 in 1910. Farm price per head in 1920 was \$97, as compared with \$82 last year, \$60 in 1914, and \$35 in 1910. Total farm value was \$179,062,000 in 1920, \$146,944,000 in 1919, \$92,785,000 in 1914, and \$53,912,000 in 1910.

The value of skim milk and whey for feeding purposes would bring the total value of dairy products to over \$277,000,000 for 1919.

An industry bringing this return annually to our state is of tremendous importance to not only those engaged in dairying but to all other enterprises and to every individual. We must set forth the relationship which the dairy industry bears to the welfare of the state and the part that dairy products play in providing a well-balanced diet for human beings.

We must not expect the dealers in dairy products to bear all the



expense of advertising them. If we observe the practice in other enterprises, we find the manufacturer of the product advertised bears the advertising expenses. Who advertises Ivory Soap? The manufacturer. Who advertises Wrigley's spearmint chewing gum? The manufacturer. The purpose of all advertising is to acquaint the purchaser with the wares of the manufacturer concerning their use and value; to create a demand for their particular product.

The producers of dairy products have a duty to perform toward their industry and the consumer in making known the food value and merits of dairy products, if we expect to receive for them what they are worth and to extend a demand for them. No manufacturer ever had such important facts to reveal to the public concerning his wares as those in possession of the dairy manufacturer of milk and its products. Manufacturers of so-called butter substitutes are continually advertising their products and they have increased materially the sale of their products.

Shall we remain silent concerning the merits of our dairy products as we have in the past or shall we cooperate and raise sufficient funds to educate the consumer regarding the wonderful merits of dairy products?

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PRES. MORAN: As it is customary at this time to appoint the committee on resolutions, I will announce that now. I will select this committee to try and cover this state as fairly as possible. It is hard to do this.

On the Resolution Committee, I wish to appoint,—

R. J. MOTT, Grand Rapids, Wis.

S. B. OAKES, Platteville, Wis.

ALBERT ERICKSON, Amery, Wis.

On the Legislative Committee, I wish to appoint,

G. H. BENKENDORF, of Madison, Wis.

PRES. MORAN: Mr. FESS, of the Tri-State Ice Cream Company of this city has a message, I believe.

MR. FESS: I desire to extend an invitation to you gentlemen on behalf of the Tri-State Ice Cream Company. I don't know whether many of you are interested in that business, but we desire to extend an invitation to you to visit the ice cream plant. You might be interested in looking it over and we would be glad to have you come in and see us.

MR. BENKENDORF: I have been requested to announce that a resolution will be presented tomorrow in regard to a change in the constitution. As it is necessary to announce such an intention twenty-four hours in advance, I hereby do so in order to comply with the regulations.

The film entitled: "Value of Milk as a Food" was then shown.

## Second Day's Session, Wednesday Morning

PRESIDENT MORAN: Mr. Colwell who was the first on our program this morning, with the subject, "Better Salaries for Wisconsin Butter Makers," is sick and cannot be here, so we will have to depend on a general discussion of the subject. I will call on Mr. Albert Erickson to lead in the discussion.

MR. ERICKSON: "What we had in mind last night when we proposed a change in the constitution, was an amendment changing our constitution along the lines of the Minnesota organization. Now, we know that over there it is not an experiment, as they have proven it to be a great success. From present data, I understand that it will mean for the Minnesota operators over \$100,000 increase in salaries for the coming year.

As it was proposed last night to change the constitution, I thought perhaps that we could arrange to have that voted on this afternoon at the afternoon session. I have no doubt that everybody realizes the change is necessary, that most butter makers' salaries are way below what they ought to be. Some of the large industrial companies in the other lines are paying their employees a minimum of \$6.00 a day; no doubt their more skilled labor twice that much. Most of the butter makers are working for less than that, and it would seem that with a skilled profession such as a butter maker's, that we should have an organization that will look after that. An organization like this would be of great benefit. We do not believe in antagonizing any industry; at the same time efficiency is the watchword for us now, more so than ever. The butter makers are doing more work. I have been attending conventions for 22 years and have never yet heard them discuss less hours; it has always been more work and more efficiency, which distinguishes them from the labor unions. We are not trying to create more jobs, but we are trying to create better salaries for the work that is being done. Butter makers have been coming to these conventions for years, trying to learn more efficiency, and today we find ourselves working for less money than we did in 1914, considering the buying power of a dollar.

PRES. MORAN: Any further discussion? There are many interested in this, and it will be your own fault if you don't discuss this.

MR. H. B. HOIBERG: Mr. Chairman, I would like to say a few words in regard to this organization. We organized twenty-one years ago

this month and the organization as formed at that time, stands practically the same. It was made a part of the Constitution and by-laws that every one who paid a dollar should become a member and have voting power. It perhaps was necessary at that time to have it that way. The butter makers were few and scattered all over Wisconsin, but today the creameries are close together and more depends on the efficiency of the operator and it becomes necessary that we should be more closely united. In other words, form a sort of a union, not a union like, for instance, the coal, or steel workers; not to go on a strike, but as a union to help ourselves and help the creamery industry. We have with us today in this state, as in other states, many men working as operators who should not be there. They are losing money for the communities where they live. They go into a creamery and accept whatever they can get. Today there are men working for \$75 and \$80 a month, which means a purchasing power of about \$40 a month. For that reason, we have organized this Association, and we have a good, strong one. One of the things that has been suggested to me by a traveling man is, let everyone who is a member today, be a member, but unless they are creamery operators let them be honorary members. Let everybody make his place, but let them pay dues enough to sustain the organization. I think there are enough butter makers in Wisconsin to support the organization. Our aim is to lift ourselves out of that old rut where we have been since the year one, we might say. Give the farmers and creamery owners better work, and at the same time help ourselves. It isn't intended to start an organization or a union such as "Pay me \$30 more a month or I strike." That isn't the idea at all; but to impress upon the owners that we are worthy of a little increase in wages, that we have got to buy for our wives and children and for ourselves, and a good many in this room today are not getting anywhere near decent money.

PRES. MORAN: Any further discussion? Don't wait to be invited, just step up and go after it.

MR. GLOVER: I do not know as I am fully in order in discussing this subject, but the splendid spirit that is expressed by the two gentlemen who have just spoken leads me to have a little something to say. I like the spirit in which they have expressed themselves. I know that it is true what they have said. I have attended Butter Makers' Conventions for twenty-five or more years and I have never once heard the remark that we must have shorter hours, higher wages, we must form a union in order to focus our will upon the creamery owners, the operators of this country, or we will strike. All butter makers' conventions have had subjects that have led to a discussion of how we can im-

prove ourselves to be more efficient, how can we be worth more to the man who owns the creamery. Such an organization is the kind that all of us can support. It is an American institution. We have lost sight to a certain extent of the real purpose of life. We have been struggling for the almighty dollar rather than to find out how much service we can render. The wages of butter makers have not kept pace, as I understand it, with the advance of other things, and it would seem to me for the good of the creamery industry, that it would be only wise that the managers would be led to understand that if they are to keep men capable of making the butter we ought to make, and meet competition of foreign countries, that we must pay wages sufficient to keep a certain class of intelligence in the conduct of our creameries. Young men are not going to become butter makers if they cannot get a reasonable compensation for their services. The managers ought to appreciate that. I served on a school board for a number of years and I woke up to the fact that teachers' wages were too low, that it wasn't inviting to the talent to go into our schools to teach our youngsters.

It is a great problem for us to face, when we see our wages are so low that it is not inviting to the young women and young men to take up that occupation,—say with the creamery business. We cannot expect to make higher quality goods with inferior help. My attention was called to this last week. A butter maker asked for an increase of \$25 a month in his wages. The board of directors saw fit to not grant that request. He quit and the creamery last year lost more than three thousand dollars because of poor workmanship upon the part of the butter maker. That is not good business on the part of the creamery management, and while I do not know the details of why butter makers should be raised, I do know that unless the creamery managers and operators see the necessity of paying a reasonable compensation to the men who make the butter, they will wake up some day and find that their creameries are losing several thousand dollars just because they cannot secure competent service; and an organization that will lay these principles competently, fairly, before the creamery operators, I believe will work for good. I do not like the spirit of the American organization of labor—shorter hours, less efficiency and uniform wages for a man whether he earns it or not. I believe a man should be paid wages according to what he earns.

MR. CARSWELL: I would like to say one word in regard to Mr. Erickson, who is from the northern part of the state. The boys that he speaks of are right there at the gates, and it is a little different than in the middle west or eastern part of the state. The place where one of our boys is, is five miles from the line. The gates are at Osceola

where you can cross the line. Those gates are closed to Wisconsin butter makers unless you can go over there and make that your home. That is the organization of our sister state that is doing such wonders over there at the present time. If we don't do something at this meeting today, it is up to the boys in the northern half of the state to get their two county organizations and go down on their knees with their sister state and see if they cannot get in with the Minnesota organization because the time is coming now when our good boys have got to look to Wisconsin for positions. They cannot go over there and take a position because they boost their own boys. Why shouldn't Minnesota boost their own boys who made this organization? The membership of that organization is upward of 600 members and they raised the allotment \$10 to \$15. The butter makers one to one in Minnesota belong to that organization. The man who is worth so much has to go up before his Board and let them know. He has got to be man enough to go before his association and make the plea himself. That is the right principle that they are working on. I met the manager in St. Paul a few days ago and asked him if I could become a member of the Minnesota organization, and he said, "No sir, you are in Wisconsin. You don't live in Minnesota." "I do," I said. "I live there two nights a week." "Well," he says, "If you are a citizen of Minnesota, I might let you in but you have got to come over here and live." Mr. Erickson's plea is a just one because the boys are there where the gates are closed.

Mr. MICHELSON: I think the subject has been pretty well covered by the former speakers. Mr. Glover spoke about some of the boys who would be seeking other employment if the salaries were not raised. I am sorry to say that I am one of them. I have been studying for the last five years on a side line and the past year have made almost half as much on my side line as I have made in the creamery, just during my spare moments with a little help, and I have come to the conclusion that unless my salary will be raised in the creamery in another year, I will go into that line for good and I have felt for a number of years that something along this line would come up.

PRES. MORAN: It seems as though the sentiment is pretty much one way in this matter. It seems as though it would be a good thing for someone to offer something definite to get this in shape to vote on it.

Mr. ERICKSON: I move to leave it for the noon hour and talk it over, and at the afternoon session take this matter up and vote on it and then I believe that it should be—that if this Association is reorganized along those lines, that we should have a committee appointed for



reorganizing, of active creamery operators and that they should be empowered to call meetings all over the state and discuss this, and then have a meeting the first part of June and have a definite program and everything outlined, and everything approved by the next convention. I presume we could start this during this summer, but I believe we have to have a committee to go over that, and if we appoint three creamery operators for that purpose they could meet sometime this summer.

MR. LEE: A short time ago a young man came into my office before going back to the territory where he came from. When I got that man pinned down to actual facts, he had one month in a dairy school and didn't finish up on examination, and prior to that time he had worked off and on for a very few months; yet he felt he was a full fledged butter maker in Wisconsin. You cannot take a man off a farm somewhere and put him in a creamery and expect him to earn the wages that a creamery pays at the present time. The average farmer in Wisconsin is willing to pay a reasonable wage to the butter maker if he understands that service rendered is worth the money they are asking. The farmers have not seen the point from the right angle.

MR. ERICKSON: All that is necessary is to show them in a nice way that the salary we ask will be earned. Perhaps most of the farmers are a little slow in appreciating these things and volunteering them. The butter makers are slow about asking, that is why we need an organization like this to back us up in support, and help us to get it before the Board of Directors. If he has an Association to help him out, I feel he will be more confident. I believe that the future of the profession is at stake. If we can show that it is worth while to get an intelligent man to stay in the business, we can get others to start in. We have to interest the young men in the business. If they can get more at other work they won't start making butter.

MR. TOWLE: What I want to say is this: from my point of view I would like to see the butter makers come to an understanding of their wages in terms of cents per hour. I believe that would clear up many insinuations against us. If we could determine what our time is worth and get paid according to the hours we put in, it would bring our directors to a sense of efficiency. Then they would not compel the men to work two or three hours over time to repair a bad piece of machinery, if they had to pay that man by the hour for his time. I was talking with a butter maker who has been in the business for twenty years and he says he has been working fourteen to sixteen hours a day. A man working in the business that long should not be compelled to work that long hours, and if he was paid according to the hours a



reasonable amount for his time, he would not be compelled to work those hours. It would not be to the interest of the company to work him that long; but he says it would not pay them to put in another man to work those few extra hours. I asked him what he figured he would get. He said about 32c an hour. Compare that with the other skilled labor we have today. It is way out of proportion and should not be.

PRES. MORAN: I will appoint Mr. Hoiberg chairman of a committee to draft resolutions on the subject of reorganization.



F. L. ODELL

## THE COOLING TANK AND THE CREAMERY

MR. F. L. ODELL.

Mr. President, and Gentlemen: I might say in the beginning of my talk that the butter makers of Iowa are organizing like they have in Minnesota, and this is the way they did it. At their Convention they appointed a committee and also their secretary to go to Minnesota and get all the information they could, and they came back and have had a meeting with some of the butter makers in the state, and are getting along with their organization just the same as they are in Minnesota.

I would like to see the states of Wisconsin, Minnesota and Iowa get together on this proposition.

I am exceedingly glad to be with you today and meet in this Convention, and feel sorry that I have never met with you before. I am so happy in the thought that I can bring before you today the subject that has been foremost in my mind for some time, the subject, "The Cooling Tank and the Creamery," and if you will pardon me, I would like to rephrase that and say "The Creamery and the Cooling Tank."

I would like to say a few words more which will lead up to this, the value of our dairy products, good, clean, wholesome dairy products. I want you to know just where I stand on this subject, that I stand for pure, unadulterated dairy products and butter. About three weeks ago I had the pleasure of attending a lecture given by Jane Addams. You all know who she is. Jane Addams is one of the greatest American women; everyone knows her and everyone knows of the great work that she has done. She was appointed by Mr. Hoover with two or three other ladies to go to Europe in the war districts and find out the condition of the food situation over there. Her mission was to find out the milk situation. When she said "the milk situation" I stood there and listened attentively and she told stories that made the blood almost curdle in my veins. When coming from the lips of Jane Addams, one must know that it is the truth. She told of children that were starving to death, that they looked like they were in the last stage of consumption because they did not have the proper food, because they did not have any milk, and she said that the war cry was "Milk, more milk, for the starving children of Europe!"

During the war a great many of the cattle had been killed off for food purposes, and because they could not get the proper feed for them the cattle had to be killed, therefore the milk supply was cut off tremendously. Here is a lesson that everyone ought to learn, that it is impossible to rear the younger generation, the children, without milk, the great food supply of the human family. She said the children were coming into Switzerland by the carloads and were farmed out to families that could take care of them. Those children were in the last stage of starvation. Only last week I read in the daily papers that a consignment of 2500 children had been shipped out of Austria to Milan to be fed. In that article it said that the United States under Hoover had saved the life of 100,000 children. Miss Addams said she was in Austria, Hungary, Germany, and Armenia; she was also in the devastated districts of France and Belgium, and the children were taken and put into families where they could be fed milk, a small quantity. She was in a hospital on the borderland, and their milk supply had been cut tremendously. This is what she said: a child that was very low and it was thought that it could not live, the milk supply was taken

away from it and given to one where there was a little hope for its life. The mothers with nursing babies, their food supply was so short that they were literally starving to death, and the children themselves were starving for the want of milk.

She also said that in a town in Austria, a gentleman was passing down the streets and he noticed children standing on the streets that were hungry, and he handed them a piece of bread and before he could think, the children came rushing from every direction and pounced upon him and tore his clothing all to pieces, hunting for something to eat.

We can believe those things, but the battle cry is "Milk," and unless something is done to relieve the situation for the children, and younger generation that is growing up, what will that generation be; starved mentally and physically, and how are they going to take care of that country?

Listening to all of these things I think I am a mighty lucky man that I live in America, and I often thank God that I live here and I tell this story often because it is absolutely true: it happened in a little town where I once lived. It was during the Spanish American war, the time that Dewey was "sashshaying" around the Phillipine islands; and one morning in this town there were a few of us standing on the street talking about the war. A gentleman lived in that town, Frank Hensley by name, who owned and rode a beautiful horse, and he came over there, riding his horse, and entered into conversation with us. It wasn't only a few minutes until a young fellow came up from the depot with a telegram, and in that it said that Dewey had sunk the Spanish fleet. What did he do? He turned his horse around and put the spurs into him and rode up and down the street and said, "Thank God I am an American citizen!" I never forgot it; that is one thing in my life that I never forgot, and I thank God that I live in America.

Most people have some ideals, or some excellent purpose—and ideas may be classed with the word "excellent"; and where excellence exists, there are sure to be ideals; and a dairyman that has good, ideal cows, and barns a good clean, sanitary place to keep his milk and cream, and a nice good clean place for his hand separator, if he should own one, and then delivers his product to the same creamery in a clean, ideal condition, should be distinguished for his excellent attainment.

In this country, go with me into any city, or into any thriving, prosperous farming community, and there you will find people that live surrounded with luxury, and in the same city and same farming community you will find people not so well placed with worldly goods.

This same is true in any line of business. You will find the thrifty, prosperous business man and you will find the easy, happy-go-lucky fellow that lets tomorrow bring what it may, and the world is never set on fire by any attitude of his to excel or shine in his line of work. By this, I mean the ones who have attained some ideal, who have attained to some excellent purpose, are the ones who are raising the standards of civilization, and these, when applied to dairying, are the ones who are raising the standard of our creamery operator.

What is the definition of a creamery? I have a little definition of my own, I don't know whether it applies rightly or not; a creamery is an institution designed for a community's good. In the line of cooperation, there is nothing more simple than the cooperative or the local creamery. It does not take a vast, extensive building for its operation, or a vast amount of machinery to manufacture its product, but this is what the creamery does; it offers a fair opportunity for the small and large producers, and it opens up a perpetual market for as much or little milk and cream as the patrons have to sell, and the more they have to sell the better it is for them as well as for the creamery. The trouble seems to be along the line of cooperative creamery movement that so often the farmers are urged into the organization for the profits. The creamery is an organization designed for the community's good. The statement has been made that people should learn to work together for their common good before they try to work together for the common purpose. It is also a notable fact that where you find creameries that are the most successful, you will find that the people are working together for their common good along other lines. It is also a notable fact that where you find a creamery that is not successful to the fullest extent, you will find that the people don't, or at least won't cooperate.

Go back with me about forty-five or fifty years ago and note the progress in the creamery business. At that time very little of the business was known and a creamery in the community was a rare thing to find, and the trade in itself did not comprise very much volume. The trade in dairy products comprised chiefly home demands and the prices of butter varying from six to fifteen cents a pound,—lucky was the groceryman who could sell butter for fifteen cents a pound, and many the jealous neighbor who would be willing to make a sacrifice to secure such a market. I remember those days when we paid six cents for eggs and ten cents for butter; there was no market, nothing but the local market. Eggs were packed in barrels and the butter was all done up in a barrel or shipped to some refining company or somewhere. Look at the changes today in the market conditions, the facilities, etc. and everything that has developed along these creamery lines. Last year

the butter averaged fifty, sixty and sixty-five cents a pound, and this winter it has been as high as eighty-five cents. The demand for butter seems to be unlimited still, although it seems that in the larger cities the people with moderate means were unable to procure butter; then they used what is called a substitute. I am not going to take up any extra time but this leads up to the cooling tank; however; I want to say that these substitutes are creeping in and they are going to destroy our industry unless something is done. They are working and advertising and doing a whole lot more than the dairy industry is doing, but I hope the dairy industry will continue the way they have started and advertise their products.

Only a short time ago I went into a meat market at Des Moines to buy a piece of meat, and when I went in a lady was standing there; she had trays of substitutes on a table and she said, "Do you use substitutes at home?" I said, "No." "Why don't you?" "Because I don't want it in my home." She started to argue and I said, "I don't want it and I wouldn't have it." Then a lady followed me in and she stopped her and she said, "Do you use oleomargarine in your home?" "No." "Why don't you?" Well she had always used butter, had never been accustomed to using oleomargarine and so she didn't buy it. This lady started in to give a little spiel and she said, "This is made in an absolutely clean place; government inspected, spotlessly clean; did you ever go into some of the small creameries in the country? Go in that creamery and you will find it dirty, unclean, the flies around in the cream vats and in the cream and the butter is made from that; do you want to eat that?" She sold her some of the oleomargarine on that basis, and they are using other tactics, they are doubling their ads. I have had quite a time with Mrs. Odell at home. She says that she could hardly afford to pay these prices. I said I wouldn't have it, but she went to the grocery and bought a pound of this nut margarine, and she tried to fool me but I wasn't so easily fooled. This is how it came about. She thought then she would use it for cooking purposes, and we had a little piece of steak; she thought she would use this margarine to fry it with. She used it and the meat stuck to the platter so she could hardly get it loose, and I said, "What would you do if you had that in your stomach?" That piece of nut margarine is laying on the refrigerator now. If it cannot fry meat without getting a crowbar to get it loose from the platter I don't want to eat it.

Forty-five years ago, down here in Jones county, the second creamery in the state of Iowa, was operated by a boy, H. D. Sherman, afterward dairy commissioner of Iowa. It was a crude affair. It was before the



manufacture of dairy machinery and the power that they used was a horse at the end of the street. The churn was a box churn. The milk was delivered to the creamery twice a day. The trouble we have today is to get the cream delivered twice a week. How to raise that cream—how should we get that cream; what did they do? They built a cooling tank and the milk was set in the tank to raise the cream. The milk was set in these tanks twenty-four hours and the cream skimmed off, and this was one of the first cooling tanks. Cooling tanks were used years and years ago in the pioneer days, because people knew that it was impossible to raise cream unless it was cold. They were used way back to the time I was a youngster and now we go out and advocate the cooling tank; it is nothing new, it is an old thing brought out. It ought to be used on every farm, but as time advanced, the cooling tank was discarded. What has the cooling tank done so far in its use? It has done a great deal toward improving the quality of cream and quality of our butter, and I believe in time it will come into general use.

Four years ago out in Lincoln, Nebraska, a firm manufactured a cooling tank. They sent two of these tanks up to the Iowa State College. As I was connected there, I took one of those cooling tanks on my work. I would take it to the creamery and demonstrate it. I got them interested in it. We put some cooling tanks in use and the results were so startling that I couldn't help but take notice of the wonderful improvement. At one creamery we took the cooling tank that summer, and the proprietor had a truck and we put that tank on the truck and we started out over his territory and explained it to them and they said, "That is exactly what we want, we have been looking for something like that."

What do you know, we established two sweet cream routes where he had never received any sweet cream before—simply by the use of that cooling tank. At a little meeting we decided to start a campaign and we consulted just how we were going to do it and we wanted to offer prizes, and there was no one outside the school sufficiently interested so the teachers and faculty went down in their pockets and put up the money, and we offered cash prizes to the butter makers who could show the greatest farm improvement. We had such wonderful results from that one year's work that the next year the commission houses, silo people, ever so many firms were interested and the supply houses came forward with quite a sum of money. They did that last year and this year they will conduct a campaign again and the Butter makers' Association, the Iowa State Dairy Association and the Iowa Dairy Council are going to take care of it.



We called it a farm improvement campaign and gave all the credit to the butter makers. It has been in Iowa the same as in other states, that the creamery depended on the inspectors to do all this outside work. They expected the inspectors to go out and look after the machinery. They have never tried to do any of these things themselves, they want somebody else to do it. We wanted to get somebody else interested in this. It only takes a little tact, and therefore we gave these prizes to the butter makers. We gave points to the butter maker that put out the most cooling tanks; for every cooling tank he gets ten points. For every separator that he took out of an unclean place, ten points. For every milk house that he could get built, twenty points. He was to keep a record of all this and the one that had the greatest number of points received the first prize; and last year we had nine prizes, but the second year we had ten prizes the first was \$50, ranging down.

