pasteurize. We mix our steam in a two inch tee and pasteurize a great deal better that way than in any other.

Mr. Jacobs: They use a heater in connection with it, a great many do that too.

Mr. Storvick: It certainly seems folly to run your engine to operate the coil and let the exhaust steam go away and then draw from your boiler the live steam. It seems foolish. This water you could get up probably to 200 degrees.

Mr. Carswell: What percentage of steam do you get out of the exhaust of that style of heater, say the water was 200 degrees at the upper end and 90 at the lower end, from the exhaust coil?

Mr. Storvick: That would depend on the load that the engine was pulling. It would be hard to give that.

Mr. Carswell: It would practically take all the heat?

Mr. Storvick: Yes sir, heating, using an exhaust system for heating feed water will save you approximately fifteen percent of your fuel and your hot water for washing churns, belts, floors and the like, that will be as nearly as I can get at it.

Member: I would like to ask you in regard to supply to gas tanks?

Mr. Storvick: I am working on that; I have a plan for utilizing that equipment.

Member: What would be the cost of the apparatus in a small creamery?

Mr. Storvick: From $80.00 to $120.00.

Mr. Carswell, President, then called for the report of the Committee on Resolutions, but the members of the committee not being present it was held until the afternoon session.

The meeting was then adjourned until 2 o'clock P. M.

THURSDAY AFTERNOON.

At 2 o'clock P. M. the meeting was again called to order by the President.

Committee on Resolutions present.
Lauritz Olson, Chairman of Committee on Resolutions, read the following resolutions:
We the undersigned Resolution Committee beg leave to submit for your adoption or rejection the following resolutions:

RESOLUTIONS.

RESOLVED, That we extend the thanks of this association to the Civic and Commerce Association of Eau Claire for their many courtesies extended to our officers and members of this convention.

RESOLVED, The thanks of this association be extended to Mayor Fleming of Eau Claire for his very cordial welcome tendered us.

RESOLVED, That association tender its thanks to Hon. S. A. Cook for his continued loyalty to our association and for the beautiful chairs donated by him.

RESOLVED, That we tender our thanks to the Dairy and Food Commissioner, Geo. J. Weigle, for the work he has done in the interest of better dairying in the State of Wisconsin, and for the interest shown our association by donating the beautiful gold watch, as a special prize.

RESOLVED, That we extend the thanks of this association to Dairy and Food Commissioner J. J. Farrell of Minnesota for his very instructive address.

RESOLVED, That we tender the thanks of this association to the judges and superintendent of the butter exhibit, and also the speakers on the program who so freely contributed to the instruction and entertainment of this convention.

RESOLVED, That we tender our thanks to the Eau Claire Creamery Co. and Mr. Guy Speirs, for courtesies extended this association, and visitors to this convention.

RESOLVED, That we appreciate the good work done by the Wisconsin Dairy School, also the Dairy and Food Department and the Scoring Contest.

RESOLVED, That we extend to the officers of this association and especially to our efficient Secretary, Mr. Benkendorf,
our appreciation for their able management of its affairs during the past year and for making this convention a success.

RESOLVED, That we extend our thanks to the Dairy Press; and especially to our official organ, the Butter and Cheese Journal, for the extended publicity given our association.

We also desire to extend our thanks to the Supply and Commission men and other allied interests for the loyal support given our association, both financially and otherwise.

WHEREAS, We oppose the present methods of the carriers of dairy products in their practice of making an extra charge of eight cents for ice per hundred pounds of gross weight of dairy products in the eastern classification territory making an excess charge on these products over the legal rate granted by the Interstate Commerce Commission, and inasmuch as the evidence is now pending before the Commission, we pray the Honorable Body will cancel said charges and let the old rate stand as it has been in operation for over twenty-five years. Therefore, Be it

RESOLVED, That we appreciate the splendid efforts put forth by the officers of the National Creamery Buttermakers’ Association in fighting this unjust rate.

