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Third annual report of the Wisconsin Dairymen's Association, with a record of the annual meeting held at Fort Atkinson, Wisconsin, February 3d [3rd] and 4th and 17th and 18, 1875. 1875

Wisconsin Dairymen's Association

Fort Atkinson, Wis.: W. D. Hoard, Book and Job Printer, 1875

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Third Annual Report

—OF THE—

WISCONSIN

DAIRYMEN'S ASSOCIATION,

—WITH A—

*Record of the Annual Meeting Held at Fort Atkinson, Wisconsin, February 3d
and 4th and 17th and 18 1875.*



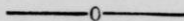
PUBLISHED BY THE ASSOCIATION.

FORT ATKINSON, WIS.

W. D. HOARD, BOOK AND JOB PRINTER.

1875.

OFFICERS, 1875.



PRESIDENT :

HIRAM SMITH.

Sheboygan Co.

VICE PRESIDENTS :

B. R. HINCKLEY, Waukesha Co. H. L. DOUSMAN, Waukesha Co.

HONORARY VICE PRESIDENTS :

H. L. EATON, Richland Co. N. H. WOOD, Columbia Co.,

W. C. WHITE, Kenosha Co. C. H. WILDER, Rock Co.

L. PERROT, Outagamie Co.

SECRETARY :

D. W. CURTIS,

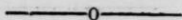
Fort Atkinson, Wisconsin.

TREASURER :

H. C. DRAKE,

Jefferson Co., Wisconsin.

CONSTITUTION.



ART. I. The name of this organization shall be, the Wisconsin Dairymen's Association.

ART. II. The officers of the Association shall consist of a President, two Vice Presidents and a Secretary and Treasurer.

ART. III. The President, Vice Presidents, Secretary and Treasurer, shall constitute the Executive Board of the Association.

ART. IV. The officers of the Association shall be elected at the annual meeting, and shall retain their office until their successors are chosen.

ART. V. The regular annual meeting of the Association shall occur on the second Tuesday of Feb., in each year, at such place as the Executive Board shall designate.

ART. VI. Any person may become a member of this Association, and be entitled to all its benefits, by the annual payment of one dollar.

ART. VII. The Executive Board shall have power to call special meetings whenever, and at such places as in their judgment its interests so demand.

ART. VIII. The officers of the Association shall perform such other duties as usually devolve upon the officers of like Associations.

ART. IX. The Treasurer, shall have the custody of all monies belonging to the Association, and authority to pay out the same whenever an order is presented, signed by the President and Secretary.

LIST OF MEMBERS 1875.

— 0 —

NAME.	POST OFFICE.	NAME.	POST OFFICE.
C. Hazen,	Ladoga.	Wm. Galloway,	Whitewater,
H. Smith,	Sheboygan Falls,	H. C. Douseman,	Waterville.
Cornish & Curtis,	Fort Atkinson,	W. C. White,	Kenosha.
J. Folts,	" "	J. LeFevre,	Eagle.
W. D. Hoard.	" "	J. Schrooten,	New Cassell.
H. Merriman,	" "	B. R. Hinkley,	Oconomowoc.
J. McPherson,	" "	C. Snashall,	Evansville.
Thos. Brown,	" "	J. Wilson,	Black Earth.
W. E. Church	" "	A. Logan,	Delevan,
T. Blanchard,	" "	A. Chipman,	Sun Prairie:
Benj. Holmes,	" "	Skidmore & Lightbody,	Stockbridge.
W. F. Prosser,	" "	B. S. Hoxie.	Cookville.
A. D. Faville,	Lake Mills,	P. M. Cole,	Darien.
H. C. Drake,	" "	Geo. P. Winter,	Markesan.
M. Bennett,	" "	T. Stole Jr.,	Genesee.
R. bt. Thomas,	" "	R. Robertson,	Oakland.
Wm. Everson,	" "	Q. C. Olin,	"
C. J. Millard,	" "	O. Pixley	"
N. M. Seward.	" "	F. Shultis,	South Genesee.
T. K. Potter,	Cambridge.	G. R. Talbot.	Juneau.
Dow & Doolittle,	" "	S. T. Holsington,	Farmington.
J. S. Bench.	Whitewater.	G. R. Holsington,	"
R. McCutchin,	" "	D. M. Aspinwall.	"
J. Greenwood,	" "	C. W. Hayden,	Jefferson.
W. D. Stowe,	" "	E. H. Seward.	Marengo, Illinois.

ESTABLISHED 1865.

E. E. Bolles & Co.

Manufacturers of

**WOODEN WARE AND COOPERAGE,
WEST DEPERE, WIS.**

Our facilities enable us to supply

Butter Factories, Dairymen and Butter Packers

—WITH—

BUTTER PACKAGES

Of all kinds and in all the sizes

At the Lowest Possible Prices.

BUTTER PAILS,

Oak or Ash, a very convenient and handsome package, will hold
25 pounds.

BUTTER TUBS,

No. 1 will hold 75 pounds. No. 2 will hold 50 pounds. No. 3 will hold
25 pounds.

E. E. BOLLES & CO.,

West Depere, Wis

HEADQUARTERS FOR
Cheese Factory Furnishings.

MILK CONDENSING APPARATUS.

Over 100 sold in 1874 and highest premium awarded 2 years in succession at the American Institute Fair, New York, at New York State Fair, Pennsylvania State Fair, also at Ohio, Indiana and Illinois.

HIGHEST PREMIUM BOILERS, ENGINES, VATS, &c.,
FRENCH BURR STONE GRIST MILLS, the best.

Fairbanks' Scales---Extra Inducements.

We will ship promptly when ordered.

GANG PRESSES, SCREW PRESSES,

Rennet's the best in use with receipt for preparing.

PATENT CURD KNIVES—Lower than Ever Before

CURD MILLS, CURD RINGS, CURD SINKS.

RENNET AND ANNATTO JARS, THERMOMETERS.

ALL GLASS AND TIN GOODS. AND CHURNS.

Trimmings for Milk Cans.—The Best.

New Style Factory Account Books,


Rennets. Salt, Annattoine, Annatto, and Annatto Seed, Bandage, &c.

CHEESE BOX HOOPS, RIMS & HEADINGS,

1,000,000 already sold for 1875.

Dairy Paper, "THE UTICA HERALD."


IRON PIPE, HOSE, BELTING, &c., &c.

As we manufacture and also import our goods from Europe, WE WILL NOT BE UNDER-SOLD. Our Goods are the BEST IN THE MARKET.  TERMS LIBERAL.

SPECIAL.—On Bandage and Rennets, Fairbanks' Scales, Curd Knives, Boilers and Engines and Iron Pipe, we can do much better by our customers than any other parties in the trade. Receipts for making cheese, &c., &c., furnished.

Whitman & Burrell,

LITTLE FALLS N. Y.

[ Send for our new Illustrated Circular for 1875, the handsomest and most complete of any ever used.]

FRANK STURGES & CO.

We beg leave to call attention to the Sturges Milk Can, here shown, as being the MOST PERFECTLY CONSTRUCTED CAN in the market for the



Carrying, Cooling and Keeping of Milk.

In many sections of the West, notably in the Elgin, Illinois region, factories have adopted this Can exclusively, in place of the larger ones. It is much more convenient to handle, one person being able to manage. We have a full stock of the celebrated

Champion Can Trimmings,

20 to 50 gallons.

Frank Sturges & Co.,

Manufacturers of

Stamped and Japaned Tin Ware,

Importers of Milk Cans and Cheese Vat Stock,

72, 74, 76 Lake Street, Chicago, Ill.

CHEESE BOXES.

The Whitewater Manufacturing Co.,

Are now prepared to receive orders for furnishing

CHEESE BOXES,

For the season of 1875.

WE USE ONLY CAREFULLY SELECTED MATERIAL,

Manufacture large quantities daily. Our machinery the very best in use. All sizes and styles to suit customers.

Boxes Warranted in every Particular,

Our facilities for manufacturing Boxes unsurpassed in the State.

CORRESPONDENCE SOLICITED.

Address

WHITEWATER MANUFACTURING COMPANY,

Whitewater Wis.

Dr. Bridges' Cleansing Powders.

An infallible remedy for Garget Fever, Milk Fever, Abortion, Hollow Horn, Bloody Murrian, and all diseases incident to

CATTLE AND HORSES.

Has given the most unbounded satisfaction. Never known to fail:

REFER to W. C. White, Kenosha, Wis.; J. Boies & Son; E. H. Seward, P. Pringle, Marengo, Ill.; F. W. W. Wright, Elgin, Ill., and all who have tried it. Send for Circulars.

Manufactured only by

W. C. STEWART,

Marengo, McHenry County, Illinois.

CHEESE BOXES.

The undersigned has made arrangements for manufacturing Cheese Boxes on a very extensive scale for the season of 1875. By means of new machinery, just put in, I am able to make a

Better Box at a Reduced Price,

And at a large increased rate. Using none but the best of material, planing, tonguing and grooving all my heads, I make a very tight box. On account of the great Rail Road facilities here, being able to ship five different ways without reshipment from one road to another, I am able to reach a large portion of the Northwest with low freights, making it to the advantage of Cheese Factories to purchase at this Factory. Please write for prices before ordering elsewhere.

G. B. LEWIS,

Watertown, Wisconsin.

WHITE & DOUGLAS, BUTTER, CHEESE AND HOPS,

No. 76 BROAD, and Nos. 10 and 12 MARKETFIELD STS.

NEW YORK.

Established in 1841.

Correspondence with Cheese Factories is Invited.—P. O. Box 1234.

JOHNSON & JONES,

70 & 80 West Water St. Milwaukee Wis.,

DEALERS IN CHEESE,

Have on hand at all times, Whitewood Scaleboards and a supply of well cured Rennets. Also, a very superior article of FLY-PROOF CHEESE GREASE which has been thoroughly tested and has given universal satisfaction.

THE DAIRY.

Third Annual Meeting of the Wisconsin Dairymen's Association.

ACCOUNTS OF THE PROCEEDINGS—ADDRESSES—REPORTS—DISCUSSIONS.

Previous Meeting of the Association.