Now we didn't start out to interest manufactureres of cooling tanks to increase their business, but it was a business proposition. If we were going to improve the quality of the product of the farmer, they must have something to do with it, and we said to the butter maker, "If the farmers don't want to buy a cooling tank, have them make one and get the same number of points; have him fix up his old one and take your ten points just the same." Last year we had about two hundred creameries in the state of Iowa that were working on the cooling tank game. That comprised about half of the creameries in the state so that you see we have made wonderful strides, and there have been some concrete examples. The creameries that have these tanks distributed know where the cream comes from by the quality of it.

Here are one or two things that we were up against. A creamery that had routes where they dropped everyone's cream into a can, the cooling tank did not do very much good, because there were some who had poor cream, which was dumped in with the good cream, therefore it spoiled the good. We had to separate that; the driver had to know the quality of cream and if there was some that was poor, he had to keep that by itself.

This year they are going to conduct a campaign with more energy and there are a great many that are interestd in it, and there will be thousands of tanks put out among farmers this year, and our motto is, "A cooling tank on every farm."

Then they had separators. If a man had a cooling tank or a hand separator in the barn, or in an unclean place, what good was it for him to put that cream in the cooling tank under those conditions; so we

gave ten points if he could get out to that farm and remove that hand separator out of the barn and put it in a nice clean place. Some of us say we are condemning the hand separators, that they are the fault of a poor quality of cream. It is not, although by statistics we see that about 85 per cent of the butter coming on the eastern market was below standard on account of its quality. A hand separator is simply a machine made out of iron and steel.

The milk houses—we wanted them to build milk houses, and where they could interest them in building milk houses we would give them twenty points. We had some that objected seriously to these things; they would say that it was impossible for them to get away from the creamery to go out and talk with these people; they'd say, "I haven't the time, impossible to do this or do that."

I have a couple of cuts here of the cooling tank that is most generally used, and I wish to explain in closing my talk, that if you have one made, there are two points that you want to remember; that the inlet pipe must extend down towards the bottom, that is, when water is pumped in that the cold water goes to the bottom; and the overflow pipe stays up at the top. In getting out over the territory and investigating those things, we find that a good many patrons say "We have one" and they have one of the most crude affairs that you ever say; and if they have any at all, it is probably some box without any cover, and the water coming in, goes right out. The water on the bottom hardly ever moves and gets stale and is not any good. You must have a good cover. There are so many cooling tanks found without a cover, and when the atmosphere is warm, it warms the water and the water becomes the same temperature and the milk and cream becomes sour.

We have a square and a round tank. The cement tank is good, too. If you were using a cement tank, I would have it set down and have a good cover on it, and the water ought to flow through these tanks winter and summer. So many think that in a cooling tank the water will freeze.

The square tank is becoming a great favorite now. It is equipped with all the features of the other tanks, and is more handy and easily taken care of. We hope this year that we are going to have a good many thousand cooling tanks put up and a lot of separators taken out of unclean and put in to clean places.

Taking up all the side issues, you will find that the cooling tank is the greatest asset for the improvement and quality of the American butter, and if I haven't done anything any better than to get a few of

you to organize, I feel that I have been well repaid and I hope to see the time when there will be a cooling tank on every farm.

I will end my talk by giving a little story. A theatre troop was in a certain town and they gave the same bill every night and made a town a week. The first night, there was an old gentleman who sat in a seat, and he became deeply interested in that play, and he was there night after night. The third or fourth night the manager noticed that this old gentleman occupied the same seat and he wondered why he would come there every night and sit in the same seat. The manager thought there must be something attractive about the show that they had not thought of, and he decided to ask him about it. The next night the old gentleman was there all right and the manager went down and said, "I notice you attend this show every night. You have become deeply interested at certain points and we would like to know what there is about this show that we might use for an advertising feature."

"Why, yes, I will be glad to tell you. Do you know in one of the acts where another man comes in and makes love to the man's wife?" "Yes." "And just as he goes out the husband comes in?" "Yes." "Here's the point: sometime that husband is going to catch that son-of-a-gun and I want to be there when it happens!"

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### Wednesday Afternoon Session

1:30 P. M.

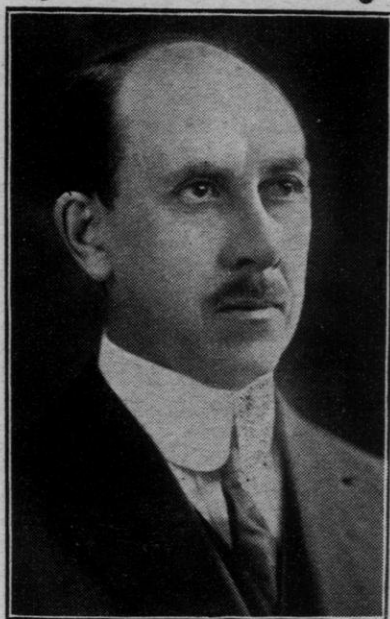
Butter is sold in lobby of Hotel Stoddard to Gallagher Bros., of Chicago, at 58 cents a pound. Meeting called to order by President Moran, at 2:30.

Secretary's Report read by Mr. Benkendorf.

### SECRETARY'S REPORT

Mr. President: I am now presenting the secretary's report for the past year. Owing to new state regulations the report will be somewhat different than formerly. These regulations are: that all moneys received by the association must be turned in to the state treasurer within two weeks after the receipt of the same; this went into effect late in the fall. As is well known, no money can be drawn from the state treasury except by voucher. This regulation applies to all associations

receiving state aid. We receive six hundred dollars per annum. It was not obligatory for our association to comply with this state law, but if we did not we would not receive the state allowance. The officers decided it would be to the best interest of the association to come under this regulation and the money in our treasury was turned over to the state treasurer.



G. H. BENKENDORF

A further regulation provides that no printing will be authorized if it contains any advertising. As a part of our revenue is derived from the sale of space in our convention program we felt that this matter could be handled as a private fund. I assure you that all moneys received will be duly accounted for and a report of the same will be printed. The sum on hand in the state treasury is less than it was last year because it does not contain any of the money received for advertisements in our program. Next year I think the state will change its regulations in this regard.

General Fund.

Receipts

1919			
Feb.	5—	Reported Balance Eau Claire Convention.....	\$ 770.56
"	6—	Coyne Bros. Advertising.....	10.00
"	6—	Hunter Walton & Co., Chicago, Adv. ....	10.00
"	6—	C. H. Weaver Co., Chicago, Adv.....	10.00
"	6—	S. S. Borden & Co., Chicago, Adv.....	10.00
"	6—	Union Casein Co., Chicago, Adv.....	5.00
"	6—	Dairy Record, St. Paul, Minn., Adv.....	5.00
"	6—	John McCarthy, Chicago, Contribution .....	10.00
"	6—	Creamery & Milk Plant Monthly, Chicago Donation.....	10.00
"	6—	J. B. Ford & Co., Wyandotte, Mich., Adv.....	10.00
"	8—	Union Storage Co., Pittsburg, Pa., Adv.....	5.00
"	8—	Manhattan Refrigeration Co., N. Y., Adv.....	10.00
"	8—	Fred Mansfield Co., Johnson Creek, Adv.....	5.00
"	8—	Spangenberg & Co., Chicago, Adv.....	5.00
"	8—	Quincy Market & Cold Stor. Warehouse Co., Boston, Adv.	20.00
"	8—	Torsion Balance Co., N. Y., Advertising.....	10.00
"	8—	Wm. J. Haire Co., Boston, Adv.....	10.00
"	10—	Elov Ericsson, St. Paul, Minn., Adv.....	5.00
"	10—	Sharpless Separator Co., West Chester, Pa., Adv.....	10.00
"	12—	The Dairy Ass'n Co., Lyondonville, Adv.....	5.00
"	12—	Van Tilburg Oil Co., Minneapolis, Adv.....	5.00
"	12—	Chris Hansen Laboratory, Milwaukee, Adv.....	10.00
"	12—	Geo. W. Linn & Son, Chicago, Adv.....	5.00
"	15—	Fairbanks & Morse Co., Chicago, Adv.....	10.00
"	15—	Refrigeration Sales Co., Milwaukee, Adv.....	10.00
"	19—	Milwaukee Corrugating Co., Milwaukee, Adv.....	10.00
"	19—	General Laboratories, Madison, Wis., Adv.....	10.00
"	21—	Colonial Salt Co., Akron, Ohio, Adv.....	10.00
"	25—	Elyria Mameled Products Co., Elyria, O., Adv.....	10.00
"	25—	Alwood Sales Co., Milwaukee, Wis., Adv.....	10.00
"	26—	Creamery Package Mfg. Co., Chicago, Adv.....	10.00
"	20—	Louis F. Nafis, Inc., Chicago, Adv.....	5.00
Apr.	5—	Geo. W. Bull & Co., Chicago, Adv.....	10.00
"	14—	Milwaukee Corrugating Co., Milwaukee, Adv.....	10.00
"	19—	A. H. Barber Creamery Supply Co., Chicago, Adv.....	10.00
"	19—	A. H. Barber Creamery Supply Co., Chicago, Contribution	10.00
June	30—	Cash Memberships .....	194.00
Oct.	11—	Jalco Motor Co, Union City, Ind., Annual report.....	1.00
Nov.	12—	Henry Donner, Swalesdale, Ia., Posters.....	1.00
"	14—	H. C. Christians Co., Johnson Creek, Contribution.....	15.00
"	24—	A. H. Barber Cry. Supply Co., Chicago, Contribution.....	10.00
"	25—	Monroe H. Bullis, Nashua, Ia., Posters.....	3.00
Dec.	2—	John Pirson, St. Paul, Minn., Annual report.....	1.00
"	4—	Menasha Print'ng Co., Menasha, Contribution .....	10.00
"	29—	Boomer Fry Co., Iowa City, Ia., Contribution.....	15.00
"	30—	Farmers Creamery Co., Carlton, Oregon, Posters.....	1.50
Total Receipts, General Fund.....			\$1332.06

Expenditures

Feb.	10—	E. J. Morrison, Expenses to convention.....	\$ 9.24
"	10—	G. H. Benkendorf, Office Expenses.....	213.63
"	10—	Tracy & Kilgore, Circular letters.....	8.25
"	15—	H. E. Griffin, Mt. Horeb .....	24.47
"	15—	H. O. Strozinsky, Menomonie.....	12.08
"	15—	S. G. Gustafson, Delano, Minn., Expenses as Judge.....	12.90
"	15—	C. J. Dodge, Windsor, Expenses as Supt.....	42.49
"	15—	Fred Werner, Waterloo, Expenses as Treas.....	22.42
"	15—	O. B. Cornish, Ft. Atkinson, Convention Expenses .....	26.71



*Expenditures—Continued.*

"	17—C. E. Lee, Madison, Convention Expenses.....	18.29
"	19—Roy Hastings, Marshfield, Convention Expenses.....	9.44
"	25—E. H. Farrington, Madison, Convention Expenses.....	18.18
"	25—E. M. Henwood, Madison, Clerk.....	27.32
"	20—Haber Printing Co., Fond du Lac, Programs.....	234.50
Mar.	11—Clara Hanson, Eau Claire, Convention reporter.....	45.50
"	29—J. H. Credicott, Freeport, Ill., Convention Expenses.....	26.65
"	29—F. W. Bouska, Chicago, Convention Expenses.....	28.50
"	20—Allan Carswell, Clear Lake, Wis., Convention Expenses...	12.65
"	29—G. H. Benkendorf, Secretary, Office Exp.....	25.65
Apr.	1—G. H. Benkendorf, Secretary, Office Expenses.....	7.08
"	18—Tracy & Kilgore, Madison, Printing.....	6.75
Total Expenditures, General Fund.....		\$832.70
Balance on Hand, General Fund.....		\$499.36

**State Fund**

1919

*Receipts*

Feb.	6—Reported Balance on hand at Eau Claire Convention....	\$ 650.61
July	1—By Bounty of State .....	600.00
Total Receipts, State Fund .....		\$1250.61

*Expenditures*

Feb.	6—State Printing Board.....	\$ 22.78
"	8—Theo. Dresen, Madison, Convention Prizes.....	24.00
"	10—Salaries:—Dodge, Supt.; Werner, Treas. and Benkendorf, Sec'y. ....	325.00
"	10—Office Expense .....	77.68
"	20—Victor Maurseth, Madison, Honor Prizes.....	10.00
Mar.	8—State Printing Board, Printing.....	5.72
Apr.	29—State Printing Board, Printing.....	9.07
Aug.	27—Printing Board, Printing.....	7.39
Oct.	2—Printing Board, Printing.....	5.21
"	6—G. H. Benkendorf, Secy. ....	33.11
"	31—Printing Board, Printing .....	31.96
Nov.	30—Printing Board, Printing .....	187.98
1920		
Jan.	2—Victor Maurseth, Madison, Prizes.....	223.44
"	2—G. H. Benkendorf, Secy., Office Expenses.....	19.55
"	31—State Printer, Madison.....	19.22
Total Expenditure, State Fund.....		\$ 1002.11
Balance on Hand, State Fund.....		\$ 248.50

**Premium Fund***Receipts*

1919		
Feb.	8—Reported on hand at Eau Claire Convention.....	\$ 137.47
"	15—Eau Claire Creamery Co., Butter.....	1136.06
Mar.	17—Otto Kielsmeier, Butter .....	10.00
"	30—Genoa Cry. Co., Genoa, Contribution.....	20.00
"	29—Hustler Co.-Op. Creamery, Hustler, Contribution.....	10.00
"	29—Lykens Co.-Op. Creamery, Lykens, Contribution.....	10.00
May	1—Liberty Bonds Interest.....	10.00
Dec.	10—Liberty Bonds Interest.....	10.00
Total receipts, Premium Fund.....		\$ 1343.53



*Expenditures*

1919			
May	29—	J. L. LeFeber, Sec'y. Wis. Dairy Council.....	\$ 500.00
"	3—	Complimentary Butter .....	20.80
"	3—	Excess Butter .....	54.60
"	3—	Exhibitors' Checks .....	346.80
"	3—	J. L. LeFeber, Sec'y. Wis. Dairy Council, Bal. fund.....	210.40
			<hr/>
		Total Expenditures Premium Fund.....	\$ 1132.60
		Balance on Hand Premium Fund.....	210.93

**SUMMARY**

Feb.	11—	Premium Fund .....	\$ 210.93
		General Fund .....	499.36
		State Funds .....	248.50
		Liberty Bonds .....	500.00
			<hr/>
		Total Assets .....	\$ 1458.79

NOTE—This does not include money received for this year's advertising as explained when report was presented.

G. H. BENKENDORF, Secy.

**TREASURER'S REPORT****General Fund***Receipts*

Balance Eau Claire Convention.....	\$ 770.56	
Annual Report .....	2.00	
Posters .....	5.50	
Donations .....	60.00	
Advertising Eau Claire Convention.....	300.00	
Cash Membership .....	194.00	
		\$ 1332.06

*Disbursements*

Orders drawn by Secretary.....	832.70	
Balance .....		\$ 499.36

**Premium Fund***Receipts*

Balance Eau Claire Convention .....	\$ 137.47	
Donations .....	50.00	
Interest on Liberty Bonds.....	20.00	
Convention Butter .....	1136.06	
		\$ 1343.53

*Disbursements*

Convention Butter .....	\$ 346.80	
Excess Butter .....	54.60	
Complimentary Butter .....	20.80	
Wisconsin Dairy Council .....	710.40	
		\$ 1132.60
Balance .....		\$ 210.93

**State Fund***Receipts*

Balance Eau Claire Convention .....	\$ 650.61	
Allowed by State .....	600.00	
		\$ 1250.61

*Disbursements*

Orders drawn by Secretary.....	1002.11	
Balance .....		\$ 248.50

**SUMMARY**

General Fund Balance .....	\$ 499.36	
Premium Fund Balance ..	210.93	
State Fund Balance .....	248.50	
Liberty Bonds .....	500.00	
Balance in treasury .....	\$1,458.79	
		F. M. WERNER, Treasurer.

## THE RELATION OF THE CREAMERY AND THE DAIRY COUNCIL

W. A. McKERROW.

Gentlemen: I am sure it is a pleasure to have the opportunity to come over to Wisconsin from Minnesota and talk to the people that are doing such splendid work in the advancement of dairying. Sometimes we get a little cocky in Minnesota and try to say we are doing things



W. A. McKERROW

better than in Wisconsin, but after all we must take our hats off to Wisconsin when it comes to the advancement of the entire dairy industry. There is no question but what it is leading every state in the union.

My topic today is something that has not yet been developed and you will have to pardon me if I ramble around at various angles. I am interested in the industry the same as you are, in its constructive development, and the maintenance of this industry on sound and con-

structive lines. You have seen changes during the past five years with the relative condition of the industry as it exists throughout the world. You have seen in 1914 that this country was importing approximately six hundred million pounds in various forms of dairy products. Then we found world war conditions and a right-about face in the condition of where the products of the dairy industry of America were to be consumed. We have found that in 1919 according to government reports there were two and one-half billions pounds of milk in its various forms exported to other countries.

It is needless for me to say to you people what is the present condition of the export trade in this country. We find that Canada is now exporting into the United States, high grade butter; we find the Danish butter coming on to the American markets; Argentine has increased her production of butter 177 per cent, and it is my opinion that the future market for American dairy products is going to be in America. Therefore it has come to rest with you people to try and make the most of it.

We are proud in Minnesota, that we are producing the high quality butter, equal or superior to that produced anywhere else in the United States, and there are reasons for it. It is being produced through the local creameries. We are proud, and when we take the reports of Minnesota creameries for last year, we find according to reports that the local creameries paid the farmers seven cents a pound more for butter fat through co-operative and local creameries than through the other settlements. In my opinion the butter manufacturers of this country must depend on quality butter if we are going to maintain our places in the production of dairy products in this country.

Last night it was my opportunity to listen to the Minister of Agriculture of the Province of Alberta, and you people can say that western Canada is not the producer of quality butter, or butter at all as concerns dairy products of the world; this gentleman made the statement that something like twelve years ago he took over his present position and one of the first things he was interested in was developing the butter industry of that province. Prior to that time all types of cream and all types of manufacture were in vogue, and he said, "Gentlemen, the first thing we must do in order to put this butter industry on a permanent basis, is to establish a policy of manufacturing quality butter." As a result, they put in a standardization of cream so that every pound of cream according to law is purchased according to its quality. And is there any reason why butter should not be

graded just the same as number 1, 2, 3 and 4 wheat on the market, any reason why I should say cream is not graded accordingly and pay the purchaser accordingly?

As a result of that regulation in Alberta, at the present time or something like four months ago, they made their final shipment to Great Britain, and he made the statement that that butter was marketed in Great Britain at a good margin of profit because it was quality butter, because it could compete with the very best markets or sections that are manufacturing butter for export to that country.

I am not going to say anything about the future of foreign markets and you listened last night, I understand, to an address that perhaps should be read by every citizen of America, "The Food Values of Dairy Products;" and it is my opinion that there lies the future of the market of dairy products, convincing the people that butter has no substitute, that milk is important and necessary in the diet of the human family, and cheese should be consumed to a much greater extent than it is now.

Statistics showed that the per capita consumption of butter was 17 pounds per year when in Australia it was 25 pounds; when the per capita of cheese was a little over 3 pounds in America, and in Denmark over 12 pounds and I expect we could go on with the other products of the cow in this country and find that this exists.

You are milking in Wisconsin, 1,306,000 cows. We are milking in Minnesota 1,250,000. We are shipping out of the state probably 80 per cent of the products we produce in that state, yet we have overlooked, or neglected letting the people know the importance of this product in the diet of the human family and it is surprising to me when I pick up the daily papers of Minneapolis and St. Paul and find there half pages and full pages of advertising—not of the product of the greatest manufacturing plant of the state of Minnesota, but of the products of other manufacturers outside the state of Minnesota, offering a so-called substitute for that most wholesome product, butter, that we are manufacturing in our own plants in the state of Minnesota. It is surprising to me. I became interested in what we might possibly do by visiting some of our greatest dairy sections in Minnesota.

Some of you people have heard about Northfield, Minnesota. I hear about it in the great northwest part of the country. The banks of Rice County and of Northfield, have a per capita deposit of more than any other banks, or rather more than any other banks in the state of Minnesota with one exception, and what has made it; it has been the manufacturing plants of that county, the old dairy cow. Yet as I go into the

stores of Rice County the only advertising that I see as far as butter, or rather substitutes is concerned, is advertising the products of the cocoanut trees of the southern climes, and yet these stores and these banks are all supported by the dairy production of that country.

I became interested, the same as you people are in Wisconsin, as to what we were doing after all to maintain that important industry and I want to say first of all that the most important thing, and the real reason why we should maintain the dairy industry is because this product is known by a great many people to be the future product of this country; the second reason is because dairying is the most important adjunct to profitable farming that there is in America.

You know as I go into such counties as Rice county and see this advertising, as I go into the grocery stores and hear possibly the groceryman saying to the housewife that butter is pretty high, "and you know we are selling a lot of Ole, don't you want to take some home and try it?" At that very same moment, if Mr. Farmer adjoining Northfield would be picking up a box of goods from Montana or Sears-Roebuck, the groceryman would say, "What are you going to do to this town if all of you patronize these mail order houses?"

So we are interested in the development of the dairying industry, and getting to my subject, which is "Relationship of the Creamery to the Dairy Council, "I feel as though I am hardly capable of taking on that subject, because you know when we try to develop cooperative interests in any line of business, it is one of the hardest things to get a thousand or ten thousand people to think alike, and work together. As I say, we have cooperative creameries and are organizing a dairy council in Minnesota that is building on a firm foundation and will last for time to come, but is slow in progress.

But you know, I think of that story—I might have heard it from Glover—I think we will be a good deal like that southerner that lived down in the Virginia hills and had never seen a train; he started to town to see a train and he saw this big mammoth engine with a long train of cars standing at the depot, and he said, "Well, by Jove, if that old thing ever starts that train, I don't know what I'm talking about; she'll never do it." A moment later the old engine started to puff and go, and got going about forty miles an hour, and he says, "She'll never stop her!"

I predict that will be the future of the dairy council if we build it on constructive lines in the future. Our plan of organizing in Minnesota may be a little different. We have already sent into five counties our organizer who visits each creamery board and talks to them about join-



ing the Minnesota Dairy Council for the purpose of spending one-tenth of a cent per pound on all butter fat, on all butter fat manufactured during the year. We have not had over eight per cent of the creamery boards that turned the proposition down when presented. The big problem is to get the money to start the thing with, in the first place. The big problem is to get the money, and then after that, to get the man. We find it difficult even to get the creamery manager to take the time and effort to present it to the creamery board. After that, we have the difficulty of sending someone out, which will cost from ten to twelve dollars per day to present the idea; then it is hard to get the fellow to make every creamery in the county and probably make two creameries a day.

So then I say the future of this problem rests with you and if we could get every man in the states of Minnesota and Wisconsin that really had an interest in the dairy industry that could build this thing and build it firmly, within the next year, so that we could have, say in Minnesota, \$50,000 to \$75,000 a year for the purpose of advertising that product of the greatest manufacturing plant in America. We could have then, and put into the field, a lot of constructive and educational work.

I feel as though probably you are making a lot faster progress than we are in Minnesota, but there is one thing, that great old cooperative creamery of Minnesota, when that once gets to going, she will stick, and she will put a proposition of advertising over that will make Swift and Armour look like two cents. (Applause). The cooperative creamery and the Dairy Council are going to work together. The local creamery and the Dairy Council are going to work together.