RESOLVED further, that the dairy and creamery interests of Wisconsin disapprove the ruling of the Internal Revenue Department, classifying our pure creamery products as “adulterated” when containing sixteen per cent of over moisture.

We further disapprove of their methods in attaching penalties and confiscation of butter, holding same for long periods without adjusting and working hardships to our creameries. Through these practices, there is no equity in their basis of settlement.

And be it Further Resolved, that we protest firmly against being classed with the factories making oleomargarine and adulterated butter,

BE IT RESOLVED, the Wisconsin Buttermakers’ Association give its support to the National Dairy Union in the legislation now pending before Congress and that we insist on
the line of demarcation being closely drawn between oleomargarine and pure butter.

RESOLVED further, that we most emphatically protest against the methods of some of our public health officials and other notoriety seekers, in their slanderous public utterances and publications against our dairy products. Such attacks are wholly unfounded as our creamery products are noted the country over as being the highest quality of this product that reaches the consumer through any market in the world. Wisconsin is famed for its excellent and strict sanitary laws and it is a well known fact that these sanitary laws are being strictly complied with in this great industry.

RESOLVED, That this association is in favor of a law compelling all creameries to pasteurize all cream made into butter.

RESOLVED, That the members of this association heartily approve of the rules and regulations of the new license law for creameries and butter and cheese makers, and we pledge our moral support towards carrying out said rules and regulations.

WHEREAS, during late years, some butter is being made from whey cream and as this cream has a tendency to lower the quality of Wisconsin butter, Therefore, Be it Resolved, That this association ask the enactment of a law compelling such butter to be labeled as whey butter.

LAURITZ OLSEN,
ALBERT ERICKSON,
R. P. COLWELL.

MEMBER: I ask that the resolution pertaining to compulsory pasteurization by law be taken up for separate action by the convention.

It was then moved and seconded that the section in said resolution pertaining to compulsory pasteurization by law be either voted on separately or stricken out. The motion was carried unanimously.

MEMBER: What is that about sixteen per cent moisture? The section was then read again by Mr. Olsen.
MEMBER: That would make an adulteration if butter contained over sixteen per cent.

On motion made and seconded the resolutions were accepted as read, except as to the sections in regard to compulsory pasteurization.

The section on compulsory pasteurization law was then again read by Mr. Olsen.

BY THE PRESIDENT: That is an important resolution and I think it ought to be discussed a little before being voted on.

MR. KEPPEL: Mr. President, it is my belief that we are moving along a wrong line. I don't believe we are getting at the root of the evil. I am readily of the opinion that if you are going to attack it direct, attack it at the root. Pasteurization does not aim at the root, it aims at curing the evil after you have contracted it. It is my conviction that we want to aim at the source and that is the raw material, the farm, that is where we have got to put in our educational work. I think it has been tried out in this state, we want to get it by penalization. I think it can be plainly stated that the observation thus far made that it is soured the person in nine cases out of ten, and he has quit business. We don't want to encourage any man to quit the dairy business, if they do, the burden comes on those that remain. In our locality we have attempted to meet that thing in a way that we feel we are going to reach it, because the little effort we have made thus far has borne good results. In our country the creameries have associated themselves together and hired an instructor, I am informed by one of the creameries where he has had his initiative work, and it has raised the score from that creamery three points in the market. If we can accomplish that in an educational way that is the way we want to get at it. This method of pasteurizing appeals to me like galvanizing a corpse, you can't improve it. I feel that our efforts should be towards the source of our supply. Nature's product is milk, it is the most wholesome food nature has provided. Man comes along and says that it isn't wholesome, it has got to go through a mechanical process. When it reaches the market what
guarantee has he got if it has been pasteurized, if pasteurization is good? It isn't a matter of flavor, you can't identify it,—it is impossible, you have got to take the other fellow's word for it, I believe it will not result in good, it will give a man a chance to hold the public up on what he terms pasteurization. I don't believe any dairyman will refuse when he properly understands the situation to furnish a quality article; we have in our vicinity worked along that line and the improvements last year are very gratifying; we had our annual creamery meeting, had a gathering and included ladies as well as stockholders. We feel that is the proper move to make, we have made some improvement this year. Our results obtained are highly gratifying, and I feel that is the proper thing to do if we can get the results and I believe we can get the results.