THE Wisconsin Dairymen's Association met for the purpose of holding its annual convention, at Ft. Atkinson, on February 3d and 4th. In consequence of the severe storm which had blocked up the railroads, but few members of the association were present. An organization was perfected, Vice President Dousman presiding. In consequence of the executive committee of the State Agricultural Society being in session at the same time in Madison it was thought necessary to appoint a committee from this association to confer with the Ex-committee of the State Agricultural Society relative to the holding of a dairy fair in connection with the next state fair. The following committee were appointed: B. R. Hinkley, Oconomowoc; W. C. White, Kenosha; D. W. Curtis, Fort Atkinson; Chester Hazen, Ladoga, and Hiram Smith, Sheboygan Falls. Messrs. Hinkley, White and Curtis being present, constituted a majority of the committee. A plan was drawn up for the apportionment of premiums on butter and cheese, the committee to confer with the Ex-committee of the Agricultural Society and report the result of such conference in two weeks.

The convention then adjourned, to meet in two weeks, on Wednesday and Thursday, February, 17th and 18th, at Fort Atkinson.

1875
SECOND MEETING.

The adjourned meeting of the association took place in the Congregational church in Fort Atkinson, Wednesday, 3 p. m., February 17th, 1875. The blocked condition of the railroads and highways prevented a full attendance, but the meeting opened with a very fair representation of the dairymen of the state as well as those living in the immediate vicinity of the convention.

The meeting was called to order by Secretary Hoard. In the absence of President Hazen, Q. C. Olin, of Oakland, was elected president pro tem.

Geo. W. Burchard, Esq., appeared for the President of the village and welcomed the convention in a short speech and right to the point. He spoke of the growing interest in dairy matters and thought that such occasions are of the greatest value to the community at large. He was glad to see the dairymen come together, and would assure them of the full and open hospitality of the people of Fort Atkinson, and he hoped that the members of the association would have a pleasant and profitable convention. In the absence of President Hazen and a number of other prominent members of the association, it was thought best to vary somewhat the regular programme, and accordingly the question of butter making was taken up and discussed at length. O. F. Pixley, of Oakland, was called upon and gave an interesting statement of his manner of conducting a butter dairy. He thought making butter in the winter the most profitable; sees to his own making and care of his cows; uses a square box churn, with a shaft running through the center, churns 15 minutes; had rather churn a half hour because he thought quick churning injured the grain of the butter. He does not wash his butter and uses Ashton salt, and when salted sets away 24 hours; it is then taken and worked till brine comes clear; it is then packed in small packages, and shipped into Chicago. The lowest rate at which he sold the past winter was 35 cents. He thought that in this section every farmer should engage in dairying. It is the safest and surest, and he does not think it can be overdone. He had noticed in his own case he had never been able to meet demands against him with the ease that he had since he went into dairying. He took milk to the cheese factory in the summer. He colored his butter with carrot-juice, and fed clover hay, sugar beets, and bran in the winter. He raised 800 bushels of beets, and 150 bushels carrots on 149 rods of ground, at an expense of \$25. The net price for butter during the winter was about 32 cents, and he realized on 20 cows last season, including calves, \$50 per cow. He believes strongly in feeding bran, and in high feeding generally. In reply

to an inquiry from C. J. Millard, he thought it would pay to buy feed for cows and pay the present prices.

C. J. Millard, of Lake Mills, was called upon; Has kept 24 cows; last season made butter alone. The average earnings of the dairy per cow was \$63 for the entire year. His butter realized an average price of 29 cents; total amount made 220 pounds to the cow, or 5,265 pounds. The hay he fed was marsh, timothy, and clover. Believed cut feed would be profitable. Sold butter in Chicago at prices varying from 25 to 40 cents. Believes that it is the most profitable to make butter in the winter. Had used sowed corn; thought it an excellent substitute, in times of drouth, for grass; thought it was highly profitable to grow for winter fodder.

At this point in the discussion, President Hazen made his appearance, having been detained by a snow-bound train. He proceeded to deliver his annual address, having been introduced to the audience by the president pro tem.

PRESIDENT'S ADDRESS.

LADIES AND GENTLEMEN:

Custom, among associations of this character, has attached a penalty to its officers, in such a manner that it seems quite difficult to escape it, and often more so, to satisfy its demands.

That of the presiding officer, as appears in our programme, is to be an opening address.

The cordial welcome we have received from our friends and co-laborers in this enterprising village, located in the valley of the Rock river, one of the finest streams of water in the state with its magnificent water power and enterprising manufacturies and mercantile facilities surrounded as it is by as rich farming lands as can be found in the northwest, with its well improved farms, commodious and comfortable houses, barns and out buildings well adapted to dairy husbandry, it seems to me, ought to be a sufficient stimulent or guarantee of a very pleasant and profitable meeting.

This is the third annual meeting or reunion of the Wisconsin State Dairymen's Association. The third time it has been called together as an organized body.

Considering the time we have been engaged in this enterprise, we have made a fair beginning; and have made steady and rapid improvement both in quality and quantity in our dairy products. Such progress as I trust has met the expectations of most of our members.

The third time we have had an oportunity of meeting and greeting our brother dairymen in a convention where we are all mutually interested, socially, educationally and financially.

Socially, the farmers or dairymen as a class have the least opportunities to visit with their neighbors and friends, to cultivate their social faculties of any class of people in the land. They are by locality so isolated, and the cares of the dairyman are so numerous and of such a nature, that it is necessary for him to be at home at morning and evening during the entire season; that it in many instances almost excludes him and his family from enjoying the social privileges that human nature requires.

To educate ourselves up to the standard of the present times in the profession of dairy husbandry, and the manufacture of butter and cheese, suitable for the present markets of the world, are the principal objects or motive power of this association.

In order to bring the various questions pertaining to our special interests before the convention, our executive board has prepared a programme of topics for discussion, and selected gentlemen of experience and ability to open; each discussion to be followed by a general discussion and interchange of experiences and ideas after each topic is brought before the meeting.

The marked improvement that has been made in the quality of our dairy products, since the organization of this association, is a sufficient guarantee for the future success of our dairy institutions, if we persevere in our labors of investigation.

I hope to see the time when the quality of our Wisconsin butter and cheese will all come up to the standard of excellence of the very best we are producing at the present time, and when our dairy products will be second in quality to no state in the Union.

We have as many natural advantages as any other state, and if we fail to take a position among the first, it will be for the want of experience, energy, and a more thorough knowledge of our business.

Financially our association and boards of trade have been a success.—at least, all that we had any reason to expect. The improved quality and increase in quantity of our goods has been a sufficient inducement to dealers from the general markets of the land to attend our boards of trade and come to our factories to buy our goods.

Notwithstanding the past season was an unfavorable one on account of the extreme dry weather in July, August and part of September, we had an average yield of milk, and our cheese was generally of good quality, and sold for fair remunerative prices. On the whole I think the dairy paid much better the past season than wheat raising. The dairy products of Wisconsin, the past season, will amount to about 13,000,000 pounds of cheese from three hundred factories. In 1863, it was about 10,000,000 pounds of cheese. I believe the dairy products of the U. S. exceeds in

value that of any other branch of agriculture. The corn crop is the only one that has equaled it for a number of years, and with the light crop last season, I think we are warranted in placing the dairy products at the head of the list. The United States census since 1850 shows as follows in number of cows:

1850.....	6,385,564
1860.....	8,581,781
1870.....	11,008,925

Allowing the number to increase at the same rate the past four years and we would have at present 12,000,000 cows in the United States, equal to one cow to every $3\frac{1}{2}$ persons of our population. We will make an estimate of the value of dairy products by placing the value of each cow in milk, cream, butter and cheese, at \$50, and we have a total of \$600,000,000. I think \$60 to the cow would be a fairer estimate, which would aggregate \$620,000,000 per annum. With this vast amount of dairy products to be sold and consumed annually, many of our farmers who have not given this subject a thorough investigation would naturally think there was danger of the dairy business being over done. May be there is. We are certainly producing large quantities of those goods. Let us look at the other side of the question a short time. When we consider that the increase in population is nearly or quite equal to the increase of dairy products, and that of the foreign demand for butter and cheese is still more, in connection with the facts as they are becoming developed, that one pound of cheese contains as much nutriment or animal food as two pounds of beef, and that cheese can be manufactured in Wisconsin and shipped to Europe and sold for one half of a pound of beef reducing the actual cost of animal food three quarters or 75 per cent in England and 50 per cent in our own large cities and towns, I think the prospects are favorable for fair prices for our goods for some time yet. As regards the supply of dairy products, there has been a steady increase since the factory system of making butter and cheese was introduced. But the supply has not exceeded the demand yet. When it does it will have to come from the northwest. From this source I think we need have no fears at present. Should the whole or a majority of the grain farmers in the northwest substitute the dairy very suddenly in the place of grain it would be very likely to affect the price of our dairy products to some extent. But I think there is no danger of that at present. The first, and greatest reason is, dairying don't pay well enough, and there are but a small portion of their farms that are in a condition to make dairying a success, and again raising grain on our broad acres of rich prairie lands is paying the farmers too well for a very large portion of them to substitute the cow in its stead.

But a small portion of our farmers are adapted to the dairy business.

The western farmers are most of them fast livers, and want to make money faster than can be done with the dairy. They can't make up their minds to be confined at home to attend to milking their cows, every morning and evening during the season. There is too much work about it, too much responsibility.

Such remarks are often made by our grain farmers and there is a good deal of truth in them.

The facts of the case are about these: The dairyman is compelled to labor more hours in a day, and more days in a year, than any other class of agriculturalists.

But if he labor intelligently, working with his brain as well as his hands and perseveres, he will be pretty sure to succeed.

Grain raising has been very successful in the past, but cropping our lands for an indefinite number of years, will impoverish the soil and the time is coming when many of the western farmers must substitute some kind of stock in place of the grain. Return some equivalent to the soil for what has been taken off. They cannot always continue to sell their lands by the bushel, and pay freights on it to the seaboard. But instead they might condense their products, so they can afford to pay the freights. Much complaint has been made about high freights to the Atlantic coast, and perhaps justly so. But it must be borne in mind that we are a long distance from the seaboard and transportation by railroad must necessarily be expensive. But I hardly think the transportation companies would be willing to divide their profits equal with us, on our grain that is shipped over their roads. That is, they would not be willing to work for the wages we are compelled to work for, except the interest on the money actually invested, that we do, neither would their employes labor for the wages that farm laborers get.

