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Wisconsin Buttermakers' Association
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EIGHTH ANNUAL MEETING

Wisconsin Buttermakers' Association

HELD AT EAU CLAIRE, WISCONSIN

FEBRUARY NINTH TO TWELFTH

NINETEEN HUNDRED *and* NINE

PROCEEDINGS

OF THE

EIGHTH ANNUAL MEETING

OF THE

WISCONSIN BUTTERMAKERS' ASSOCIATION

HELD AT

EAU CLAIRE, WISCONSIN

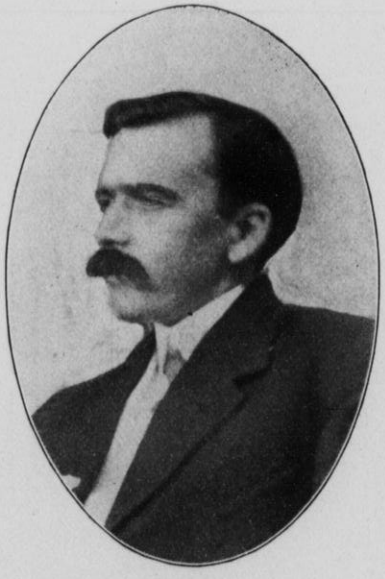
FEBRUARY 9, 10, 11 and 12

1909

Compiled by

J. G. MOORE

P. B. HABER PRINTING COMPANY
FOND DU LAC, WISCONSIN



G. P. SAUER, East Troy
President

A. G. PUERNER, Gays Mills
Vice-President

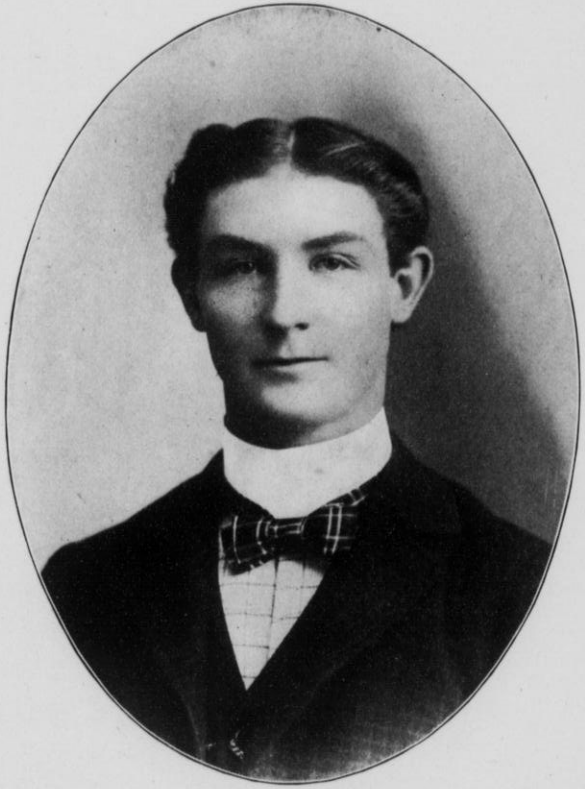
List of Officers

G. P. Sauer, *President* ..... East Troy
A. G. Puerner, *Vice President* ..... Gays Mills
J. G. Moore, *Secretary* ..... Madison
S. B. Cook, *Treasurer* ..... Bloomer

Executive Committee

O. B. Cornish ..... Ft. Atkinson
A. L. Parman ..... Mazomanie
F. W. Grell ..... Johnson Creek

J. G. MOORE, Madison
Secretary



S. B. COOK, Bloomer
Treasurer

LETTER OF TRANSMITTAL.

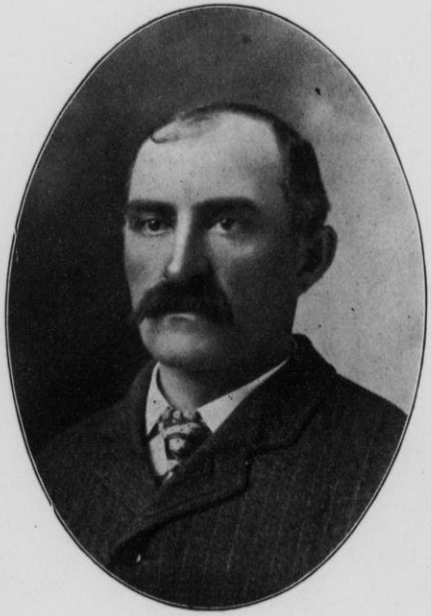
Office of the Secretary Wisconsin Buttermakers' Association,
Madison, Wis., 1909.

To the Officers and members of the Wisconsin Buttermakers' Association: I have the honor to herewith submit the report of the proceedings of the Eighth Annual Convention held in Eau Claire Feb. 9-12, 1909.

