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## **Wisconsin Butter Makers' Association : Organized February 21, 1901, incorporated December 27, 1902, reorganized November 10, 1920.**

Wisconsin Buttermakers' Association

[s.l.]: [s.n.], [s.d.]

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1940

# Wisconsin Butter Makers' Association

DIRECTORS

Organized February 21, 1901

Incorporated December 27, 1902

Reorganized November 10, 1920

P. I. McHenry, Viroqua  
E. E. Carlson, Elroy  
Lacy Dickey, Glenwood City

E. R. ECKWRIGHT, State Secretary  
Spooner, Wisconsin

40th Annual Convention, Wisconsin Butter Makers Ass'n,  
Chippewa Falls, Wis. October 1-2-3, 1940.

This evening we are assembled to open the 40th annual  
convention of the Wisconsin Butter Makers Association.

We are again happy to welcome all those interested and  
connected with the creamery and dairy industry.

This convention marks the 40th anniversary of this association  
40 years is a long time for any organization to survive,  
to continue to function, and adapt itself to the ever  
changing conditions that beset any industry.

While we will not at this time devote much time reviewing the  
early history of the Wisconsin Butter Makers Assn; as this will  
be a part of the program to follow- however we believe it may  
interest many of you to review the aims and purposes of the  
association at the time of the organization;

The original Charter reads as follows;

The business, purposes & objects of which organization shall be  
the education of its members for a better practical knowledge  
of creamery operations; promote progress in the art of butter  
making; in the care and management of creameries; the sale,  
transportation and storage of butter, & the weeding out of in-  
competency in the business of butter making.

The further object of the incorporation is to demand a thorough  
revision & rigid enforcement of such laws as will protect the  
manufacture and sale of pure dairy products against fraudulent  
imitations, and to suggest & 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

At the time this ~~organization~~ association was organized, there  
were about 60 million pounds of butter manufactured annually in this  
state, at that time the industry was relatively in its infancy,  
much credit should be give the group of men who had the vision  
& foresight to see the need of an organization, thru which they  
could work & plan with their coworkers for the advancement of  
creamery butter-making; the Wis. Butter Makers Assn, always took  
the lead, and never failed to grasp every opportunity offered for  
the promotion of the industry, and we find in 1909 Wisconsin  
was the leading butter producing state, with a total output of  
about 104 millions pounds of butter

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-- 2 --

Thru the passing years, the butter industry has undergone many depressing conditions, and those engaged in the industry have meet with much discouragement and may have lost their faith in their choosen vocation, however men in the dairy indistry have ~~got~~ good reasons to renew their faith faith in it- The Dairy Industry is still a vital factor in determining the welfare of society, dairy products are health foods & consumption is far below the saturation point.

A worlds turmoil ~~make~~ may make this hard at times, true, there are new obstacles to face, and there will be others, but ways will be found to make Americas business function.

Wrong thinking by consumers is hurting the dairy industry, just as it is hurting all business. Millions of consumers have been convinced, through false propoganda, that they are paying too much for dairy products and service, this wall of resistance must be battered down. The dissemination of the truth about the dairy industry will accomplish it, and it is the only thing ~~that~~ that will.

Lend your full efforts to organization of fellow workers, join with others, and work with others in an effort to re-establish faith & confidence

That your organization may continue to function, and render constructive support to one of the largest industries of Wis. we need the support of every one affiliated with the butter industry. If the people within the industry saw the need of a state butter-makers association 40 years ago, it is apparent the need is even greater to-day, and when governments turn their attention to war, it is particularly important that business men keep their thoughts on business.

Disruption of world trade in dairy products will have little effect on prices in this country, outside of canned milk, the United States has never ranked as an important exporter of butter.

Foreign powers have a preference <sup>for</sup> to buy scrap iron instead of butter, and we find that beginning this week, the butter ration of the people of England will be reduced to two ounces weekly per person- the previous ration was four ounces weekly.

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-- 3 --

All indications leads one to believe that the future outlook for the butter industry, is far brighter, then we have known for some time past. With increasing employment, larger pay rolls and new levels of industrial activity probably never reached before in this country, giving increased purchasing power to our people.

During the past year in our contact with the creamery operators, we have noted an increasing interest shown in the improvement and maintaining the quality of the butter produced. By using approved methods in checking the quality of the milk and cream of each individual producer, and keeping records of results noted, it has enabled the creamery operator in many instances, to find the source of trouble which has after being corrected made a decided improvement in the entire output of the plant.

We believe the consuming public should be informed of the expense and effort constantly being put forth by the industry to safeguard the purity and wholesomeness of Wisconsin butter.

Let us prove that we are engaged in an industry that promotes body health instead of body wreckage.

An industry that advances happiness instead of sorrow.

An industry that builds instead of destroys.

An industry of no regrets.

Odin Christenson.

WISCONSIN BUTTER MAKERS' ASSOCIATION  
Fortieth Annual Meeting  
Chippewa Falls, Wis.  
October 1-2-3, 1940

Tuesday Evening, October 1.

Call to Order - President Odin Christensen, Oshkosh, Wis.

Invocation - Rev. Wallace Robertson, Chippewa Falls, Wis.

Address of Welcome - Mr. John Zesiger, Mayor of Chippewa Falls, Wis.

I consider it a privilege and it gives me great pleasure to be again permitted to express to you the greetings and good wishes of all the people of our city. In Chippewa Falls, you, now no longer, rate the ordinary convention sterotype "key to the city" sort of greeting, but you are entitled to the warmest kind of a welcome. We are more than pleased to have you here again and are honored by your presence.

Your first meeting here pleased us greatly. We were flattered by those that followed, and we now feel that you are old friends to whose coming we look forward to and whose departure we regret. We will welcome any opportunity that is given us to serve you while you are here, for we want you to have just the best kind of a time. We want this to be the sort of gathering you want it to be, and it is our hope that this meeting will fully accomplish the purpose for which it is intended. May it be profitable to all of you on this the occasion of your 40th Anniversary.

We extend to you our best wishes, and we hope that you will hold your 50th Anniversary and all those in between in Chippewa Falls. Individually and collectively you have our best wishes. Good luck to you!"

Response - Mr. Lacy Dickey, Glenwood City, Wisconsin

Words are really unnecessary on an occasion of this kind, because our presence here tonight is evidence enough that we appreciate the hospitality and the good times that the Mayor, Chamber of Commerce, and the people of Chippewa Falls have shown us in the past. The fact that we have come here year after year is conclusive evidence that we consider this one of the best meeting places in the State. Otherwise, we would not continue to come. Undoubtedly, we are all pleased to be here and hope that we will attend many more conventions in Chippewa Falls. We have attended many in the past and expect to do so in the future.

I think that we will agree that no town has shown us more hospitality, more good will, and made us feel more at home than Chippewa Falls. Chippewa Falls should be called the "Biggest Little City in the State of Wisconsin."

Annual Address - President Odin Christensen, Oshkosh, Wis.

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At the time this association was organized, there were about 60 million pounds of butter manufactured annually in this state, at that time the industry was relatively in its infancy, much credit should be given the group of men who had the vision and foresight to see the need of an organization, through which they could work and plan with their co-workers for the advancement of creamery butter-making; the Wisconsin Butter Makers Association, always took the lead, and never failed to grasp every opportunity offered for the promotion of the industry, and we find in 1909 Wisconsin was the leading butter producing state, with a total output of about 104 millions pounds of butter.

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Mr. Olson, Olson Publishing Co., Milwaukee, Wis.

Friends, Butter Makers', Ladies and Gentlemen:

I was very much interested in your President talking about 40 years ago. That is a long time to be in the butter making business, publishing business, and a long time to be married. I know all three.

I am much interested in all organizations, but more so in this one. I was a Wisconsin butter maker before this organization was organized. Made butter in one factory and cheese in two. Made butter in Jansen Creamery, Polk County. Had first creamery at Atlas, Wisconsin, about 40 years ago. I can look back 40 years, but some of you fellows weren't born when I was a butter maker. Prior to that, I had a few experiences in butter making. Made butter in Minnesota before I started in Wisconsin. Got my training in Denmark, don't know what it is called now. Proud of the country I was born in, but I am more proud of the United States. Looking back 50 years ago, when I became an American citizen, it was the greatest day of my life.

I don't want to take up all your time, but I do wish you all kinds of success. When you come to Milwaukee come to see us. We are on the coast, hope it will never be the kind of coast they have in Europe.

Wednesday Morning, October 2

Professor L. C. Thomsen, University of Wisconsin

The average health official in the performance of his duties in connection with dairy plants is interested primarily in the sanitary aspect of floors, walls, and ceilings of such plants. He recognizing that there are certain fundamental problems which when properly taken care of will greatly minimize his difficulties. His viewpoint is quite adequately expressed in Public Health Bulletin No. 220, (1939 edition) Milk Ordinance and Code, as recommended by the U.S. Public Health Service, Federal Security Agency, Washington, D. C. On page 85 of said publication, we find that "all rooms shall be well lighted and ventilated." The reason is quite obvious. Ample light promotes cleanliness. Satisfactory compliance with this regulation is assured "if the unobstructed window or skylight space in each room of pasteurization plants is not less than 10% of the floor area" or "if artificial light is provided equivalent to one 50 watt electric light per 100 square feet of floor area, reasonably evenly distributed."



In connection with the construction of walls and ceilings we find on page 84 of the before mentioned publication this statement: "Walls and ceilings of rooms in which milk or milk products are handled or stored or in which milk utensils are washed shall have a smooth, washable, light-colored surface, and shall be kept clean. A darker colored paint may be used for the lower part of the wall to a height not exceeding 36 inches." If the walls and ceilings are finished with light painted wood, tile, smooth-surface concrete or cement plaster, brick or other washable light colored surface, and if such walls, glass partitions and ceilings are kept clean and if such surfaces are refinished when worn or discolored the above requirement shall have been satisfactorily complied with.

Again on page 85 of the same publication we find that "the floors of all rooms in which milk or milk products are handled or stored or in which milk utensils are washed shall be constructed of concrete or other equally impervious and easily cleaned material and shall be smooth, properly drained, provided with trapped drains and kept clean."