We are going to cement if possible, also, the milk producers which are now with us, and I want to say that we have in the Twin Cities, one of the most sound and logical milk producers' organization anywhere in the country. It is built on a cooperative basis; it is built with the idea of getting a fair price for the product of the dairy cow. They are with the advertising idea and they are going to accept the work of the Council and what we are going to do in the future, and gentlemen, if we can put over an advertising campaign which will double the amount of butter consumed in this country from seven-tenths of one ounce, to one ounce per day, we are going to find enough to take care of the export trade of our present, or past exports of 1919. If we take care of the producing and quality, I predict we are going to find that the consumers are not going to accept any substitutes for

butter, but will demand higher quality butter and will not accept substitutes which are being put on the market.

It has occurred to me that when Wisconsin develops her Dairy Council, and Minnesota develops hers, we are going to be able to cement these states together and advertise the products where the products are consumed. One of our difficulties in Minnesota at the present time is that we are only consuming a small percentage of our product in the state, and we must advertise better where the product is sold, and the time is coming when you people, when the product you are producing and shipping to the eastern market can be advertised with the product which we are producing, and cut down expenses. The splendid work of the National Dairy Council is taking care of this.

If you are running a local creamery, if you are running a cooperative creamery, when you go home, don't forget to talk over the proposition and the importance and necessity of advertising dairy products, locally and nationally. Don't forget to try and get your people, even though your creamery is small, to donate, or in fact to furnish money to support this Dairy Council that you have in this state, and if you all do this, it is going to cut down the cost of organizing a State Dairy Council, I want to say at least fifty to seventy five per cent and that is what we must have, the support of all the people that are interested in the industry.

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#### DISCUSSION

Mr. Glover: You know that they are organizing their Council in Minnesota on a different basis than ours. They are requesting ten cents a hundred pounds of fat contribution. We are asking for one cent. Quite a different basis. The reason they are asking that is because they are sending men out to every creamery and a house to house canvass, and that takes money. You cannot hire a man to go out and pay expenses for anything under ten to fifteen dollars a day at these present prices. We may have to change. It may be necessary before we can get the creamery industry of this state to appreciate the work we have before us, to adopt the Minnesota plan and, instead of going out as I did last year with the Holmen Creamery of which Mr. Kepple is secretary, ask for \$560; that is what Minnesota would ask. We have been perhaps a little bit conscientious in asking for large amounts, because I do not want it ever said that we have misappropriated this money, and if I should go to the Holmen Creamery and ask for \$56 and they send it, they know that it isn't very much as com-

pared with the volume of business and they will never ask me; but if I had taken \$560 from this creamery and \$720 from Mr. Moran's creamery—as his was \$72 last year—that's a different thing.

We have adopted this plan, that if we put on a campaign in a certain place, we will raise the money there to do it. It will take, say \$500 in Oshkosh. I will ask the producers, or the farmers, of Oshkosh to raise the fund of \$500, and we will spend that \$500 right in Oshkosh. Now those men have an opportunity to see how we are spending the money. Now this penny for 100 pounds that I am asking for is to keep a man in the field and provide literature. I hope our scheme will work. If you were in Minnesota, instead of giving a penny for a hundred pounds, it would be ten cents. We will spend just as much money as we will in Minnesota, but we will make each locality, where the money is spent, contribute. In Milwaukee, for every can of milk that comes in there, one cent goes into our treasury. That money is being spent right in the city of Milwaukee and they will contribute their share toward overhead expenses, which are, the support of a man in the field and the printing of material. Both associations are raising money for the same purpose. This scheme of ours is different than in Minnesota, and in the future unless we can get the manufacturers of creameries to respond we will have to adopt the same plan as they are following in Minnesota.

Mr. McKerrow: Mr. Glover realizes that we are going to keep accurate account of our books and be able to give account of whatever we spend through the Dairy Council. Bear this in mind that our method of organizing—as soon as a creamery signs up to our contract, that is a continuous contract, so we simply say the initial cost will amount to about ten per cent if we are obliged to send an organizer out to present the idea to the various creameries. That could be supported over a period of ten years and it is only one cent for each, so our expenses are not so heavy. We have already four counties that have 92 per cent of the creameries that are in the Council; Meeker County has sixteen creameries out of seventeen in the Council; DeSoto County has fifteen out of seventeen, so we are going to get them all when we get through, and I hope you people will accept Mr. Glover's proposition and say to him in about a year, "We want to put in one-tenth of a pound because we want to have more money spent in more advertising."

President MORAN: The next subject, "Cooperation versus Competition Among Creameries," we will have to omit at present, for Prof. E. H. Farrington who was to deliver it, is confined at home by sickness.

However he has favored us with a paper which will be taken up later on.

In place of this number I am going to call on Mr. J. J. Farrell, President of the National Creamery & Butter Makers' Association, who is quite familiar with the doings at Washington and ask him to tell us how things are going on down there.

Mr. J. J. FARRELL: Mr. Chairman; Gentlemen; I feel very much honored to be a substitute for our old friend Mr. Farrington: I am sure he will be indulgent with me at least to undertake to fill out his place even.

## CONSIDER THE ADVISABILITY OF MORE LEGISLATION

By J. J. FARRELL

It is my understanding that a bill defining butter has been, or is about to be, presented to Congress. It has also been stated the Department of Agriculture is preparing a bill for the same purpose. If these reports are true, would it not be well for the creamerymen and dairymen to carefully consider the advisability of more legislation on butter, without the repeal of some of the legislation we already have? One of the bills is as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress Assembled: Section One. Butter is hereby defined to mean that food produce which is made from milk or cream or both, with or without common salt; with or without additional coloring matter; and containing not less than eighty (80) per cent of milk fat and less than sixteen (16) per cent of water. Provided: The determination of the fact of compliance with the standard herein fixed, in every case of contest hereunder shall, under the rules and regulations made by the Secretary of Agriculture, be based on a fair system of averaged tests."

It will be seen the above bill not only defines butter, but sets a standard therefor, and not only a standard, but two standards—one for moisture and one for the fat content. This double standard would not be so objectionable were it not for the specific statutes now governing butter. The Statute of 1886 defines butter as follows:

"Butter is a food product, made from milk or cream or both; with or without common salt; with or without additional coloring matter."

This definition of butter by Congress was enacted with a view in mind that it would embody normal butter wherever made. At the time of this enactment by far the largest amount of butter was made on the farms of the country. Sixteen years later, or in May, 1902, an Act was passed by Congress defining adulterated butter.



J. J. FARRELL

This Act mentions several things that would cause butter to be adulterated, and in the closing paragraphs it states:

"It shall not contain abnormal quantities of water, milk or cream."

The Act states to engage in the business of making adulterated butter such persons must take out a license, and all butter made under this license is subject to a stamp tax of 10c per pound. No person or manufacturer making butter ever qualified under this Act. It is needless to say, no one could afford to make butter under such penalties.

It is to be noted that Congress in neither of these Acts set a standard for the composition of butter, but in 1903 the Secretary of the Treasury and the Internal Revenue Commissioner made a



ruling that 16% of moisture is abnormal, and all butter found to contain 16% of moisture is subject to the penalties of the Act, except farm or dairy butter. This, of course, was a wise exception, because in making butter in the usual normal way on the farms the butter would contain anywhere from 10% to 20% of moisture, and the good women on the farms would not stand for such a ruling because they knew not the moisture content, and cared less, for they were making normal butter.

For sixteen years this moisture ruling has been applied to creamery butter, and creamery butter may not contain 16% of moisture. The creamery people have always shown a disposition to comply with fair rulings, but the seizing of their product and the penalties applied under this ruling does them a great injustice. The less than 16% of moisture ruling has resulted in establishing a standard for butter, and the only standard of composition the creamerymen ever worked under. This automatically gives us a fat content of about 80%, depending upon the variation of salt and casein, and about 82½% of fat where no salt is added.

Now the Department of Agriculture is demanding a fat content for a standard. It is to be remembered that this Department has a ruling, calling for 82½% fat content in butter. Why the Department of Agriculture ever adopted an 82½% fat content is a mystery. No other country that produces butter to any great extent has such a standard. If butter is to be salted to suit the tastes of our various markets, the creameries cannot comply with an 82½% fat standard without adopting abnormal methods in the manufacturing process, besides the injustice that would be done to the producers of milk fat in competition with other countries. But suppose the above bill defining butter and setting a standard therefor becomes a law—what will happen to the creamery where part of the same churning of butter contains 80% of fat, and another part contains 16% of moisture? Will it mean the butter is subject to a tax of 10c per pound in one Department of Government, and legal in another Department of Government? Or, we will reverse the situation. Suppose we have only 15½% of moisture in part of the churning and 3½% of salt, which is reasonable to assume, and allow a full variation for casein of from 1% to 2½%—we will then be deficient in fat, or "Milk Fat Subtracted" as the Department of Agriculture terms it. Will butter then be subject to seizure, although according to the moisture clause in the bill, which states less than 16% of moisture, we would have legal butter?

Our position is unique, to say the least, for no other country has a taxable adulterated butter Act. There is, however, a regulation



for what is known as "Blended Butter." The blended butter of England is about the same product as would be made under our Adulterated Butter Act of 1902. The Adulterated Butter Act is as follows:

"Adulterated butter is hereby defined to mean a grade of butter produced by mixing, reworking, rechurning in milk or cream, refining, or in any way producing a uniform, purified or improved product from different lots or parcels of melted or unmelted butter, or butter fat, in which acid, alkali, chemical or any substance whatever is introduced or used, for the purpose or with the effect of deodorizing, or removing therefrom, rancidity, or any butter, or butter fat, with which there is mixed any substance, foreign to butter, as herein defined, with intent or effect of cheapening in cost the product, or any butter in the manufacture or manipulation of which any process or material is used, with intent or effect of causing the absorption of abnormal quantities of water, milk, or cream."

It will be seen, by the analysis of this Act, the men who composed the Congress had in mind the adulteration of butter which had already been churned and placed upon the market, and which was collected and reprocessed, or butter which was reworked with some process whereby it was made to absorb abnormal quantities of a cheaper product. The Commissioner of Internal Revenue verifies this contention by his ruling of June 6, 1906, where he states as follows:

"It is well understood that butter produced on a farm is often loaded with water, but it will be seen by reference to the regulations these small individual lots are not taken into account in connection with the taxing question, but when these are gathered up and manufactured or manipulated so that they lose their identity as a farmer's product, they enter the sphere where surveillance of the law becomes operative."

Again on May 25, 1911, the Commissioner ruled that although the butter of farmers, who make small quantities of it and sell their surplus above family requirements, contains more than 16% of moisture, yet it is not taxable as adulterated butter, either in their hands or in the hands of merchants or dealers who receive and dispose of it in its original form.

It is plain to be seen that should the proposed bill become a law, the Internal Revenue ruling will be in operation; therefore, are we not re-enforcing this ruling by a Statutory Act, and legalizing the Internal Revenue Collector's taxing operations? True, it does not mention this, but the bill calls for the same moisture content as the

Internal Revenue Department's ruling without making any provision for the repeal of the taxing clause in the present law. On the other hand, would it not legalize the seizure and condemnation proceedings of the Department of Agriculture, under the Food and Drug Act? Thus we will have two Departments of Government attempting to control a product, technically speaking, that no one has been able to completely control because of its nature. Why should American creamery butter be subject to two standards supervised by the same Government, but separate Departments—one Department subjecting the butter to a tax, and the other subjecting the butter to seizure and condemnation proceedings?

The Food and Drugs Act does not set a standard for composition in any article of food. We are not denying the jurisdiction of the official who is charged with the enforcement of the Food and Drugs Act the right to seize food that is in a state of decomposition, or that is dilatorious to health, or where a foreign material has been added to a product for the purpose of adulteration. If water is added to butter for the purpose of adulteration then the product enters the sphere where surveillance of the adulterated butter law becomes operative, and if foreign oils are added to butter it becomes subject to the penalties of the oleomargarine law. Does the Department of Agriculture seize oleomargarine under the provisions of the Food and Drugs Act because it varies in composition? No, for the reason there is specific legislation governing oleomargarine. If this is true of oleomargarine it should be equally true of butter, as we have a Federal Statute defining butter, and a Federal Statute defining adulterated butter. But suppose the Food and Drugs Act did define butter, or the composition thereof, would not the Food and Drugs Act then automatically annul the moisture ruling of the adulterated butter Act of 1902? But the Food and Drugs Act does not mention butter; therefore, it does not apply to butter so far as standards are concerned. Following is the action of Congress authorizing the Department of Agriculture to make rules and regulations:

"By the Act of Congress approved March 3, 1903, authority was given to the Secretary of Agriculture to collaborate with the Association of Official Agricultural Chemists and the Interstate Food Commission 'to establish standards of purity for food products and to determine what are regarded as adulterations therein.' As a result of such collaboration, the Secretary of Agriculture on June 26, 1906, announced the following definition and standard for butter:

"Butter is the clean, non-rancid product made by gathering in

any manner the fat of fresh or ripened milk or cream into a mass, which also contains a small portion of the other milk constituents, with or without salt, and contains not less than eighty-two and five-tenths (82.5) per cent of milk fat."

It will be seen by this rule and definition of butter if butter is rancid it is not legal butter, and if it does not contain 82½% of fat it is not legal butter. This ruling, however, was never attempted to be enforced until recently. It is needless to say that it cannot be enforced where butter is salted. Under the above rules the Department of Agriculture seized unsalted butter containing as high as 83% of fat. They undoubtedly also had some that was much lower in fat content. Under the same ruling the Department seized salted butter which the Internal Revenue Department's chemists analyzed and released as normal butter. But the Department of Agriculture held this car as adulterated butter. I am not attempting to say the analysis of the few samples made by the Department of Agriculture from this car of butter was incorrect, but it proves how totally illogical it is to label a car of butter as adulterated on the showing of a few samples. It also proves that two sets of chemists arrived at opposite results, again proving butter is not constant in composition. Laws or regulations that cannot be lived up to mean one of two things, either the demoralization of the thing they seek to control, or the ignoring of the law or regulation.

What is there about the creamery and dairy business that attracts the attention of people whose chief aim is to make rules and regulations governing the actions of others? Surely the dairy business is handicapped enough without placing more upon it. It is a business in which there is constant drudgery, and because of this drudgery, nearly everyone connected with it gets out of it as soon as possible, and turns to other occupations. It is getting so it is unsafe for persons engaged in the distribution of dairy products to continue because we may turn in any direction and find rules and regulations confronting the distributor which it is impossible to comply with.

I attended a milk Inspector's meeting at Springfield, Mass., during the late world war. While at this meeting I discovered that out of 120 cities and towns in the New England States there were 120 different ordinances governing the milking of cows and distribution of market milk. In order to comply with the various ordinances, a farmer who sold milk had to milk his cows in about 120 different ways or locations in order to live up to the stone wall of ordinances he found ahead of him. Finally, one old Yankee thought he would beat the ordinance game where it was unlawful to milk a cow on

the ground, so he got up a contraption which enabled him to suspend the cow in the air while milking. Then the Chairman and Chairwoman of the local Humane Society had him arrested for cruelty to animals. He then told them in his Yankee fashion where they could go and milk their cows, if they wanted milk, and he went to raising tobacco. Raising tobacco is what the Connecticut Valley is now doing. So it will be in the West soon if we are not allowed to churn butter in the natural way, and salt it to suit the tastes of the various markets without being branded as adulterators. Then butter (because that is what the oleomargarine manufacturers want to call their product) will be churned in the oleomargarine factories. It will not matter then whether it has an eye of fat more or less or a drop of water too much because everything under the sun is in it anyway, and the persons enforcing the rules and regulations are silent on the fat content of this product.

Is it not about time the dairymen and creamerymen get together for mutual protection of the industry, and unload a ton or two of rules and regulations, and see to it that a few ounces of common sense are applied?

J. J. FARRELL,

National Dairy Products Committee, Washington, D. C. and Dairy Products Association of the Northwest.

The following States have regulations of 82½% fat standard, and eight of them also have 16% moisture ruling:

District of Columbia, 83%	-----	By Act of Congress
Missouri, 82½%	-----	By Act of Congress
Wisconsin, 82½%	-----	By Act of Congress
Georgia, 82½%	-----	By Ruling
Idaho, 82½%	-----	By Ruling
Illinois, 82½%	-----	By Ruling
Indiana, 82½%	-----	By Ruling
Louisiana, 82½%	-----	By Ruling
Maryland, 82½%	-----	By Ruling
Montana, 82½%	-----	By Ruling
Mississippi, 82½%	-----	By Ruling
New Jersey, 82½%	-----	By Ruling
North Carolina, 82½%	-----	By Ruling
Oklahoma, 82½%	-----	By Ruling
Rhode Island, 84%, —.16	-----	By Ruling
Vermont, 82½%	-----	By Ruling
Wyoming, 82½%	-----	By Ruling

The following countries have 82½%, by regulation, and also 16% moisture: Argentine, Australia, Queensland, South Africa, Victoria, Tasmania, West Africa, Belgium, Italy, Roumania, Switzerland.

President MORAN: We dislike to cut this short, but we have a very energetic secretary who gets out a program about twice as long as time given us. There are some resolutions to be offered I understand, at least one of these must lay over twenty-four hours before being acted upon, and that necessitates our giving it consideration now.

Mr. ERICKSON: I don't know as I understood you, but I believe the proposition was brought up last night for a change in the constitution, and that has given us practically twenty-hours notice for a day, and as this is really butter makers' day, as most of them are here today, I believe that we should vote on it.

President MORAN: Yes, but the Constitution says the proposed amendment itself must be read at least twenty-four hours before being acted upon.

Mr. ERICKSON: In the first place I wrote to Mr. Colwell and asked him to be here at the first session and have somebody bring that up, and I understood it was brought up last night; technically, according to those words, it was not, but I believe if we put it off now that nine-tenths of our butter makers will be gone twenty-four hours from now and they ought to be here to vote on it. I believe every man from the northern part of the state will be gone. I don't believe a little technicality like that ought to put it off for twenty-four hours.

Mr. DODGE: I make a motion that under the circumstances, we suspend the rule and vote on it.

President MORAN: This is the constitution under which you are incorporated.

Mr. ERICKSON: Who will hold it up? I don't see that there is any great injustice done to anyone if we don't follow it out technically; it was announced at that time that there was a change in the constitution and it should have been read at that time.

Mr. GLOVER: I understood last night that the announcement was made last night so as to take up this very thing.

President MORAN: It was, the subject is the same, but technically it was supposed to be read; but if your convention feels it is all right to proceed, it is all right so far as I am concerned.

Mr. MOORE: I suggest that we have the resolution read and adopted today and confirmed tomorrow. That would make it positive.

Mr. ERICKSON: That would satisfy the butter makers, I believe.

Mr. TOWLE: As I understand it, the purpose of providing twenty-four hours between the presentation of the amendment and adoption of it, is to give us a chance to talk it over and discuss it; and would it be possible to read that resolution now and act on it later at our next session, to give us a chance to discuss it. The objection, I



understand, is, that a number of the butter makers must start for home this evening.

Mr. ERICKSON: This matter was brought up this morning and everybody can see the drift and understand what we mean.

Mr. BENKENDORF: After the resolution is read, I think everybody will understand Mr. Moore's suggestion is all right.

Mr. Erickson then presented a resolution, as follows:

## RESOLUTION

The amendment of Article 3 and Article 4. Article 3 reads as follows: "The Association shall be a corporation without capital stock. Any person who is a practical creamery operator and such other persons as are connected or interested in the manufacture and sale of pure butter, may become members of this Association by paying one dollar. (\$1.00) annually in advance, and signing the Roll of Membership."

I would suggest that Number 3 be amended to read: "The Association shall be a corporation without capital stock. Any person who is a practical creamery operator, and is engaged as such, and who has at least three years actual experience in the manufacture of butter in a creamery, may become members of this corporation by paying \$1.00 in advance and signing the Roll of Membership; provided, however, that members who, at the time of adoption of this amendment, are not engaged as creamery operators, but who have had at least three years practical experience as creamery operators, shall be permitted to continue their membership in this corporation."

Article 4 should be amended by an addition requiring that all officers and directors shall be members actually engaged as creamery operators in the employ of a creamery, or creamery company, except the state Secretary, who may be a member not so engaged."

President MORAN: What is your pleasure regarding that resolution.

Mr. MOORE: I move, adoption of the resolution.

Motion is made and seconded that the resolution be adopted.

Mr. ERICKSON: Does this mean that we shall vote by ballot or by acclamation on it.

Mr. MOORE: The Constitution says by two-thirds vote. It really should be by ballot, but not necessarily.

## DISCUSSION

President MORAN: Is there any discussion, or are you ready for the question?

Mr. ERICKSON: I would suggest that we take a rising vote on it.

Mr. CARSWELL: Could we ask Mr. Erickson or some of the Minnesota



boys to give us a little line on how much the Minnesota boys, the managers and operators, have got in their association in the last two years since they organized.

Mr. MORAN: Is there anybody able to report on that?

Mr. ERICKSON: I don't know for certain, but it is a large sum of money, unusual for the Butter makers' Association anyway.

Mr. CRUMP: In the first year they had in the neighborhood of a little over 400 members, and they paid ten dollars, and it has now been increased to fifteen dollars and they have 625 members today—or the day I left home—so you can figure out how much money they have received, and in all probabilities they will put the fee up to \$25 or \$30 for membership. Quite a good many wanted to do that this year, but the officers thought best to hold it down and get them to come in. That is for joining, and they have fixed dues—they are paying, I believe, six dollars for dues. Now in all probability they will have a hired secretary that will do nothing but that work and the dues will be higher and then they will charge \$25 or \$30 for joining and the dues will be adjusted to what their expenses are. I believe I stated it wrong, I forgot what the dues were last year,—I am not a member so I have not followed their work very closely, because my work is business manager of the Dairy Record; I know nothing about the moneys received.

Mr. MORAN: A question was asked back there and it was, "Does this include creamery helpers?"

Mr. ERICKSON: No, unless they have three years experience.

Mr. CARSWELL: That doesn't bar them from these open meetings?

Mr. ERICKSON: Only at the business sessions.

Mr. CARSWELL: We are all allowed in the discussions, like our other meetings, except just the business sessions.

Mr. GRIFFIN: If you don't belong to the Association, will they try to work you out of a job?

Mr. ERICKSON: I don't believe so; it is for the betterment of their own association; there is no record of adopting labor union method that isn't the way we want to work it. It is an association to bring out the butter makers together, and where they can get better salaries. It isn't labor union methods we are trying to organize, or try to run a man out of a district, but I suppose they would try to get them to be a member.

Mr. GRIFFIN: Well supposing a creamery where a man isn't getting the wages he should, is that secretary going to try to get more wages for that man.

Mr. ERICKSON: Well, if he asks for help, I think the Association will send him literature showing that his salary is too low. A man

may be working for \$100 a month and his neighbor getting \$150 for his work. In 1914 wages paid to butter makers was three per cent of what is paid to the farmers, in 1919, two per cent. These things are brought out and studied out. They can do lots of work that way, that is not really according to labor union methods of trying to force anyone, or antagonize anyone, it will be done in a nice way.

MEMBER: Does Minnesota license her butter makers?

Mr. ERICKSON: No.

MEMBER: The Minnesota association has established a minimum standard for wages, whereby they are not allowed to pass under a certain amount. No member belonging to that association can work for less than \$1,800.