If farmers were obliged to pay their laborers the wages the railroad employes get it would bankrupt any farmer in the state in less than three years.

As one of the remedies for high freights, I would suggest, that the grain farmers condense their farm products more than they have been doing in the past, into butter, cheese, pork, beef, wool, &c. Such products as they can afford to pay the freight on.

A few suggestions to farmers that are thinking of substituting the dairy for grain raising.

It will take some time to change a grain farm into a dairy farm. It has to be stocked down with the cultivated grasses, fences, build stables for the cows, and it would take several years to collect a choice dairy of cows.

It is useless to think of making the dairy pay by keeping a lot of ordin-

ary, or even good cows, in the way many of our grain farmers are in the habit of keeping their stock, which is often by letting them run around the straw stack in the winter, which answers for several purposes, for a barn, shed, stable, bedding, hay, and grain. Give them a foddering of hay, occasionally, say once a day most of the time, with sometimes water for them and let them eat snow the balance of the time, and come out in the spring thin in flesh; then pasture them in openings and marsh pastures, which in Wisconsin is wild or native grasses; or as Willard would name it, Buffalo grass, with no extra feed through the summer, add no provision for green feed in dry season; milk them irregularly, and by poor milkers, and it will not pay expenses. Such dairymen as I have described must invariably have cows for sale.

The aim of a good dairyman should be to excel or take the first rank in his profession. In order to do so, first select the best dairy cows you can possibly find, then with good comfortable stables, yards and pastures, (cultivated grasses are much the best) plenty of pure water, regularly fed both summer and winter; milk them at regularly steady times, get good milkers (there is more depending on good milkers than most people are aware of) and feed well. As a rule, the better cows are fed, the better they will pay.

It requires a certain amount of food to sustain the animal functions. What is fed over the amount, a good dairy cow will always pay for in milk. If regularly fed and milked and properly cared for, there has not been a season in 20 years in Wisconsin that such a dairy would not pay well for the capital and labor invested, and it is my opinion there will not be for 20 years to come.

The factory system of manufacturing butter and cheese has been the principal cause of the unprecedented improvement in our dairy products, both in quality and quantity, and has proved a blessing to the dairy husbandman.

Agriculture has existed since the world began. It is the oldest profession now in existence; it is the only indispensable one; it is the last one that can be dispensed with. The agriculturalists feed the world; they are the world's benefactors, and can truly be called nature's noblemen.

Dairymen stand in the front rank of the agriculturalists in America.

Let us elevate our standard to the position it rightfully belongs, and maintain it by adding influence and dignity to our calling.

After the delivery of the president's address, the convention took up the subject of curing rooms for cheese factories, which was quite thoroughly discussed. Mr. Q. C. Olin, of Oakland, gave a full description of his fact-

ory, which is one of the best in the state. The building is of wood, 30x50 feet, three stories, with hollow walls, which are filled with tan bark; cost of building, \$3,000 in 1870. He would strongly recommend the use of blinds to all windows. With such a room he could hold the temperature to an even rate of 70 degrees in the hot weather. He believed that the ease with which they held their cheese at a stable temperature was wholly due to the manner in which the curing room was constructed, and to this he ascribed the reason his cheese cured slowly, and as a consequence mildly. Several questions were asked of Mr. Olin, and it was evident the convention deemed this one of the most important topics before it. The following communication from Mr. J. G. Pickett, of Winnebago county, was read by the secretary:

W. D. HOARD, SEC'Y W. D. A.,

DEAR SIR.—At the Fond du Lac convention, we suggested the idea of erecting underground rooms for curing cheese in hot weather. We have the past season erected a stone and brick factory at this place. The basement is excavated in a side hill in dry ground. The front of the basement being used as a work room, with vats, presses, &c. The rear of the basement being used for a "hot weather curing rooms," and is capable of holding about 250 cheese. The experiment has given entire satisfaction. The temperature at no time going above 75°, The room is well ventilated, and during damp weather, a little fire is kept to prevent cheese from moulding. All our cheese is kept in the basement 'till about 15 days old, when they are elevated to the second story, and from there to the third, where the curing process is completed. We think the character of a cheese is determined by the time it is 15 days old, and that no cheese, however perfect it may be manufactured, will be a perfect cheese if cured in a temperature anywhere near a hundred degrees, and this temperature is often maintained in curing rooms made of wood and built above ground. I think it possible if milk is delivered at the factory in good condition, to make as good quality of cheese in July and August if cured underground, as we make in September and October, in the usual way. In November, we sold a large amount of cheese, among which was cheese made in each of the six previous months. We, of course, lost heavily by shrinkage; but the flavor was not objectionable, and I am satisfied that we lost far less in shrinkage and flavor, than if cured in the usual way. The basement also makes an excellent room for storing, during the winter, when it is desired to hold cheese 'till spring. The main idea in erecting curing rooms, should be, to be able to so control the temperature, that cheese will really cure, instead of being baked, whether built above or under ground. Our building is of stone and brick, 30x50, three stories in height, 10 feet between floors. Has a stucco finish throughout, and is painted and grained in as good

shape as is usual in first class buildings, and cost \$3,000.

J. G. PICKETT.

Messrs. McCutchin, of Cold Spring, and Talbot, of Juneau, also gave interesting descriptions. The latter spoke well of an underground room for curing in hot weather. President Hazen followed in the same line. Secretary Hoard spoke of the value of blinds to keep out the light. In hot weather a dark room was always the coolest. D. W. Curtis stated that building paper was a non-conductor of heat, and a good thing to be used in the walls of a factory. It was also an excellent material to be used in covering ice houses.

WEDNESDAY EVENING.

The evening session opened with a large audience, the people of the village showing their appreciation of the topics discussed, by attending in large numbers. The subject of shipping cheese and the responsibility of commission merchants was thoroughly discussed, it appearing that several of the members had been "nipped" by a Philadelphia house.

Mr. George Burchard, Esq., a lawyer of quite thorough legal attainments, who was present, was asked to what extent commission merchants were responsible for goods sent them. He stated that they were considered in the eyes of the law as agents for the consignors, and were not responsible in any other sense. Individual character and commercial integrity, were the principal guarantees of honest transaction. There were many houses who had no capital for advances, and who merely opened a cheap office and sent out their circulars, the producers, in many cases, falling an easy prey to their flimsy presentations. He strongly cautioned dairymen against consigning goods to parties merely on their personal representation of responsibility.

Following this came an informal talk upon the handling and feeding of cows.

W. C. White, of Kenosha, gave one of the most interesting talks of the evening. He is one of the oldest and largest dairymen in the state, and has a dairy of 70 cows, and fine buildings. He aimed to treat his cows with great gentleness. He never allowed a cow to be struck or kicked, no matter what was the provocation. His hired man would as soon strike him as one of his cows. He fed largely of corn in the shock, and stabled in rows facing outwards. He stabled 70 cows in one barn which is thoroughly ventilated. The season commences with him the 1st of April and closes January 1st. Feeds well during the summer, and never misses a feed. He sees to it that the cows are kept warm. Every one can make from 500 to 600 pounds of cheese in the season, if they care well for their cows and feed well; a few years ago he made 657 pounds of cheese to the

cow. The same season he paid a neighbor \$556 for the milk of of eight cows at the rate of 14 cents for ten pounds of milk. He came to Kenosha county 18 years ago, and commenced to make cheese, and gave a very interesting account of his early experience in dairying. Everybody told him he could not make good cheese, but he had proved to his neighbors to the contrary. The most cheese he ever made per cow in Vermont was 600 pounds: while in Wisconsin he had made 657 pounds per cow from a dairy of 75 cows. He believed he could take 40 cows from his dairy and make from them 800 pounds each. In reply to an inquiry of J. T. Perkins he thought three quarts of meal a day would not alone support a cow, as is reported concerning a dairyman in western New York. He fed some oil cake during the winter. He raised his cows and thought the excellence of the cow depended much upon her treatment when a calf. In answer to an inquiry how he fed corn to his cows he replied by saying he fed corn in the shock. He grew 35 acres of corn for 70 cows; the corn was planted 4 feet apart north and south and a foot apart in each row. It was cut up early and laid down, then bound in bundles and fed without husking; he thought the stanchion the safest method of fastening cows in the barn. His cows all looked well and were happy.

Mrs. E. P. Allerton, of Lake Mills, then read the following essay upon the "Dairy factory system—a blessing to the farmer's wife."

ESSAY.

Formerly dairy work was a private enterprise, a family affair, which nobody outside of the domestic circle had any business with. There may be some here to-night who do not know how it was done. Under the new improvements old methods lie buried out of sight, but it is well to dig them up now and then, if only that we may enjoy the the contrast.

There were various ways of turning out home-made cheese. The simplest and most primitive was after this fashion: The milk and whey were heated in the kitchen boiler; the curd was set in a tub, and drained off through a concern that was called a "cheese ladder." The press was a lever wedged under a beam of the wood-shed, with a big stone on the end for the power, and the cheese for a fulcrum. To a student of Comstock, the object would appear to be the prying up of the wood-shed, but no, it was to press the cheese.

It was not usually managed in that way, nor after so small a pattern. In many farm houses the dairy work loomed up every year, a mountain that it took all summer to scale. But the mountain is removed; it has been hauled over to the cheese factory, and let us be thankful time does not hang heavy on the hands of the farmer's wife now that it is gone. She does not need the dairy work for recreation.

In these days of progress, it is a great deal of work to live. As civilization advances, existence is by no means simplified. Life on the farm, as well as everywhere else, grows more and more complicated, as it advances farther from the plainness of the pioneer. As the country grows older, luxury comes in with no end of added care and trouble. Simplicity folds her tents like the Arabs, and steals away, and we are left to bear our multiplied burdens as we can. There is no use pining for the old times and scolding about the new. Such as they are, they are; they are upon us and we have only to make the best of them.