Since many city milk ordinances are modeled after the U. S. Public Health Ordinance and Code it is readily understandable why health officials in general use it as a guide for sanitary regulations of all dairy plants. At the hearings that have been held or are being held by the Wisconsin State Department of Agriculture for establishing standards for Wisconsin Grade A Butter the regulations suggested for floors and lighting are very similar to those just mentioned. Some additional requirements are, however, suggested. It is required for example that "The floor surface shall be smooth and sloped so that no pools of standing water will remain after flushing, and the joints between floor and walls so constructed as to be impervious. Means shall be provided to keep all material, equipment, and unnecessary articles off the floor, to facilitate easy cleaning."

You can readily see that the regulations are definite and concise, yet permit considerable latitude for meeting the requirements. The balance of this paper will be devoted to a discussion of the methods which may be used for meeting the requirements, together with advantages and disadvantages of the proposed methods.

#### Paints in relation to light

The matter of light will be given first consideration since it is very closely associated with the maintenance and construction of walls and ceilings. Color is important from the standpoint of providing light at the working level where it is most needed. Certain colors for example absorb light while others reflect it. White for example is rated at the top from a reflectivity standpoint, while black is lowest in the scale. The following table gives the percentage of light reflected by the colored paints listed:

<u>Color</u>	<u>% of light reflected</u>
White (new)	82 - 89
Cream	73 - 78
Ivory	62 - 80
Buff	61 - 75
Aluminum	65
Light green	49 - 66
Yellow	48 - 75
Gray	36 - 61
Light blue	34 - 61
Pink	30 - 46
Dark tan	17 - 63
Dark red	13 - 30
Dark green	11 - 25
Light wood varnish	42 - 49
Natural brown stain	17 - 29

It is quite obvious why light colors are recommended for upper walls and ceilings and only 36 inch dados may be of darker shades. Yet the requirements are quite lenient when measured by standards generally agreed upon by lighting experts. Such experts recommend approximately 2 watts per square foot of floor space, and under no conditions should it be less than 1 watt per square foot. It is an easy matter for a plant operator to check his lighting system against the standard by merely estimating the floor area, and dividing the number of square feet thus obtained into the total watts of the bulbs in use. The table just given indicates, however, why such an estimate may not be satisfactory. A gray colored room for example will require double the light bulb wattage that would be necessary in a room painted white. Another important to bear in mind when purchasing light bulbs is the fact that the larger the bulb the more efficient it is. On three hundred watt bulb is therefore more desirable than three one hundred watt bulbs. In addition, the first cost is usually lower.

The intensity of light is expressed as foot candles. One foot candle is defined as the amount of light reaching one square foot of vertical surface one foot distant from a burning tallow candle. It is also equivalent to the amount of light reaching a similar surface 5 feet distant from a new 25 watt bulb. In well lighted school rooms, the average number of foot candles of light during the daylight are equivalent to 35 or 50. Twelve is considered the minimum requirement. Yet one watt per square foot of floor space provides only 5 foot candles at the working plane.

#### General consideration of paints

While paint is important from the standpoint of light, it is equally important from the standpoint of sanitation. There are certain construction problem in dairy plants which are never a serious problem in homes or offices and which are encountered infrequently in factories in general. In dairy plants attention must be given to excessive moisture. Due to the high humidity, ceilings and walls are often damp especially in winter. Since they are cool, mold

grows readily. Free circulation of air is frequently interfered with by piping, shafting, or belts located along the ceilings or walls. Some builders use unenclosed ceiling girders so that the ceiling of the room is divided into squares. Unless each such square is separately ventilated, pockets of motionless saturated air are formed and in a short time the corners of these ceiling pockets are covered with a grayish black mold which gradually covers the entire area. Some paints actually contain the necessary food ingredients for the nourishment of such growth.

Overcoming the difficulty is a serious problem. The mold must first be gotten rid of before final remedial measures can be applied. The usual practice is to wash the affected area thoroughly with water containing tri-sodium-phosphate. The area is next rinsed abundantly with clear water. It is then permitted to dry. This may be hastened by use of well placed electric fans. Next the surface is washed with a solution containing about 200 parts per million of chlorine. Again it is permitted to dry. Then it is rinsed thoroughly with clear water and dried. Badly affected areas may require two complete treatments. Only when the surface is dry should paint be applied. A number of paint manufacturers are now able to supply special patented fungicide paint. Some of these are known as halogenated oil paints. These may have germicidal properties which endure for 2 to 4 years. Naturally, they must be non-toxic. Usually a wash coat of clear fungicide is applied after the paint has dried. Even ordinary paints during the drying process produce certain aldehydes which have germicidal properties. This effect, however, tends to disappear in from 1 to 3 weeks. There are considerations other than germicidal properties when selecting paint for a dairy plant. It should retain its color. This is often difficult where steam and other fumes mix with the air. A reduction of the amount of oil in the paint will tend to overcome the difficulty, but on the other hand it will have a tendency to increase flaking. To minimize discoloration of white paint, manufacturers are now using titanium oxide and high strength lithopones. Since it is important that paints in a dairy plant resist frequent washing you at once must decide which property is most desirable. Glossy surfaces, though glarey, are easy to clean.

Certain other difficulties are often encountered when painting dairy plants. Plaster, concrete or brick surfaces containing lime, if not previously painted, should first be sealed with a good spar varnish or other sealer, or impregnated with a zinc sulphate solution (2# zinc sulphate per gallon). Where iron or steel are to be painted, the primer should be rust resistant with good adhesive properties and flexibility. In recent years, primers of the zinc chromate Bakelite type have found favor for this kind of work.

A common complaint from dairymen against the use of paint, concerns peeling. The chief reason for this difficulty is the accumulation of moisture between the paint and the wall. This moisture may have been present in the wall material before the paint was applied or it may have entered through mechanical openings in the paint or

the wall. If the former is to blame, the answer is thorough drying before painting, or covering the surface with a waterproof primer coat such as aluminum paint with an asphalt type base. Some paint manufacturers on the other hand have reasoned that a paint which permits the free passage of moisture is the answer to the difficulty. If moisture gets through the paint to the wall surface as a result of mechanical openings the main reason for such passage is the formation of condensation on the cold wall surface. In such cases the season for most paint failure would be in winter. If the dairy paint walls and ceilings are properly constructed to begin with, this type of paint failure should not present itself. This calls for proper insulation. The wall should also be waterproofed between the insulation and the structural outside wall. When such construction is used and if proper heating and ventilation is provided, paint failures as a result of peeling are practically unknown.

#### Tiled or glazed brick walls

In more recently constructed dairy plants glazed tile or brick is extensively being used for the dados and very often for the entire wall. What has been said regarding the choice of color with respect to paint applies equally well for tile. Apparently, therefore, the tan or buff colored tile or brick would not be looked upon with much favor. They, nevertheless, are among the most popular tile colors selected by dairymen. There are several reasons for this. The darker colored tile are harder and give better wear. Neither do they show soiling as readily as light colored tile. In addition, it may be said that they are easier on the eyes since they more nearly approach a neutral shade. Lastly, they are lower in first cost. The wall tiles should rest upon a rounded cove "tile" which meets the floor brick. Construction of this type is more expensive than to have the floor brick and wall tile meet directly. The rounded corners provided by the cove "tile" make cleaning easier.

#### Floors

There are several types of floors which will meet the requirements of the U.S. Public Health Service Milk Ordinance and Code. Dairy plant floors should meet at least five requirements:

1. Continuous smooth surfaces with no hollow spots.
2. Impervious to water, washing or soaker solutions, milk wastes, fats, etc.
3. Easy to clean.
4. Easy to work on.
5. Ability to withstand loads and traffic.

Few materials are able to meet all of these requirements. It has been said of concrete floors that they furnish "maximum utility with reasonable cost."

Since concrete is more generally used for flooring material in smaller dairy plants than any other product, I shall give it first consideration. It has, as might be expected, advantages and dis-

advantages. The outstanding advantage for dairy plants are (1) low first cost, and (2) simplicity of construction. At present prices and rates of pay the cost will vary in most cases between 20 cents and 30 cents per square foot. Experts are not necessary for laying concrete if a few simple instructions are followed and a number of precautions observed.

The disadvantages are largely associated with wearing properties, although a few mechanical disadvantages should likewise be pointed out. Some of the latter difficulties may be attributed to failure to observe instructions when laying the concrete. It should be remembered that the surface carries the wear but the base must carry the load.

Concrete floor construction may be of two types. The monolithic type consists of placing the wearing course directly on the freshly placed base slabs. The second type consists of adding the wearing course after the base slab has hardened. This usually requires about 7 days. The concrete should be kept wet during most of this period. The base slab should contain reinforcing rods. Where monolithic type of construction is used the wearing surface should be laid within 45 minutes after laying the base. The wearing layer should have a thickness of at least one inch. A 1-1-2 (cement, sand, and coarse aggregate) mixture seems to be favored. In order to increase the wearing quality of concrete floors the surface should be as dense as possible. Since the amount of water used must be limited ( $3\frac{1}{2}$  to  $4\frac{3}{4}$  gallons per sack of cement) the floor must be tamped. There should be no free moisture even when rolled or tamped. Under such conditions there will be no separation of materials. A well tamped and troweled floor is smooth and somewhat slippery and so some plants incorporate Alundum or Carborundum grits in the surface to prevent slippage.

In the case of newly laid concrete floors special treatments may be used for protecting them against the lactic acid which develops from milk wastes. The Portland Cement Association suggests seven possible treatments or a combination of treatments:

1. Magnesium flosilicate or zinc fluosilicate is applied as two treatments. The first is used at the rate of 1 lb. per gallon of water, and the second at the rate of 2 lbs. per gallon of water. The surfaces should dry between applications.
2. Sodium silicate mixed at the rate of 1 to 4 with water and applied in 2 or 3 coats.
3. Linseed oil (boiled) applied in two or three coats. Best penetration is obtained if the oil is hot. It may be applied after the magnesium fluosilicate treatment.
4. Cumar (a synthetic resin soluble in sylol) consisting of 6 lbs. of Cumar per gallon of xylol with  $\frac{1}{2}$  pint boiled linseed oil. Two or more coats should be used.
5. Varnishes and paints.
6. Bituminous or coal tar paints, tar and pitches.
7. Bituminous enamel.