MR. CARSWELL: We have gone one better on Nature, we haven't taken it for the purpose Nature intended it, it probably needs pasteurizing for that reason.

MEMBER: I believe if the gentleman improved the butter three points without pasteurization, I believe it would help it still more. I pasteurize and they will always pick it out in the Chicago market ahead of the raw material, it keeps better and makes better butter.

MR. OLSEN: I want to say—I want to explain the reason why we thought it would be advisable to put that in the resolution. There was a time when I didn't think this pasteurizing amounted to much, I didn't think it could be improved. I have pasteurized now for about fifteen months and I want to say that I wouldn't want to go back to making butter from raw milk. We are getting more for our butter and it is giving better satisfaction in our markets. Anything that will improve the quality of the Wisconsin butter is a good thing for the state. We come together and find ways and means by which we can improve our products. That is why we wrote these resolutions, in order to help the Wisconsin butter, and wish the association could stand back and vote for the good of Wisconsin butter.

MEMBER: I want to take sides with Mr. Keppel: What does pasteurizing do, what is it intended to do, I would like to
have some of you answer me. If you have snakes in the cream, and you pasteurize it the snakes are there just the same. You have a clean article of milk from the cow, you have got the best article that God ever furnished to man, he furnished it to him from the cradle to the grave and you can't get anything better, you might improve something that has got snakes in it and that is about it. I don't see how you can get a better article than the pure article of milk; if I make a dirty article I would say by all means pasteurize it, and I will agree with him again, and get the man to put a pure article in the market, don't allow him to give you a dirty article.

MR. CARSWELL: That is the great trouble, you can't produce an absolutely pure milk or cream even. Whenever the milk is taken from the cow and is exposed to the air it is contaminated. By exposing it to the air one instant the minute it leaves the cow it is contaminated to a certain extent. Now, in regard to pasteurizing it creates a wrong impression,—leaves snakes in the milk,—what does a doctor do when he uses linen or gets his instruments sterilized, before making an incision, he always sterilizes it, the germs are around there, that is practically pasteurization of the instrument and materials used by the surgeon.

MR. WHITING: Pasteurization has certainly well improved the quality of butter, and given a better quality of butter. It is fine to work with on the market, it will stand up longer, it don't seem to me that we ought to stand still and let other states go ahead of us, when we know that it is going to be for the good of us all. I have had lots of experience in pasteurizing. I don't approve of pasteurizing filthy cream, I believe we can improve on good cream, I know I can improve the poor too. It makes a safe article on the market, safe for human consumption, the market is going to demand that from now on, I believe.

MR. KEPPEL: I am not here to object to pasteurization, I am here to object to compulsory pasteurization, I don't think we ought to go in and compel all the product to be pasteurized, I say, if the market desires it why don't they come on the market and offer inducements; you can't find any trade journal that of-
fers any quotation of giving more for pasteurized butter. I have glanced through the papers for the last year to find if there was a demand. It hasn’t been visibly felt if there is a demand the inducement will be offered. I feel that it is their duty if the trade wants it. We ought not to go to work and say we are not going to pasteurize and give the consuming public no chance for protection; they can’t see it in the article that is furnished. If I buy a pail of milk and get raw milk the milk indicates itself what I have got, but with the butter you can’t tell. I have been told that by experts that it is hard to tell which is the pasteurized and which is the other. A perfect pasteurization, when there is no flavor left with it, that is the one I have reference to. Isn’t it true that an unscrupulous man would offer his butter pasteurized when it isn’t? Do you expect we are going to have any product free from germs? I will give you this illustration. Take a calf and give it the raw milk and it will do well. You take a calf a pail of that milk and what would it do? You have a good illustration there, the calf wouldn’t do well, he doesn’t want the milk in that condition, he wants it as Nature prepared it. You put up a healthy article and continue it, we don’t need to offer any inducement.