Upon the farmer's wife the new conditions press heavily. So many things are expected of her, which were not in the good old simple days. At first sight it might seem that our grandmothers had the worst of it, but it is often necessary to look twice in order to see the truth of a thing. Our grandmothers scrubbed floors on their hands and knees, but there was usually but little floor to scrub. They spun and wove the cloth for their own clothes, and then made them up by hand; but their garments were few and they lasted long. Overskirts and ruffles and flounces and tucks and folds were not necessary to respectability. A dress was made up then, and had a shape to it. Now it is a complicated piece of patchwork, over which we

"Stitch, stitch, stitch,
Till our eyes grow heavy and dim."

There is the sewing machine, but even that has abetted the tyranny. Before it came in, sewing was a straight forward affair—merely a question of seams and hems. Now so many things have got to be stuck onto a garment that it is more work to get it ready for the machine, than it used to be to make the whole thing by hand. Formerly, "dressing up" was reserved for special occasions. Now the farmer's wife who sends her daughter to the village school, must keep her fit for church all through the week.

It amounts to little to berate what is customary. We may cry out against it, yet few of us have independence enough to swim against the stream. None of us like to be stared at as oddities if we can help it, or be sneered at as falling behind the times. But all these things make work, and there is no denying that we, children of our grandmother's as we are, have become degenerated as to physical strength. They did everything themselves, and we look back and admire them, and wish we could; but we can't. Really, they had less to do than we have, and they were a great deal stronger.

It may be asked what all this has to do with the dairy-factory system. A deal—everything. The fact once established that the farmer's wife has her hands full and more, so that her cares weigh upon her like Sindbad's Old

Man of the Sea, it is clear that any benevolent giant who will step up and lighten her load, must come as a blessing. The dairy factory is that giant. So many aching shoulders bowed and bent, have grown easy and straight since the cheese factories have sprung up all over the country. There is work enough left yet in the average farm house, but the long, hot summer's toil, so wearing heretofore to dairymen's wives, is shorn of half its dread. It is customary, or rather it was, for writers upon country life to expatiate upon the cool dairy room of the farm house, with its rows of nice cheeses, smooth and fragrant, or its long tiers of shining milk pans and its firkins of golden butter, and the womanly pride of the housewife in showing them. This is the poetic side of the picture. But turn it over once more. Look at that same housewife straining every nerve to make both ends of the day meet. Behold her, as I have in more than one instance, performing the various functions of milk maid, house maid and dairy maid—yes, and of nurse maid, also, at the same time. Hear her say at dark that she had not sat down a moment during the day, except to take her meals, and that every bone in her body ached—that is prose, of the hardest sort. "She can hire help," says one. Yes, but unless she is blessed with better administrative ability than that of the average women, the more hired girls she has the more she has to wait on. If she has servants, she has got to rule them, and see that they do their work well. Easy enough to talk about, but not so easy in practice. But anything that takes the work off her hands and out of her sight, is a real relief to her. And that is just what the dairy factory does. To refuse to avail herself of it, would be much like insisting upon making her own table linen, or her own shoes, when she can buy a better article, and get it cheaper, or like grinding corn in the old Indian fashion instead of getting it ground at the mill.

To insist that each one should do everything himself, is to ignore all social dependence. A proper division of labor, and then every one to his trade, is an arrangement which forms the very corner stone of society.

Work hearty, honest work is a good thing for us all; but how much of it? that is the question. For my part, I think a little rest—a little blessed idleness now and then—is good, for a change. I hate to hear it said of a woman, "she is always at work." If she can't help it, she is to be pitied, and if she can help it, she is to blame. The calling of women as the center and keeper of a home, is a noble one, but it is less noble if she allows mere work to absorb anything else. Work is glorious; but to make it a god, and then fall down and worship it, is paganism. It is an idol that crushes its votaries as surely as the ear of Juggernaut. A wife should not forget that she has something else to keep clear of rubbish than the house she lives in. If there must be cobwebs anywhere, it is better they should

look in dark corners of the room, than in her heart and brain. If all a man wants in a wife is a mere housekeeper, he had better hire one and not get married. If he wants a companion, she must have a little lesiure now and then in order to be companionable. "All work and no play makes Jack a dull boy," is an old saw. All work and no recreation of any kind,—what does that make of a woman? A machine, a dumb automaton; but she will wear out some day. Lucky for her if she goes to pieces all at once and all in a heap, like the famous One-horse Shay.

There is work enough left yet. Allow me to repeat it, and I think I have also proved it. But there is no invention of modern times which has done half so much to lighten the load of the farmer's wife as that which takes the dairy work off her hands. All praise to him whose whose inspiration it was!

"Green grow the grass, light fall the snow,
Above his grave, where'er it be."

Or, if he isn't dead, may he live long in the land, and always have plenty of cheese.

THURSDAY MORNING.

The convention occupied the first hour of the morning session in discussing "the hot iron test in making cheese."

Mr. Talbot, of Juneau, stated that he had used this test for years. He would not know how to get along without it, especially in hot weather. His manner of using was as follows: He removes the curd from the vat as soon as acidulation commences. Does not stir the curd much in the whey, but stirs rapidly after puting in the curd sink.

As soon as the hot iron sticks to the curd remove the curd to the sink, souring it until it will string out in fine hairs on the hot iron. It is a necessary test in order to know when the right stage of souring is reached. He thought if the curd was held in the whey until sufficiently sour it would injure the flavor and texture of the cheese. President Hazen thought this a valuable point for discussion, and thought if the hot iron test was used more, it would be better for the general uniformity of our cheese. The skill of a good cheese maker is shown by the general uniformity of his cheese, and this test is a help in the right direction.

The subject of the "Dairy Cow" came up. Mr. E. H. Seward, of Marengo, Ill., gave a very interesting talk upon this subject. The fact is the cow is a machine for a definite purpose. First we want size, with large digestion. In breeds, he prefers the Durham when crossed with good native stock.

We want a cow low in legs, deep in the chest, and through the lungs a chance for a large flow of blood; this gives health. We want also a great

width across the loin, this shows large secreting power; the udder should set well up under the body, wide teats and wide quarters. The escutcheon or milk mirror should be wide; the wider the better. The hair should be bright, showing a healthy condition. He wanted also a deep shoulder; neck to come out large from the body, tapering finely to the head, the head fine and bony. The head should taper well down to a small muzzle; the skin should always show a yellow color, with a firm, soft feeling. A lively spirit is essential; good cows are not dull and are apt to be fractious and nervous if ill-used. Dairy men should look carefully to the comfort of the cow.

He would recommend a condition powder made in Ill. had found it the best remedy for sickness and garget. He found it successful in preventing abortion. In milk fever used a table spoonful once in fifteen minutes, followed with a pound of pork an hour after; then follow with the powder once in a half hour. The symptoms are, first, a kind of paralysis and tossing of the head. Had found it very useful in cases of over feeding. A cow showing a yellow skin with a yellow inside to the ear, indicates giving rich milk. He would like the hair on the milk mirror soft and firm. He thought a large cow on the same food would give the most milk. Some spirited discussion arose on this point. Mr. Seward maintaining that size was an important consideration.

W. D. Hoard maintained that the question of breeding should be pointed and specific. Let us breed sharply for milk and not divide our efforts and purpose between beef and milk.

President Hazen took the same view of the case. He instanced the fact of the shape of the Durham being square like a brick. She has not a dairy shape; the Jersey has a different shape, worth nothing for beef. The globules of butter in the milk of the Jersey are large and rise into cream rapidly and easily. The Ayrshire and Holstein show the fact that the globules are finer and do not rise so rapidly, consequently this breed is best for cheese. He thought the Ayrshire the best type of a general dairy cow. He wants a cow that will give the most milk (and of good quality) from a given amount of food. For such he would select a medium sized cow, of the particular breed; rather fine in the bone; a slim head and horns; a full plump eye; rather narrow between the horns; light, slim neck, and if neck drops down slightly in front of shoulder it will do no harm; rather thin, wedge shaped shoulders; light brisket; increasing in size back of shoulder, to make room for good sized lungs; large barrel; heavy loins, hips and hind quarter, light hams no objection; a square, broad udder, set well forward; in short a feminine shaped animal, which he could better describe in this way: The milk producing organs should be large and well developed, in proportion to the head, neck, shoulder and bones in the legs. He had

had Durham grade cows which were excellent milkers, but in his experience they did not hold out their milk as well. He had a pure bred Ayrshire cow six years old, which gave last season 8,500 pounds of milk. Had three-year-old Ayrshire heifers which gave 30 pounds of milk a day during the best part of the season. He found the Jersey cow tender and hard to keep. He spoke of the fact that a good cow would yield as much in one year as an average bullock would produce in beef in four years.

Mr. White stated that his dairy was composed of grade Durhams bred from a thorough bred male, and the best native cows he could find. He was strongly of the opinion that the way to raise good cows was to commence with the calf. Just as you handle and care for the calf so will be the result in cows.

Mr. Seward stated that the Ohio, New York and Canada importations of Durhams were good milkers, while the Clay or Kentucky importations were not good milkers.

Mr. William Everson stated that two car loads of cows were shipped from Lake Mills, last year, to Delaware county, New York. One lot were large grade Durhams, the other small native cows. The small cows sold much the best in New York. The dairymen there said they could not afford to support cows with large bodies for what they gave in return.

Further discussion on this interesting and valuable topic was discontinued, and the convention listened to the following essay on "Making and Marketing Butter." by M. C. Jones, of Ft. Atkinson;

MAKING AND MARKETING BUTTER.

There has been in some minds in the past year or two somewhat of a reaction in favor of butter as compared with cheese making. It is comparatively an easy way to get rid of milk, the most important product of many farms, to put it in cans and deliver it to a cheese factory once a day, leaving the making of the cheese, the advertising and selling of it to other hands but it may or may not be the method in which one can realize the most money out of a given number of pounds of milk. The difference in favor of butter as compared with cheese making is small if both are sold on the market. Any one thinking of changing from cheese to butter should consider well all the points pro and con before deciding that it is the best thing to do. It is only a few years since butter and cheese factories combined, using only the choicest cream for butter, that is, all that will rise the first twelve hours.

The result is that consumers who have used the fine product of the factories on their table, now demand a prime article.