Not all of the treatments suggested are practical for the processing of a dairy plant. Most of them work out very well in rooms used occasionally. This is true of the paint products, which, however, will not withstand frequent scrubbing with strong hot alkaline

solutions. Very few of the treatments suggested work on old floors.

It is not a good plan to lay water, steam or refrigeration pipes or electric conduits in or under concrete floors unless there be a sub-basement. Such practices usually result in cracks in floor.

Irrespective of the kind of floor used proper slope and drainage is important. One authority comments that the drains should be located at the lowest spot in the floor. Most of us can appreciate that he meant to be serious. If we could only convince the contractors! Usually a drain and trap are provided for every 300 to 400 square feet of floor area. Pockets or low spots where milky wastes can accumulate on any floor spells trouble. The concrete disintegrates and the spot becomes deeper, rougher, and larger. Chemical action speeds up and soon a repair must be made. The effect of milky wastes on concrete often times are duplicated by the effect of certain alkaline washing powders. To increase the life of a concrete floor, milky wastes should not be permitted to accumulate, and after a floor has been scrubbed it should be rinsed with clear hot water, and dried if possible. In order to avoid accident hazards and to make the movement of trucks easy, the slope of the floor should not be too great. One eighth to one fourth inch per foot is recommended.

If a crack or a spot in the floor requires repair the defective area should be chipped out to a depth of at least one inch making sure that the sides of the opening are vertical. The spot should be very thoroughly cleaned with the last rinsing carried out with water under high pressure. When the spot is filled in with concrete it should be struck off about one fourth inch above the floor level. The concrete should then be permitted to set for about two hours after which it is leveled off even with the floor, and troweled. There are on the market a number of patented products which may be used for patching. If the manufacturer is well established his product may be used with assurance. Some of these products may be struck off to a feather edge. In recent years, manufacturers of these products have also been supplying them for use as a complete surface coating. Instructions for their installation should be carefully followed.

Where concrete floors receive excessively hard wear, such as truckways or loading platforms it is best to install cast iron grids. These grids are laid directly in the wearing layer of concrete. They should be pressed in deep enough so they are leveled off at the top. After having set for 2 to 4 hours or until firmly set they are leveled off with a straight edge. They are then grouted in with a mixture of one part of portland cement and one part of sifted pulverized limestone and allowed to set until firm enough to trowel. Steel grids will add from 30 to 75 cents per square foot to the cost of a floor, depending on the weight of the grid used.

Those who desire further information on concrete floors should write the Portland Cement Association of Chicago.

A pleasing variation from the conventional concrete is Terrazzo. It, however, has all the disadvantages of concrete plus a few of its own and should never be used in a dairy plant proper. It is,

however, satisfactory for hallways, visitors' galleries, etc. Only experienced men should be intrusted with the installation of such floors or walls. Even then it might be well to build test squares and subject them to the type of treatment and wear they are expect to receive. I have here a group of such test squares which you might examine. These have been subjected to immersion in sour whey for one week, two weeks and three weeks respectively. You will, undoubtedly, be astonished at the results.

Glazed brick floors are coming more and more into use. Their advantage lies in their complete resistance to all chemical treatments which they might receive in a dairy plant. Their vulnerability lies in physical wear. Such wear can be almost completely eliminated by making sure that the base slab of concrete is thick enough and sufficiently well reinforced so that it forms a firm foundation. Glazed floor brick are usually 1 3/4" x 4" x 8". They were first used about twenty years ago. Since the glazed floor brick retains its smooth surface it is somewhat more hazardous than a concrete floor. It is possible at considerable extra cost to obtain floor brick which have carborundum incorporated in them. Floors constructed of glazed brick are not much better than their weakest link. For this reason, the Drehmann Paving and Construction Co. originated the small joint of from 3/32" to 1/8" which is grouted in instead of buttered. There is some difference of opinion regarding this method of laying, however. Even under such conditions special grouting mixtures which are especially resistant to milk wastes and washing solutions may be advisable. Naturally, the cost of a glazed brick floor will be considerably greater than a concrete floor, but we can take the word of those who have them that in the long run they are probably the cheapest flooring material for the dairy plant. They have the additional advantage that they may be laid over an old surface without raising the floor more than 2 1/2 inches. It is assumed, of course, that the old surface is of solid construction. Insofar as slopes and drains in glazed brick floors are concerned the same precautions apply as for concrete. The question of the gutter type drain versus the floor level type must be settled by the himself. In any event, the drain should be large enough. One authority suggests that the main drain pipe be not less than 6 inches in diameter in any creamery, and where over 500,000 lbs. of butter are made it should be from 8 to 10 inches.

Mr. L. G. Kuenning, State Department of Agriculture.

It is a real pleasure to come in and talk about dairy products. It seems to be the only thing I know and can talk about at any time. It is essential, and I again say, it is the improvement of dairy products which is going to be, should be, and will be followed by a merchandising program.

I am very happy to make some reports as to how the work is progressing, what we have found, what mistakes we have made. This is as it should be in any program that is right. Some of the methods first used are now obsolete and some difficulties have come up. I am more enthusiastic about it today than ever before. Sure we have had some "ups and downs" in the program, but the fact still remains that the farmer can and will come out on the top with the Quality Improvement Program

You cannot expect to get dairy products raised to a certain standard without some trouble, and things happened just as we expected, because a lot of the schoolhouse meetings were just a lot of talk. They made very little improvement if any. The fact remains, and that is the point I am stressing today, is that we can get the farmer to improve the quality of his product. They will do it and it can be done without much difficulty. Some of the mistakes made were partially responsible for the farmers lack of interest. It was assumed that all that was necessary was to have these schoolhouse meetings and we would have a high quality product. That did not happen, and I knew it would not happen. Three percent of the farmers are interested if they have some help with this program.

One company in my mind, made a real honest effort to improve the quality of their products as a result of their meetings. This creamery had 30% two score cream and in a period of 90 days had 90% two score cream or better, as a result of this program.

One mistake made, was that we did not keep the thing stirred up as we should have. Some creameries drift along and hope and pray that it would continue as it was, and up to this point there was nothing more to it. The result was that it was easy to slip back into the old channels. Something should be done to keep the producer informed that something is happening, what is happening, and that quality must be maintained at a high point. Another mistake was that we did not capitalize on the schoolhouse meetings. Had the creameries worked with those having difficulty, kept the farmer in the right frame of mind, quality conscious, those fellows would have been easy to handle. They are going to have a harder time now that the farmer has slipped back into the old channels. Had they gone ahead and worked with these producers and had their schoolhouse meetings, it would not have been hard to keep these farmers quality conscious.

We have said it all along, that the department cannot be expected to come out and do field surveying. I think as we go along, some of these counties will capitalize on these schoolhouse meetings and work with the farmers. I think a better job can be done if a farmer is told where his difficulty is. If we just look over the tops of their difficulties and do not help them they won't know where to start. As far as improvement work is concerned, a little help and the things pointed out to them will help them go a long way willingly on the program and no particular difficulty will be had.

I have told you some of the difficulties and I say again that I don't want you to assume that I have lost enthusiasm for this program. There is a big job to be done and I am more interested now than ever before.

Don't feel that you will lose patrons by being quality conscious. They won't say to "hell" with you and take their products some place else. I can take you to plants that have tried it. Someone from the plant has gone out with these people and with the proper approach have gotten them to do a better job. These patrons are more loyal to the plant and will continue to be more loyal. This plant can be sure their patrons will stay with them.



I had some operators of a plant in to a hotel room, operators not doing a good business, had sediment tests made and we found that in all probability they had been lenient in grading because they were trying to be "good fellows." We went to place where they sold their products and found that they were inferior and not selling. Where patrons have help with improvements on the farm, they are willing to work with operators.

Many operators are afraid to work with patrons. They say they cannot not talk to their patrons. They are afraid to. We have had operators that have said this, work with their patrons and have received glowing reports from them. They took sediment and curd tests and found that they were terrible. They then were willing to work with patrons and show them where their difficulties were, and they are now tickled to death they went out and did this. I can point out case after case where this is being done with splendid results. The Department of Agriculture cannot go out and work with the farmer. You have to put on this Quality Improvement Program yourself, and it can be done with a lot of success. This program has been receiving a lot of publicity and this will help make the farmers quality conscious. The point I am trying to make, is that the time is right for a Quality Program.

Condensers have a quality program of their own. The quality of which goes back to the farm. Reason for this is because many cities are now beginning to say under which conditions milk should be produced. Sooner or later, all cities will be saying the same thing.

Many cooking schools and butter substitute factories, have been calling attention to sediments in cheese, butter, and milk and things of that kind. And I say to you, that any person and any plant that is not interested in a quality program will not get very far. If they don't do anything about it, they will give this crowd a beautiful set-up to call attention to. Volume is now being allowed to supercede quality and that should not be.

Every plant has a responsibility to perform in this, and plants assuming their responsibility are the plants going forward on a program of quality improvement which in the end will mean something.

There should be faith in the program, faith in ourselves, faith in other operators, faith in the department, and if we have that faith only one other thing is necessary--determination to put it across. Without this, the program will fold up. It should be 90% salesmanship and 10% hard work.

Mr. Ralph E. Ammon, Director State Department of Agriculture.

It is a privilege and a pleasure for me to have this opportunity of talking with a group of men which plays so important a part in the butter industry of Wisconsin, an industry which brings annually from \$50,000,000 to 60,000,000 new wealth into Wisconsin, an industry which accounts for one dollar of every six returned to the farmers of Wisconsin.

For the purpose of discussion I like to divide your industry into three main phases or steps.

1. Production of quality milk on the farm.
2. Manufacture of quality butter in the factory.
3. Advertising and merchandising of the final quality product.

Someone less familiar with the industry than you might say, "Oh, but the butter maker is concerned only with the second of these steps, the making of butter in the creamery."

You, however, know that in fact these three steps cannot be separated one from another. Each one is dependent on the other two. The Merchant depends on the maker for good butter, and the maker depends on the farmer to deliver good milk. If the farmer delivers good milk, and the maker blunders, the farmers' efforts are lost; if the maker delivers good butter, and the distributor blunders, the efforts of both the farmer and the marker are lost.