Mr. CRUMP: Supposing that you are working in a creamery there and you are trying to get your work to come up to \$1,800; the other members have got to go in there and put their wages at \$1800 and you think you are willing to work for \$1700, you are allowed to do it, but the other members are not. They have taken this method so as to bring the creamery up; some of the members over there object to it, some say they will not hire an operator, saying they would rather pay more salary for some outside man. We are not trying to force some men into this association; we are trying to get these butter makers these wages. A great many are going to pay, and lots have been raised from \$800 to \$1600, over the price they were getting last year. Mr. Griffin asked how they help; the secretary has prepared a letter we have studied over very carefully, sending out this letter to every butter maker in the state, showing him a letter we would address to every member of the board of directors of the creamery and ask them if satisfactory to send it to them. In that, we ask what the butter maker has to do to qualify for this association. If he does not give the efficiency, the board of directors are requested to report him to the state secretary. We expect to have men to go out and show the butter maker, if he isn't giving this efficiency, to teach him how so that he is getting the money the creamery is paying. Since we have started this association, and the boys are getting this pay, they are taking a great deal more interest in their work. The creameries are satisfied; lots of them are endorsing it, and are writing in to the office asking for a member to apply for their position, if we can recommend a member.

MEMBER: That's what I wanted to bring out, that the association by their united efforts had established this school and were trying to get it to work out universally throughout the state.

Mr. CRUMP: We are bringing them up gradually, and as one comes up, others will be forced to come up, and the butter makers not members, they are not working against them.

By a unanimous rising vote of 100 members, the resolution was declared adopted.

PRES. MORAN: Are there any other resolutions?

MR. ERICKSON: Mr. Hoiberg has a resolution to offer.

#### RESOLUTION

WHEREAS, it was the sentiment of those present at this morning's session, that a complete reorganization of the Wisconsin Butter Makers' Association was desirable, therefore be it

RESOLVED, that a committee of three active butter makers be appointed to study the plans reported to be working successfully in Minnesota and Iowa and adapt them so far as practicable to our requirements.

Said committee to be prepared to report at a meeting of this Association to be called on the second Tuesday in June at such place as in their judgment seems best.

Said committee is also empowered to secure such legal advice as is necessary, and the necessary expenses of the committee incurred in working out this reorganization, to be paid for from the funds in the treasury of this Association.

H. B. HOIBERG.

PRES. MORAN: That committee I understand should be elected by the Convention.

MR. HOIBERG: Yes, that's the sense of it.

MEMBER: Mr. President, I nominate Mr. H. B. Hoiberg, Mr. Albert Erickson and Mr. R. P. Colwell.

MR. MOORE: I move the adoption of resolution and committee.

Motion carried unanimously for adoption of resolution and committee.

#### ELECTION OF OFFICERS

PRES. MORAN: It has been customary that someone else preside during the election of officers and I will ask Mr. Moore to take the chair during that session. Motion is made, seconded and carried unanimously for the election of Mr. H. B. Hoiberg of Coon Valley, as president.

MR. MOORE, Chairman: The next to be elected is the Vice President.

Motion is seconded and carried unanimously for the election of Mr. T. B. Towle as Vice President.

MR. MOORE, Chairman: The next to be elected is Treasurer; who will you have for treasurer?

Motion seconded and carried unanimously for the election of Mr. F. M. Werner of Waterloo, as treasurer.

MR. MOORE, Chairman: Next officer to be elected is the Secretary; whom will you nominate, gentlemen?

Member nominates Prof. Benkendorf.

MR. BENKENDORF: I beg to say that I have had this position for ten years,—a long while, but I am not a candidate this year; I have always enjoyed the work and the officers have helped me very much in every way, but I do not wish to be considered as a candidate this year.

MR. ERICKSON: Inasmuch as Prof. Benkendorf does not feel like serving us any longer, I believe I would urge the Association to consider a man from the northern part of the state, Mr. R. P. Colwell.

Vote by ballot is taken; result of ballot, Mr. Colwell received 96 votes, Mr. Mott, 17. Mr. Colwell declared elected secretary.

MR. CHAIRMAN: Gentlemen, there is one more to be elected; a member of the Executive Committee. Who will you have in place of H. E. Griffin for the next three years?

Motion made, seconded and carried unanimously for the election of Mr. Alfred Erickson of Amery to the Executive Committee.

MR. BENKENDORF: The Executive committee is Oscar Cornish, Mr. Dodge and Mr. Erickson. I would like to have a meeting of the Executive committee in my office tonight to look over our books.

Mr. Moran resumes the chair.

MR. MORAN: We will continue with our regular program.

## CO-OPERATION VERSUS COMPETITION AMONG CREAMERIES

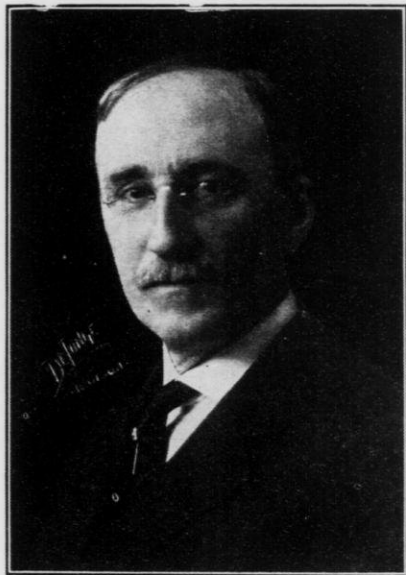
E. H. FARRINGTON

One of the secrets of success in butter making is uniformity in quality. Many illustrations might be cited to demonstrate the truth of this statement. Every butter maker, as well as every butter buyer, knows that higher prices will be paid for a carload or two of butter that is uniform in quality or made at one factory than can be obtained for the same amount of butter made up of the churnings from several creameries, no matter how expert the butter makers in these creameries may be.

The general market likes to recognize a taste in butter that the consumer has become accustomed to, and any variation from the familiar flavor, arouses suspicion and provokes expressions of dislike. These

may not always mean that the butter is inferior in quality but that the familiar butter taste is lacking.

A uniformity in the salt, the color and the texture of butter is obtained by careful and uniform workmanship. This is largely mechanical but when it comes to obtaining a uniform flavor in the butter from several creameries, this requires something more than a mechanic; some attention must be given to the condition of the cream delivered from the farms.



E. H. FARRINGTON

The effect of a variety of farm conditions on the flavors in the cream is much more apparent in raw cream butter than in butter made from pasteurized cream. When the cows receive sound and wholesome feed and are milked in a clean way as is generally the case after a rain in June, the butter made from such milk will often have a different flavor than that obtained from the same cows only a few months later when they may be standing all day in stagnant pools of water, fighting flies in a pasture that has been barren of feed in consequence of a continued drouth. There is a great difference in the purity of the milk produced under these two conditions and in the kind of bacteria found in the cream.



One of the strongest arguments in favor of pasteurizing the cream for butter making is the fact that it aids in obtaining a butter that is uniform in quality because the great variety of bacteria and ferments found in the cream from a number of farms are destroyed by pasteurizing the cream and the butter maker has a better chance to obtain a uniform butter than from raw cream.

Every butter maker knows that the flavor of such pasteurized cream butter is likely to be less pronounced than that made from raw cream, but he will soon find that his milk, sweet flavored, pasteurized cream butter will be more satisfactory to his trade because of its uniformity in flavor, than can possibly be the case with butter made from unpasteurized cream.

This brief reference to the importance of pasteurization in making butter of a uniform quality, I could not fail to mention, although pasteurization is not the topic which I am supposed to discuss at this time.

#### "CENTRALIZED CARLOTS" COMPARED WITH BUTTER FROM ONE CREAMERY

There are a number of other things that aid in the production of large quantities of uniform butter. One of these is illustrated by the effect which standardized methods of manufacture have on the quality of butter.

Those of us who follow the creamery butter, market reports have noticed that the market quotations of so-called "centralized carlots" of butter scoring 90, are occasionally a cent or more above the quotations for so-called "whole milk" butter, scoring 90 points.

I was interested in making comparison of the prices of these two kinds of butter, and gave a graduate student the job of making a diagram that would show the way in which these prices followed each other from day to day during an extended period of time. The figures used in making this diagram were taken from the "butter market reports," published daily by the United States Department of Agriculture, from the office of the Bureau of Markets located in Chicago.

This diagram of prices was begun in May, 1918, and it shows that all through the summer and up to about the last of September, there was a difference of nearly one cent between the market quotations of "centralized" and "whole milk" butter scoring 90. In October and November the difference was only about one-half a cent, while in December, the price of "centralized" butter dropped below that of "whole milk" butter scoring 90, and then for the remainder of the year, the differences in price fluctuated, but as a rule, the price of "centralized" butter in



carloads is usually higher than that of the "whole milk" butter of the same score.

This, it seems to me, shows that there is an opportunity for our co-operative creameries to increase the prices they are receiving for butter, by adopting a practice of co-operation rather than of competition. One can easily understand that if the creameries in a given territory would work together and compare their methods of manufacture so that the butter in each one of several factories is made by exactly the same methods, it would be uniform in flavor, texture, color, and salt, and the several carloads of butter made daily by such a group of creameries would undoubtedly sell for a higher price than the same amount of butter manufactured and sold from each of these creameries independently of the other.

#### REDUCTION IN THE NUMBER OF CREAM ROUTES

"There are always some patrons at co-operative creameries who do not understand the difference between competition and co-operation." This statement was made to me not long ago by the president of one of our largest co-operative creameries. He said that he had noticed a tendency among some farmers to think that when competition is removed or when they are so situated that only one cream wagon drives by the farm, they are not receiving the benefits they would obtain if there were more cream wagons on the same road. They have an idea that two or more routes will compete with each other and because of this competition, the farmer will receive a higher price for his cream per pound of butter fat than would be the case if he was located on a farm where only one cream wagon passed by it.

Some farmers he said, "seem to forget that the expense of operating these wagons must be paid out of the receipts for the butter made from the cream and they also fail to understand that the greater number of cream wagons passing a given farm or the more competition there is to get his cream, the greater will be the cost of gathering it."

The president of this creamery cited a locality where four cream wagons passed over a certain highway and several of the farmers on that road seemed to think their farms were favorably located because of these four routes. He said further, that some farmers seem to have an idea that a creamery can pay any price it chooses to pay for cream, but they fail to realize that the cost of operating a factory must come out of the farmer in one way or another.

Another mistaken notion which some farmers seem to have is that when they live near a creamery they ought not to pay so much for hauling as those farmers living several miles away. Such farmers do not

seem to understand that the men living near the factory must necessarily help to pay the running expenses of the factory and that the cream hauling is one of these expenses. As a rule, there are not a sufficient number of patrons living near the factory to make it profitable to operate the same, but by taking the cream from farms ten miles or more away, the volume of business is increased so that those farmers living near the factory profit by the reduced cost of operating a large factory and in this way both the far and the near patrons are financially benefited by having factory in operation no matter what distance away from a factory the farm is located.

#### THE USE OF A FIELD MAN

The way in which some of the large manufacturers of dairy products have built up their business during the past four years ought to convince the patrons of co-operative creameries that some of their methods could be profitably imitated by the farmers in the management of their own creamery.

One of the things the large manufacturers are doing that the co-operative creamery patrons might profitably imitate is the employment of a field man who is capable of doing two things; first, giving instruction to the operators in all the creameries of a given group; and second, visiting the farms, supplying the cream, and finding out how well these are equipped with milk houses, cooling tanks, clean stables and profitable cows.

The work of such a man with the butter maker at the creamery should include the standardizing of methods of manufacturing the butter. In order to do this, he should spend at least one week with the butter maker and during this week, he would get an idea of the condition of the cream when it is received. This information would help him in his later inspection of the farms supplying the cream. He would also, at the creamery, make suggestions in regard to the equipment needed and methods of doing the work that would reduce the losses of manufacture to their lowest terms and turn out a quality of butter from the creamery, that is uniform from day to day.

The importance of the work a field man might do among the creamery patrons is well understood. He must become acquainted with what each farmer has and what he needs. This should enable him to suggest changes that would help the farmer deliver to the cream haulers, a cream entirely satisfactory both in test and in sanitary condition. One of his duties would be to demonstrate and to convince the patrons that it is absolutely necessary to have a milk house or some method of cooling the cream on the farm. He also would inspect the methods of milk-

ing the cows and suggest the whitewashing of stables and many other things which it is hardly necessary to enumerate at this time.

The value of the work of such a field man was impressed on me recently by a superintendent employed as a general manager of the field men working among the patrons of a large dairy manufacturing plant in this state. He informed me that he had convincing evidence of the great value that the field men had been to the firm in raising the quality of the product manufactured. He quoted from his records to show that in one locality there had been reported by the field men an increase of 80 per cent in the milk houses and 48 per cent in the whitewashed cow stables during a period of two years that this field man had been visiting that territory.

In one of the localities where a field man had been employed for a year or more, one of the important things accomplished was the abolishing of four cream routes. This naturally reduced the cost of making the butter by a considerable figure. Another thing accomplished was the establishment of an agreement among the factories that they would refuse to take cream from the patron of another factory unless he had a good reason for leaving the creamery he had been patronizing.

One of the field men working among the patrons of a certain group of creameries, reported that he had many evidences of the benefits his work had been to the creamery patrons. These benefits were noted on the second and third trips made among the patrons when he nearly always found an increase in the number of milk houses, whitewashed cow stables and improvement in the cleanliness of the dairy utensils as well as in the cleanliness of the cow stables. Many of the improvements, he stated, would not be noticed by the average person but they were easily seen when the conditions at the farm were compared with those existing before the field man visited the farms.

It is natural to expect that the work of a field man is not always pleasant and his efforts are sometimes misunderstood by the farmers. He must occasionally put up with some disagreeable situations, as he is expected to accomplish his end without prosecution. In nearly every case, however, it has been demonstrated that a great deal can be accomplished by the right kind of a field man, as it is undoubtedly true that inferior grades of cream are sometimes the result of ignorance on the part of the farmer as to what he ought to do in order to supply the factory with cream of a satisfactory quality.

A field man who has worked among a group of factories in this state reports that when the idea was first suggested to the creameries, some of the directors objected, because they claimed it would be a needless expense. A few of the creameries, however, finally decided to try out the idea of employing a field man among their patrons and the man

selected for this work states that he became very much interested in it. He concluded that the creamery part of the work was fully as important as visiting the farmers and that the secret of success in carrying out this plan depends first, on the type of man who has charge of the work and second, on the uniformity of the product made in the factories over which this man has general supervision.

#### OUR WISCONSIN OBSERVATIONS

Some of the members of this association will remember that a few years ago we began discussing the plan of forming Mutual Benefit Organizations among the co-operative creameries and cheese factories in sections of this state where a good opportunity was afforded to make it possible to derive the benefit of such an organization in that locality.

One of these organizations was started in the La Crosse river valley and the other among the Co-operative Creameries near Chippewa Falls. The Associated Co-operative creameries of La Crosse River Valley included eight creameries, and the Chippewa Falls Co-operative Association started out with 12 creameries in the Association. The method of starting these associations was the same in both cases. A public meeting of the directors of all the creameries in each group and as many of the patrons as cared to attend, was called for the purpose of organizing a central association which would draw up the necessary constitution and by-laws for making such an organization harmonious and effective.

Briefly stated, the purpose of these associations were: first, to prevent the duplication of milk and cream routes; second, to employ the service of a field man who will visit all the farms supplying either milk or cream to the factory belonging to the organizations; third, to co-operate in buying the supplies for all the factories in each group; fourth, to co-operate in selling the product of these factories.

Such an organization and co-operation among the factories in each group was designed to make the patrons of the factories better acquainted with each other and by so doing, establish and maintain co-operative instead of competitive relations. This would reduce the cost of operating the factories, and by manufacturing a large quantity of butter having a uniform quality, to obtain a better price for such butter than could be obtained by each of these creameries when operating under their own individual management.

Such organizations would be called upon to adjust any differences or controversies that might arise among the creameries, and by so doing the entire membership would reap the benefits of such co-operation to a marked degree.



One of the methods of accomplishing this end that has been suggested, is to make a house to house canvas of the farms in a given territory, and talk over the matter with them, explaining its importance and profits to each individual farmer. After this is done, call a meeting of these farmers and have the plan explained in all its details at this meeting. In order to make the project successful, it will be necessary to get the co-operation of all the stockholders of the different factories in the locality where such a piece of work is undertaken. A good way of doing this, is first, to get the directors of every creamery to meet and talk the matter over after which a meeting of the stockholders may be called to discuss the plans outlined by the directors. Still another way would be to have the directors and stockholders at the annual meeting of their creameries vote authority to their directors to act at the general meeting, when such an organization is to be formed.

This organization of a central board of directors and the employment of a manager for a number of creameries in given territory, will help to establish cordial relations among all of the factory operators, as well as among the farmers. It also will help to advance the common interest of everyone connected with the enterprise.

In a certain locality on the Pacific coast where this general idea has been tried, and is now in operation, the results have proved to be very satisfactory. Some 26 dairy manufacturing plants are now under one general management, which has the duty not only of buying the supplies used by all these factories, but the product made is sold by one management. The seller of the product knows what prices ought to be paid and also what markets are available for buying it. By keeping himself well informed of the market conditions he is much better able to dispose of the products from all the factories at a price above that which could possibly be obtained by the management of each creamery selling his products separately.

The experience of this organization to which I have referred, shows further that bad debts of the various factories have been greatly reduced, and the regularity with which the money is received from the sale of the products manufactured is a source of great satisfaction to the patrons.

It is further claimed that 90 per cent of the factories have received a much higher price for their products than was the case before they joined this central organization.

Uniform butter in large quantities, places the creameries in a position where it is possible to name the price they must receive for butter. It is not necessary to meekly inquire from a butter buyer, the price he will give, but there will be buyers eager to get the butter and after discovering its evenness in quality, they will undoubtedly be glad

to pay a premium above the market and will be always looking for more butter.

There is no danger of overcrowding the market with good butter.

During the past few years it has been demonstrated that cows are one of the safest investments a farmer can make and that butter of good uniform quality will always be in demand.

Briefly stated, the plan suggested for increasing the supply of uniform butter that will command high prices, is to adopt

1. Pasteurization of the cream.
2. Standardization of the methods of manufacture.
3. Reduction in the number of cream routes.
4. Employment of a field man for visiting the farmers and a manager for buying supplies and for selling the butter.

Many people who are interested in the creamery business have doubtless noticed the figures printed occasionally by a dairy extension worker showing the great variety of prices paid the farmers per pound of butter fat in a given month at different factories. When there is such a great variation as these figures indicate, it is very evident that high prices may be obtained and that co-operation of the creameries in a given territory will aid in securing these high prices for all the factories.

## **THE IMPORTANCE AND THE USE OF STARTERS IN CREAMERY BUTTER MAKING**

MARTIN H. MEYER

Mr. President, Ladies and Gentlemen: The question of starters has occupied our attention during the last quarter century and it is still new and a live subject for the reason that it is directly connected with the making of 400,000,000 lbs. of butter annually, and with the salary of the butter maker.

### **BETTER BUTTER MADE**

It is not too much to say that the discovery of the value in the use of a pure lactic culture in butter making was hailed with genuine delight and its results received with satisfaction.

It was soon found that a pure culture added to cream, especially when pasteurized, showed marked improvement and the resultant, butter had a cleaner aroma and flavor with better keeping quality.



Recognizing that a good starter had a wholesome effect on the quality of butter, made the use of a pure lactic acid starter a necessity, and became general, dispelling any doubt that existed as regards the beneficial effect on the quality of butter.

It is necessary to use a starter in unpasteurized cream in order that the unwholesome fermentation be checked.



M. H. MEYER

It is likewise necessary to use a starter in pasteurized cream for the reason that when cream is pasteurized it is void of fermentation and, therefore, needs the addition of a starter to increase the aroma and give character to the butter made.

After having recognized the fundamental importance of the use of a pure culture may we not, for our benefit, review a few fundamental principles upon which rests the care, its use and results obtained.

#### THE CARE OF STARTERS

The surroundings should be clean, the air as pure as possible, and the utensils used should be clean and new. Copper or iron should not come in contact with the milk used, or the starter at any time. Both

copper and iron are destructive to the finer flavor and aroma of the starter. Of the two, copper is the worst offender and is destructive to the life and propagative quality of the starter. The ultimate effect on the quality of the starter by the use of copper vessels is a complete change in the quality of the acid and a separation of the solids of milk from the liquid. Such a physical condition makes the use of a starter valueless and detrimental to the keeping quality of butter.

The milk should be of the best obtainable. It should be carefully pasteurized and the temperature must be uniform during the ripening period and in accord with the vigor and per cent of startoline added. The amount of inoculation and the temperature to be employed must come through experience.

Until experience has been gained, wherever employed, it is well to set at 70° F. and use about 1% inoculation. Later continue experience with local conditions to suit your environment and methods.

Guard against over ripening as such leads to the production of acids that cause greasy, oily and rancid flavored butter.

It will be found that there is a great benefit in setting several vessels for mother starters from which the best can be selected. A critical starter judge will detect slight differences and by having different lots to draw from the best can be selected and used to inoculate both the new mother starter milk and the starter milk. We do most all judging by comparison, and lack of comparison leads to unconscious errors.

#### ADDING STARTER TO CREAM.

Test of Cream Before Adding Starter	Amount of Starter Added to Every 100 lbs. of Cream	Test of Cream After Adding Starter
Per cent of Butter fat	Pounds	Per cent of Butter fat
40	50	Test 26
40	25	" 32
35	40	" 25
35	20	" 29
30	25	" 24
30	20	" 25
25	15	" 22
25	10	" 23

In order that cream may churn well it should test not less than 25% butter fat.

TEMPERATURE AND TIME

The best temperature for ripening cream at the average creamery is 67-69° F. in summer and 69-71° F. in winter. Where a large per cent of starter is used in cream, lower temperatures may be used than when small quantities of starter are added.

Due to these and other variations previously mentioned no definite length of time can be given in which to ripen cream. Considering the possible action of lactic acid and other fermentations on butter fat during the ripening period it seems that the shorter the period consumed in ripening cream the better is the quality of the butter. Try to adjust things so as not to ripen cream for a longer period than eight hours nor for a shorter period than three hours before the cream is cooled to churning temperatures.

BENEFIT PROVEN BY RESULTS

Reviewing results in the art of creamery butter making during the last twenty years it is found that the use of starters is general and that the results are gratifying, especially when considering that nearly all prize butter was made with a pure lactic acid starter. This again impresses us with the fact that it pays to use a starter and its use I must urge in view of those facts.

REMEMBER

That heat may very easily destroy its life.

That cold does it no injury whatever.

That high acid weakens and finally destroys its value.

That a temperature between 68-74° F. is most favorable for the production of a good quality of acid.

Always use a thermometer when setting a starter.

Never pasteurize without knowing the time and temperature applied.

Never use old acid or unclean milk.

Never use anything but glassware, best tinware or enameled ware for handling your startoline.

Have a well tinned starter can. Copper is poison to the good flavor of lactic acid. Pay proper attention to the details of the handling of the startoline and a good quality of lactic acid will be the result.

Try to be a good judge of conditions as they arise.

Do not think that the starter will take care of itself.

Do not think that any kind of sweet milk is good for making a first-class starter.

Do not shake up the startoline until it is to be used. This also applies to the starter unless it be cooled immediately at the same time.

## HIGHER IDEALS

GEORGE J. WEIGLE,

*Wisconsin Dairy & Food Commissioner*

I am glad of the opportunity which is mine today to address the butter makers of Wisconsin; you men are interested in the work of the Department which I represent and as head of that Department I am very much interested in what you are doing and what effect your activities are to have upon the dairy industry of Wisconsin; and I sin-



GEO. J. WEIGLE

cerely hope that this convention will be the means of solving some of the troublesome problems which are confronting you today and will inspire you to the production of more and better Wisconsin butter.