Originally, if butter was negatively good with no disagreeable flavor the consumer was satisfied with it. But to-day it must be positively good.

That is it must be freshly made, of good color, not over worked so it is salvy, salted to their fancy be it more or less, and have the fine flavor which can only be produced by judicious care in the selection of cows and plenty of good food, good stables, &c.

The first thing necessary to the successful butter-maker is to begin right and keep right all the way through. Do not think the breed of cows is as essential as that they be good butter cows. Almost every breed has its admirers and all claim their superiority as butter cows, but from the fact that one cow, or one head of any breed excels in this particular, it does not necessarily follow that all of the same breed will equal it. It is an easy matter to test the milk by placing the milk of separate cows in the test glasses, and setting it at a temperature of 60° to 65°, and observing the amount of cream which will rise in twelve or twenty-four hours. Have seen a difference of nine per cent. in the amount of cream of two cows, both set at the same time, and subject to the same conditions.

When the proper selection of cows has been made it is highly important that they are fed abundantly with rich, nutritious food, good hay and grain during the fall, winter and spring, and good pastures in the summer. Last, but perhaps fully as important, they should be supplied with good, pure water. In this way, we can produce an article of milk, abundant in quantity and very rich in quality.

Regarding the construction of the creameries, or butter factories, we have the same difficulty that the cheese factories experience, that of regulating the temperature, probably the use of building paper outside and in leaving an air space of about 4 inches would answer the purpose very well. Also it should be well ventilated at the bottom and top. When one has a good supply of pure running water the temperature can be very easily controlled by its use, but in the absence of this I have used a wind mill with very good success.

The milk should be set in pans or deep cans at about a temperature of sixty to sixty-two degrees. I will not attempt to say which is the best, deep or shallow setting as each have their advocates, though the prevailing opinion among prominent eastern butter makers is decidedly opposed to the deep can system.

I use the deep cans only in the hottest weather in summer when I cannot keep milk at the desired temperature without them.

The milk should be skimmed as soon as it turns slightly acid which will usually take about three hours, provided it is kept at the right temperature. It is then set away for twenty-four hours, when it is taken and churned at a temperature of 60° in the winter and about 57° in the summer. After the butter has come into globules about the size of peas, which generally

takes from thirty to forty-five minutes, it is allowed to stand a few minutes, when the buttermilk is drawn off by means of a faucet or plug. A pail or more of water is then added, according to the size of the churning, and the butter washed. A second or third washing is sometimes necessary in order to extract all the buttermilk.

It is then taken out and placed on a butter worker, when the salt is worked in by means of a lever, at the rate of 1 ounce to the pound, sometimes more or less, according to the fancy of consumers. After being salted it is set away in a cool place for 24 hours, when it is taken and worked and packed. The most scrupulous neatness must be observed from beginning to end. All taints or odors of any kind should be strangers to the manufacturer of a fine article of butter. The firkins should be new, neat and clean, and be thoroughly prepared by soaking them in hot water, adding a little salt, for 24 hours. The butter should not be overworked, as we have stated, it must draw clean and be solid, and be perfectly sweet. Butter made as above will always bring a good price to the manufacturer, as there are always customers for a good article at a good price.

Following this came a general discussion on this topic. J. T. Perkins of Waterloo, made some very interesting remarks. He thought that butter making, properly managed, more profitable than cheese. He made a specialty of making butter and raising calves. He, the first year, raised twenty-five calves upon the sour milk of twenty-five cows. The second, or this last year, he had raised fifty calves upon the milk of the same number of cows, feeding in addition a little cooked middlings. He ships butter in what is known as the Philadelphia butter chest—makes the butter into pound rolls or prints and stamps his name on each print. He had found that this was a highly profitable produce. He exhibited the butter chest in question, which elicited much interest.

J. S. Beach, of Whitewater, said he had used the shallow pan for setting; the milk room was underground; made his butter winter and summer, and in winter kept his cows farrow, so as to milk them in the summer; was not able to state exactly the average of butter to the cow; estimated it to be a little over 200 pounds per cow; made his butter for the Sherman House in Chicago, at 36 cents a pound, for the year. It is good feeding that does the business. Feeds a peck a day of meal and bran. During June, July and August his cows averaged 26 pounds each; realize the last year from butter and pork, \$2,500, with a dairy of 25 cows; had milked cows two years and found them as good the second year; fed one winter on cooked feed; thought it profitable; thought we should make provisions for drouth in summer by soiling on either grain or dry food, thought a cow long fed upon the same food would not give as much milk as one taken

fresh and put upon high feed; thought in the summer it took about 23 pounds of milk to make one pound of butter.

THURSDAY AFTERNOON.

The report of the secretary and treasurer was read and adopted after which the annual election of officers took place, resulting in the election of the following named gentlemen for the ensuing year: President, Hon. Hiram Smith, Sheboygan Falls; vice presidents, B. R. Hinkley, Waukesha county, H. F. Douseman, Waukesha county; honorary vice presidents, H. L. Eaton, Richland county; W. C. White, Kenosha county; N. H. Wood, Columbia county; C. H. Wilder, Rock county; L. Perrot, Outagamie county; D. W. Curtis, Ft. Atkinson, secretary, H. C. Drake, treasurer, Jefferson county.

H. C. Drake offered the following resolution of thanks to the retiring president and secretary:

RESOLVED, That the thanks of this Association are hereby cheerfully and sincerely tendered to the retiring president and secretary, who have proved by their untiring efforts for its prosperity, their attachment to the general advancement of dairy interests, and the welfare of this association in particular.

The resolution was unanimously adopted.

H. C. Drake then proceeded to read an admirable essay upon "The Essential Elements of a Good Dairyman."

ESSAY.

The ease and facility with which character may be formed and moulded to any standard, is a fact which does not receive the consideration to which it is entitled.

This is called a dairyman's convention. We dairymen meet in this and similar organizations at stated times, aiming by mutual interchange of ideas to advance the general dairy interest.

We talk of the farm with all the details of its arrangement—the cow and her qualifications—the best and different modes of making, handling and marketing butter and cheese. We enter sometimes into sharp discussions upon all these minor questions, but how little is said about "The necessary qualifications of a successful dairyman;" why is this? Why is he who carries in his head the brain power which guides, directs and controls, in all the details, the entire establishment, and under an overruling Providence brings final success or failure, so completely ignored. Does it not savor a little of a self-righteous disposition? Are we not in effect saying, "is not man the Lord of creation and therefore about perfect?" Judging from the many miserable failures which we see about us, I conclude he is far from

it. That man is capable by culture and training to adapt himself to the circumstances of his particular life is undoubtedly true, but the facts are, men as a general rule do not like to look at themselves. We do not like to expose even to our own view the weeds and thistles growing in our mental and moral structure; to engage in the work of extermination. We had rather cultivate the earth's surface than the hidden recesses of our own nature. In all our efforts for the improvement of our farms and stock we do well. This we ought to do, but not to leave the other undone. Universal law controls the created universe, and man if disposed to act in accordance with those laws and improve and cultivate the forces of his nature, is capable of an improvement entirely beyond our present power of comprehension—but if those forces are abused or neglected he may retrograde to as great an extent. If then, we choose any particular avocation as a life business, we should try and cultivate those especial traits of character, needed in its successful pursuit. Dairying, certainly, is no mere pastime—a mere shift to fill up the insterstices between other kinds of business. It is not dairying this year, and hops next, and tobacco or grain the next. From its very nature it must be a permanent business, requiring some capital, a farm with proper capabilities, some experience and a determined, persistent will. It is a lack of a proper understanding of this peculiarity of the business, which causes failures in it. This is the reason so many are asking continually "will it pay?" They do not engage in it bound to make it pay. Hence a pre-requisite to final success, is a firm unwavering disposition, laying aside all visions of quickly acquired wealth, of large and extravagant profits in one year, as sometimes in other business. He must be content with moderate, but sure accumulations. Again, he must thoroughly understand his business in all of its details, and be awake to the competitive influences which surround him.

This is a age of intense competition. The whole Yankee nation as a nation, appears to be engaged in a wild rampage after wealth. A reckless greed for gold has taken hold upon almost the entire national mind, and success in any one given direction lies only through a skillful battling with those powerful selfish influences which surround us. No branch of farming has made more rapid progress towards perfection than dairying. Dairymen as a class are investigating and experimenting largely, and constant improvements are being made in process of manufacture—in the machinery used, in the mode of handling dairy stock, and he who would keep pace with his neighbor must not adhere with too much tenacity to the good old ways of the past, and do things as of old simply because his father did. He must be progressive; willing to take any and every "new departure" proven to be a shorter and better road to final success. Another absolute necessi-

ty is a willingness to subject himself to daily application and personal supervision of details. Farm life, and especially dairy life, consists very much in dealing with what are individually considered trifling matters, but together form an immense aggregate. A dislike to this continual confinement, as it is called, is the prime cause of the aversion and dislike to dairying which is so nearly universal at this time. This attention to detail, however, is absolutely necessary, and in connection with a fair executive ability will ultimately succeed. Continued, well directed and persistent effort in any given direction is almost sure of final success. The dairyman, especially if he manufactures his own cheese, and expects to get the most for his production, must go beyond the home market—must go by as many as possible of the middle men which stand between him and the consumer. He has, therefore, a wide range of markets in which to operate, and is brought much in contact with the outside business world, and must have at least a fair business ability. And again, he must be a humane man, allowing no abuse to, and delighting in the comfort of the herd under his care. Too much cannot be said against the cowardly practice of some, of wantonly and abusively rendering to dumb beasts because incapable of resistance and retaliation, that inhuman treatment which they dare not render to their fellow man and equal. President Chadbourne, of Williams college, concluded that feelings towards man are transmitted through generations of animals, and that it therefore becomes not only our duty but our interest to treat them kindly. Again, here, as everywhere else, economy is necessary. Economy in everything, in all the expenditures of the farm, in fences, in buildings, in applying work where it will bring the best results, and in ornaments—yes in ornaments, for I believe decidedly in ornamenting our homes. I believe in making them attractive. Attractive to our friends that we may have the benefit and pleasure of their society; attractive to ourselves, that we may spend more time in them and less away from them; to our sons and daughters that they may love and cherish the home of their childhood, and be less disposed to wander from its hallowed influence and subject themselves to the temptations of wicked life. Economy in play and amusements. We should mingle more recreation with our work. This constant struggle after wealth; this fret, worry, fume and excitement is the curse of the nation.