So while in reality I know that you can not consider any one of these three steps independently of the other two, for the sake of discussion, I do want to discuss the third step, namely, the advertising and merchandising of butter.

I want to pretend that I am talking to a group of consumers, and that I am making a sales talk for your product--butter. So I take as the topic for my sales talk, "Butter, Beauty, and Bullets," quite an euphonious alliteration, but I hope to be able to present it so that you won't remember it as "Bunk, Blarney, and Baloney". I want my sales talk to be more than "sweet wind", (story of the mountain boy and the chocolate soda.)

I shall present briefly five sales arguments to prove to you that you and your friends should use milk and milk products.

Argument No. I -- Milk is the most nearly complete food known to mankind.

Please permit me to quote from a bulletin published by the Agricultural Experiment Station of the University of Wisconsin:

"Science has begun to examine milk, to look inside the bottle, inside the milk itself, and see what's there. Science has found that milk more than any other single food meets the nutritional needs of the body. It contains protein, carbohydrate, fat, minerals, vitamins, and water. And it contains these recognized dietary essentials in suitable proportions. Milk is not a beverage in the class with a glass of water or a cup of coffee--it is a food, and a good one. As the most nearly complete food, milk is without a competitor and is endorsed wholeheartedly by nutritionists everywhere.

When milk is fortified with small amount of three mineral elements iron, copper, and manganese, and for children with vitamin D, it can be used as the sole article of diet."

Sales Argument No. II -- Butter is essential to beauty. Scores of other products have used the beauty appeal in advertising. In fact, most beverages use the beautiful girl and shapely leg appeal to attract attention to the product.

The facts are that few, if any, of these products had anything to do with building beautiful figures, shapely limbs, beautiful teeth, and pretty hair.

Dairy products were essential in all of these. Milk contains all of the elements for producing these desirable features, except Vitamin D, which may be added by irradiation, and except sufficient iron for color in the cheeks. Color in the cheeks, it is said, oft comes from some iron compound, whether applied internally or externally.

In recent advertising campaigns for dairy products, the Wisconsin Department of Agriculture has been stressing the beauty appeal. You will see on Wisconsin highways, billboards with a pretty girl and giving the following messages:

1. If Her Skin is Smooth as Silk,  
She Drinks Pure Wisconsin Milk,
2. If Her Beauty Sets Your Heart Aflutter,  
She Eats Good Wisconsin Butter.
3. If She Has Dimples in Her Knees,  
She Eats Wisconsin Natural Cheese.

Scientists tell us that milk and cheese contain the necessary calcium and phosphorus for developing good bones, essential to good figures, and good for sound teeth, essential to health and beauty.

It is known that butter is the best source of Vitamin A, which is also essential to beauty, especially to a beautiful skin. Without it the skin becomes dry and flaky, described by the medical profession as "keratinized".

Those of you who have been exercising your sales resistance may protest that milk, butter, and cheese are fattening. There is ample scientific knowledge to banish that argument. I quote from a recent article in the Milwaukee Journal written by DuBois:

"Recent investigations tend to show that butter fat is not stored in the tissues but is burned completely. This should be good news for those who like cream in their coffee and butter on toast. The fat burns up without adding to bodily weight."

Sales Argument No. III -- Butter is essential to health. We have done a good job selling dairy products for health, and this fact is generally accepted throughout the nation.

Doctors and dentists repeatedly recommend dairy products as preventives against bone and teeth diseases. My dentist repeatedly tells me that regular consumption of milk is essential to maintain the calcium content of the teeth.

We know milk, butter, and cheese to be excellent sources of Vitamins, A, B, and C, as well as E, G, and K. In fact, it is said to contain a sufficient quantity of all the Vitamins, except D, which is added by irradiation, or may be had in the form of cod liver oil.

Sales Argument No. IV -- Butter is essential to the national defense.

It is known that in the world war butter played almost as important a role as bullets in the final outcome of the war.

Russia's woeful weakness in the world war, as well as in the recent Finnish campaign has been attributed partly to the lack of butter in the diet.

During the world war the allied soldiers were surprised to find that at night the Russian soldiers could not see as well as other soldiers, and appeared to be afflicted with "Blind Stagers". Investigation showed the cause to be deficiency in Vitamin A, or lack of butter in diet.

The Finns had the world's highest per capita consumption of milk and butter. No wonder they held out so long against 10 to 1 odds.

In the world war both Denmark and Rumania learned how lack of butter produced disease. Denmark decided to export her butter and eat substitutes. As a result, the eye disease known as xerophthalmia, which often leads to permanent blindness, became prevalent until the government restored butter in the diet. Rumania was afflicted with the same disease because the Russian soldiers ate most of the Rumanian cattle.

Reports coming from the European mainland during the past few weeks indicate that many of the European dairy cows are being eaten for beef. Diastrous results may follow.

Peter Drucker, a German economist, speaking recently at the University of Chicago Round Table, said: "The economic war will first be felt when lack of fats and fodder cracks the nerves of the German civilian population. A lack of fats in the diet acts upon the nerves to bring discontent, impatience and discouragement. Germany is lacking in fats and the fodder for cattle that produce butter and milk."

A recent International News Service report says that in Great Britain vast secret stores of food have been hidden away by the government. Butter and dairy products are among the foods stored in subterranean warehouses far removed from danger points along the coastlines and well shielded from aerial attacks. To conserve these reserve food fats, the government is rationing butter and bacon. Germany has long been saving butter, as the lessons learned in the first world war proved that lack of this valuable food helped in undoing civilian morale.

Substitute or so-called "ersatz" fats, even when fortified with vitamins, will not supply the protective food value found in butterfat, E. J. Schantz, C. A. Elvenjem, and E. B. Hart of University of Wisconsin learned by actual experiments. "Within three to four weeks, it became clear that rats getting butterfat were outstripping others who did not," the scientists reported. "They grew better and looked better. Their coats were soft, silky, and glossy, while those of animals getting only cocoanut oil or corn oil were rough and dull."

Sales Argument No. V -- Consumption of dairy products is essential to national prosperity.

That national prosperity is greatly dependent upon the prosperity of the American farmer is universally admitted.

The milk check is the largest single item in the American farm income. In fact, twenty per cent of the total national farm income is produced by the milk cow. In Wisconsin one-half of the farm income is from the sale of milk.

America produces and consumes the most dairy products of any nation in the world. Annually, we produce and consume in milk and milk products 49 billion quarts or 100 billion pounds. Daily 30 million quarts of milk are placed on the back porches of American homes.

A rise or fall of one cent per hundred pounds in the average price paid American farmers for milk means 10 million dollars in annual income. This gives you in a nutshell the economic importance of milk.

That concludes my sales arguments for dairy products. What an array of sales appeals for one product! The perfect food, beauty, health, national defense, national prosperity. No other product in the world has all these appeals.

Mr. G. Van Buskirk, secretary of Illinois Dairy Products Ass'n.

Mr. President and members of Wisconsin Butter Makers' Association. I am glad for this opportunity of becoming acquainted with many of you whom I have not had the privilege of meeting previously.

Some things we talk about when we are in a little group but we are afraid to bring them out into the open and really discuss them. We have reached a page in the history of the dairy industry when it is time to face all facts.

I should like to remind you that the dairy industry is a commercial industry. It is quite a new industry. We are only about 35 years only. Going back 35 years ago, we have an entirely different thing than we have now. The development of commercial butter industry, development of fluid milk industry, and the ice cream industry, and I mean a nation-wide industry, have bearing on the life of the people and is comparatively new. During the early age of these industries, butter, milk, and etc., we had no difficulties much about competition as there was always room to sell more ice cream, sell more cheese, and sell more milk. We have taken up most

of the territory and there is very little territory left.

Ten or fifteen years ago, I could go out in the United States and set up a milk, butter, ice cream, or cheese factory and be comparatively sure that I could succeed for there was little or no competition. There was no trouble in procuring raw materials and selling of products. We have come into a period in the life of the dairy industry in which we are competing each individual product, each against the other. We have reached a place where we have begun to recognize the security and welfare and prosperity of the other.

I wonder if you will believe me if I tell you that in 1932 and 1933, we had a conference called the Dairy Outlook Conference, and I remember that one of the men made the statement that the sale and the price paid by dealers for fluid milk and fluid milk products ought to be best on butter and cheese. I can now see one of the best friends I had walk out of the room. He was boiling. He said, "That blanket, blank fook to talk about such stuff as that". The managing secretary of the Chicago Milk Association made the statement that the cheese measure which had determined the success of the Federal Milk Market in Chicago was due to the fact that it was based upon the evaporated milk formula, which is based on butter and cheese. You can follow these relationships for yourself.

I listened with great interest to the statement of one of your department men, Ralph Ammons, and I am talking about Quality. I am glad your men are talking about quality because what the women think is at least 50% important. Two things that the dairy industry has to face in the next few years, side by side are cost of production and quality. When the speakers talked about Quality this morning, I know there were some in here this morning that did not pay much attention to what they said. It is a program that you have to work together on, not sit and think about it. Whether or not you like it or whether or not you think it something you ought to do, you are going to have to do it for just one reason. The consumer of dairy products has always sat in the king's seat. The women spend the money which you fellows earn, and what she thinks about your product and what she is willing to do is what you have to take whether you like it or not. And she is becoming interested in quality.

It hit me the other day. The office was about closed and the girls were gone. A man called and asked for some statistics on the Chicago market. Then he wanted to know where he could buy the kind of butter he ate in a hotel in the city. He said, "Do you know I cannot buy it in a single store in Chicago. I had some shipped in but that was not satisfactory." I don't know if the statement was true or not, but I do know that we have to face a quality conscious consumer. Either we do the job or it will be done for us.

And a job someone else does for us always hurts a great deal more than if we did it ourselves. Anytime someone comes in from the outside and regulates things for us, it will cost us a large payment in the form of hard work. Much more than had we done the job ourselves. I wonder if you will see a good trend that is going forward.

We have in the city of Washington, the seat of our government, the U. S. Public Health Service. These people conceive a great idea in regard to type and quality of products consumers of the United States should have. You men know, or ought to know, that dairy products are really perfect foods. The best food which the consumer in the United States has before him to place upon his table. I know, because it took me \$10,000 to find out. Tubercular tests. Four years out of the life of a child and nearly the life of his mother. Not one single moment do I question the attitude of the United States Public Health Service. Our program for milk by formulation in Chicago is sooner or later going to get over and rest upon your shoulders to. There is not a man in this room who did dare prophesy European conditions two years ago. All of our cities are demanding that kind of safeguard and I think they should have it.