I have attended many conventions in the course of the last few years. At some of these conventions I have been more or less of an onlooker, at some I have been a speaker upon the program and at others I have sat in the convention as a delegate. These meetings have covered a wide range of subjects and their programs have been varied, but I have

been impressed by one outstanding characteristic of them all—the remarks some of the speakers have in almost every case, been laudatory. Whether custom has decreed that when a person is asked to address a meeting he must studiously avoid all references which might be construed as criticism, whether the program committees carefully avoid any subjects which might precipitate trouble, I do not know. But I do know that if such an unwritten law exists I am going to violate it this afternoon. Like the physician who hurts that he may heal, I intend to say very plainly some things which are unpleasant to hear in the hope that my words will bring home to you facts which perhaps you do not know and will help you to realize the necessity for concerted effort to raise the quality of the butter manufactured in this state.

The dairy industry—and that term embraces not only butter making but also the manufacture of cheese of all kinds, ice cream, condensed, evaporated and powdered milk as well as the production of milk for consumption as such—the dairy industry in its entirety is, if not the dominating factor, at least one of the most important elements of Wisconsin's commercial growth. As the men who determine the quality of the butter produced in Wisconsin, and who therefore control one of the major divisions of the dairy business, you, the butter makers of the state, occupy a position in which you can maintain and advance the reputation which your state enjoys as a producer of dairy products of quality or can destroy that reputation and replace it with one which will be a credit neither to yourselves nor to the state.

I have sufficient confidence in you as men and as butter makers to believe that you would not wilfully follow any course which you believed inimical to the best interests of the industry as a whole; I believe that many errors are committed ignorantly—the result of a lack of knowledge of some of the details and frequently some of the fundamentals of your business; I know that there are good butter makers and poor butter makers and that this distinction can always be made because we can never hope to eliminate all of the careless and otherwise objectionable element from the butter business any more than they can be eliminated from any other business; but I do maintain that there is no excuse for the thousands upon thousands of pounds of low-scoring butter which is being made in this state today.

Perhaps I may be criticised for exhorting the members of your progressive organization in this manner, but my defense will be to cite the minister who roughly scolds the good people of his congregation for the shortcomings of that part of his flock which stays away from meeting. The minister wants to waken his congregation to activity in bringing the erring ones into the fold and I want to enlist your co-operation so that between us we may bring to the butter maker who has forgot-

ten the duty he owes to the dairy industry a realization of the error of his ways and may thereby turn what is now a liability into a future asset.

A skilled workman is required for the manufacture of good butter. No man can make good butter unless he first makes a careful study of the subject and then as carefully applies the knowledge he has acquired to each successive step of the manufacturing process. To be able to meet the varying conditions with which he is confronted and still turn out a product of uniform quality, he must understand the theory of butter making, must know why cream of a certain acidity should receive a certain kind of treatment, must know the exact kind of manipulation necessary to produce a particular result. And knowing these things he must constantly utilize his knowledge in adjusting his methods of work to accord with the changing conditions from day to day. To supplement these requirements it should be unnecessary to add what you already know—that scrupulous cleanliness must be observed throughout the factories and throughout every step in the manufacturing process.

You may say to me that all this is being done, that the factories and utensils are clean, that the butter makers are men of experience who know their business well and are demonstrating that knowledge by the quality butter they are making. I will grant you that Wisconsin has creameries which are models and butter makers who are thoroughly versed in the theory and practice of butter manufacture and that high scoring butter is produced here in quantity.

I know that there are entire sections of the state which uniformly produce a butter of exceptionally high quality and that the entire output of some of our factories is purchased by certain dealers who have a trade demanding a very high grade of butter. And I may even say with assurance, and I am proud to make the statement, that the bulk of Wisconsin butter is good. But in spite of all this there is poor butter being made and I reiterate that there is too large a percentage of our butter which is off in flavor, poor in texture or body, deficient in fat or is otherwise not deserving of a score which will put it in the "fancy" class.

There is no good reason for this condition. If there is a man making butter in Wisconsin today who does not know how butter should be made, who cannot discriminate between good and poor materials or who is not sufficiently versed in the technique of his business so that he can properly control the quality and uniformity of his product, the fault is his and he should be stopped from making butter until he has acquired the necessary knowledge to make it as it should be made. If there is a maker who takes so little pride in his work and has so little



consideration for the reputation of Wisconsin butter that he carelessly or wilfully turns out a product which he knows is not up to the standard he is able to attain, then certainly such a man should be removed from your ranks as a dangerous element. It is my firm belief that the majority of our poor butter can be traced to one or the other of these causes and neither presents a problem which should be difficult of solution.

A logical question would be "What are you in the Department doing to correct these troubles?" I would answer that we are doing everything that we can do—inspection, instruction, advice, persuasion and as a last resort prosecution. We are making progress in improving conditions but we need the help of those we are trying to help. If I may revert to my former illustration I would say that the Dairy and Food Department is like the physician who finds great difficulty in curing the patient who does not want to get well—we have equal difficulty in raising the standard of Wisconsin butter when we do not have the co-operation of the men we are working with and for.

The time is here when an important decision must be made in the butter industry, a decision which is of importance not only as it affects you men today but as it will affect the future of the dairy business. Are we going to sacrifice everything to quantity production regardless of the quality of the product in an effort to grasp a few more dollars? Or shall we decide to make quality paramount, thereby taking the broader, constructive attitude that we cannot afford to jeopardize our future for the sake of present pecuniary gain? The opportunity is here—the world is clamoring for more and more dairy products of a high standard of quality. Wisconsin, with her vast resources, can supply that demand and assure for herself a constant market for all she can produce; but this can only be done if quality is maintained. With a supply which is insufficient to meet the demand we can still sell an inferior product for a time, but such a course will surely spell eventual disaster.

To realize the most and the best from the trade situation of today we need a better trained personnel and a higher ideal in the butter business. We need an ideal which will not countenance the poorly trained or careless maker; we need an ideal which will demand an ever higher quality standard; an ideal which will enable us to build somewhat for the future and not alone for the present moment; an ideal which will raise butter making to an art and will demand a skill which takes pride in work well done and scorns anything but the best as something unworthy of the workman; in other words, an ideal which will place Wisconsin butter upon a pedestal as an achievement worthy of the greatest dairying state in the Union.

### Wednesday Evening

In accordance with arrangements, a smoker was held at the convention hall.

PRES. MORAN: It is indeed my good fortune and honor to preside at this meeting and to introduce to you a man so well-known to all dairy-men in this country. The dairy industry is indebted to many men for the great strides that it has made in the past. Among these men is one who is known all over the country as "the great lover of the cow." Gentlemen, I have the great pleasure of introducing to you Mr. W. W. Marple of Chicago who will now address you.

### ADDRESS

W. W. MARPLE

Mr. President, Members of the Wisconsin Butter Makers' Association and Visitors:

I appreciate more than I can tell you the honor of addressing you. In fact my position is similar to the man who was carried on a rail and when asked how he liked it said he believed if it wasn't for the honor he would rather walk. This I consider not only an honor, but a privilege as well as a pleasure, and I am disposed to regard it as a compliment equal to that acknowledged by the old darkey down South who was met by a gentleman from the North who wanted to get some change to distribute among some little darkeys, and he said, "Uncle, can you change ten dollars?" The old darkey replied, "No, Sir, Boss, but I thank you for the compliment." It is unnecessary to remind you, gentlemen, that the past two months have been busy ones and they have been sufficiently fraught with vexations and problems to have justified my giving as an excuse for not responding to your secretary's invitation, troubles of my own, such as the little boy who was driven away from home for swearing indicated. Because of his association with his father he had gotten in the habit of swearing and it annoyed and distressed his mother very much. She had tried every means she could think of to break him of it, but without success, and finally told him if she heard him swear any more he would have to leave home. He desisted for a few days, then broke out again. So when she heard him one day she said, "Johnny, you will have to go, I have never broken a promise." She told the maid to pack up his belongings in his little suit case. The little fellow was very brave and took his grip and start-

ed down the street, and his mother watched him through the front door, hoping he would relent and because he had learned his mother was determined would come back and solemnly promise he wouldn't do it any more. He went about a block and sat down on the curb and put his face down in his hands as if he was crying. The mother couldn't stand it to see her boy in distress, and walked down where he was.



N. W. MARPLE

About the time she reached him, a stranger came along and said to him, "Little man, can you tell me where the Scotts live?" And without looking up he said, "You go to hell, I've got troubles of my own."

I see before me, many strange faces, and to them I would like to make a confession. I'm not a professor, I'm not a butter maker, I'm not a creamery owner or manager, but I am in the position of the man who got a letter from the black hand organization demanding a thousand dollars and threatening if the money wasn't sent to kidnap his wife. The man replied by saying, "I haven't got a thousand dollars, but your proposition interests me. "I am deeply interested, and have been for a quarter of a century, in your problems, your profession, and your success and would be made very happy if I could contribute something to the interests of this occasion, or send a ray of sunshine into your pathway which observation has taught me is a rugged one. I would

be truly ungrateful and leave a wrong impression if I failed to acknowledge that my experience from my association with representatives of your calling, and the cordial welcome you have given me, relieves me of much embarrassment and convinces me that I will be as well taken care of as the man who was traveling in Europe and stopped in a strange town and at a strange hotel.

Not being a scientist, I can't talk to you about butter making, and even if I could, that has been, and will be thoroughly discussed. Bacteria, pasteurizing, starter, temperature, moisture, butter fat, grading, quality, and all of the intricate questions that are involved in the science of butter making are on your program and the best authorities to discuss them. I would not attempt to elaborate on these questions or presume to advise you further for I am placed in the position of the man who went home late one night under an influence incident to having tarried too long with the boys. He had so much difficulty in finding the keyhole that he awakened his wife. She stuck her head out of the window just above him and with all the scorn she could command, she said, "Well, you little soused shrimp, you've come home have you? You blear-eyed, staggering, lop eared home dog, you are a nice looking spectacle. Now you cowardly, slinking, shivering hunk of cheese, what have you got to say for yourself?" He looked up into the face of his irate better half, and merely remarked, "I don't think I can add anything to what has already been said."

Since promising to appear on your program, I have been very much distressed over the selection of a subject. I appealed to my wife to tell me what to talk about and I appreciated the compliment when she suggested "Home" as the subject nearest her heart; and I think we all agree the dearest place on earth, is home and a topic appropriate for any occasion. It is acceptable to me for several reasons, and prominently on this occasion because of the broad field it covers. It contemplates human relations, personal touch, co-operation, opportunity, loyalty, union, harmony, brotherhood, and all of those things that make for comfort, success, usefulness, efficiency and happiness. The limitation of a home in its broadest sense is the nation, and next to that as it pertains to our interest is the state, the country, the city or town, our place of business, and finally the family fireside; the family circle, the place around which clusters the most sacred memories, the place from which emanates the purest thoughts, the highest ideals, and where confidence is sacred; where sympathy abounds and harmony prevails.

Gentlemen, I would have your business life synonymous with an ideal home life. I would have incorporated into your business policy those ideals and practices that go to make an ideal home life. In my talk

tonight, I want to refer briefly to your business home and your Wisconsin home; your opportunity, your responsibility, and your burdens, and I am reminded that my time is limited, for I would not weary you, but should I presume on your patience, I can't resist asking you to stick around as the man decided to do under similar circumstances. This man who had been inbibing freely of near beer with raisins in it, staggered into a hall where a lecture was being given and took a seat in the front row. He sat there but a short time, until he seemed to get nervous and fidgety and finally got up and said, "Mr., how long have you been lecturin'?" The speaker replied with a smile, "About four years, my friend." The man then sat down and said, "I guess I'll stick around awhile, you must be damned near through."

Our national home is a wonder. It may not always be exactly what we would have it, but we love it. We love it not alone because of its advantages and opportunities, but because it is ours. There is no home so attractive as ours. We cross the ocean and visit the countries noted for supremacy in art, in music, and in science. We learn something. We are stimulated, but finally we yearn for our home, either native or adopted, and when our visit is over and our mission is ended and our faces are turned towards home, we are all excitement and anxiety and impatient, and as we strain our eyes peering through space, when finally we behold the Statute of Liberty, it is with a thrill we look up into that face on which we see in our imagination in big letters the word "welcome!" It is then we endorse the sentiment expressed by the darkey who was returning from France after the war, and as the ship in her majesty steamed up the river, when they got near the Statute of Liberty, he looked up at this magnificent emblem and said, "take a good look at me, old gal, for if you ever see my face again, you will have to turn around."

Wisconsin is not only a part of this great country, the universal home of a hundred and twenty-five million people, but a very prominent part. It is a bright star in the galaxy of stars. It is your home, and well may you be proud of it because of its resources, its people, and its achievements. Wisconsin is an Indian word and signifies wild rushing river, and I am impressed with the prophetic vision of those who named it, or the attraction of the name that caused it to be populated by a wonderful people. You are a rushing people, and like your sister states for aught I know you may have some wild rushing people. You do a rushing business, you have rushing transportation, and with deliberation and wisdom by rushing you have attained world-wide distinction in the industry you represent. You are noted for the diversity of farm products, including all kinds of grain and fruit; for your manufacturing interests, the extent of which is hard to conceive; your wonderful for-



ests; your mineral wealth; and if I could have made this talk a little sooner, I could add the article that made Milwaukee famous. But more than anything else, yes I think I am within the bounds of conservatism when I say more than all else, is the dairy interests of Wisconsin, and if it is true to whom much is given much will be required, then because of your opportunities and advantages is your responsibility increased and intensified. You are surrounded by four good states and you are the center of attraction and the envy of all of them. You are favored with the most wonderful, cheap transportation facilities on the Great Lakes and the Mississippi River. You have in the interior an abundance of water, including mineral water, for which you occupy third place of all the states, and the value of this for drinking has increased wonderfully in the last year. In addition to this, and paramount to everything else, you can boast of a splendid citizenship of enterprising people, and after all that is what makes a desirable home, a fit place to live. We are passing through a period of readjustment and we are disposed to magnify our troubles and our disappointments and forget our blessings. The feeling of uncertainty and the evidence of unrest that permeates all classes of people and all kinds of industries causes serious reflection and awakens a new responsibility.

The Missouri darkey who had been in the habit of helping his neighbor whenever called on, was asked one day to come over and help fix up the fences, and the man added, "we are going to butcher Tuesday, and if you come over then, you can have the jawles." Mose said, "that's all right, Boss, I'll come over and help fix the fence, but since I been getting a pension, I'm eating a little further back on the hog.

A boy discharged from the army across the water wrote to his mother that he was coming home and was going to buy a team of mules and name one Corporal and the other Sargeant, and spend the fest of his life kicking hell out of them. While the Missouri darkey is inspecting the hog, rejecting the jawles and determining what part he will eat, and while the returned soldier is exercising himself by kicking mules, the atmosphere I am sure will be cleared in Wisconsin. The history of Wisconsin is replete with deeds of valor, great achievements, progressive ideas, gigantic enterprises, benevolent institutions, institutions of learning, and the names of great men and great women. The battle for right and the service to humanity has always been prominent in the citizenship of this great state. In 1861 when the foundation of our Government was shaken, when the stars and stripes were threatened, when the dark clouds of war hovered over this beautiful country, one hundred thousand brave, true, loyal men from this state answered the call. One hundred thousand of Wisconsin's brightest and best men, fired with the fire of patriotism, clasped in their arms wives and moth-



ers and sweethearts, whispered in their ears vows of eternal love, and with tears streaming down their cheeks, pressed upon those sacred lips a kiss, and in many instances parted from them forever to sacrifice their lives in the interest of home.

It has been three hundred and fifty years since the forests and prairies of Wisconsin were invaded, and all of the hardships of the early settlers were endured in preparing a home for generations unborn. It has been three-fourths of a century since the bright star of Wisconsin was woven into the banner of American liberty, and from that day to this, it has been prominent in the galaxy of stars and each year added lustre has been given it by the initiative of great movements for the betterment of humanity and the achievements of great men. Shall we break the chain today of high attainments? No, as I look into your faces I see an unconquerable determination to perpetuate the work that has made Wisconsin the synonym of greatness. The pioneers of this country builded better than they knew. Their prophetic vision has been surpassed. The new modern home has taken the place of the old log cabin. The automobile has superseded the ox cart. A net work of railroads and electric lines has obliterated the by-paths of the long ago. The cross roads store and post office has been torn down and in its place has sprung up as if by magic magnificent cities with Government buildings. Public Libraries, Academies of learning, and houses of worship dedicated to Christianity. In the midst of all these comforts and the inexpressible beauty and grandeur of the twentieth century, I would stop and breathe a prayer of gratitude for the privilege of living in this age, and I would worship at the shrine of him in whose home was conceived the cradle of liberty, and whose willing hands laid the foundation and prepared the way for the highest attainment in Wisconsin.

Whatever else may have been said of Wisconsin people they could never be accused of ingratitude or a failure to express appreciation for service rendered. They have erected in the cities of this great Commonwealth, imposing monuments in memory of Wisconsin's war heroes who have answered the last roll call and passed over the river to rest in the shade.

In that great conflict that for centuries will continue to be the greatest event in American history, during the progress of that wonderful and never to be forgotten Civil War, in which two of the greatest armies of ancient or modern times met on the field of battle; when brother was arrayed against brother, and father against son, when a million brave, sturdy men offered themselves a sacrifice for principles they believed were right; when during the memorable epoch between the years 1860 and 1865 these two great armies had marched towards

the place where they expected to baptize their country with their own blood; when the highest tension of bitter feeling had been reached; when that state of mind had taken possession that precluded every vestige of thought except the one idea of the absolute utter and complete annihilation of the enemy, these two great armies finally reached the spot where the conflict was to take place that would test their strength, and they camped on either side of a beautiful southern stream and as each prepared for the morrow all anxious for the fray, their minds poisoned, their hearts full of hatred and determination to turn the crystal water of that romantic stream as it rippled down over the rocks toward the great Gulf with the sweet cadence of heavenly music into a deep crimson with the blood of the foe. As if to give vent to their feelings and no doubt to irritate those on the other side of the creek, the band with one of those armies began to play "Yankee Doodle." Thoroughly aroused with this indignity and with all the characteristic loyalty of the Southern people the boys in gray played that old time melodious piece so dear to every Southerner, "Dixie," each seemed to vie with the other in a supreme effort to drown their music. When almost exhausted and the bitter feeling at its height one band quit and commenced to play "Home Sweet Home." Immediately the other joined and the two great opposing forces as they waited for the hour of battle, moved toward each other and continued to rend the air with the angelic strains of that national hymn. Under the gentle and refining influence of the sentiment in this song, hearts of stone were melted, hatred turned into love and these bitterest of enemies visited and talked of that which was paramount and uppermost in their minds, the dearest spot on earth and for which they were willing to make this sacrifice.

Out of the generosity of your nature and the goodness of your hearts as an evidence of your appreciation of home and your sympathy for the homeless, you have erected within the borders of your State magnificent palaces and opened wide the door and bid the wanderers enter and abide there without money and without price. In the spirit of loyalty and with a desire to liquidate every obligation you owe you have built soldiers' homes and laid out beautiful grounds, and with the call of the bugle you have gathered them in, and you have said to the old soldier who fought in defense of his home and your home but returned to find himself homeless, "Abide here and enjoy the bounty of a grateful people until the final summons." You have built asylums for the afflicted and hospitals for the sick, and above all you have provided for the orphans, the homeless and motherless child of whom our Master said, "For of

such is the Kingdom of Heaven," with shelter and food and clothing and filled their little lives with sunshine and their hearts with love and from the portals of Heaven the mothers who gave them birth look down and smile.

I had hoped in your interest to make this address as brief as Tommy Smith's reply to the preacher. He had been told by his mother that the preacher was coming, and among a great many instructions as to how he was to act, she told him the preacher would ask him his name and he would say, "Tommy Smith." Then he would ask, "How old are you?" and Tommy should say "ten years old." "He will then ask where bad boys go to and you tell him, go to hell." So when the preacher came, true to his mother's prediction, he called Tommy to him and said, "What's your name, little man?" and the reply was, "Tommy Smith, ten years old, go to hell." While I ask your further indulgence I would not continue until you were in the frame of mind of the congregation of colored people when the minister was preaching a sermon on the prophets of the first and second magnitude. After talking for about an hour and a half on prophets of the first magnitude he said, "Now we will take up prophets of the second magnitude, what will we do with the prophet Isaiah? I say, what will we do with the prophet Isaiah?" A tall lank son of Ham on a back seat got up and said, "He can have my seat, I'm going out."

Wisconsin has more cows to the square mile than any other State. It has more farms to the square mile than any of the Middle West States. It has more dairy cows per farm. It has more butter fat per farm than any other State, and there is more butter fat sold per square mile than any other State. I am advised that Wisconsin comes nearer having a cow for each inhabitant than any other country except Holland. While nature has done much to bring this about, and in many instances necessity intensified dairy activity, I am not unmindful of the important part you have played in this development, and I would remind you of not only your responsibility but your opportunity. The field is large, the harvest is ripe, the possibilities are great. You occupy a unique position in the industrial world. You are, in my opinion, philanthropists. You are the connecting link between the producer and the consumer, you are akin to both.

While I appreciate the importance and prominence of your position in Wisconsin, I realize that your pathway is often times a thorny one, and I would that I could strew it with roses. The producer abuses you for a low price, the consumer abuses you for a high price, the Commissioner kicks about too much salt or too little,

the Government kicks if there is a little excess of moisture, and the Boss kicks if it is not up to the limit, and it would seem perfectly natural if some time you would feel like the Kentucky orator who came very near disappointing an audience that he had been advertised to address during the Columbian Exposition in Chicago in 1893.

Notwithstanding evidences of ingratitude that at times may be depressing and discouraging, the names of your friends are legion. The ray of sunshine you have sent into the dooryard of some struggling victim of circumstances will never be forgotten and its influence is beyond conception. There may not have been so many Presidents or Vice Presidents, or Senators, or Congressman out of your ranks as from some other professions. There may not be as many monuments to the memory of men in your profession, or as many pictures in the Hall of Fame, but in the hearts of those with whom you have come in contact, those who have felt the touch of hand and mind, those to whom you have rendered a great service, those who in financial straits have been relieved by the market you have furnished, you have built monuments.

There passes before me a panorama in which I see the names of the world's celebrities: statesmen, orators, sculptors, warriors, artists, musicians, actors, scientists, singers, authors, philanthropists, architects, builders, preachers, lawyers, and railroad magnates, and after contemplating their mission and acknowledging their usefulness, I am prepared to say in all seriousness there is not a single one of them that is more important or more necessary in harmonizing the interests of this world than the retiring, modest, pure Christian mother who raised a family of children in a log cabin in Northern Wisconsin, or the good, true, indulgent, loyal husband and father who in the obscurity of his surroundings protected that family, provided for their comfort, and assisted in making that home though ever so humble the most sacred place on earth and a monument to the highest type of civilization, a true American home.

Let me bring to you tonight the grateful acknowledgement of the lonely widow struggling to maintain a home and keep a family of children together, the oldest of which was a boy whose one ambition was an education that might enable him to render some return to her on whose brow was a crown of glory and whose robe of righteousness was as spotless as the driven snow. The story of her sacrifice and the judicious handling of the product from a few cows in order that her son might obtain the coveted education is a beautiful story, and a monument has been erected in the hearts of Wisconsin people and on the tablets of their memories has been written a story of love that will never be forgotten.



This young man, ascending the Hill of Fame through scientific research at an academy of learning, studied hard. He burned the midnight oil and finally graduated with honors. He stood at the head of his class and was to deliver the Valedictory. It was a great occasion. A representative crowd of lawyers and merchants and bankers and their wives were present to witness the graduating exercises of their sons. Full dress suits, silk dresses and diamonds were in evidence. At the close, this modest, unassuming, awkward, poorly dressed country boy presented himself, and as he stood on that platform he electrified his hearers with the most eloquent appeal and covered himself with glory. In the back part of that amphitheatre was a woman, the most interested of all the crowd. She wasn't dressed in silk, the alpaca dress she wore was rusty, it wasn't cut in the latest style. She wore a sunbonnet. Her hands were large and calloused from honest toil. Her face was wrinkled, but radiant with joy—she wore no diamonds, but there glistened on her care-worn cheek tears of joy. When this young man had finished he was handed a beautiful wreath of flowers with which he was expected to crown the young lady of his choice. He never wavered—he walked straight back to the rear where sat the old-fashioned woman upon whose face was the picture of satisfaction and content, and with this wreath he crowned this mother Queen. He pressed on her wrinkled brow the laurels of victory and on her cheek a kiss, and the great dairy interests of Wisconsin were given a new impetus.