We are an over-worked people, and let us have more time to recuperate, to build up our tired and weary selves, that life may be brighter and more happy, and that we may add not only to the beauty, but to the length of our days.

This subject was further discussed by W. D. Hoard and J. S. Beach.

A vote was taken instructing the committee appointed at the meeting, on February 3—4, to continue in existence, and to take such action in the matter of a dairy fair next season as they may deem best. On the question of the handling of milk, Mr. Hazen spoke of the value of properly areating and cooling. He would consider it worth a thousand dollars, annually, to him if his patrons could always be persuaded to properly cool their milk. Several other factorymen spoke in corroboration of the value of this practice, and the loss which must necessarily accrue to their patrons, when any one of the members handles his milk carelessly.

The following report from the committee appointed to examine the various dairy utensils was read and adopted;

The committee appointed by the President for examination of the dairy goods, on exhibition, would respectfully submit the following report:

The dairy goods exhibited by Thomas Brown, of Ft. Atkinson, such as cheese-hoops, carrying cans, strainers, etc., show fine skill in their manufacture, and are all of fine quality.

The new iron-clad can, manufactured by Ole Wigdale, of Ft. Atkinson, seems to be a very practical one, and will bear close scrutinizing.

Mr. Seward, of Marengo, has, on exhibition, condition powders for cattle. They are recommended by the best dairymen in the west.

The Rectangular churn and butter-worker, manufactured by Messrs. Cornish & Curtis, of Ft. Atkinson, are worthy of special mention, as their merits are many.

The return packages, on exhibition by Thielepape & Kroeschell, seemed to be very good packages. We have examined some very fine samples of Wisconsin butter—that of J. T. Perkins, being worthy of note, and also his butter and ice chest.

D. W. Curtis has some of the high-priced butter, made in Vermont, on exhibition. This seems to be good butter, but, in the opinion of your committee, no better butter than is made in Wisconsin.

G. R. TALBOT,
E. FAVILLE,
M. C. JONES.

Previous to the reading of his report, Secretary Hoard tendered his resignation as Secretary of the Association, stating that for the past three years that he had filled the office, he had as a natural consequence, been obliged to bestow upon the same a large amount of labor; that while this labor had been performed cheerfully, he had found that it interfered materially with the necessary duties of his profession; these duties he found now completely absorbed his time, and thus compelled him to relinquish what was otherwise the most grateful task of his life. He thanked the association for the confidence and honor it had bestowed upon him and gave the hearty assurance that in the future, as a private member he should feel the same zeal in its growth and usefulness that he had been called upon to exercise in an official capacity.

SECRETARY'S REPORT.

MR. PRESIDENT AND MEMBERS OF THE CONVENTION:

In presenting this, my third annual report, I feel called upon to earnestly congratulate you upon the rapid growth of the dairy interest in Wisconsin, and the many favorable aspects which at present surround it. Unlike most other branches of our agriculture, it is stable and prosperous.

It may not be inappropriate to look at the question in the light of past experience and place here in tangible shape a few items connected with its history, our relation thereto as an association, and from these to deduct a solid measure of judgment concerning our future efforts. In 1872 the amount of cheese

manufactured in Wisconsin, according to the lowest estimate I can make, was not far from 6,000,000 pounds. The price ranged from eight to twelve cents. The amount of butter made that year was about 25,000,000 pounds. The average price was about 15 cents per pound. Now, in 1874 the amount of cheese made in Wisconsin was about 13,000,000 pounds. The price ranged from 10 to 14 cents per pound at wholesale rates. The amount of butter made, taking the ratio of past increase as a criterion was about 30,000,000 pounds. The average price I believe was about 22 cents. Now we are here presented with the anomalous fact in commerce of a great increase in the amount of production and yet a corresponding increase in the average price received. By what can it be explained. I think the action of the State Dairymen's Association, in clearing channels of export, in persistently pushing upon the notice of the great markets of the world the fact that there was as good cheese made in Wisconsin as anywhere, and by combination and intelligence securing low freights, may be fairly considered as one of the chief forces in securing these results, so far as cheese is concerned. In relation to the "butter side" of the question, I believe the result may be partially attributed to the same agency; First, indirectly, by the impulse given to cheese making thus leaving to the milk made into butter more profit than it would otherwise have had. Directly, by stimulating a spirit of progress in making good butter, and persuading the maker to deal directly with butter markets, where he is brought sharply face to face with the errors of his practice. Thus it may be seen, gentlemen, that in your associative capacity you become a power of vast good to the productive interests of the state. These facts become then not merely a subject for congratulation but a clear testimony to the wisdom of your previous purpose and methods of action, and should clinch the argument for adherence to the same in the future. There is too great indifference manifested by a large portion of the dairymen of the state relative to the purpose and efforts of this Association and, it is certainly to be hoped that many who have not hitherto assisted at the wheel may come forward and bear a part of the necessary burden. The future outlook is not as favorable in many respects as could be desired. Although maintaining as yet an unbroken prosperity it would not be unwise for dairymen to remember that in the present disordered condition of finances and business apathy all over the country, this pursuit must naturally suffer with the rest. One result I apprehend will be a large reduction in home consumption. To a large portion of the American public butter and cheese is yet a luxury which may and will be dispensed with, when hard times and no work comes upon them. This should teach us not to expect high prices another season, But I do not anticipate but that the ratio of profit between dairy and other products will continue, thus proving in the future as in the past, that dairy farming is the most stable of any.

In conclusion let me urge upon the members of this association the value of interesting their neighbors and patrons in our annual conventions. Factorymen will find that it will prove of the greatest interest to them that they disseminate dairy literature and knowledge among their patrons; the best posted patrons are usually the most profitable.

The following is the report of Treasurer Drake:

RECEIPTS.	
March 16, 1873:	
Received of ex-treasurer Green.....	\$48 76
" " Sec'y Hoard as membership fees	44 00
" " of W. D. Hoard Sec'y of the Fond du Lac Co. Dairymen's Association	15 00
Total.....	\$107 76
EXPENDITURES.	
March 16, 1873:	
Paid bill of W. D. Hoard.....	\$10 00
Paid express.....	25
W. D. Hoard for Printing Annual report.....	50 00
Total.....	\$60 25
Balance in Treasury.....	\$47 51

Then followed an essay on "Dairy Boards of Trade," contributed by H. F. Dousman, of Waukasha county:

DAIRY BOARDS OF TRADE.

MR. PRESIDENT AND GENTLEMEN:

In opening the discussion upon "Dairy Boards of Trade," I shall bore you with no very elaborate essay, but shall confine myself to defining their objects; shall endeavor to show what they have accomplished in the northwest, and how they can be made still more useful. And first, a dairy board

of trade is an institution whose object is to bring buyers and sellers of dairy products together, on certain days, and gather then and there, for their mutual use and benefit, reliable information as to the state of the different markets, both at home and abroad.

This bringing together of factory men is of advantage to the buyer, in that it enables him to see, in one day, and at slight expense, all the dairymen of a district, to visit whom at their different factories would consume both time and money.

This bringing together of dealers is of advantage to dairymen, in that it makes them acquainted with dealers from all over the country, and thus enlarges their circle of markets.

This gathering together of the dairymen is of great advantage to themselves, as an educator, for the difficulties connected with running a cheese factory, being fresh in mind, are talked up at their meetings, and the discussions being informal, are short, sharp, and to the point.

The knowledge of the quality of cheese in demand in the markets, gained at these board meetings, is of great value to the general trade. There is never TOO MUCH GOOD cheese made, and never TOO LITTLE poor; but the clever fellows who make the latter are generally in blissful ignorance of what they are doing, and nothing rouses and sharpens them like seeing their neighbors' goods bring a cent or two a pound more than their own.

The information as to markets, gathered by these associations, is of value to both buyers and sellers, but of prime importance to the dairymen, for isolated and busy as he is, the dealer is always better posted than he.

I have no hard words for our friends, the cheese dealers, or middlemen. I consider them as necessary members of society as the factory men. It is our business to take the farmer's milk and fit it for the markets of the world. It is their business to take that property from our hands and distribute it to the myriads of mouths hungering for it. For our service we are entitled to our fair remuneration; for their services they are entitled to the same; but for our intercourse to be mutually satisfactory we must meet and deal, not as a hard creditor deals with an unfortunate debtor, not as a senator deals with a postmaster, but face to face, on equal terms, and the only place where we can so meet and deal, is on the floor of the board of trade room, where all the facts of the situation being known to both parties, the only question to be considered is, things being as they are to-day, what is it for my interest to do.

The dairy boards of the northwest are three in number, those of Elgin, Sheboygan and Watertown. These have all done good service, though their operation has been different.

The dairymen tributary and belonging to the Elgin board have met the dealers half way, and made a practice of selling their property at market value. Hence buyers have flocked there, and the dairymen have enjoyed the benefits of their competition. The consequence has been cash sales at Elgin of from five to twenty thousand dollars worth of dairy products a week during the past season, and if the prices published have been realized, the result must have been very satisfactory to sellers. This board I look upon as well established on business principles.

The Sheboygan board have pursued the same policy to some extent, and their cash sales have been large and satisfactory.

The dairymen of the Watertown board have made a practice of shipping their cheese on commission to Europe, New York or Philadelphia, (which by the way is said to be a very slow town) unless the buyers would pay the very last cent, or a little more than it would net to ship. The consequence is, buyers not appreciating the honor of doing our business for nothing, have kept away from Watertown, and cash sales have been light there the past season. This course I take it is all wrong, and the policy which dictates it short sighted. I do not propose to indiscriminately abuse the practice of shipping cheese to New York, on commission, for I fully realize that that is the path which four years ago led the overlaid dairymen of the Northwest "out of the wilderness," but having accomplished its purpose and introduced our cheese to the markets of the world, and brought the buyers of the world to our doors seeking for it, it is now good judgment for us to abandon fishing, and keep these buyers here, by selling them our property at its market value. This practice will give us sharp-home, cash markets for all our cheese, the surplus being taken by the buyers for the East, and the balance being always at good prices at home.