In the city of Athens, Ohio, the City Board has passed two-thirds rating without any objections, that all cream going into ice cream must be produced upon highly inspected farms and already three counties adjacent to the country are planning the same program. What would happen if tomorrow the Public Health Service were to come into Wisconsin.

A few months ago in Chicago, the Board met one night and were met by a whole flock of women who filled every place in the council chamber. They said the Board were going to pass a ruling for pure products or they were going to put in a new council. What would happen if the United States Public Health Service passed such an ordinance and which will be introduced repeatedly, and which should be practiced in the state of Wisconsin. What are we going to do about this Quality Program, and I am saying it to you and to myself that unless we fix that program and take a firm grip, the job will be done for us.

Have you ever faced the fact that dairy products of quality are the best salesmen for themselves that could possibly be devised. Have you ever picked up a piece of hot, dry toast, spread your butter and found that the butter was not good. I am saying to you butter makers, I don't care how much money you spend for advertising the merchandise you have, you cannot sell your product if it is not good.

I drink a quart of milk a day, but during the strike in Chicago early in May, the folks at home went out and bought a quart of milk. I took one swallow and I did not drink any more milk for two days. I, who am in the industry, like it and know it, but turned away from the product because of the taste and odor it had. Dairy products are great salesmen for themselves, but every time the consumer at a hotel, a restaurant, or any kind of eating place, puts a piece of inferior butter upon his bread or any hot food, all the advertising you can do takes a long time to bring him back to it. So I am saying to you, that these products can be their own best salesman or their own worst enemy. They are either appetizing, delectable food or they are atrocious.

Touching upon another point that follows closely. If we have to go into this Quality Program I know many of you say we have to have more money and you tell us how to get it. I don't believe that the consumer will pay a great deal more for butter than he is paying now. Every man knows that the minute butter goes over 30¢ there will be trouble. Two years ago, butter went up to 34 and 35¢, consumer paid 40 and 42¢ per lb. for butter, and when this happened it took a year or two to get over it. I am suspicious of the man who comes out with a formula to advertise dairy products to get producer more money.

We hear a good deal about the advertising program for citrus fruits. I was talking to a friend of mine about this program and he thought this program fine, but reason citrus fruit people were able to do the job they do is because they are able to bring the price of fruits down. I remember when I was a kid and lived on a farm in Michigan, the only time we got oranges was at Christmas time when my aunt came from the city. She paid from 60¢ to 80¢ to \$1.00 for a dozen of oranges. The producers of citrus fruits had to bring down cost of this product so he could sell it at a price the people could pay. I am not saying we have to reduce the price of dairy products, but they are not going any higher in the relation with other products then they are now. In spite of this fact, our job must be done and it must be done in our plants and it must be done on the farm.

Maybe there are some fluid milk producers here. The fluid milk producer because he has been organized has been able to frequently buy city councils and legislatures, giving him a favorite position to which he is not entitled in the milk industry. Is there any justification for a man on one side of the street to receive \$2.40 for his milk that is poured into a bottle, but his neighbor can't get into that market because it is closed and he has to sell his milk to a cheese factory for \$1.15 to \$1.20 per 100 lbs. In another case, milk is being bought at \$2.45 for 100 lbs, and milk which is used for cheese in same locality, produced on same farm, sold in July for \$1.05 per 100 lbs. Any time you can show me on behalf of economics where there is anything that could possibly justify a difference of \$1.36 for 100 lbs for one used in cheese and one that goes into a bottle. I would like to be let in on that. Many talk politics, many talk organization, and many talk a lot of bunk, but they are not talking economics. Coming back to the statement made at the beginning, the dairy business is one place where all the problems come out of the same milk pail. You say is there any justification which means that you bear the brunt. You men pay the bills. You producers at least pay the bills. Maybe a week from now if you have a little time you will think about it, because they have a direct bearing on when you boys are making butter then years from now. The sooner or later that all of us learn this lesson the better it will be, because it is having a direct bearing upon your product. Every pail of fluid milk that is produced in new territories has a bearing upon your problems and this one.



Most of you know George Mooney. He tried to make a bet that Texas would be pushing the State of Wisconsin a close race in the dairy industry. This is another factor that you men have to face. Just a little "Glimpse into Tomorrow".

In our state we worry about "cecila." She is getting us into all kinds of trouble. We are worried in Illinois because affects two-thirds of our products badly. All these things we have to face every day. These things are so close we have forgotten the wider things. They are here on us right now. They affect the price you are getting for your butter, affect the rates you get, affect your income and it is time we thought about it seriously.

I think that in all these rambling thoughts we have some bitter facts that we better face and face squarely.

Professor Jackson - University of Wisconsin

It takes a lot of determination to do certain things. I would like to talk shop because that is what I am really most interested in. I think I have attended every convention since I have been in this State, and each year I have been asked to appear on a program. I want to talk again about the Quality Program, because I feel as one of the public servants of the state that I ought to give an account of what we are doing in the department and also what help we are getting from a large number of you men and from other departments in the state. I would like to talk about our extension program.

Down in the Dairy School we have three jobs to keep us out of mischief. One is to teach student, the other two are to carry on research work and carry on extension work. I want to tell you some of the things we are trying to do and what various programs we are trying to work out. First, I would like to say that the program we are trying to carry out is not our program but your program. A program of various producers, operators, and interested parties in the state and a program which we hope will make for a better industry within the state.

The first part of the extension program deals with quality, and I think that all of us have a definite idea on quality. Ideas not all the same. I do not think that we put enough time thinking about some of the factors which effect this quality program. Sometimes we are a little amazed when things do not work out just like we think they should work out, and then we discover some obvious reason why they do not "pan" out just right.

Now there are a lot of things that have happened in the last 13 years which have had quite a bearing on the quality program work. It is a thing that is still happening and will continue to occur, and that is the size of our plants. We have now, as many of your men know, just about one-half as many creameries in the state as we had back in 1910, yet we are making nearly twice as much butter and that means just one of two things. Either we have more patrons per creamery or the farms producing cream is much larger. Farms have more cows--plants have more patrons. Now the question of size

has quite a bearing on the Quality Improvement Program as far as operators of plants are concerned. If, at one time, you were operating a smaller plant, the chances are it was quite easy for you to know each one of your patrons. Now we have plants where operators never see their patrons. That is a factor to consider in this quality work.

As I recall, there are something like 200,000 dairy farmers in the state. About 70,000 are bringing milk to creameries and that means then that the average creamery has an average of 140 patrons per plant. With some of these larger plants the operators never get a chance to know his patrons unless he makes it is business to get well acquainted with them. Now we have 65,000 farmers taking milk to cheese factories and we have a lot more cheese factories, with about 33 patrons to a plant. Condensers now have about 430 patrons to plant and 35,000 patrons go to the rest of the plants in the state. We could do a lot more about quality than we have done. Operators in plants, if he is to be a good operator, has a lot of things to do and the time may come when his plant should be in touch with producers. He may have to have a man to make visits to farms and make them often. It seems to be then that we would have to arrange for some type of field service and I think that is definitely in the picture.

Another thing which Mr. Van Bursirk spoke about is this question of consumer regulation. Now that certainly has changed since I started in teaching just 25 years ago. In those days, we had no trouble in going out to stores and finding butter with a lot of different flavors. About 15 years ago, we had a lot of fishy butter. You don't run across fishy butter very often. I dare say that it would be quite hard to sell fishy butter today. Fifteen years ago, people had a lot of it. So that picture has changed and the consumer is certainly becoming more quality conscious and I think it is a very good thing for Wisconsin.

I say that we make a lot of the best butter in the United States, and I also would like to say Wisconsin has one-tenth of the dairy cows in the U. S. Three cows to every person. We have good climatic conditions and plenty of good cold water. We can probably do more as the consumer is getting more quality conscious and I think we ought to be glad of this and that we should capitalize on it.

Another thing as I see it which affects quality and affects it a lot more than any of us think and it is the lack of the sense of security on the part of the operator of the plant. Now if an operator does not go along in the Quality Program you can see he is shortsighted and as he is shortsighted, his judgment is not good. You can be sure his directors will not back him up, but I think since the Depression that there has been a lack of security not only in Wisconsin but a whole bunch of people and everybody wants to be secure and so the butter maker is thinking in terms of his job. He thinks that there are some things that can be

done, some things that we can do right here to give that plant operator a greater sense of security. I think we ought to have a stronger butter making organization. I don't know why, but as a group we are not working together and I think by working together we could bring out and develop a better sense of security on the part of the operator. I think that the directors of our plants, both cooperative and private plants, could do a great deal along that line, that is if we really want quality to uphold the hands of the operator. I think we should have a go-between between the plant and producer. We certainly would have to back him up. I think it is a good thing to take the bull by the horns and go after quality. I think we could work with the producers on this Quality Program.

When any of the men from the Department go out, we always insist that one of the directors or men from the plant go along because it is their plant, program, and responsibility and we are only there to help them. We have had many remarks on the Quality Program and I would like to give you some of our answers. We have this changing hands which will effect quality. Some producers who go from one plant to another. We would like to see the quality of dairy products improve, and see the greatest possible consumer distribution of our products. We would like to see that no plant operator could sell his product unless it is fit and wholesome for human food, and produced under satisfactory conditions. I would like to point out that the stable and dairy barn is a food factory. Unless we have confidence in our own products we should not expect anyone else to sell and use it. We are trying to develop a better understanding of the importance of the various essential steps in quality products. To develop this industry and ability to apply these plans to everyday dairying. To develop a sense of responsibility on the part of the producer and the plants, I think we should have an ordinance in this state which producers can follow and follow intelligently. Sometimes we talk too much and lay down so many rules that people get discouraged.