Knowing as I do your attitude towards Wisconsin's University, that magnificent structure dedicated to the arts and sciences, where loyal men are guiding human destinies with the power of wisdom; touching human hearts with the touch of sympathy; encouraging the highest aspirations and crowning human heads with laurels of victory, it would seem superfluous to remind you of a debt of gratitude you owe this Institution that stands out prominent and preeminent as authority in the business you represent. The world owes to Wisconsin a debt of gratitude they can never repay for a Babcock, a Henry, a Russell, a Farrington, and others connected with this Institution of learning, and to you, Mr. Benkendorf, and Mr. Weigle, and to those associated with you, I realize that your work is a labor of love and I know something of your sacrifice, and if I could, in behalf of those who are assembled here and the dairy and manufacturing interests of America, I would from all the languages of earth select the choicest words, the most expressive adjectives, and weave them into garlands of rhetoric, and with the tongue of eloquence

render unto you a tribute of praise, and would then but faintly express the debt we owe.

As we are on the threshold of a New Year, as we balance our books to open a new account, let us profit by our mistakes of 1919. Let us avoid them in 1920. Let us do unto others as we would have others do unto us. Let our motto be "do it now." The touch of sympathy is like sunshine to the drooping flower. Let us lend a helping hand to the unfortunate; let us help to bear somebody's burden; let us prove to the world that we believe in the Brotherhood of Man. As the sands of time fall into the graves of the departed year let memory plant a few flowers of perennial freshness and beauty, while the hand of love writes the epitaph of unforgotten virtues.

As a veteran in the line you represent; as one interested in your success and your happiness, I suggest to you an inventory of last year's life and submit the question I have asked myself: In the year now gone have I sown tares or wheat? Have I made burdens of life heavier or lighter? Have I scattered sunshine or cast shadows? Is the world better that I have lived? Above the grave of the buried past can we see phantoms visions of lost opportunities and neglected talents? If we have achieved success is the glory of our triumph to be dimmed by memories of bitter and unkind acts? What is your life is a thrilling question. It involves more than gold.

There is a beautiful story of a throng of youths setting out in a race. One there was who took the lead, but alas he stopped to raise a fallen child, then a fainting comrade claimed his attention, and finally he stayed his steps to guide a feeble woman. When the race was over and the winners were crowned with laurels he stood with empty hand and uncrowned head, the real winner, he wore no crown but on his face shone heaven's serene and holy light. I ask you, what is success? What is the goal?

On the coast of one of the Orkney Islands lives a lonely woman, a fisherman's daughter, who earns her bread by spinning yarn. For years she put a candle in the window to guide the fisherman to shore in case of a storm. Years ago her father with whom she was living went out on a fishing expedition and never returned. Since that time she has continued to keep the candle in the window (paid for by spinning an extra hank of yarn) throwing a ray of light to guide the lost mariner into the harbor of safety. I would rather carry her passport to present at the portals of the great beyond than to attempt to bribe the gate keeper with all of the money in the world. I would rather lie down on the humblest cot with her con-



science than to sleep on a golden bed with troubled dreams of ill-gotten gains.

There is a beautiful sentiment expressed in poetry and song, "Brighten The Corner Where You Are," take this home with you, take it to heart. Burn it into your memory and you will be surprised at the interest it will pay on the investment. You are building for the future and the foundation must be solid or your structure will fall.

It was an insignificant talent in the hands of a country girl that was used with the skill of a master under the pressure of want and the privation of poverty that gave to America and the world the immortal Ella Wheeler Wilcox. Born in obscurity in a Wisconsin home, destined through the encouragement and assistance of Wisconsin people to electrify the world with her messages of love and sympathy that reached every part of the inhabitable globe from the seat of learning, the height of civilization, the home of culture and refinement to darkest India; this wonderful woman in a class by herself whose beautiful expressions of human interest has touched the hearts of men all over the world; this wonderful character who was equally welcome in the salons of the crowned heads of Europe and the hovels of the poor and destitute. This human magnet around which clustered all that was good and beautiful was appreciated because of her love of home and her spirit will continue to influence the home throughout the ages to come in which we will remember with a sense of pride and gratitude that she was a native of Wisconsin, and her early home was a Wisconsin home.

In conclusion, my mission is not complete, my desire is not satisfied, my obligation to you and to the world has not been discharged until I have paid a tribute to the memory of Wisconsin's Grand Old Man of whom it can be said there was none greater in contributing to the wealth of this country and the comfort of its homes. He, who when this country was impoverished from raising wheat, drawing on its resources and putting nothing back, when the farms were mortgaged for 60 per cent of their assessed valuation, marshalled the hosts and laid the plans that brought the people out of the slough of despair and lifted them out of the mire of debt and desolation and led them on to victory. He, who inaugurated the Wisconsin Dairy Association, the influence of which stimulated dairying, and the success of your business a possibility. He whose face was so familiar at meetings of this kind. He who was a leader in those activities that made better and happier people, a man with intense human sympathy, loyal to his associates, his friends and country. A man with the courage of his convictions and a man with a wonderful

vision, and above everything else, an honest man, he was permitted to live a life of usefulness, and when he reached the limit of time allotted to man, it would seem there came from the Ruler of the Universe the summons, "Well done, come up higher." And tonight we miss his counsel and his leadership, but his spirit still lives and will continue to influence the foundation of the business you represent; and tonight if Governor Hoard from the parapet of the beautiful Isle of Somewhere is permitted to take cognizance of this meeting his dearest wish would be for your success and the happiness and contentment of your homes.

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MR. KEPPEL: We have heard a wonderful address. I want to know whether that address will be published as a part of our records?

MR. BENKENDORF: It is our intention to incorporate this address in our records.

MR. KEPPEL: I would like to move that this association by a rising vote express its sincere thanks to Mr. Marple for his splendid address.

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### Third Day's Session, Thursday, Feb. 12, 1920.

MR. MORAN: I think we should attend to confirmation of that resolution of Mr. Erickson's in relation to a change in the constitution that was passed yesterday. Will someone make a motion to that effect?

Motion made and passed unanimously for the adoption of the resolution.

MR. DODGE: It is reported at this time that the executive committee met last night and found the Secretary's report correct and would like to adopt the Secretary's report.

Motion passed unanimously for the adoption of the secretary's report.

MR. TOWLE: Mr. Chairman, I don't know whether this is the proper time or not, but I have been instructed by the Commercial Club of Baraboo, Wisconsin, to extend an invitation to this Association to meet at Baraboo with their next Convention. Baraboo is located on the Chicago & Northwestern line, the main line between Chicago and Minneapolis and St. Paul, about forty miles north of Madison. Anyone that can get to Madison can easily get to Baraboo. We have about ten or twelve passenger trains a day, and this coming summer we are going to entertain a convention where there will be from three to five thou-

sand delegates for two or three days, and I think we could handle the convention and the Commercial Club stands back of the movement to give you a good time.

PRES. MORAN: Your invitation will be placed on file and given consideration when the time comes.

## THE USE OF ARTIFICIAL REFRIGERATING MACHINERY IN CREAMERIES

MR. HOIBERG

Fellow Members of the Wisconsin Butter Makers' Association, Ladies and Gentlemen: That temperatures are an important factor in butter making is an undisputed fact; but it is also a fact that little effort has been used in obtaining and maintaining correct temperatures in the average creamery which has caused a heavy financial loss to many a creamery and in some instances to the butter dealer as well.

I said "effort" meaning that the average creamery does not realize that instead of holding their own, so to speak, they are going backwards for there is no such a thing as a standstill in nature. It is either an eternal progress or an eternal decay. Therefore, it seems to me that those creameries which or who use and depend solely upon natural ice and water for obtaining and maintaining the proper temperatures so vitally necessary in butter making, are not holding their own but are on the down grade.

We have with us today a far better and cheaper method of producing cold than the ancient water and natural ice way. We have the "Mechanical Refrigerating Machine," or the Ice Machine in plain English. The Ice Machine of today is so simplified and so easy to understand that anyone with average intelligence can operate it and as to the cost of installing, maintaining and operating an artificial refrigerating plant in a creamery, say one making 155,000 lbs. of butter yearly (not a very large factory), I will make the following proposition: You establish a creamery on one side of the road and I one on the other side. You build a substantial ice house on your property and I will install a suitable artificial refrigerating plant in my Creamery. You put up sufficient natural ice each year in your ice house at a cost not to exceed fifty cents per ton. At the end of five years if it has not cost me less for operating and maintaining my Ice Machine I will buy you the best suit of clothes and

a silk hat that you can find in La Crosse. It goes without saying that we manufacture the same number of pounds of butter each year, everything being equal except our methods of cooling. Then we come to the most important part of it, namely, the more efficient work we can do in our, that is, in my creamery.

To begin with, we will take a hot summer morning when the cream comes in at a temperature ranging from 60 to 80 degrees Fahrenheit and ripe enough to churn but it must be cooled down first. You can't leave your weigh room long enough to crush ice for cooling and it ought to be cooled immediately clear down to 45 degrees or lower or you will have an acidity of from 6 to 7% in less than two hours. (The little acid producing germs work pretty fast.) You leave it until after dinner and then you go after it with a big hammer and a shovel, but the mischief is done. You have too much acid. You can't overcome that. There is but one way, "dope it." Use lime and kill all the germs by boiling it. If you do not neutralize and pasteurize you will turn out a poor keeping butter. It will show up "fishy" in less than thirty days.

In the meantime, I am receiving cream on the same morning, same temperature as your cream. As soon as I get enough cream in my ripener to submerge the lower half of the coils, I will slip down and start my Ice Machine (only a few minutes work) turn on my brine or sweet water as the case may be, and when my ripener is full or at least shortly after my cream is down to 45 degrees, at which temperature the little fellows (germs) are not very active, they have cold feet. As a rule the temperature of cream thus left in the ripener until the next morning will have risen to from 49 to 50 degrees F. and an acidity of 3 to 4. That will make butter which will taste good and also keep well and therefore will command and bring top prices while yours will bring centralizers prices or even below, label or no label. This is not fiction, gentlemen. I have been there.

Now we have our churning done, the butter tubbed or printed as the case may be and ready for the refrigerator where it is kept between shipping days from two to ten days. You have a box either on the side or on top of your cooling room which you fill every so often with ice. Generally once a week in hot weather. The first day or so after re-filling it, it is nice and cool. Perhaps you can get it down to 45 or so but it soon begins to crawl up and before you know it the thermometer shows 55 to 60. Then the fun begins, for the mold germs one warm day in your refrigerator will start the nice green flowers on your tub linings and if once there they will continue to grow until the butter leaves the often poorly iced re-

## ERRATUM.

On page 93 beginning the ninth line from the bottom, the article should be credited to G. S. Dobbie, of Chicago, with the title, "Why a Creamery Ought to Pasteurize and How a Creamery Can Pasteurize."





frigerator car and you are notified that your shipment of such a date arrived in a very moldy state and you pay the bill. It is true; I have been there also. Thousands of dollars are lost in that way every year.

While you are doing this my machine is working for me and keeping the temperature in my refrigerator ranging from 32 to 40 degrees F. No mold will thrive there and my butter will retain nearly all the moisture while yours will have shrunk from one-half to one pound per tub in a week's time. If you are making say, 1500 tubs during the summer months and lose one pound per tub at 50c per pound, it means a tidy sum of \$750,00. You cannot afford to take that loss year after year and the consumer, the people who eat our butter are demanding good butter and they will have it and are willing to pay for it.

There is no earthly use of sitting on the fence and howling at the neutralizing centralizers. They have a right to live but drive them out; beat them at their own game. Don't use these methods but use their machinery. One of their means of success is their absolute control of temperatures. You cannot control nature unless you use machinery. A short time ago I read in a magazine, a very instructive article written by Dr. Edwin E. Slosson, a noted writer and Scientist, entitled "Back to Nature?, Never. Forward to the Machine": and to quote a passage from said article he says:

"Nature is our unsleeping foe. It is only by overcoming nature that man can rise." He said further, "Give me the man made machine and I will overcome Nature." In our case, the butter maker's case it is nature we must overcome. Hot weather is natural in Wisconsin and we must use man made machinery to overcome it with. So I will say with Dr. Slosson, "Forward to the Machine" and will add forward with the Ice Machine.

While it will not be a "cure all" of all the evils now existing in the Creamery business, I do believe it will be a mighty step in the right direction for every creamery in the State of Wisconsin to install and operate an artificial refrigerating plant.

Mr. Chairman, Members of Wisconsin Butter Makers Association.

Ladies & Gentlemen: The subject assigned *Why a creamery ought to Pasteurize and how a creamery can Pasteurize* is an old discussed subject. However the need today of every creamery Pasteurizing is so important that a discussion of this subject should help bring home its vital need.

A great deal of study and research work has been done in order to educate the creamery men to the need of Pasteurizing and also how it should be conducted.

I believe this education has informed and transformed our minds to the extent that we are all of the unanimous opinion that Pasteurization is one of the most important and necessary factors in the successful making and selling of creamery butter.

-With your kind indulgence will try and point out,

"WHY A CREAMERY OUGHT TO PASTEURIZE"

At no time more than now, in the history of the creamery business have the times demanded the best grade of butter that can be produced. Competition with so-called (Substitutes) and the high prices prevailing in payment of butter fat has created the necessity for a good uniform grade of butter with good keeping qualities. Such a grade is necessary to secure top market quotations and make it possible to meet competition. It will further bring larger returns to the cream producer and thereby act as an incentive to keep him in the dairy business.

The possibility of importing butter from foreign countries is going to intensify competition and thereby effect the markets in this country. This being true, it behooves us to apply and use all the skill and proper methods available so that we can meet and offset competition of this nature with a grade of butter superior to what might be imported. If we are not awake to the situation, serious losses may overtake us which the industry cannot stand.

From a commercial standpoint of view *proper* Pasteurization plays an important part in three different ways.

First: It improves the quality of the butter.

Second: It improves the keeping quality of the butter.

Third: It helps to produce a more uniform quality from day to day.

The foregoing indicates the great importance and need of every creamery adopting a practical pasteurization system if they are going to operate successfully. If all creameries adopted and applied a successful system of Pasteurization a great advance would be made in the quality produced in this country.

The medium from which butter is made must be rid of harmful and injurious bacteria in order that a lactic acid starter can properly perform the function for which it is intended. This can be achieved by proper Pasteurization.

If there is one thing the buyer or consumer of butter demands more than anything else, it is that butter must be uniform, in flavor, body, color, salt and neatness. Butter that will score 90 to 91 points uniformly week in and week out will find and retain a market that irregu-

lar higher scoring butter cannot compete in. I believe you understand that I'm not favoring making low scoring butter. If a uniform grade can be made that will score 92 to 93 points, we would have a butter that would capture and retain the best markets. The great important factor in butter making today, is to produce a uniformly good grade of butter. *Uniformity* should be our *watch word*. A proper system of Pasteurization is the greatest aid I know of in producing uniform butter.

A uniform grade of butter made from pasteurized cream scoring 90 to 91 will keep much better under the influence of cold storage conditions than irregular higher scoring butter made from unpasteurized cream.

Commission men today are willing to pay a premium to factories that will produce, a good keeping, good uniform grade of butter, made from pasteurized cream. They know too well that pasteurized butter will give them much less trouble and worry, and further they know it brings satisfied customers.

The question facing the creamery man today is not should we pasteurize, but on the other hand, how will I and what equipment must I use in order to pasteurize successfully and economically and this leads us into our second thought, viz.:

#### HOW A CREAMERY CAN PASTEURIZE

There has been and is today a great deal of discussion as to what is the best method or system to adopt to successfully pasteurize cream for butter making purposes. I am in hopes that some day we will be able in a commercial way to pasteurize by the use of electricity. Down to date, however, steam, hot water and cold water have been the mediums used, in varying equipment to serve as the purpose of pasteurizing cream.

Some authorities claim that the heating and cooling of the cream should be done entirely free from the air, because the air coming in contact with hot cream causes the fat therein to oxidize, giving off unclean metallic flavors. In support of this principle machinery has been designed so that the cream during the heating and cooling processes does not come in contact with the air. Good results have been obtained with this class of equipment.

Some authorities claim that the air coming in contact with the cream during the heating and cooling processes does not hurt or injure the quality of butter. They even believe in blowing purified air into the cream during the process of heating. This practice is in di-

rect opposition to the first theory advanced. Some claim to have secured good results through this blowing system.

Some claim to secure the best results using what is known as the flash system, heating to a certain temperature and cooling immediately. Some excellent results have been obtained by this system and especially adapted for creameries where there are large volumes of butter made.

Some claim to secure the best results by using what is known as the vat or batch system. This is by heating to a given temperature, viz., 145° Fhr., holding the cream at this temperature for twenty minutes, then cooling the cream to churning or ripening temperature. This is a splendid system and very adaptable to the average or smaller creamery. This is a simple method, requiring no other equipment than ordinarily would be a part of creamery equipment in general.

There are a few features outstanding that makés this system of pasteurization to be more desirable than the other systems alluded to. In the first place, less steam or heat is consumed due to holding the cream at a given temperature and less cooling medium is required, (for the same reason). This system lowers the cost of pasteurizing and gains desired results very easily without the constant watching of the temperature as is required in continuous systems. This system however, consumes more time than the continuous system, and is not suited to creameries where large volumes of butter are made. It does not require as expert an operator or pasteurizing man as does the continuous system and needs less care and attention during the operation of pasteurizing.

Recording thermometers should be used to indicate exactly the temperatures employed in the process and indicate whether or not the cream has been held at a given temperature a given period of time. As holding the cream at a certain temperature for a certain period is a part of this pasteurizing system, so is it necessary to use a recording thermometer to check up the work and determine how systematically and uniformly the pasteurizing is being done.

The vat system of Pasteurization is certainly one of the most effective and thorough systems that can be adopted from a Bacteriological standpoint of view. The capacity of this system can be increased by using two or three forewarmers in which to do the heating and holding and then pump the cream over a tubular or some such cooler and from there into the vat. This system is very efficient, simple and increases capacity very materially, where needed. For average small creameries I am strongly in favor of the vat system of pasteurization.

The flash or continuous system is the best proposition for large



creameries where it is imperative to turn out large volumes of butter quickly. This system requires more attention in order to secure uniform results. If the system is properly handled it will bring excellent results and increase the capacity of a creamery very materially.

The foregoing deals to a certain degree with the different systems in use at the present time. In the following I wish to outline in a general manner a few of the details that need to be observed in order to successfully operate either of the systems here alluded to.

The first step and most important one in conducting a successful Pasteurization system is to be positive that all equipment and utensils that the cream comes in contact with are clean and have been thoroughly steamed. The cleaning and steaming of all equipment and utensils used should be thoroughly done as soon as the pasteurizing for that day's run is completed. The next morning before any cream has been run through the system it should be again steamed and once per week a hot lime solution should be pumped through the system. I want to impress the fact that properly cleaned equipment is one of the most essential steps to be taken and no pasteurization system is efficient or effective unless equipment is so treated.

No matter what system of pasteurization is being used, it is important to use a recording thermometer so that records can be made and filed indicating the class of work being conducted. This also is important and no pasteurizing equipment is complete without a recorder. This class of equipment has a tendency to raise the efficiency of a man that looks after the pasteurizing because of the fact if he feels he is being checked he will secure good charts and thereby increase the effectiveness of pasteurization, thus protecting the quality of the butter.

The next step is the preparation of the cream for pasteurization. If the vat system of pasteurization is being used then the cream can be pumped, or emptied directly into the vat without any preheating. However, if the flash system is being used then the cream needs to be preheated in forewarmers or vats to about 100 degrees Fhr. and if the acidity of the cream is above 16 degrees Manns' acid test would add enough lime water to reduce the acidity to 16 degrees, lowering the acidity of the cream helps to reduce curdling and losses of butter fat in the buttermilk. Also increases the capacity of the pasteurizer because the cooler will take the cream and distribute it without clogging the distribution holes. It also improves the flavor of the cream and butter.

When starting a flash pasteurizer the cream should be bi-passed back to the forewarmer until the proper temperature has been attained then the flow of cream can be directed to the cooler. Bi-pass-

ing the first and last cream prevents any raw cream passing through the equipment before proper temperature has been attained, thus protecting it from contamination of the raw or half pasteurized cream and making it possible to maintain efficient, effective pasteurization. It is necessary in order to secure efficient flash pasteurization that there are at least two preheating vats or forewarmers so that the pasteurizer can be fed cream of a uniform acidity and temperature. This is very important in order to secure effective flash pasteurization. If the vat system is being used, it is necessary to draw off some cream at different intervals during the pasteurizing so that the raw or half pasteurized cream in the faucet will be pasteurized.

Pasteurization is of little or no account unless it is done systematically and thoroughly. A little raw cream entering the pasteurized cream will act as a medium to introduce the very germ life that pasteurization is supposed to kill and this occurring makes it harder for a starter to perform the function of developing and maintaining the butter flavor, the markets of today require, viz., a clean, mild sweet flavor.

You undoubtedly have noticed I have not touched on the cost of pasteurizing equipment or the cost of pasteurizing. The cost of pasteurizing per pound of butter is very small in fact so small when considering returns gained, that the question naturally sinks out of sight. The cost per pound of butter for pasteurization varies according to the system being used, existing conditions, price of fuel and volume of butter made. I believe the price will vary from possibly one-eighth of a cent per pound to one-half cent depending on the efficiency of the equipment and management. It is policy to use exhaust steam as much as possible. Doing this will lower the cost. Insulate steam pipes and avoid leaks will also decrease the cost.

The efficiency of pasteurization can be determined through Bacteriological analysis. The yeast and mold count on the butter will serve as a guide of efficiency.

The different systems of pasteurizing will all produce good bacteriological results and good keeping quality when necessary conditions are complied with. Defects in results are usually due to the shortcomings of the operator and not the inherent defects of the method. Convenience, speed and cost of installation are the main choices to be considered when buying pasteurizing equipment.

In conclusion I wish to summarize as follows:

1. The times demand all creameries to pasteurize.
2. Pasteurization is absolutely necessary in order to produce satisfactory butter for the different markets.

3. Pasteurization will help protect the creamery industry against so called substitutes and foreign competition.
4. Pasteurization will help keep the creameries in business and the producer producing.
5. Equipment throughout must be cleaned and steamed daily.
6. Proper handling and treatment of present day pasteurizing equipment will render highest efficiency and net best results.
7. The cost is small, the returns large.
8. Pasteurize.

## **MOLDY BUTTER AND ITS PREVENTION**

BY PROFESSOR E. G. HASTINGS

Butter must possess certain qualities if it is to meet with the approval of the consumer. It must have an appealing flavor and aroma; it must show the crystalline texture which differentiates it from grease; and it must have an attractive color which should be uniform. If the butter is mottled, streaked or discolored, it cannot be classed as a high grade product.

The growth of mold on the butter or its wrappings is certain to impair one or more of its properties and thus lower its commercial value. The degree to which its quality will be injured will depend on the kind of mold present and on the extent of its growth. I am not aware that any data has been collected as to the annual losses in the butter industry occasioned by mold. Those of you who are actively engaged in the manufacture and marketing of butter are far better able to judge of the commercial importance of this trouble, than am I. It is sufficient to say that the reports of those in contact with the market, indicate its great importance. It is likewise evident that moldy butter is increasing in frequency, rather than decreasing. Certain developments in the industry would seem to be responsible for the increase, as will be pointed out later.