Member: I think there is a little bit of misunderstanding of the object of pasteurization. Pasteurization never was intended to make a poor article pure, it was never intended to cover up the faults by pasteurization and wherever it is employed we find better methods exist. It means a higher class of people to handle it. That one thing works back to the farm community. You go everywhere where there is pasteurization, by pasteurization they get better results, they ultimately get a better market for their products.

Mr. Wallace: I would like to say that there are a good many things in favor of pasteurization, not only from the standpoint of the consumer but from the standpoint of the butter-maker. You can demand of the farmer a pure cream and if he does not bring it you can tell him why you must have it, you have a chance to refuse his cream because you
can't use it, if you pasteurize, you can say the cream must be in at a certain time. I know pasteurization has improved our cream, both in quality and premium.

Mr. Moran: I think the whole difficulty here is that the scientific end of the proposition don't understand our practical end of it. I think if one of these men advocating pasteurization came to us in our territory we could show them that it is almost impossible under present conditions; we are working to improve them; we haven't got them yet. If you pass a compulsory law at the present time you have no idea of the disadvantage it would put us to. We have been trying to see how much more we could get for our pasteurized butter. We have asked how much more would be given for our product, the best we could get him to offer was a cent difference; we know positively it costs us over a cent a pound to pasteurize, under the best management. I see the editor of the Milwaukee paper shaking his head, that is because he don't know anything about conditions. We get cream of such high acidity that it is impossible to pasteurize it. We asked the man who read the paper how to pasteurize it and he wasn't in a position to explain to us. You are going too rapidly in this; it seems to me you ought to go to the communities, we are not ashamed to have any one come into our territory and see the work we are doing. After starting our methods we are as well advanced as the rest of the state. Why don't some of the gentlemen answer our questions and tell us how to handle the position, how are we going to ripen this cream. Our average test in West Salem is 24 9-10 this year, it is the most we have ever had. You are not true friends of the dairymen when you try to force such things on the people.

Mr. Lee: I just came into the hall, but I got enough out of what Mr. Moran had to say. I know the condition he has at West Salem, each man has his own situation to deal with in Wisconsin, the situation, as I figured it for the West Salem creamery, that the cream loss on the handling meant nearly $10,000.00. That was put up to the farmers a year ago, but it was a hard matter to get the farmers to listen. I was at Tomah the
other day, they took in 655,000 pounds of skim milk last year, the highest average test of cream was 23 instead of 30. I was over at Baldwin and they took in last year over 600,000 pounds of skim milk, the cream tested a little less than 24 instead of 30; if either of these places under the present situation and all the conditions in Wisconsin were the same as they are at present the pasteurization and the creamery industry of Wisconsin by a compulsory pasteurization would mean a loss of about $3,000,000.00 to the state of Wisconsin. Boscobel pasteurized this summer at our advice. I went to Boscobel and found them pasteurizing and the buttermaker in charge stated that the amount of fat in the buttermilk was large and the actual loss on the churning in that factory was actually one and one-tenth. We want to pasteurize butter in Wisconsin, it is going to come. I admit that Mr. Moran’s question wasn’t answered yesterday. They have peculiar conditions to deal with, but the time is coming in Wisconsin when we will get a rich cream, when they get 30 per cent cream. If you can tell me a method to get 30 per cent cream we are going to work it out. A gentleman from Wisconsin, that has done as much for the dairying industry as any one individual said to me last year as he left our office at Madison, he said “Lee, I would pasteurize cream in every one of our factories tomorrow if we could.” We have those conditions to deal with; it isn’t a question of boasting. I have been accused on several occasions by one of our dairy papers of not furthering the pasteurization law. So I worked it and found that you can’t take poor milk and doctor it and make good butter out of it, the thing I was after was to get at the bottom of it and get at the raw material and you do that and you will have good butter. We don’t want to pasteurize in order to cover up something else, get a richer cream and every creamery will, of its own accord, take up the pasteurization method.