These days we talk about vocational guidance, we have wondered why that cannot be applied to some producers for producing milk. In other words, if you have someone producing milk for a plant and you find that they are not interested in quality milk, try to interest them in some other kind of farming. No use having a producer unless he is interested in producing a good milk. After you have the producers producing a good product, it is our feeling that something should be done in regard to retailers who handle dairy products. I realize that there are a lot of men here who handle dairy products in stores and do merchandising. I know that you can go into many stores and see butter abused. We think that something can be done along that line. If we can get the retailer to understand that it is profitable for him to see that his consumers get good butter he will cooperate willingly.

We ought to work together to bring about more harmonious relationships between plants. I do not believe producers like to go back and forth. If one plant gives lowest price this month, that doesn't mean he will keep on giving the lowest price next month.

Try to work with the patron and he will stay with plant and work with the plant. Another thing trucking expenses can be reduced by cooperation between plants.

Another thing we are very interested in are the 4H Clubs. A great deal can be done by working with these boys and girls. If you go out to different farms where they raise the best cows, chickens, grain, etc., you will find that some 4H boy or girl started that. If, at your annual meeting, you would like to have something that you are sure will make a hit, just have one of these 4H Clubs put on a demonstration, I am sure folks will like it. These boys and girls can tell you people things you cannot know yourself in regard to cream, milk, and other products.

Another thing which we feel will be of importance to you, if you will talk about quality and get everyone on their own farm to judge their own products. Get every boy and girl and every father and mother to test milk products each day.

I have been talking on quality. Some people say it does not pay to produce it. It does not cost more to produce satisfactory as unsatisfactory milk. Another thing, some few years ago we had a lot of unfavorable publicity on milk. We do not think it best to publish bacteria count in milk.

Some of our departments are as follows:

- Home Economics--which has been giving demonstrations
- Horticulture --gives prizes for beautiful cheese factories.
- Rural Sociology--promotes talks on producing high quality products.
- Veterinary Science--instruction on better animals.

All of these departments help in producing higher quality products.

As we only have two extension men who are working in the state, we can only hit the high spots. We are willing to work with anyone who will work with us.

Business Meeting, October 2, 1940

#### RESOLUTIONS BY RESOLUTION COMMITTEE

Be it resolved:

1--That our sincere thanks are hereby extended to the fine people of Chippewa Falls, their representatives, the convention speakers, butter judges, and officers of the Association.

2--Also that our appreciation be extended to the University of Wisconsin Dairy School, and the State Department of Agriculture for their great efforts in the promotion of our dairy industry.

3--Be it further resolved that the Board of Directors of our Association be instructed to work with the State Butter Advisory Committee in revising the State Butter Makers' Licensing Law.

4--That we pledge our hearty cooperation in programs having as their purpose the welfare of our great dairy industry, such as the Wisconsin Dairies Industry Ass'n. and the quality program of others.

5--Be it resolved that this Association extend their best wishes and hopes for a speedy recovery of Jim Klund formerly of Colfax and Ernest Soltwedel of Richland Center.

6--And that the heartfelt sympathy of our association is hereby extended to the bereaved family of our worthy associated member, Milo Cross of Mauston, who passed to the great beyond several weeks ago.

Moved and seconded that entire resolution be adopted. Motion carried.

Roll call of delegates -- 17 present.

Annual report of secretary and treasurer given.

Motion made and seconded that the secretary's and treasurer's report be adopted as read. Motion carried.

If anyone here wishes to bring up at this time any suggestions, criticisms or whatever it may be for the betterment of the association they will be accepted at this time. If not, we will continue with the election of officers.

Ballot Clerks--Martin Nicholls and Reuben Erchel

The first in order will be the election of a Director to succeed Mr. E. E. Carlson.

Nomination by Wenzel--Nominate Alvin Smith, Portage as Director.  
Nomination by Dickey--that Secretary cast ballot for Carlson to succeed himself.

Mr. Carlson--I have been on the Board of Directors for a good many years and I think we should pass it around. I did all I could and I shall continue doing so, but I would like to see someone else on the Board. I would like to have my name withdrawn.

Smith and Carlson tied. Another ballot cast--17 ballots cast, 14 for Smith, Mr. Carlson three. Mr. Smith is our next director.

Next term that expires is that of Mr. Lundberg. Motion made and seconded that Secretary cast unanimous ballot for Mr. Herbert Lundberg to succeed himself. Motion seconded and carried. Mr. Lundberg re-elected.

Next term that expires is that of Mr. Eckright. Motion made and seconded that Mr. Eckright succeed himself. Motion seconded and carried. Mr. Eckright re-elected Secretary.

As there is a meeting of the Wisconsin Dairy Industry Board on October 28, we shall have to elect a delegate to attend this meeting. Will accept nomination from this Board. Motion made for Mr. Eckright to attend meeting. Motion made and seconded that he act as delegate for this meeting. Motion carried.

Mr. H. J. Creditott, Freeport, Ill. "Future Conditions in the Dairy Industry".

He would be a very rash individual who would attempt to predict the future conditions of the dairy industry in this world of turmoil and strife.

But I am old-fashioned enough to believe we can learn from experience, and what we have learned should help us to chart a course for future progress.

We can probably expect to see the market milk branch, which is practically controlled in its economic aspects by organized producers and organized labor, continue with government help to maintain price levels too much above the value of manufactured dairy products.

Their ability to carry on this type of policy has been and will be predicted on their ability to, at any time, throw their surplus milk into manufactured products, and particularly into butter.

When these surpluses hit the butter market, the price of butter must come down enough to stimulate extra consumption of butter.

It would be hard to make an estimate of the amount these policies have cost the producer of fat for butter-making in lowering the price for his product while the butter markets were absorbing the surplus butter.

In my opinion, it would amount to over a hundred million dollars in the last years. It is no wonder the butter industry has had many troubles during these years when low price levels cut down the overrun value or gross margin on which the industry works.

The extreme competitive nature of our butter industry, due to the purchasing of our raw material in the concentrated form of cream which can be transported over considerable distances, has been increased by the advent of automobile trucks and good roads.

In their efforts to maintain or improve their volume position in the industry, we see creameries, both co-operative and individually owned, straining every resource to pay more than reasonable prices for butter fat.

This has gone on so long that many creameries have used up their depreciation reserves, and they are now in no position to meet modern standards of sanitation by the replacement of worn-out and obsolete equipment.

Manufacturers of creamery equipment say that during the last ten years the creameries as a group have bought new equipment only when the old could no longer be made to function.

Pressure on the butter makers by creamery management for the utmost in overrun has forced them to carry butter compositions so close to the legal limit that they are in constant danger of being held responsible for their creamery being involved in a federal prosecution.

In a very recent issue of the Dairy Record, Commissioner Trovotten of Minnesota is reported to have warned the creameries that 20% of butter samples were showing low fat.

Social Security taxes, wage and hours legislation and a general increase in taxes have effected creamery expenses in a varying degree, according to size, location and type of operations; but regardless of the amount of direct expense involved, all have had to meet a higher cost in supplies and equipment due to these factors.

Changes in the butter scoring technique used by government and Exchange inspectors have, in my opinion, tightened up the grading and made quality as increasingly important consideration.

Improvement of quality calls for producer education, more frequent cream delivery and better equipment--all of which is adding to creamery operating expense.

A steadily growing demand for proper sanitation in the handling of dairy products from producer to consumer has been evident.

Food officials everywhere are asking why butter should not be subject to the same standards of sanitation as are applied to fluid milk in the large cities.

One requirement which is standard in fluid milk ordinances, calls for flush type valve outlets on pasteurizing vats so that all of the contents shall receive uniform heat treatment.

It is rather staggering to contemplate the cost of modernizing our plants, even to the extent of meeting this one requirement.

Let us suppose that creamery management could increase gross margins one-half cent per pound of butter, this amount to be applied to modernization of plants and equipment.

This country will produce about 1,800,000,000 pounds of butter this year, and one-half cent per pound would produce \$9,000,000.00.

A new type stainless steel vat with flush-type valve costs about \$1500.00, and the former sum would buy 6000 units or an average of approximately 1 1/3 pieces of equipment per churning plant.

We also need a lot of other equipment as well as improvements in our buildings; and it is evident we should need the application of one-half cent per pound on butter manufactured for quite some time before we could have our plants on a basis which would fully satisfy modern standards.

I have outlined a picture of a great industry producing a product each year worth in excess of \$500,000,000.00 which is slowly going to seed because the collective management can not or will not look forward and plan for future needs.

It is high time that our industry should awake from its sleep walking and plan and put into operation a preparedness program.

Across the ocean we have seen the appalling consequences of sleep walking in high positions when nations crumbled away because their leaders failed to realize that it is always necessary to utilize modern methods and equipment to maintain a position in the modern world.

I hope the leaders of our butter industry may realize that this principle applies to the well being of an industry as it does to a nation.

You may wonder why I am talking to butter makers about problems that are essentially the responsibility of owners and managers. Some of you are probably owners or managers, but the buttermaker who has nothing to do with management still carries on his shoulders the responsibility of sanitation, composition, and quality of flavor. The buttermakers' job and reputation depend to a considerable extent on the adequacy, kind, and condition of equipment he has to work with, and he should see to it that the management is fully informed when things are not up to proper standard.

In other words, I believe the buttermaker has a right and a duty to fight for high standards of efficiency and sanitation in the plant he operates. He can establish the ideals of the industry on these questions if he makes a consistent effort. This is particularly true in co-operative creameries where owners and management may know little about proper plant requirements.

The gradual tightening up of quality standards, plus pressure from the Federal Pure Food Department with respect to extraneous matter and mold, has brought about a practically country-wide effort at producer education.

Your State of Wisconsin has a very admirable program in which you are receiving an unusual amount of aid from the State in educating producers and forcing them to deliver better cream. However, the final success of this program will depend on the whole-hearted co-operation of the buttermakers.

You are the men who must police the work by proper grading of the product and rejection of unfit material. Educational work with the producer will bring permanent improvement in milk and cream only when close inspection and grading at the plant keeps a constant



pressure for quality.

In Illinois, we have been carrying on a vigorous cream improvement program for about four years. A very large part of our cream is bought through cream stations, and it seemed like an impossible task to get a grading system to work under such conditions.

The majority of our butter industry were convinced that we must grade and pay on a quality basis if we were to meet the constantly increasing demand for sanitation and improved quality of butter, so the problem was attacked with a firm determination to make it succeed.