Mold on butter can be prevented so easily and with so little expense, that the loss occasioned by it may be looked upon as one which we suffer needlessly. Many butter makers have erroneous ideas concerning the source of the trouble. It is the purpose of this paper to point out the sources from which the molds found in butter may have come, and how such contamination may be avoided.

## KINDS OF MOLDS

The molds that are able to grow in or on butter are almost without exception more or less colored. A small amount of growth will therefore give to the butter a discolored appearance, most objectionable to the consumer. The most frequent discoloration is a smudgy or brownish one, which appears as though the butter had



E. J. HASTINGS

been touched with a dirty finger. With increasing growth, the color of the moldy areas darkens until it may become almost black. Among other types of molds that may occur in butter are some that have a greenish color. Still others produce yellow or orange colored spots. It is of course evident that the more closely the color of the mold approaches that of the butter, the less noticeable the mold becomes.

The molds will also injure the flavor of the butter. They cause a decomposition of the fat and produce a decidedly pungent or rancid odor. The various kinds of molds differ widely in the extent to which they injure the flavor. A very small amount of growth of some kinds may have a most marked effect.

## CONDITIONS FOR GROWTH

Molds are plants that in the presence of moisture and air can grow on almost any material of plant or animal origin. The amount of water that is absorbed from damp air by organic matter will be sufficient for their growth, free water is not essential. Their development on walls, clothing, paper and leather is evidence of this fact.

The main mass of growth is in contact with the moist food. Branches extend up from the food into the air, and on these the seeds or spores are produced in enormous numbers. Their production out of contact with the moist food permits them to be easily transported by currents of air. These facts account for the presence of spores on every object. They are thus to be found in the cream, on the tubs, the liners, and the wrappers.

From what has been said it would seem that all butter should develop mold. In reality but a very small part of it actually does. This is due to the fact that whether the molds in the butter grow or not is determined by many factors. Again not all kinds of molds occur in every sample. One kind of mold will grow under a certain set of conditions, another under quite a different set. The conditions in butter that influence the development of molds are the amount of oxygen or air, the amount of salt which is dissolved in the water of the butter, and the amount of curd or casein. Every mold must have oxygen but some can grow in the presence of very small amounts. Such molds, if present in the butter, will grow on or just below its surface. Others demand a larger amount of oxygen and will grow only on the surface of the butter on the wrapper, on the liner, or on the wall of the tub. Again the concentration of the salt in normal butter is sufficient to prevent the development of many kinds. Others may grow in highly salted butter. The lower the salt content, the more favorable will be the conditions for all molds. For this reason mold is encountered most frequently on unsalted butter.

It is likewise certain that the development of mold in or on the butter is determined in part by the extent of its seeding with mold. If but a small number of mold spores or but a small amount of the vegetative growth is present, the development of the mold is less likely to occur than if a larger amount of mold is present. Heavy seeding with mold results from the use of moldy cream, moldy tubs and moldy paper. The expression moldy cream, tubs and paper implies that the mold present is not confined to the spores that have been transported thither from their place of production, but that



the spores deposited therein or thereon have germinated and growth has actually taken place. Many of the molds do not show coloring until spores are produced. A considerable amount of growth may take place on a tub or liner and not be evident to the untrained observer. The use of such materials is very likely to result in moldy butter.

#### STORAGE OF TUBS AND PAPER

Mold spores will always be present on the tubs and paper, since it is impossible to handle them without such contamination taking place. The maker can, however, prevent the growth of mold on tubs and paper by storing them in a dry place. No growth will usually occur unless they are stored for considerable periods in a damp atmosphere.

Mold spores will also be present in the cream. Growth of mold on the cream is possible only when the cream has been allowed to stand without agitation for several days. Development will occur only on the surface. The cream may be seeded from musty cans, and from poorly kept churns. The point that should be made is that mold spores are certain to be present in and on every material and object used by the maker, but that if these materials and objects have been so handled as to prevent growth of molds thereon, the butter is much less likely to show mold growth than if these materials have been stored in an unsatisfactory condition.

#### PREVENTIVE MEASURES

As was previously pointed out, the composition of the butter will be an important factor in determining whether the molds thereon are to grow or not. The maker must satisfy the demands of his market with reference to salt, so this factor is not one that can be universally used for the prevention of trouble. It is, undoubtedly, the factor of greatest importance in inhibiting the growth of the molds in butter under present commercial conditions. The butter maker must, however, look farther for aid in preventing moldy butter.

It is certain that the tub is often the origin of the trouble. Two methods are open to the maker to prevent trouble from this source, one will be here discussed, the other in connection with paper. If the mold is not able to secure air and moisture, no growth is possible. The exclusion of air and moisture from the molds on the tub is possible by coating it with paraffin. This is an almost perfect guarantee against trouble from the tub and a partial guarantee

against trouble from the paper and the butter itself. When butter is packed, water is forced out, forming a film between the tub and butter. This water will soon be absorbed by the tub, air will be drawn in to take its place. Favorable conditions are now present for mold development. In the case of the paraffined tub, the water is not absorbed and there is little if any opportunity for mold growth even on the paper or butter, except on top of the package. The farther prevention of trouble is accomplished by making use of the non-resistance of molds and their spores to moist heat.

Thom and Ayers have studied the resistance of many molds to heat. They have found that a temperature of 145°F. for thirty minutes is sufficient to destroy all the molds that are likely to be present in milk and cream. They likewise found that a temperature of 175° F. destroys practically all spores within thirty seconds. The writer studied the effect of varying temperatures upon a mixture of spores of various molds. The results are presented in the following table.

Time of Exposure	Temperature		
	122° F.	131° F.	140° F.
1 Minute	+	—	—
3 "	+	—	—
5 "	+	—	—
7 "	+	—	—
10 "	+	—	—
15 "	+	—	—

It is evident from these studies that if tubs, liners, wrappers and cream are subjected to a temperature of 150° for thirty minutes, or to higher temperatures for shorter periods all molds will be destroyed. The question concerning trouble from the cream is solved by its pasteurization. Any treatment that will accomplish what pasteurization is supposed to accomplish will destroy the molds in the cream.

The tubs can be most easily and safely treated by filling or immersing them in hot water. The closer the water is to the boiling point the better. The tubs may be steamed with equally successful results. The only difficulty here is that the tub is not likely to be exposed to the jet of steam long enough for the treatment to be effective. The sudden expansion of the steam as it issues from a high pressure pipe reduces its temperature to that of boiling water, or, even lower. If one must wait for the tub to be steamed, the period of exposure is likely to be short. If the tubs are filled with hot water and allowed to stand for some time, it is certain that all

molds will be destroyed. The liners should be treated in the same way.

It is possible to accomplish the same result by the use of certain chemicals. The one that lends itself best for this purpose is bleaching powder or chloride of lime as it is frequently called. It is carried by every drug store. The content of one 12-ounce can is to be added to one gallon of water, the mixture well stirred and the insoluble part allowed to settle. The clear, somewhat greenish liquid, possessing a pungent odor, should be poured from the sediment and stored in a cool dark place. If approximately three ounces of this liquid is placed in each tub, and the tub is filled with clean water, all molds will be killed in a short time—ten to twenty minutes. The cost of such treatment will not exceed one-half cent per tub. It is essential that the bleaching powder be fresh and dry, and that the liquid be used within a few days after it is made from the powder, otherwise the action is not likely to be effective. This method has an element of uncertainty which the use of hot water does not possess. It seems to me, therefore, that the butter maker will do well to place his trust in hot water as the most practical way for the treatment of tubs and liners. The expense and labor connected with its use is so slight, as to be negligible. The larger part of the butter made in our state is packed in tubs, thus the methods described above will suffice for the majority of makers.

Pound prints are in one way more likely to show mold, than tub butter, and in another way less likely. Time is a factor of great importance in the development of mold. As a rule the printed butter is likely to reach the consumer more quickly than the tub butter. Again it exposes a far greater surface to the air, a condition that is conducive to the growth of molds, especially those that may be in the paper. The wrappers can be dipped in hot water. The dipping can best be done by taking a considerable number and fastening together with a spring clamp. Shake the package until the wrappers are somewhat separated; so that the hot water will reach each wrapper, immerse the package for a few minutes. remove, shake free from water, and use at once. The treatment of wrappers involves more work than the treatment of liners. The wet wrappers are also less easily handled. It would, therefore, not seem advisable to treat wrappers unless there is some reason to suspect that the paper may cause trouble.

It was stated earlier that it seems apparent that there is more trouble with moldy butter than previously. This may find its explanation in the cream that is used. A white or pale yellow mold will develop rapidly on sour cream. Following this form still other

kinds will appear. The use of cream that is collected from the farms at infrequent intervals is certain to result in an increased amount of mold butter, unless the cream is carefully pasteurized. One of the tests widely used in the laboratories of the large butter companies as a check upon the work of the operator, involves the determination of the number of certain molds in the butter, a number in excess of a certain standard indicates lack of care in pasteurization of the cream, or in cleansing the equipment.

In the past, and I suppose at the present, many operators have had an erroneous idea of the cause of moldy butter. It has often been thought to be due to poor refrigeration in the creamery, in transit or in storage. It is true that many refrigerators become musty, which is nothing more or less than evidence of mold growth on the walls. Such a refrigerator cannot be a direct cause of moldy butter, but only a contributing factor, since the temperature is likely to be higher than it should be. The higher the temperature, the more likely is mold to appear on the butter. The actual cause is to be found in the vegetative mold and spores present in the cream, and on the tubs, and paper.

The methods of prevention of moldy butter may be summarized as follows: The cream should be collected as frequently as possible, the tubs and paper should be stored in a clean dry place. This will prevent the growth of mold on the cream or on the tubs and paper. It will in no way be an effective guarantee against moldy butter. This guarantee can be secured only by pasteurization of the cream, and treatment of the tubs and paper with hot water or some other mold-destroying agent. The cost of this insurance against loss by mold will be exceedingly small.

## THE VALUE OF SKIM MILK AS A FOOD

E. B. HART

Countless farmers and dairy by-product manufacturers do not realize the feeding value of skim milk, buttermilk or whey. It is not an uncommon occurrence to find the whey tank at a cheese factory emptied into the pasture and its very great feeding value lost. With barley and whey alone pigs of 75 pounds weight will not only make good growth, but they will make money on such a ration.

It is an axiom of nutrition today that little growth of animals can be secured by the use of grains or grain products alone. Then, you ask the question, how on any farm have our animals grown?



The answer to the question is that the grains are always supplemented with milk when the animals are young and with milk, hay or pasture when the animal is older. Today the commercial packing industry is furnishing a third class of efficient grain supplements namely, tankage for swine.

We seem therefore, that either one of these three supplements, dairy products, tankage or the leafy portions of plants must be used with any grain if continued growth is to occur. But we are not looking for a moderate rate of growth; we want the cheapest and the most rapid rate of growth that can be secured for a unit of food material consumed. Such materials as the grains plus alfalfa, clover, or the leafy parts of plants will give continuous and vigorous growth, but it will not give the most rapid growth. The reason for this lies in the poor quality of the proteins of a mixture like barley and clover. When we add to a grain alone or a mixture of grain and clover the dairy by-products like skim milk, buttermilk or whey, or the commercial product tankage we have so greatly improved the quality of the protein mixture that a maximum rate of growth will result.

In milk producing sections the main reliance for a good protein concentrate should be placed on the dairy by-product. A ton of tankage costs \$125. On the basis that milk by-products are as good as tankage—and for growth they are better—100 pounds of skim milk or buttermilk would be worth 60 cents. On the basis of the old rule of half the market price of a bushel of corn the value of 100 pounds of skim milk would be about 70 cents. On the basis of pig feeding trials at the Wisconsin Experiment Station the value of skim milk was 80 to 90 cents per hundred when hogs were selling at around \$20 per hundred. These figures are mere suggestions and cannot represent the real value of skim milk in feeding. A man on a dairy farm and without tankage has no other possible material except skim milk with which to supplement his rations and meet the normal growth impulse of his young stock. The value of whey can be rated at approximately 60 per cent of that of skim milk or buttermilk. While whey has very little protein yet what it has is of wonderful supplementing character and will turn a failure with a grain mixture, such as barley and oats into a real commercial success. Perhaps on the basis of actual feeding results it should be given a much higher rating. Both scientific evidence and practical experience testify to the great feeding value of dairy by-products when fed as supplements to grains, and no creamery operator should fail to teach and practice this doctrine, for by such teaching there will certainly arise a better live stock industry.



The cities, condensaries and cheese factories are today offering good prices for whole milk. The temptation to sell all the milk produced on the farm is strong. The effect of this policy on the young stock is also apparent. Maximum growth and strong vigorous animals will not be produced in the same time by the use of milk substitutes. The growth period will be longer. Those sections of our country following the practice of selling all the milk from the farm are not the centers visited by buyers of good live stock. Farmers in our own state and in the center of the cheese industry are learning that it is folly to try to raise good calves without milk. Already they are following the sound practice of reserving a supply of whole milk for the growing calf. The animal is kept on whole milk—eight to ten pounds per day—for from seven to eight weeks and then gradually the supply is withdrawn until at the end of three months a small allowance of milk is still a part of the ration. Even at the end of five to six months one pound daily, or just enough to color the water is still in use. This is a splendid practice and should be the common rule rather than the practice of the few. There are calf meal products on the market that lay claim to a value equal to that of skim milk. As a usual thing the best of these will contain some animal protein and generally it is either milk powder or blood powder or both. These meals are expensive and cannot possibly be as cheap as the products produced on your own farm.

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### REPORT OF RESOLUTION COMMITTEE

Mr. R. J. Mott on the Resolution Committee read the following resolution:

Resolved, that we appreciate highly the many courtesies extended to us by the Chamber of Commerce and the citizens of La Crosse in their efforts to make our stay in La Crosse during this convention agreeable, and the thanks of this Association hereby extended to them in recognition of their efforts.

Whereas, the Gibson Ice Cream Company has given the use of their cold storage facilities for the care of the butter exhibit and in many other ways have done what they could to make the Convention a success, therefore be it

Resolved, that the thanks of this Association are due and are hereby tendered to the Gibson Ice Cream Company.

The Wisconsin Butter Makers' Association has a reputation for holding successful conventions and the present convention is no exception

to the rule. We hereby tender our thanks to the officers for their efforts and to the speakers.

Whereas, Oscar B. Cornish, for many years a member of the Executive Committee of this Association, and a charter member of it, has been in the hospital recovering from the effects of an operation which prevents him from being present, therefore be it

Resolved, that this Association regrets Mr. Cornish's enforced absence and extends to him our sincere hope for his speedy recovery.

Whereas, we regret the resignation of our loyal secretary, Professor Benkendorf who has served us faithfully for many years and who has done much to make this Association a success; therefore be it

Resolved, that the thanks of this Association are due and are hereby rendered.

Whereas, God in his providence has seen fit to remove from the scene of earthly labors, Thomas Corneliuson and Samuel Schilling, be it

Resolved, that in the passing away of these members, we have sustained a distinct loss, and hereby tender our sincere sympathy to their families.

Whereas, there is in this state a new organization named the Wisconsin Dairy Council, organized for the purpose of promoting a knowledge of the benefits to be derived from the use of dairy products, and

Whereas, the recent discourses as to the value of dairy products in the promotion of growth and health needs to be disseminated to the public through some agency, be it

Resolved, that this Association heartily favors the work proposed to be done by the Wisconsin Dairy Council, and pledges its support in the work of promoting the Council.

Whereas, it is generally known that the packers known as The Big Five voluntarily went to the Attorney General of the United States and offered to stop handling unrelated products except the dairy products, and

Whereas, we fear the release of the enormous capital formerly employed by the packers in handling these unrelated products will be used by them to obtain greater control of the dairy business, and believing that such control would be inimical to the best interests of the great dairy industry, therefore be it

Resolved, that we commend the action taken by the Wisconsin Dairy Protective Association, the Wisconsin Cheese Makers' Association and the officers of our Association in presenting to the Attorney General our claims for securing relief and final expulsion of the packers from the dairy industry.

Whereas, all evidence presented by different members of the Association was in favor of an 80 per cent butter fat standard and believing that the best interests of the dairy industry would be served by fixing an 80 per cent butter fat standard, be it

Resolved, that this Association declare itself in favor of an 80 per cent butter fat standard.

Whereas, the state of Wisconsin has passed a law setting the standard for moisture in butter, be it

Resolved, that it would seem the height of wisdom for some uniform method to be employed by both the creameries and the dairy and food commissioner's department in making these tests.

Whereas, there has been a law passed in the state of Wisconsin for licensing "cream buying stations"; be it

Resolved, that we go on record as favoring rules and regulations covering the sanitary conditions of such stations, and that the same rules and regulations be applied to these stations as those applied to the creameries of the state.

Whereas, there has been a great deal of discussion pro and con of the branding law of the butter made from cream of whey; be it

Resolved, that this Convention go on record as in favor of repealing this law.

Motion made to adopt resolutions as read. This was amended to eliminate that part of the resolutions pertaining to the repeal of the butter law and the resolutions were adopted as amended.

Mr. BENKENDORF: I want to thank you very much for the purse just handed me. I have been with you for ten years and have tried to give you good faithful work, and service. Some of the boys asked me about it, and regretted that I was going to leave; but I told them I had a bunch of fun out of it. I enjoyed my work for ten years, very much; I shall always treasure the friendships formed in the past ten years. I go about the state and meet them, this traveling man and that one, and friends all over the state. I think a good part of that is due to the fact that I was your secretary, and I thank you for giving me the opportunity for these pleasures. I sincerely thank you.

Motion seconded and unanimously passed that Mr. Lee be appointed by the Wisconsin Butter Makers' Association to represent them on the Board of the Wisconsin Dairy Council.

Mr. J. G. Moore gave a talk on his trip to Washington; at his request no stenographic report was made of same.

Mr. HOIBERG: I would like to make a motion to extend Mr. Moore a vote of thanks for that talk.

Mr. BENKENDORF: Make it also for Mr. Farrell.

Mr. MOORE: You know, I only did my duty as I saw it. He has done his best for you fellows. I second Mr. Hoiberg's motion that Mr. Farrell be given a vote of thanks for the work he has done in Washington.

Motion carried unanimously.

Mr. BENKENDORF: I move that we adjourn until that meeting is called by Mr. Hoiberg in June.

Motion made, seconded, and passed unanimously to adjourn sine die.

Unavoidable circumstances prevented the attendance of the judges appointed to score the butter; the exhibits were therefore judged by Secretary Benkendorf and Mr. Axel Madsen, of the Dairy and Food Commission.

## JUDGES' SCORES

## FIRST DISTRICT.

LeRoy Montad, Deerfield....	92.75
B. B. Cobb, Sun Prairie....	91.75
John Mogensen, Wycocena ...	92.25
Peter Olson, London.....	95.00
Rudolph J. Else, Johnson Creek .....	95.25
Albert Hoeffke, Marshall....	91.00
H. O. Zick, Dane, R. 2.....	91.25
F. M. Werner, Waterloo....	96.00
H. J. Herreman, Black Earth	91.25
John Jorgenson, Lake Mills	94.50

## SECOND DISTRICT

Walter B. Meyer, Baraboo..	92.50
Norman Mayenschein, Hills- boro .....	91.50
C. P. Ofstun, Stueben.....	92.50
Olaf Larson, Gays Mills....	92.50
W. A. Moyes, Ironton.....	91.00
J. D. Simpson, Viroqua....	90.00
R. H. Banks, Reedsburg....	93.00
E. G. Saltwedel, Loganville, R. D. ....	93.25
Harold Peterson, Cazenovia.	93.00
Wm. Sieger, Chaseburg ....	91.25
J. H. Bogert, Stoddard....	93.00
M. Michelson, Westby.....	93.00
Harry H. Wurster, Patch Grove .....	92.00
Val Droessler, Louisburg, R. 2 .....	91.50
Svend Hoiberg, Westby, R. 3	94.50
N. A. Galstad, Genoa.....	94.50

## THIRD DISTRICT

Ole Johnson, Oakdale, R. 1..	92.00
Wm. Mehleis, Bangor, R. 2..	92.75
Loyal D. Allen, Tomah.....	91.00

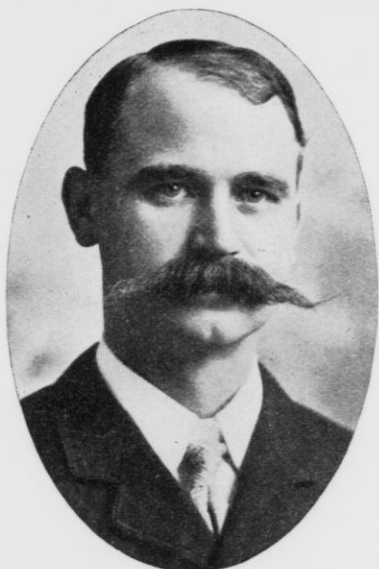
Arthur C. Schultz, Trempea- leau .....	93.25
J. H. Lierrance, Sparta.....	92.50
Theo. Johnson, Whitehall...	90.75
C. C. Yonkey, Tunnel City...	92.50
A. W. Zimmerman, Norwalk	93.25
F. A. Grawin, Kendall .....	90.00
H. B. Oakes, West Salem....	91.25
D. E. Jeffers, Galesville....	92.25
E. G. Rasmussen, Melvina..	92.25
Julius B. Johnson, Ettrick..	91.00
J. A. Betthausen, Oakdale...	93.50

## FOURTH DISTRICT

Hod Doolan, Brandon.....	90.25
P. N. Korb, Fairwater.....	94.00
Art Wendtland, Plymouth...	93.00
H. E. Jahnke, W. Wrights- town .....	91.50
Abe Speich, Berlin, R. 2....	92.50
L. L. Bolstead, West DePere R. D. ....	94.00
Quirin Moersch, Peebles, R. 1 .....	93.00
Kielsmeier Co., Manitowoc..	92.00
Hubert Bartel, New Holstein	92.50
M. Christopherson, New Franken .....	94.00

## FIFTH DISTRICT

Christ Muehrer, Wautoma, R. 5 .....	92.00
James Larson, Union Center	91.25
Chas. Sanford, Amherst Jct., R. 2 .....	91.75
John Rasmussen, Wautoma	95.50
Odin Christensen, Nelson- ville .....	92.50
I. G. Searles, Wonewoc.....	93.50
Robert S. Anderson, North- land .....	91.50



THOMAS C. CORNELIUSEN  
1865-1919

"Green be the turf above thee,  
Friend of my better days;  
None knew thee but to love thee  
Nor named thee but to praise."