One year with another, the man who sells his cheese for cash at its market value, when fit for the market, will have more money left than he who speculates on it, or commissions it about the country, and this net profit is the conclusion of the whole matter." In conclusion then I look upon the Dairy Boards of Trade as having been the salvation of the cheese trade in the northwest, they have taken the surplus cheese out of the country and thus secured paying prices for the balance. They have introduced our cheese in the markets of the east, and given us standing there, and brought us buyers from there. They have improved the quality of our cheese by educating our dairymen; finally they have taught us that in union there is strength, and associated together we can command a fair value for our property, regardless of any combination of buyers anywhere. But to realize their full benefit from the Boards of Trade each dairyman has a duty to perform. He should be a member of that association to which he

is a tributary, and thus do his share towards paying its necessary expenses; he should attend the meetings and thus help it with his presence; he should decline to sell his cheese at home and tell the dealer he will meet him at the Board, and finally, when there, and he has cheese to sell and gets a fair offer for it, he should let it go, regardless of the fact that his neighbor may think his cheese worth a quarter of a cent more to ship.

These are all plain duties, and you all knew them years ago, but alas, "if to do were as easy as to know what 'twere good to do," how much richer, and wiser, and better the world be.

The convention then adjourned sine die. The evening was devoted to a general sociable at the Congregational church, which was generally participated in by the people of the village. The Fort Atkinson brass and string bands very generously contributed some of their choicest music; speeches were made by H. B. Willard, and W. D. Hoard. Thus closed one of the most successful conventions in the history of the Association.

DAIRYING IN GREEN COUNTY.

MONROE, WIS., March 1st, 1875.

W. D. HOARD, Esq., Secretary, &c.

In reply to your invitation to be present at your late annual meeting of the Dairymen's Association, I take this opportunity, though somewhat tardy, to state some facts regarding the dairy interests of this county, and to express my regrets at not being able to attend your very interesting and as I learn, profitable meeting.

As predicted in our article written for your last annual report, the cheese interests of this county for 1874, increased nearly 25 per cent. over that of 1873. And the season was very successful; running through the entire month of October with most of the factories. As to quality, there was also improvements made by most of the older makers and some of the new factories made a better article than ever produced here before. The color and size being more uniform; and the quality assured; much of the cheese made was contracted as soon as out of the press. Indeed, notwithstanding the enormous quantity made, it is now almost impossible to obtain a pound of Green County cheese of factory make at our stores. It has become more customary with our people to eat cheese, and that speaks well for the quality. Nearly all the cheese made in Green County has brought 12 1-2 to 13 cents per pound, and retailed here at 15 to 18 cents. Butter has averaged about 20 cents for the year; during the butter season ranged at 18 cents and has not been higher than 25 cents, for the best during the winter. We think these figures show a growing demand for butter. Cheese is bread as well as butter, good cheese is good food, and those who

engage in producing it have the satisfaction of furnishing a commodity that is wholesome and besides it PAYS.

Several new factories will be put in operation this season. Two in Jefferson, one of which will be operated by Mr. Christian Karlan, recently of the Cold Spring Company of Whitewater. His facilities will accommodate three to four hundred cows so he tells us. The Whittenmeyer boys are also contemplating the erection of a factory. The town of Sylvester is, also, likely to have a factory this year. Neither of these towns have heretofore invested; yet they are among the best dairy towns in southern Wisconsin.

Although not a judge of Limberger and Swiss cheese, we are credibly advised that the TONE and quality of those products have been excellent and the sales enormous. From present indications we are likely to have one or more large cheese cellars for storing purposes; and they are certainly needed to facilitate the handling of Limberger and and Switzer Kase.

We give herewith statistics published in the Monroe Sentinel recently and they will be found substantially correct; as what are not actual figures, are careful estimates based upon the best information obtainable:

	LIMBERG CHEESE.	LBS.
Nic. Gerber,		310 000
Jac. Karlen,		160 000
G. Karlen,		40 000
Roth & Regets,		40 000
John Boss,		28 000
Zumbrunen, Miller & Frantschi,		25 00
John Manner,		17 000
Total,		<hr/> 620 000
	SWISS CHEESE.	
J. J. Tschudy,		16 000
Jac. Kundert,		23 000
Babler & Stauffacher,		25 000
Stauffacher & Wiss,		19 000
J. N. Elmer,		9 000
J. Marty,		9 000
Geo. Legler,		11 000
Jac. Freilag,		7 000
P. Kundert,		3 000
H. Hafner,		7 000
Trumpy,		3 000
S. Hoesley,		3 000
Total,		<hr/> 135 000
	SWISS AND LIMBERG.	
Wittwer & Wittwer,		35 000
M. Zumbrunen,		20 000
Rud. Karlen,		15 000
F. Lenherr,		18 000
Total,		<hr/> 88 000
Grand total Swiss and Limberger Factory Cheese, Pounds,		<hr/> 843 000

As near as we are able to estimate, having received returns from several leading factories, in the county, engaged in manufacturing regular cheese,

the yield will not be less than 750,000 pounds, and the dairy cheese will swell the amount to 850,000 pounds, making a grand total of all kinds of cheese made in Green County for 1874, as follows:

Swiss and Limberger, pounds,	843 000
American, or Regular, "	850 000
Grand Total,	1,693 000
Average price, 12½ cents, total value.	\$211,625

We have numerous facts on record to show that the average income from the cows furnishing these factories is nearly \$28.00 per cow for the season. The largest herds of ordinary stock average about \$25.00, the picked herds run as high as \$30 to \$35.

Milkers are now turning attention to improving their stock. To this end several fine bulls and heifers, Durham and other breeds have been imported from Kentucky, Canada and elsewhere, and there are a few Ayer-shires owned in the county. Not until within three or four years, has there been any successful attempt at improving the breed of horned cattle, but the rapid growth of the Stock and Dairying interests have opened the eyes of our farmers, and they are beginning to learn that it pays to keep the best stock.

As this article is already too long, I will end it here.

Respectfully, CHAS. A. BOOTH.



The Dairy Fair.

The Wisconsin State Agricultural Society liberally acceding to the request of the State Dairymen's Association have entered into extensive arrangements for holding a "Dairy Fair" at the next State Fair. Large premiums for both Butter and Cheese have been offered, and judges appointed who are well known dealers in dairy products in Milwaukee, Chicago and New York. The society will also arrange for the exhibition of Dairy Implements and manufacturers will find it to their interest to be present with samples of their goods. Dairymen from all parts of the state are earnestly requested to compete, as this will prove a splendid opportunity for advertising the character of Wisconsin dairy products to the trade representatives who will be present from all the chief cities of the country. The following are the premiums offered and the rules and regulations governing entries:

CHEESE.

Made on the 16th of June,	
1st Premium.....	.....\$25 00
2d " .....	.....20 00
3d " .....	.....15 00
4th " .....	.....10 00
Made on the 16th of July.	
1st Premium.....	.....25 00
2d " .....	.....20 00
3d " .....	.....15 00
4th " .....	.....10 00
Made on the 16th of August,	
1st Premium.....	.....25 00
2d " .....	.....20 00
3d " .....	.....15 00
4th " .....	.....10 00

In addition will be offered a Sweepstakes Premium of a Grand Silver Medal.

BUTTER.

Made in May,	
1st Premium.....	.....2 50 00
2d " .....	.....20 00
3d " .....	.....15 00
Made in June,	
1st Premium.....	.....25 00
2d " .....	.....20 00
3d " .....	.....15 00
Made in July,	
1st Premium.....	.....25 00
2d " .....	.....20 00
3d " .....	.....15 00

Also a Sweepstakes Premium of a Grand Silver Medal.

RULES AND REGULATIONS.

1st. All cheese to compete for premiums at the Wisconsin State Fair of 1875 must be manufactured on the 16th day June, 16th day of July and the 16th day of August.

2d Two cheese of each months make must be entered in order to compete for the premium.

3d. A written statement must accompany each entry, stating the number of cows in factory or dairy, what breed, and what kind of feed at the time of manufacture. Temperature of milk when rennet was applied, temperature at which curd was scalded, to what extent acid was developed before salt was applied to the curd.—How much salt per 1000 pounds of milk and what kind. At what temperature is curing room kept first 15 days after cheese are made and temperature after that time, manner in which curing room is constructed. One cheese of each months make that is awarded the first premium shall be donated to the society for the purpose of being tested and inspected by all cheese dealers and manufacturers. Blanks for making the statements will be furnished on application to D. W. Curtis, Secretary Dairymen's Association, Fort Atkinson, Wisconsin.

RULES AND REGULATIONS FOR ENTRIES OF BUTTER.

Butter allowed to compete must comply with the following:

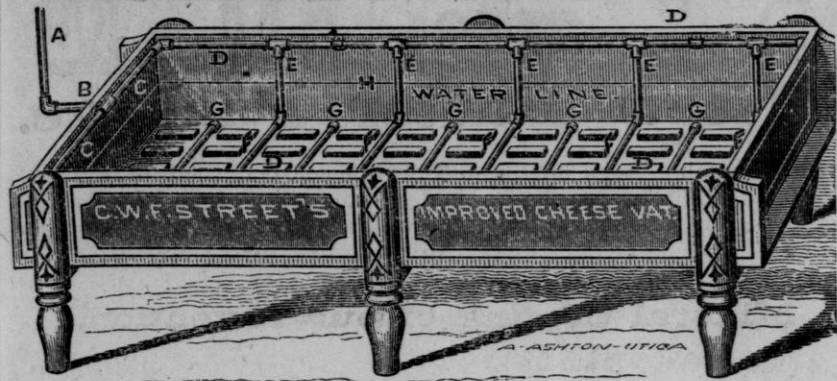
1st. Butter competing for premium must be made in May, June and July,

2d. A written statement must accompany each entry, stating the breed of cows, the kind of feed at the time the butter was made, process of cooling the milk, temperature the milk room is kept at, how long milk is allowed to stand before skimmed, and how long cream is allowed to stand before churning at what temperature cream is churned, condition of butter when buttermilk is drawn off, process of freeing butter from buttermilk, how much and what kind of salt is used, how it is worked into the butter, what length of time butter is allowed to stand before re-working for packing, if at all.