Our first step was to develop a method and equipment for sediment testing of cream which could be operated by cream buyers. Then we held a series of meetings over the state to educate the cream buyers and plant cream graders on the use of the sediment testing equipment. We had to convince them that this was an improvement program which was going to be a permanent part of our business.

The Illinois Department of Agriculture and the University furnished men to attend the meetings and help us put over the story of good, clean cream. A series of these meetings have been held each year, and the present time the second series for this year is under way. The present meetings have to do specifically with the problem of mold in cream, its cause and prevention.

We have greatly improved the quality of Illinois cream as proven by the fact that we have been encouraged to continue the work over a period of four years. We realize we have taken on a life time job, for it is only by continued pressure on the producers that we can maintain quality, but each year the job is getting easier. We found the use of the sediment test for cream was a wonderful force for improvement.

The producer can question your flavor grading, but he cannot argue about the dirt which is shown him on the sediment pad.

As extraneous matter disappeared from our cream, the quality improved; and I want to say to you Wisconsin Butter Makers that if you have not used a sediment test on your patrons' cream, you will probably be very much surprised at which you find.

We have creameries in Illinois that have not graded cream. They have stirred up some competitive troubles, but we have learned a creamery can buy cream on a grade without losing to many patrons, and most of those lost are the chronic producers of poor cream which any creamery is better off without.

With the aid of the State's educational work and police powers, it should not be difficult to establish cream grading in Wisconsin if the butter makers get behind the movement.

In conclusion, I wish to make some rambling observations regarding butter quality which is so much the buttermakers' responsibility.

The government graders and many others seem to have a fixed idea that sweet cream butter is absolute tops in quality, probably because it requires cream in the freshest possible condition. In their zeal to improve our industry, they want to penalize those who cannot secure sweet cream to make butter, and they seem to forget that a large majority of our creameries, because of geographic or economic reasons, cannot possibly get sweet cream.

The first draft of the new government specifications for grading butter said 92 score butter shall be made from sweet cream only, and it took a lot of argument to get them to change this requirement.

In the discussion of the new grade specifications a butter man asked a government man: "Who are you to decide what the consumers like or dislike?" I am quite certain that no evidence has ever been presented to show that even a majority of consumers prefer sweet cream butter. Don't get the idea that I am against sweet cream butter.

About thirty-five years ago in a little creamery in Minnesota, I churned the first sweet cream butter made in this country. During the winter of 1905, I appeared before the Wisconsin Buttermakers' Association at Madison and told of my experiments. At that time, I advised culturing the cream at the time of churning so the butter flavor would be a combination of the delicate flavor of sweet cream and the fine aroma and flavor of a good culture.

When I am smelling and tasting butter as a butter judge does without other food, I can be very enthusiastic over the delicate flavor of sweet cream butter. But when I am eating butter with other food, I very much prefer the more robust flavor and aroma of a properly cultured butter. It is my belief, based on a life time experience in making and merchandising butter, that most consumers prefer a butter with the flavor and aroma that is developed by the souring of cream. That is practically an inherited taste, for butter has been made from sour cream for centuries.

Efforts are now being made in some quarters to incorporate butter grades as a part of the sales plan of the butter advertising campaign. Before any move is made along this line, a comprehensive survey of consumers' taste should be made, and our sales campaign should cover the butter which the consumer finds acceptable; and not put special emphasis on the preferences of our technicians.

I wish that more of our educators, butter graders and food officials might have had first hand experience in the making and merchandising of butter. Too many of them do not understand that the average consumer does not share of understand the connoisseur's standards on butter, and that it is very hard to induce him to pay out any

substantial amount for the characteristics the connoisseur considers so valuable. They complain and hint at butter dealer manipulation of butter markets because top scoring butter does not command a higher premium. The relationship of the price of different grades of butter is regulated by supply and demand, just as surely as is the general price level.

A chain store executive told me recently that when they changed store over to the "serve yourself" type, the demand for the cheapest or 89 score butter became so heavy they had a lot of difficulty in finding a supply. Naturally, their buying in the market raised the price of 89 score in relation to other grades. There is food for thought in the fact that more consumers serving themselves without influence from a salesman will pick the cheaper butter. It suggests the thought that the most characteristic flavor of 89 score which is acid flavor and aroma, may be something a lot of people like.

Perhaps this type of flavor produced in fine, clean cream under proper control conditions is the thing needed to arouse the enthusiasm and loosen the purse strings of the consumers.

It is my opinion that any attempt to set up butter grading in connection with the butter advertising program is ill advised, and may well wreck the program from a national standpoint.

We must have an increase in per capita consumption of butter to take care of our increasing output and create a demand that will raise prices to the producers. This increased demand must be for all table grades, and not for some special grades which can be produced only under favorable conditions in limited areas. A pound of butter made is a pound of butter which must eventually be consumed. If it becomes a surplus pound of butter, it will depress the market whether the score 89 or 93.

Butter is made all the way from the Gulf of Mexico to the Canadian line, and it varies in score according to climatic conditions. If our advertising efforts fail to increase the consumption of all butter, the money will have been wasted so far as raising the price level is concerned.

I have touched very briefly on some of the many problems with which our butter industry is faced, and which must be decided by the thought of the industry. The action and decisions we apply to our problems today will determine our future and that is very important to us because it is in the future that we must live the rest of our lives.

Mr. E. K. Slater, Milwaukee, Wis. - Banquet Speaker

### KICKS AND TRICKS IN THE MILK BUSINESS:

I am sure that you will not be surprised when I tell you that I was reared on the prairies in Southwestern Minnesota where muskrats were common on the dining tables of the pioneers, later giving way in importance to that other quadruped, the dairy cow. True, I have lived in the city for many years since then, but I have never succeeded in covering up the tell-tale signs that were so indelibly imprinted. The earmarks still remain.

During all these years, I have been identified with the industry of which the dairy cow is the foundation, the smell stays with me and I still raise my hand when I meet a respectable cow. She is the "Foster Mother of the Human Race" -- a lady among ladies.

I have long appreciated the sentiment expressed in the poem which was composed by, shall I say, a typical Minnesota citizen, as follows: "Ay bane a yust gude farmer, etc."

Some of you, I am sure, have felt the influence of close association with the dairy cow. You have been impressed by her motherly disposition and, at times perhaps, by her apparent "throw back" to her less loving ancestors. Some of you have even felt the impact in spots carelessly chosen by her.

There are other "kicks" in the milk business. In presenting them I shall also explain some of the "tricks" of the trade---hence, my subject. In presenting them I shall include the major products of milk in which, I am sure, you are all interested.

Consumers, especially the ladies, are perhaps more interested in the milk and milk products they buy than in most other foods. This deep interest is responsible for most of the "kicks" that come to the milkman in spite of the excellent service he renders.

I am not going to burden you with statistics, but I want to give you enough of them to emphasize the magnitude of the dairy industry. I don't like statistics, anyway, and I didn't do the counting that produced the big figures that I am going to give you. I am sure, too, that you are accustomed to big figures by this time.

The milk crop of the United States totals annual approximately 51,000,000,000 quarts. Fluid milk--the kind you get on your doorstep, at groceries, restaurants, soda fountains--accounts for 15 billion quarts annual -- 30%. Buttermaking uses 16½ billion quarts--32%. Cheese 3 billion quarts--6%. About 2 billion quarts are canned--4½%. Ice Cream takes 1½ billion quarts and another billion goes into miscellaneous products. 12 billion quarts are consumed on farms or made into farm butter or fed to livestock.

It requires over 25,000,000 cows to produce that huge crop, of which Wisconsin farmers milk 2,160,000, or about 8½%. Some teats to pull twice a day!

1940 Wisconsin's auto license plates carry the slogan "America's Dairyland." Even some of our own citizens wonder why one industry was singled out for special recognition by our lawmakers. Here are the reasons, as submitted by our State Department of Agriculture:

Wisconsin has almost 2,000 cheese factories, about 500 creameries, 75 evaporated milk plants, 450 ice cream plants, 120 powdered milk plants, and milk bottling plants in all our towns and cities.

Wisconsin puts out 91% of the national output of brick and munster cheese. Nearly 67% of the nation's Swiss cheese. More than 50% of the nation's American cheese. 65% of the national output of Limburger cheese. 43% of the nation's Italian cheese. 21% of the nation's cream cheese - Philadelphia type. Approximately 11% of the nation's creamery butter. More than 11½ billion pounds of bottled milk annual. 28% of all the condensery products made in the U.S. 24½% of the nation's powdered, skim and whole milk. 86% of the nation's malted milk. Milk accounts for about 50% of the Wisconsin gross farm income.

The milk crop of the Union totaled \$1,530,000,000 in 1937, double the wheat crop, and far out in front of all other farm crops.

With this rather inadequate picture of the industry as a whole before us, perhaps it will be of interest to give out attention to some of the major products of milk. Time will not, of course, permit me to dwell extensively on any one of them.

Let us discuss cheese for a moment. Our greatest output of cheese is American cheese, sometimes called "Cheddar," "whole milk," and cream cheese." It is made in the well known "longhorn", "daisy", "twin", and brick shapes, but it is all American cheese -- the kind that you get in the grocery store if you merely ask for "cheese". If you want "brick" cheese, you must so specify and the same is true with "Swiss", "Limburger", or any of the many other varieties. The production of what is termed "foreign type" cheese -- Limburger and Swiss -- is largely confined to the southwest corner of Wisconsin, Monroe boasting that it is the foreign type cheese center of the Union.

Brick cheese factories predominate in Dodge and adjoining counties while American cheese factories are found in almost all other sections of the state, the heaviest concentration being north and northeast of here. Plymouth is known as the American Cheese Capital of the U.S.A.

All cheese is made from the same curd or casein which is obtained by adding rennet to the milk. This precipitates the curd and it settles to the bottom of the milk container. The liquid part remaining is the "whey", used largely for feeding hogs.

Whatever I have said about cheese refers to natural cheese, such as is made in most of Wisconsin's cheese factories. The term "natural cheese" is commonly used to distinguish it from "process" cheese -- a product made by blending natural cheese of various ages and quality. Process cheese is pasteurized and run into molds while in the fluid state.