SIXTH DISTRICT			
T. J. Hass, Elk Mound.....	90.75	W. L. Karker, Brill.....	93.25
L. H. Winter, Eau Claire....	93.75	B. J. Lindvig, Grantsburg...	93.25
Frank Meisner, Boyceville..	92.50	Lewis Nelson, Cushing.....	93.25
Charles C. Goble, Rusk.....	91.00	A. J. Rivard, Clear Lake...	93.50
R. P. Colwell, River Falls..	93.00	Andrew J. Swenberg, Fred-	
F. L. Stolt, Prescott.....	90.25	rick, R. 1.....	93.50
A. B. Melsgaard, Meridian..	90.00	Alfred B. Thorsson, Grants-	
Roscoe Mays, Bloomer.....	92.50	burg.....	95.50
Lyman H. Seyforth, Inde-		Albert Erickson, Amery	
pendence.....	91.75	R. F. D. No. 4.....	94.25
Jacob W. Ringger, Modena..	92.50	Dudley Herrell, Frederic...	90.75
Orin S. Melsby, Duran.....	92.00	Walter L. Olson, Dallas....	94.00
		S. E. Enockson, Falun.....	92.50
		Chris J. Back, Luck.....	92.00
		Elmer F. Erickson, Luck	
		No. 2.....	94.50
		N. Geo. Nelson, Luck No. 1..	93.75
		A. M. Newman, Chetek.....	91.25
		E. A. Danielson, Grantsburg	
		R. D. ....	95.25
SEVENTH DISTRICT		COMPLIMENTARY	
Abert Long, Medford.....	92.50	W. A. Sather, Houstin,	
O. J. Krogstad, Withee.....	92.50	Minn., R. 6.....	91.50
Theo. J. Arens, 1022 Hughitt		C. O. Johnson, Fountain,	
Ave., Superior.....	90.75	Minn. ....	93.00
Grant Winner, Humbird....	90.25	Ed. Wobbrock, Faribault,	
J. W. Herreman, Eagle River	92.00	Minn., R. D. 1.....	92.00
L. E. Kreinbring, Mason....	92.50	Arthur C. Pietsch, Lewiston,	
J. S. Jorgensen, 216 Fourth		Minn. ....	92.25
St., Green Bay.....	90.50	John M. Schmidt, Litchfield,	
Oscar Johnson, Prentice ...	91.50	Minn. ....	93.50
Maurice Hanson, Washburn	93.00		
Louis Peterson, Bonduel....	93.75		
Nick Garlie, Shell Lake....	90.25		
EIGHTH DISTRICT			
Wm. R. Nichols, Centuria... 92.00			

### STATE PRIZES

The executive committee offered this year as prizes four handsome gold watches, gentlemen's size, Waltham make, with hunting cases, guaranteed for twenty years. They are all equal value and were given to the butter makers exhibiting butter receiving first, second, third and fourth highest scores.

The following ruling was made this Fall by the Executive Committee: "Resolved, that it is the sense of the Executive Committee that only butter makers from creameries, primarily engaged in the manufacture of creamery butter, be allowed to compete for the prizes offered by the association. Butter sent by condensaries, city milk plants, etc. will receive only the usual complimentary score."

STATE PRIZE WINNERS

Honor Prize

Fred Werner, Waterloo..... 96.00

State Prizes

John Rasmussen, Wautoma..... 35.50  
 Alfred Thoreson, Grantsburg ..... 95.50  
 Rudolph Else, Johnson Creek ..... 95.25  
 E. A. Danielson, Grantsburg..... 35.25

DISTRICT PRIZES

District prizes will again be offered this year under the same rules as governed this contest at previous conventions.

As there are eight districts there will be thirty-two prizes offered in all. They are as follows:

First Prize—A twelve piece set silver knives and forks, best Community silver, Georgian pattern.

Second Prize—A fine Gold Filled Waldemar Chain, with fine square Boston links—offered by J. B. Ford Co., Manufacturers of Dairy-men's Cleaner and Cleanser, Wyandotte, Mich.

Third Prize—A fine Gold Filled Pocket Knife.

Fourth Prize—Set of Gold Front Cuff Links.

DISTRICT PRIZE WINNERS

1st District.

First—Peter Olson.....London  
 Second—Leroy Mustad .....Deerfield  
 Third—John Mogensen .....Wycocena  
 Fourth—H. J. Herreman.....Black Earth

2nd District.

First—Svend Hoiberg .....Westby  
 Second—N. A. Galstad.....Genoa  
 Third—E. G. Saltwedel .....Loganville  
 Fourth—J. H. Bogert .....Stoddard  
 Fourth—R. H. Banks.....Reedsburg

3d District.

First—J. A. Betthausen.....Oakdale  
 Second—A. C. Schultz.....Arcadia  
 Third—A. W. Zimmerman.....Norwalk  
 Third—Wm. Mehleis.....Bangor  
 Fourth—J. H. Lieurance.....Sparta  
 Fourth—C. C. Yonkey.....Tunnel City

## 4th District.

First—Quiren Moersch .....	Peebles
Second—Arthur Wendland .....	Plymouth
Third—Abraham Speich .....	Berlin R. 2
Fourth—Kielsmeier Co. ....	Manitowoc

## 5th District

First—I. G. Searles .....	Wonewoc
Second—James Larson .....	Union Center

## 6th District.

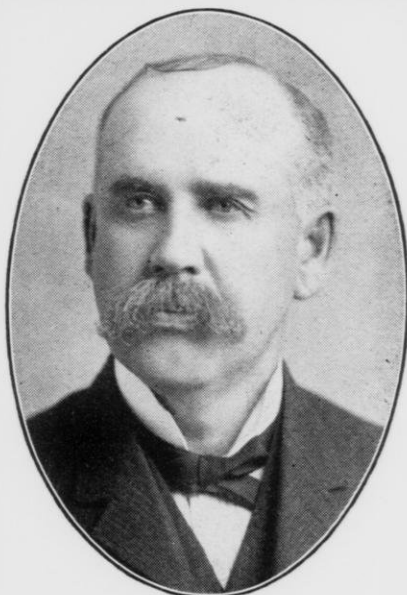
First—Frank Meisner .....	Boyceville
Second—Lyman H. Seyforth .....	Independence
Third—Charles G. Goble .....	Rusk
Fourth—F. L. Stotl .....	Prescott

## 7th District.

First—Maurice Hansen .....	Washburn
Second—Albert Long .....	Medford
Third—J. W. Herreman .....	Eagle River
Fourth—Grant Winner .....	Humbird

## 8th District.

First—Albert Erickson .....	Amery
Second—Dudley Herrell .....	Frederic



S. B. SHILLING

Pioneer butter maker and well-known  
writer whose passing away last  
summer was a shock to his many  
friends in Wisconsin

## NAMES OF MEMBERS OF THE WISCONSIN BUTTER MAKERS' ASSOCIATION

### LIFE MEMBERS.

NAMES	ADDRESS
Fulmer, F. B.	Moose Jaw, Sask., Canada

### ANNUAL MEMBERS

#### EXHIBITION MEMBERSHIP LIST

##### FIRST DISTRICT

LeRoy Montad, Deerfield.  
 B. B. Cobb, Sun Prairie.  
 John Mogensen, Wyoceana.  
 Peter Olson, London.  
 Rudolph J. Else, Johnson Creek.  
 Albert Hoeffke, Marshall.  
 H. O. Zick, Dane, R. 2.  
 F. M. Werner, Waterloo.  
 H. J. Herreman, Black Earth.  
 John Jorgenson, Lake Mills.  
 W. H. Zinterer, Ft. Atkinson.

##### SECOND DISTRICT

Walter B. Meyer, Baraboo.  
 Norman Mayenschein, Hillsboro.  
 C. P. Ofstun, Stueben.  
 Olaf Larson, Gays Mills.  
 W. A. Moyes, Ironton.  
 J. D. Simpson, Viroqua.  
 R. H. Banks, Reedsburg.  
 E. G. Saltwedel, Loganville, R. D.  
 Harold Peterson, Cazenovia.  
 Wm. Sieger, Chaseburg.  
 J. H. Bogert, Stoddard.  
 M. Michelson, Westby.  
 Harry H. Wurster, Patch Grove  
 Val Droessler, Louisburg, R. 2.  
 Svend Hoilberg, Westby, R. 3.  
 N. A. Galstad, Genoa.  
 A. A. Lafts, Seneca.

##### THIRD DISTRICT

Ole Johnson, Oakdale, R. 1.  
 Wm. Mehleis, Bangor, R. 2.  
 Loyal D. Allen, Tomah.  
 Arthur C. Schultz, Trempealeau  
 J. H. Lierrance, Sparta.  
 Theo. Johnson, Whitehall.  
 C. C. Yonkey, Tunnel City  
 A. W. Zimmerman, Norwalk.  
 F. A. Grawin, Kendall.  
 H. B. Oakes, West Salem.  
 D. E. Jeffers, Galesville.  
 E. G. Rasmussen, Melvina.  
 Julius B. Johnson, Ettrick.  
 J. A. Betthausen, Oakdale.

##### FOURTH DISTRICT

Hod Doolan, Brandon.  
 P. N. Korb, Fairwater.  
 Art Wendtland, Plymouth.  
 H. E. Jahnke, W. Wrightstown.  
 Abe Speich, Berlin, R. 2  
 L. L. Bolstead, West De Pere, R. D.  
 Quirin Moersch, Peebles, R. 1.  
 Kielsmeier Co., Manitowoc.  
 Hubert Bartel, New Holstein.  
 M. Christopherson, New Franken.

##### FIFTH DISTRICT

Christ Muehrer, Wautoma, R. 5.  
 James Larson, Union Center.



Chas. Sanford, Amherst Jct., R. 2.  
 John Rasmussen, Wautoma.  
 Odin Christensen, Nelsonville.  
 I. G. Searles, Wonewoc.  
 Robert S. Anderson, Northland.

SIXTH DISTRICT

T. J. Hass, Elk Mound.  
 L. H. Winter, Eau Claire.  
 Frank Meisner, Boyceville.  
 Charles C. Goble, Rusk.  
 R. P. Colwell, River Falls.  
 F. L. Stolt, Prescott.  
 A. B. Melsgaard, Meridian.  
 Roscoe Mays, Bloomer.  
 Lyman H. Seyforth, Independence.  
 Jacob W. Ringger, Modena.  
 Orin S. Melsby, Durand.

SEVENTH DISTRICT

Albert Long, Medford.  
 O. J. Krogstad, Withee.  
 Theo. J. Arens, 1022 Hughitt Ave.,  
 Superior.  
 Grant Winner, Humbird.  
 J. W. Herreman, Eagle River.  
 L. E. Kreinbring, Mason.  
 J. S. Jorgensen, 216 Fourth St.,  
 Green Bay.  
 Oscar Johnson, Prentice.  
 Maurice Hanson, Washburn.

Louis Peterson, Bonduel.  
 Nick Garlie, Shell Lake.

EIGHTH DISTRICT

Wm. R. Nichols, Centuria.  
 W. L. Karker, Brill.  
 B. J. Lindvig, Grantsburg.  
 Lewis Nelson, Cushing.  
 A. J. Rivard, Clear Lake.  
 Andrew J. Swenberg, Frederic, R. 1.  
 Alfred B. Thorsson, Grantsburg.  
 Albert Erickson, Amery, R. F. D.  
 No. 4.  
 Dudley Herrell, Frederic.  
 Walter L. Olson, Dallas.  
 S. E. Enockson, Falun.  
 Chris J. Back, Luck.  
 Elmer F. Erickson, Luck No. 2.  
 N. Geo. Nelson, Luck No. 1.  
 A. M. Newman, Chetek.  
 E. A. Danielson, Grantsburg, R. D.

COMPLIMENTARY

W. A. Sather, Houstin, Minn., R. 6.  
 C. O. Johnson, Fountain, Minn.  
 Ed. Wobbrock, Faribault, Minn.,  
 R. D. 1.  
 Arthur C. Pietsch, Lewiston, Minn.  
 John M. Schmidt, Litchfield, Minn.

ANNUAL MEMBERS

Ahrens, F. H., Hustler.  
 Aicher, 165 W. S. Water St., Chi-  
 cago.  
 Allen, A. B., 25th and University  
 Ave., Minneapolis.  
 Allen, C. L., Cashton.  
 Arnoldi, C. L., Manitowoc.  
 Barber, A. H., Chicago.  
 Benkendorf, G. H., Madison.  
 Bettner, A. A., Wausau, 411 Grand  
 Ave.  
 Betz, Theo, Grand Rapids.  
 Bernaman, E. H., Downing.  
 Bixby, H. F., Galesville, R. 1.  
 Blatherwick, C. C. W., c/o Coyne  
 Bros., Chicago.  
 Blood, F. J., Chetek.  
 Bogaerts, P. J., Swift Current, Sask.

Borst, W. B., Phillips.  
 Brenden, H., Westby.  
 Brierly, W. E., Downsville.  
 Brink, Alben, Nelson.  
 Budde, H. A., Ontario.  
 Borden, W. H., St. Paul, Minn.  
 Campbell, A. W., Beaver Dam.  
 Carson, R. W., New Richmond.  
 Carswell, Robert, c/d J. G. Cherry  
 Co., St. Paul, Minn.  
 Chaplewsky, A. G., Bangor.  
 Christensen, H., c/o A. H. Arnold  
 Co., Chicago.  
 Clark, A. V., Reedsburg.  
 Cook, S. B., Cumberland.  
 Crosby, R. R., Madison.  
 Crump, J. L., Dairy Record, St.  
 Paul.  
 Cleaves R. C., Iola.

- Dale, J. J., Holmen.  
 Davis, U. E., Chicago.  
 Doerer, A. W., Winona, Minn.  
 De Bow, W. B., Blair.  
 De Golier, H. M., London.  
 Dillon, H. P., Oshkosh.  
 Dobbie, G. S., Beatrice Creamery Co., Chicago.  
 Dodge, C. J., Windsor.  
 Earlison, S., Ellsworth.  
 Eckwright, E. R., Jim Falls.  
 Farrington, E. H., Madison.  
 Fox, A. M., 168 W. So. Water St., Chicago.  
 Fox, Peter, Jr., 168 W. So. Water St., Chicago.  
 Farrell, J. J., St. Paul.  
 Ford, J. A., Sparta.  
 Garlid, Geo., Durand.  
 Glover, A. J., Ft. Atkinson.  
 Gordon, W. A., Waterloo, Iowa.  
 Green, R., Albion.  
 Griffin, H. E., Mt. Horeb.  
 Graham, F. W., 616 King St., La Crosse.  
 Hudovernik, F., Mt. Tabor.  
 Hanson, H. A., Careyville.  
 Halverson, Emil, Balsam Lake.  
 Hammerschlag, J. G., 1011 Majestic Bldg., Milwaukee.  
 Handy, Fred, Wyeville.  
 Hanna, J. R., 116 W. Illinois St., Chicago.  
 Hanson, Geo., Shennington.  
 Hanson, O., Oakdale.  
 Haukom, Otto, Cutler.  
 Hansen, E. R., 613 First Nat'l Bank, Milwaukee.  
 Henry, Edw. J., 704 Park Ave., Albert Lea, Minn.  
 Hillstad, A. C., Portage, 614 Cass St.  
 Hoetye, W. C., St. Paul, Minn.  
 Hoiberg, Hans B., Coon Valley.  
 Hougan, A. C., St. Paul, Minn.  
 Hough, J. L., Whitehall.  
 Husbloen, Edw., Ellsworth.  
 Hunter, P. O., Worcester Salt Co., Detroit, Mich.  
 Huot, Le Beau, Cameron.  
 Iuker, J. A., King Ventilating Co., Owatonna, Minn.  
 Jacobson, H. M., Galesville.  
 Jenks, Geo. E., Hunter Walton Co., Chicago.  
 Keppel, V. S., Holmen.  
 Klooster, A. H., c/o C. H. Weaver & Co., Chicago.  
 Kollmeyer, H. F., Loganville.  
 Lawson, N. A., Madison.  
 Lee, C. E., c/o Gridley Dairy Co., Milwaukee.  
 Lemke, H. E., 292 Otter St., Oshkosh.  
 Leserman, L. M., 619 W. Randolph St., Chicago.  
 Lloyd, J. E., Sparta.  
 Limp, C. A., 117 Oak St., Waukegan, Ill.  
 Lounsbury, J., Allwood Sales Co., Milwaukee.  
 Luethi, C. F., Minneapolis.  
 Luhm, Chas., Wautoma, Minn.  
 McCarthy, J. V., 192 N. Clark St., Chicago.  
 Madsen, Axel, Dairy & Food Com., Madison.  
 Marple, W. W., Beatrice Cry. Co., Chicago.  
 Mayan, Theo., Winona, Minn., R. 3.  
 Michaelsen, Wm., Arkansas.  
 Milles, J. H., Stockholm.  
 Meyer, M. H., 888 44th St., Milwaukee.  
 Milnarik, Jas. T., 186 N. La Salle St., Chicago.  
 Mistele, W., Hustler.  
 Mathison, Olaf, Woodville.  
 Moe, N. E., Iola.  
 Monson, M. H., Pigeon Falls.  
 Moore, J. G., Olsen Pub. Co., Milwaukee.  
 Moran, J. H., West Salem.  
 Mott, R. J., Grand Rapids.  
 Munshaw, F. A., Eau Claire.  
 Murden, W. C., King Ventilating Co., Owatonna, Minn.  
 Murphy, W. L., King-Ventilating Co., Owatonna, Minn.  
 Nettleman, Adolph, West Salem.  
 Nelson, J. M., Holmen.  
 O'Dell, Claude, Ripon.  
 Oakes, S. E., Platteville.  
 Olsen Lauritz, West De Pere.  
 Parker, John J., Camp Douglas.  
 Patzwald, Wm., Fall Creek.  
 Payne, W. W., Chippewa Falls.  
 Paterson, 136 West Lake St., Chicago.  
 Picotte, W. D., 305 Court St., Chippewa Falls.  
 Prescott, A. G., Tunnel City.  
 Purves, J. T., Appleton.  
 Pyburn, E. S., Vinton, Iowa.  
 Peterson, P. E., Bayfield.

- Ramsdell, C. I., Madison, 908 E. Gorham St.  
 Rentz, Henry, Westby.  
 Robinson, J. D., Ontario.  
 Roycroft, A. J., Chippewa Falls, R. 1.  
 Ryan, E. J., Milwaukee Corrugating Co., Milwaukee.  
 Schneider, Wm., Johnson Creek.  
 Schell, H., Norwalk.  
 Sanders, H. H., Fall Creek.  
 Sherwood, M. T., Dairy & Food Com., Madison.  
 Schlenalmon, E. F., Fountain City.  
 Sinkler E. F., 25 W. Kinzie St., Chicago.  
 Skogmo, Philip, 110 2nd St., N. Minneapolis.  
 Skoglund, C. E., Amherst.  
 Sondburg, V. A., Winona, Minn.  
 Sprecher, John U., Madison.  
 Speich, A. G., Berlin.  
 Sleyster, R. V., Cochrane.  
 Stenger, C. J., 152 W. So. Water St., Chicago.  
 Smith, Lucius, Wm. J. Haire Co., Boston, Mass.  
 Smith, J. R., Merrell Eldredge Co., Chicago.  
 Spielman, C. F., Boyceville.  
 Stewart, W. A., Eagle.  
 Storey, C., Beatrice Cry. Co., Eau Claire.  
 Stueber, G. H., 529 Jackson St., Wausau.  
 Swan, C. S., Chippewa Falls.  
 Tucker, E. H., Lodi.  
 Thomas, J. F., 1630 Lloyd St., Milwaukee.  
 Thompson, E. E., Mindoro.  
 Thompson, M. E., Cry. Pckge. Mfg. Co., Minneapolis.  
 Towle, T. B., Baraboo.  
 Uehling, F. E., West Salem.  
 Ulrich, A. F. Dubuque, Iowa, Beatrice Cry. Co.  
 Venski, W. J., Motordale, Minn.  
 Vonderohe, G. F., Reedsburg.  
 Voigt, W. A., Eau Claire.  
 Vroman, H. E., 26 W. Kinzie St., Chicago.  
 Wagner, W. E., Green Bay.  
 Warner, T. J., Wausau.  
 Waskow, Frank, 346 W. So. Water St., Chicago.  
 Waite, E. N., Bangor.  
 Weeks, M. E., 178 La Salle St., Chicago.  
 Whitmore, E. J., Owatonna, Minn.  
 Wilford, F. H., Milw., c/o J. B. Food Co.  
 Zick, Otto H., Winter.

**ARTICLES OF INCORPORATION AND BY-LAWS**

OF THE

**WISCONSIN BUTTER MAKERS' ASSOCIATION**

---

**ARTICLES OF INCORPORATION.**

**ARTICLE FIRST.** The undersigned have associated, and do hereby associate themselves together for the purpose of forming a corporation under Chapter 86 of the Revised Statutes of the State of Wisconsin, for the year 1898, and the acts amendatory thereof and supplementary thereto, the business, purposes and objects of which corporation shall be the education of its members for a better practical knowledge of creamery operation, promoting progress in the art of butter making, in the care and management of creameries, the sale, transportation and storage of butter, and in the weeding out of incompetency in the business of butter making; the further object of the incorporation is to demand a thorough revision and rigid enforcement of such laws as will protect the manufacture and sale of pure dairy products against fraudulent imitations, and to suggest and encourage the enactment of such laws in the future as experience may from time to time demonstrate to be necessary for the public good of the dairy industry.

**ARTICLE SECOND.** The name of said corporation shall be the "Wisconsin Butter makers' Association," and its principal office and location at Madison, Wis.

**ARTICLE THIRD.** The Association shall be a corporation without capital stock. Any person who is a practical creamery operator, and is engaged as such, and who has at least three years' actual experience in the manufacture of butter in a creamery, may become members of this corporation by paying \$1.00 in advance and signing the Roll of Membership; provided, however, that members who, at the time of adoption of this amendment are not engaged as creamery operators, but who have had at least three years' practical experience as creamery operators, shall be permitted to continue their membership in this corporation.

**ARTICLE FOURTH.** The general officers of said association shall be a president, vice president, secretary and treasurer. The board of directors shall consist of three members of the association. All officers and directors shall be members actually engaged as creamery operators in the employ of a creamery, or creamery company, except the secretary, who may be a member not so engaged. The term of the officers of the association shall be for one year beginning July 1st, or until their successors are elected at the next annual meeting following their election, and until such suc-

cessors qualify. At the first meeting of the members of the association, there shall be elected a director for the term of one year, a director for the term of two years, and a director for the term of three years, and thereafter there shall be elected at each annual meeting a director for the term of three years, and each director shall hold his office until July 1st or until his successor is elected and qualifies.

ARTICLE FIFTH. The principal duties of the president shall be to preside at all meetings of the board of directors and of the members of the association during his term of office. He shall appoint all necessary committees and sign all orders drawn on the treasurer, and perform such other duties as may pertain to his office.

The vice president shall discharge the duties of the president in the event of the absence or disability, for any cause whatever, of the latter.

The principal duties of the secretary of said association shall be to keep a complete and accurate record of all meetings of the association or of the board of directors, keep a correct account of all finances received, pay all moneys into the hands of the treasurer and receive his receipt therefor, and to countersign all orders for money drawn upon the treasurer. He shall safely and systematically keep all books, papers, records and documents belonging to the association, or in any wise pertaining to the business thereof. He shall keep a complete list of the membership, help formulate and publish the program for the annual convention, publish a full report of said convention after adjournment, assist in such other matters of business as may pertain to the convention, and such other duties as properly belong to his office.

The principal duties of the treasurer shall be to faithfully care for all moneys entrusted to his keeping, paying out same only on receipt of an order signed by the president and countersigned by the secretary. He shall file with the secretary of the association all bonds required by the articles of incorporation or the by-laws. He shall make at the annual meeting a detailed statement of the finances of the corporation. He must keep a regular book account, and his books shall be open for inspection at any time by any member of the association. He shall also perform such other duties as may properly belong to his office.

The board of directors shall be the executive committee who shall audit all accounts of the association or its officers, and present a report of the same at the annual meeting. The executive committee shall assist in the necessary preparations for the annual convention and shall have sole charge of all irregularities or questions of dispute that may come up during any annual meeting. They shall determine the compensation that may be connected with any of the various offices.

The board of directors with the other officers of the association shall constitute the executive board, which board shall decide upon the date and place of holding the annual convention, premiums to be offered at said convention, and such other regulations as may be necessary for the success of the annual meeting.

ARTICLE SIXTH. The treasurer of the corporation shall give a bond in the sum of two thousand dollars (\$2,000.00) for the faithful performance of his duties. The said bond to be approved by the board of directors before being accepted by the secretary. Whenever the corporation may so desire, the office of secretary and of treasurer may be





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