MR. STORVICK: I have been interested in listening to the arguments, pro and con. I felt that I was well satisfied to keep still. I know what pasteurization will do if properly done, I did some of it in 1898 and I have done more or less of ever since.
The pasteurization law just read to you is coming. The time is coming when pasteurization will be done, I don't know just how you are going to get at it to change these conditions, you will have to take some drastic measures to change them if you cannot pasteurize under present conditions. The loss of $10,000 from one creamery is something the dairymen can hardly stand. Some of our men in Minnesota had the same conditions to deal with and until they made the distinction in price they were unable to get a richer cream. There is no doubt but what there is every argument in favor of pasteurization and much good has been done. The winners at this contest or any other contest wouldn't have been the winners if they hadn't used this method of making butter. It makes a safer butter, a more uniform butter, and a better keeping quality butter. Our silent partner of the east is going to come out some time and have something to say to us about the butter we ship down there. He is paying his cash for it and furnishing the cash to all of us; some time he is coming out here and look after his interests a little. We have got to use our best efforts, and remember this, we can't drift along at all, as a raft would, down the stream, we are going to get out of our geographical location if we do, we have got to take stand and we have got to do something. There is no more unrest in the dairy lines today than there ever was and it is not so much with me, as I said, of a law, as it is of the creamery men and the dairymen to realize, the producers and creamery men will have to look forward to better methods and to adjust their conditions, to change their conditions so as to warrant better methods in the creamery.

Mr. Carswell: Before putting this to a vote I want to say a few words in regard to the conditions in a good many of the gathered cream plants where they work on the system as at Baldwin and also West Salem and a good many other of the biggest creameries in this state; how they are going to keep putting up with the excessive losses and it comes more directly on the good patrons because the patrons that are furnishing cream that passes from 28 to 35 per cent are standing that loss with the fellows that are only furnishing 16 up to 25 per cent cream.
That is not fair to the patrons delivering to the hauler on the route, and a good article containing a reasonable percentage of butter fat should stand the losses of the other farmer. Just for some peculiar notion that has got into his head you can't induce him to turn in that cream score. Why should one have to stand the loss of the other? We have that same condition, partly because the man at our creamery gets the buttermilk back and don't lose anything by missing a lot of skim milk. I have talked with them and we have tried to induce them to increase the percentage of fat in their cream; 25 per cent was our average test last year. I brought it up at our annual meeting this year. I don't presume I ought to have the authority to compel you farmers to adopt a different system from what you have been doing. It is up to you.

MR. KEPPELL: I think there is one matter in our affair that you don't cover. It is stated that you make a difference to the patrons furnishing high cream or the low testing cream. We have had that for several years in this way, we make a man pay for the cost of hauling 100 pounds of cream, we pay for that cream on the basis of butter fat, so if he furnishes a high testing cream he pays less for the pound of butter fat than the man with the low test, that is penalizing. There are men in our creamery that pay less than one cent and others that pay two.

MR. CARSWELL: What is your average test?

MR. KEPPELL: Last year it was 23; it is moving ahead, we felt when we touch the men's pocket book it would come, it is coming, but not as fast as we expected it would, we have started this matter of education, a campaign of education, I believe we will get the greatest results of any campaign along that line.

On motion made and seconded a rising vote was taken as to the acceptance or rejection of the resolution covering the compulsory pasteurization of cream, and the resolution was rejected.

E. C. Jacobs, of Elk Mound, then made the following address, entitled "The Relation of the Creamery to the Patron."