3rd. Process of packing, conditions and temperature of cellar or room in which the butter is kept from the time it is manufactured until it is placed on exhibition. All packages must contain at least 20 pounds to compete for premium. Exhibitors can choose their own style of package.

Blanks for making statements will be furnished on application to D. W. Curtis, Secretary Dairymen's Association, Fort Atkinson, Wisconsin.

DAIRY GOODS.



The above cut represents C. W. Streets Improved Cheese Vat which is now being used by a number of the best cheese factories in the country. By the use of this vat the heat is applied to the milk with uniformity from one end to the other. This prevents over scalding of any one portion and secures that uniform texture and flavor every good cheese maker desires. This vat, also milk cans carrying cans and all other goods needed by dairymen constantly on hand and made to order. Correspondence promptly answered. Estimates given for furnishing factories. Prices low as the lowest.

OLE WIGDALE, Fort Atkinson, Wis.

CHEESE FACTORY FIXTURES.

The attention of dairymen and those intending to build Cheese Factories is called to my constantly increasing facilities for supplying dairy goods of all descriptions. My goods have been used quite largely by the dairymen of this state, and have given good satisfaction. Everything

From a Dipper to a Cheese Vat

Promptly supplied. Special attention paid to the making of Cans, from the heaviest XXX tin with iron clad bottoms. Estimates for furnishing new factories sent on application. My Diffused Steam and Water Vats are the best in use.

SEND FOR CIRCULARS.

THOS. BROWN.

Fort Atkinson, Wisconsin.

ATTENTION!

A New Butter Package.

The long felt demand for Butter Tubs, the constant want of a vessel for packing Butter that possesses both the durability of the Wooden Tub and the density of crockery, has induced us to prepare wooden vessels with a

Mineral Coating of our Invention,

Which we claim will answer the above mentioned demand. Our mineral coating, forming a chemical compound with the woody fibre, PREVENTS SOAKAGE and the TASTE FROM THE WOOD of unprepared vessels. It is itself PERFECTLY SCENTLESS and TASTELESS, INSOLUBLE in COLD and HOT WATER and NOT AFFECTED BY SALT BRINE. These properties will allow such vessels to be cleaned with hot water or steam and used repeatedly at will, if desired. The WOOD, on account of its STRENGTH and its property AS A NON-CONDUCTOR OF HEAT, renders our prepared vessels for packing butter

Far Superior to Metallic Ones.

The above mentioned advantages will be beneficial to manufacturers, dealers and consumers of butter, because first class butter will reach the consumer in a prime state, consequently command a higher price, than such butter packed in unprepared wooden vessels, and thus will more than compensate for the additional outlay of our prepared ware. Tubs, to be used as return-package, if desired, will be provided with galvanized iron hoop and with our patent fastenings for the cover, permitting the examination of the contents at will and closing them hermetically, by placing cloth, saturated with brine, on top of the butter and squeezing its margin between the rim of the cover and the vessel. We also recommend our MINERAL-COATED PAILS, for water and milk, they being far superior to any other and will last much longer. Our prices are as follows: 20 pound packages, per hundred, \$45.00. 30 pound packages, per hundred, \$65.00. 40 pound packages, per hundred, \$90.00. Return Packages of the above sizes, and provided as mentioned before, \$10.00 in addition to the prices aforesaid. 100 pound Firkins, per hundred, \$130. Pails, per hundred, \$40.00.

CORRESPONDENCE SOLICITED.

Thielepape & Kroeschell.

155 and 157 East Washington St. Chicago, Ill.

M. Mallery & Co.

Manufacturers of

DAIRY GOODS, ELGIN HEATER VATS,

STEAM VATS, BUTTER WORKERS, CHURNS,

PORTABLE AND STATIONARY STEAM BOILERS,

CURD SINK, SCREWS, HOOFS, &C.

Complete outfits on hand for any sized Butter and Cheese Factory with all modern improvements.

COMPLETE SATISFACTION GUARANTEED TO OUR CUSTOMERS.

We manufacture all our own goods and having, during the past year added largely to our Manufacturing Facilities we are enabled to supply the best quality of goods at the lowest price. Our stock of

ANNATTO, ANNATTOIEN,

BANDAGE CLOTH,

BAVARIAN and DOMESTIC RENNETS,

And all the

Miscellaneous Goods

Used in the business is always complete. Customers sending us their orders may depend upon getting as good goods at as low price as though they were here in person.

Send for Circulars and Price List

M. MALLERY & CO.

Elgin, Illinois.

THE
Jefferson County Union,

—A—

WEEKLY NEWSPAPER

PUBLISHED AT

FORT ATKINSON,

WISCONSIN.

—0—

W. D. HOARD, Editor and Proprietor.

—0—

Especially Devoted to Dairy Matters.

BEING THE

Official Organ of the Wisconsin Dairymen's Association.

Also an advocate of the cause of the Farmer, and an uncompromising friend of his interests.

—0—

HAS THE LARGEST CIRCULATION OF ANY PAPER IN THIS PART OF THE STATE

Four Pages, Eight Columns to the Page.

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TERMS: - \$2.00 PER ANNUM.

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Orange County.

PATENT PAIL,

The Popular Butter Package. This is the

Tried, Proved, & Accepted Package

Of the New York market. Butter packed in them SAVES the expense of coo-
perage and brings a BETTER price. They are ATTRACTIVE in appear-
ance and very CONVENIENT in handling.

TRY THEM.

Send for Circulars to

Orange County Pail Company,

149 Read street, New York.

H. C. CARTER, Manager.

DAIRY UTENSILS.

I would announce that I am prepared to furnish to Cheese Factories
and Dairymen a general supply of Dairy Furnishing Goods of the very
best style and quality of make. Every article made by me is fully war-
ranted. My Milk Cans are superior to all others in the market in point
of durability and strength. Estimates furnished and Correspondence
Solicited.

Reference—STEPHEN FAVILLE, President Northwestern Dairymen's
Associations, Lake Mills, Wis.

E. C. Kaltenburn,

Lake Mills, Wisconsin.

To Factory and Dairymen.

The AGRICULTURAL MANUFACTURING CO., of Lake Mills
Jefferson County, Wisconsin, makes a specialty of CHEESE PRESS
SCREWS, made of the best material. They also make a cheap, econ-
omical horse power for churning suitable for Butter Factories and Farm
Dairies. They make the latest improved Milk Can Bottoms and Handles.
Satisfaction Guaranteed on all articles made. Correspondence solicited,
and inquiries answered cheerfully.

REFERENCE—STEPHEN FAVILLE, President Northwestern Dairy-
men's Association, Lake Mills, Wis.

Hawthorne & Bosworth,

WHOLESALE AND RETAIL DEALERS IN

DAIRY FURNISHING GOODS,

ELGIN, ILLINOIS,

Have one of the largest and most complete stocks of these goods in the Northwest,
consisting of

Boilers from Two to Six Horse-power,

Portable, Horizontal and Upright.

ENGINES, CHEESE VATS, CURD SINKS,

PRESS SCREWS, CHURNS, CHEESE HOOPS

MILK CANS, PAILS, BUTTER WORKERS, &c.

I. H. Wanzer's Artic Milk Pan

Which can be used on any ordinary Cheese Vat, and is acknowledged by all practical
cheese and butter makers to be

Just the Thing Needed,

As with its use the old style of setters are done away with, thereby saving at least
three men in the Factory, besides receiving tank, hose, and many
other expenses.

Our stock is complete, and offered at the lowest rate for first class goods.

Send for Catalogue, with Cuts of the Artic Milk Pan, Prices, &c.

Hawthorne & Bosworth,

Elgin Illinois.

Prices Greatly Reduced.

Considering the cost of transportation—large reduction of our prices will be made to the Dairymen of the West and Northwest. Our stock comprises

Vats, with Steam Pipes or Heaters,

Of all sizes,

PORTABLE BOILERS AND ENGINES,

Manufactured for and Peculiarly Adopted to Cheese Factory use.

*DRAINERS, HOOPS, SCREWS, CURD KNIVES,
COMMON AND IMPORTED CHEESE FACTORY SCALES,
RENNET AND ANNATTO JARS, FACTORY GLASS WARE,
CHEESE CAPPINGS, RENNETS, ANNATTO, &c.*

Everything required about the Cheese Room constantly in stock. We are also manufacturers of

Stock and Trimmings for Factory Milk Carrying Cans,

Which we sell to tanners or others who wish to have their cans made up near home and thus save the cost of transportation. Factory-men will do well to call the attention of tanners in their vicinity to this branch of our business.

Having the benefit of more than 15 years experience in the manufacture of Dairying Apparatus exclusively, we are able to produce the highest grade of goods at the lowest cost. Our Catalogue and Price List mailed on application.

CORRESPONDENCE SOLICITED,

And special estimates on any list of goods promptly given.

H. H. ROE & CO.

Factory, Madison, O.

Office 82 Bank St. Cleveland, O.

CHEESE A SPECIALITY.

Consignments from Factories Receive Our Best Attention

Account sales with proceeds guaranteed within ten (10) days after receipt of goods.

ADVANCES MADE WHEN REQUIRED.

CORRESPONDENCE INVITED.

We refer to Chester Hazen, President Wisconsin State Dairymen's Association.

A. W. & F. W. LEGGETT,

39 Pearl and 28 Bridge Sts., N. Y.

Cheese Factory Supplies !

The rapid growth of the dairy interest in the Northwest is an indication of its strength and permanency. Where to buy the best supplies for factory use at the least cost is

AN IMPORTANT QUESTION !

For three years this house has furnished a large portion of such supplies used in Wisconsin, with general satisfaction.

EVERY ARTICLE NEEDED IN THE BUSINESS WILL BE FURNISHED PROMPTLY AND ON FAVORABLE TERMS.

Estimates for Factories furnished on application. Send for Catalogue List.

CORRESPONDENCE SOLICITED,

Address,

GEO. McMILLAN,
Watertown, Wis.