Cheese is an excellent food, not appreciated at its full worth in this country. Our per capita consumption of cheese is very low compared with that of other civilized nations. The age and quality of cheese largely determines its selling price and there are all kinds for all tastes.

Most of you, I am sure, are quite familiar with the process of buttermaking and I shall not dwell long on that. Wisconsin stands third among all the states in the production of creamery butter in spite of its huge output of cheese, canned milk, and fluid milk for sale in bottles. Our largest butter producing territories are in the western and north western sections of the state.

Ice cream is an important dairy product, but its production is largest where population is largest and this means, of course, that the nation's heaviest production of ice cream is found in those states east of us. I am glad to be able to truthfully state, however, that Wisconsin has long been noted for the high quality of its ice cream, due to the progressiveness of the manufacturers, the abundance of the fresh milk, and cream supply, and the high standards set by law to regulate its production. While Wisconsin does not rank high among the states in ice cream production, due to its non-congested areas, it plays an important role in the nation's ice cream industry. Huge quantities of sweet cream and condensed milk are shipped to large eastern cities for manufacture into ice cream. Several of our largest milk plants are owned and operated by eastern ice cream manufacturers.

I have mentioned both evaporated and condensed milk. To avoid confusion I will differentiate. Evaporated milk is whole milk concentrated one-half by means of water evaporation, sterilized, and sold in hermetically sealed cans--such as are found in every retail food store. Condensed milk is the same product except it is not sterilized nor sold in hermetically sealed cans. It is invariably sold in bulk. Sweetened condensed milk is the same product, but sold in hermetically sealed cans and sweetened with sufficient sugar to preserve it.

I hope it will be interesting to you to consider the composition of the products I have just mentioned. Shall we consider this question as a sort of expose of the "tricks of the trade?"

Water, for instance, enters into the manufacture of dairy products to an important degree. Even where the farmer leaves the job entirely to the cow she puts about 87 pounds of water into each 100 pounds of milk. Yes, the cow, in spite of her designation as "the Foster Mother of the Human Race" is a public utility magnate of the first order. So, when you buy dairy products of any kind the price you pay is based on the value of about 1/8 of the milk produced by the cow. The other 7/8 is water, utterly valueless to the manufacturer of those products. The amount of water in milk varies somewhat according to the breed of the cow. But the manufacturer puts water into them, however. Butter, for instance, contains as much as 16% water -- not more because the federal internal revenue law does not permit it, and not less because the manufacturer would go broke if he did not put in all the law permits.

But there is still another reason why butter contains 16% water. Long experience of the trade and investigations by scientists have proven that the product is most satisfactory to the consumer when it contains that amount of moisture. That is the reason for the federal standard, which has also been adopted by all the states in the Union.

Creamery butter of high quality contains approximately 80% pure butterfat or butter oil, 16% water and 4% salt and curd.

The cheesemaker uses water to still better advantage. In American cheese the chemist finds a maximum of 40% water and even higher in brick cheese, all fixed by state and federal standards, rigidly enforced.

Of course, practically all the food placed on the Nation's dining table contain higher percentages of water than does butter, and even cheese, but that is another subject.

And then there is ice cream! How that delicious health product has been maligned and cuffed about! Most ice cream manufacturers put gelatine into their product! Horrors! Yes, they have been accused of adulterating their ice cream with gelatine, and it's true, except the adulteration feature. Ice cream manufacturers are perhaps just as good business men as other manufacturers. They wouldn't buy gelatine at 45 or 50¢ per pound with which to replace sugar at 5¢ a pound or even butterfat at 35 or 30¢ per pound. Gelatine is a pure food product, so pure in fact, and so free from all bacteria, that it is used in laboratories as the seed bed for the propagation of bacteria. It is used by the ice cream manufacturer as a stabilizer to keep his product uniform in texture, thus improving its quality. He uses less than 1/2 of one percent of it, keeping the amount used as low as possible because of it's high cost. Gelatine is used by most housewives in the form of jello and other prepared puddings and they have no fears about using it -- and rightly so.

Wisconsin ice cream contains -- must contain -- at least 13% butterfat. There are other regulations regarding composition, but the ice cream manufacturer is permitted to use his skill in making flavor and solids combinations to a greater degree than the manufacturers of other dairy products. He is not, however, allowed to use any ingredient that is deleterious to health or even any ingredient that might be termed an adulterant. He has been accused of using corn starch. Such a charge is ridiculous because he would gain nothing by doing so except to go broke.

But let me tell you about one thing he does for which some people would, if they could, send him to jail. He actually blows air into his ice cream to make it increase in volume so he will have more to sell than he otherwise would. Yes, sir, he deliberately speeds up his ice cream freezer just at a certain stage in order to whip air into it. Yes, he should go to jail if his objective is to defraud the customer, but if he is a cheat and a fraud then my mother was because back on the farm she always filled the

freezer about half full because she knew that the freezer would be chock full if "us kids" turned the handle fast enough just at the right time to make good ice cream. She also manipulated her baking operations so as to incorporate air into her breads and cakes. I don't remember her as a cheat.

No, the ice cream manufacturer knows that the amount of air in his ice cream is an important factor in determining the quality of his product. It is the ultimate consumer that he wants to please. Makers of comparatively poor ice cream invariably use an excessive amount of air, but the maker of good ice cream knows just how much to incorporate in order to please his customers best.

None of us would want to eat ice cream containing no air. Such a product would not be ice cream. In fact, the highest quality ice cream contains at least 70% "overrun", as the trade terms it, and that is all air. There are many tastes for the ice cream manufacturer to try to please, so there are many varieties and grades made, but all are pure and wholesome. Food law enforcement insures that, particularly in Wisconsin.

Perhaps the dairy product in which you are most interested in is milk itself -- the fresh, fluid milk that is put into bottles. Probably there isn't much about its production and processing that I might tell you that would be new to you because you have probably visited some of the fine farms in the vicinity and one or more of our fine dairy plants. There are, however, some economic phases of the milk question which I want to mention.

Thirty million bottles of milk are delivered daily to American doorsteps and another 15 million to stores. These bottles are the property of the milk distributors, but due to the carelessness or criminal intent of consumers largely, approximately 350 million new bottles are required annually to make necessary deliveries. This cost, of course, is indirectly borne by the consumer. This country has developed the most efficient milk delivery system in the world. Some claim that it is too efficient, therefore too expensive, but it is what the consumers of the nation have demanded.

In meeting that demand, and at the same time striving for constant improvement of milk quality, the milk distributors and makers of milk plant equipment, have evolved a system of milk processing and distributing that challenges the admiration of the civilized world. There are those who would tear down that system which demand and competition has been built up. They cry out against progress and hark back to the days of the dipped milk peddler and the disease epidemics that accompanied the distribution and use of his bacteria laden 5¢ milk.

There are those who clamor for legislation to make the distribution of milk a public utility, generally because of political aspirations. They point to the fact that several different milk wagons may be serving the same city block, but overlook perhaps worse duplication in the distribution of other products. I am sure that a careful



count would reveal more laundry and dry cleaning wagons and grocery wagons than there are milk wagons.

Thinking consumers do not want the milk distribution system put into the hands of politicians. They know what the results would be. They don't want the welfare of their loved ones entrusted to the political schemes of ward heelers. They know that the keen competition of several milk distributors in a city is the only assurance of high quality milk and satisfactory delivery service. They know that the so-called savings that would follow the inauguration of a municipally owned milk business would be more than offset by political inefficiency and the loss of taxes now being paid by the several milk distributors. The Good Lord deliver us from such a calamity!

Daily delivery of 45 million bottles of milk to the doorsteps of America, and to stores regardless of weather, is often compared with the U. S. mail. Yet the problems of milk distribution are far more complicated, as milk is highly perishable and must be delivered every day. There are no holidays for the milk man. The story of the milk industry and the many processes by which milk is produced, collected, transported, and distributed, pure and fresh every day, from thousands of farms to millions of consumers, is an epic of modern times.

Milk distribution is a difficult, intensely arduous business and the distributor must be expert in handling a highly perishable food, and he must be a constant guardian of the public health.

It might be argued that price fixing by the states makes competition ineffective, thus entitled to the credit I give the milk dealers, but such a claim is not sound. Here in Milwaukee the price paid by the consumer is fixed monthly by the state, but the factors considered in fixing the price are the same as when the price is fixed by bargaining. The benefits from the efficient job the milk dealers are doing are the same for both producer and consumer. Then, too, this is but a temporary arrangement.

Economic disturbers point to the so-called "exorbitant" profits of city milk distributors. You business men know that the keen competition which prevails in the milk business will not permit unreasonable profits any more than it will permit them in other lines of business. Milk and its products are staples and exorbitant profits are impossible. True; some of the larger companies in their annual statements show comparatively large earnings, but in exploiting them the muck-raker never calls attention to the huge volume of business done.

Certified accountants employed by the New York State Department of Agriculture investigated the records of New York City milk distributors. This is what they found relative to the consumer's dollar:

11¢ went for repairs, rent, etc. 9¢ went for bottles, crates, trucking, etc., 7¢ went for power, depreciation, licenses, and taxes, .43 of one cent went for officers salaries. 2.98% represented net profits.

You'll find the same thing in other parts of the country. A University of Wisconsin study of 13 distributors showed a profit of 1.9 cents out of a dollar's sales. A Federal Trade Commission study for specified Connecticut distributors showed a net profit of 1.9 cents. A certified accountant's report to the western Regional Dairy Conference showed a profit of 1.3 cents. Looking at it in terms of quarts, the distributor's profit amounts to only a very small fraction of a cents per quart.

How many of you business men, particularly those engaged in operating a manufacturing or processing plant, would like to try doing business on such a small profit margin?

I hold no brief for any particular group in the milk business, large or small, but I want you to get the facts.

Incidentally, I cordially invite you to come over and visit the largest dairy publishing house in the world. Again I stick to facts. It is entirely fitting, I think, to call your attention to the fact that Milwaukee, the metropolis of the greatest dairy state, should be the home of this business devoted almost exclusively to the production and distribution of dairy information and employing about 100 specially trained men and women.

"H.P." is too modest to tell you this, but he is not an editor. I feel sure, however, he will not fire me for telling you.

Thursday Morning, October 7, 1940

No unfinished business. Motion made and seconded that Convention be adjourned. Motion carried.