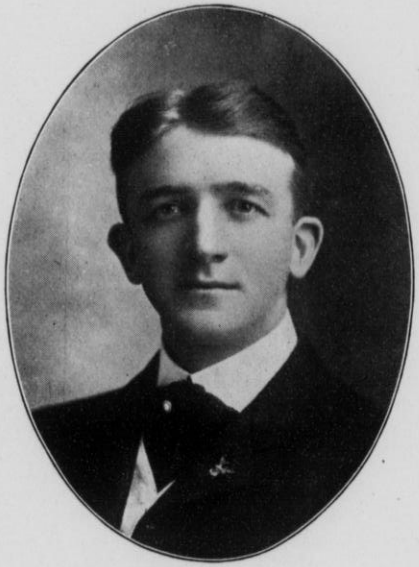
Fraternally yours,

J. G. MOORE,
Secretary.

O. B. CORNISH, Ft. Atkinson
Member Executive Committee



A. L. PARMAN, Mazomanie
Member Executive Committee



F. W. GRELL, Johnson Creek
Member Executive Committee

Names of Members of the Wisconsin Buttermakers' Association, 1909

Allen, G. W. ..... Stevens Point, Wis.
Altman, Frank ..... Blenker, Wis.
Armstrong, J. C. ..... St. Paul, Minn.
Allen, Ford J. ..... 215 Jackson Blvd., Chicago, Ill.
Adrianson, L. ..... Ashland, Wis.
Albert, A. ..... Thorpe
Aderhold, E. L. ..... Neenah, Wis.
Alexander, C. B. ..... 4 Sherman St., Chicago, Ill.
Star Union Line
Andrea, B. ..... Basco, Wis.

Berge, Thos. J. ..... Northfield, Wis.
Borchert, Geo. E. ..... Forks, Wis.
Boldt, Wm. C. ..... Waterford, Wis.
Bragg, Clarence ..... Poynette, Wis.
Blumenstein, F. ..... Berlin, Wis.
Boerschinger, H. ..... DePere, Wis.
Bower, F. ..... Cazenovia, Wis.
Brill, Geo. A. ..... Caryville, R. R. 1, Wis.
Brill, J. J. ..... Caryville, R. R. 1, Wis.
Benkendorf, G. H. ..... Madison, Wis.
Baer, U. S. ..... Madison, Wis.
Bolstad, L. L. ..... Nashotah, Wis.
Baumbach, W. L. ..... Foot 12th St., Milwaukee, Wis.
Baker, E. M. ..... Monticello, Iowa
Bennett, W. F. ..... Chicago, Ill.
Butler, R. E. ..... Arkansaw, Wis.
Barker, W. L. ..... Edgar, Wis.
Buchen, Geo. J. ..... Antigo, Wis.
Becker, O. W. ..... Lynn, Wis.
Brutinbach, J. A. ..... Cameron, Wis.
Blood, F. J. ..... Bloomer, Wis.
Brickhouse, S. N. ..... 633 N. Church St., Rockford, Ill.
Barber, W. H. ..... Minneapolis, Minn.
Bjerking, J. L. ..... Beldenville, Wis.
Barber, A. H. ..... 229 S. Water St., Chicago, Ill.
Barber, L. H. ..... 229 S. Water St., Chicago, Ill.
Byrne, Wm. ..... Neillsville, Wis.

F. M. Buzzell ..... Chippewa Falls, Wis.
Burwell, W. H. ..... Endeavor, Wis.
Bates, R. R. ..... Madison, Wis.
Blumenstein, W. E. ..... Sullivan, Wis.
Brehm, H. G. ..... Medford, Wis.
Bauer, J. A. ..... Valton, Wis.
Brun, C. W. ..... 167 S. Water St., Chicago, Ill.
Bull, G. W. ..... 210 S. Water St., Chicago, Ill.
Buckler, G. A. ..... Granton, Wis.
Brenner, W. J. ..... Tomah, Wis.
Bonell, Lester ..... Eau Claire, Wis.

Cooksley, S. B. ..... St. Joseph, Mo.
Cross, M. R. ..... Mauston, Wis.
Chapman, J. T. ..... Whitewater, Wis.
Chapins, Byron J. ..... Cushing, Wis.
Christensen, Walter ..... Darien, Wis.
Cobb, Ernest A. ..... Sun Prairie, Wis.
Christians, A. O. ..... Jefferson, Wis.
Claflin, L. E. ..... LaValle, Wis.
Colwell, R. P. ..... River Falls, Wis.
Cook, S. B. ..... Bloomer, Wis.
Clark, W. J. ..... Lake Beulah, Wis.
Christensen, H. ..... Tomah, Wis.
Carswell, A. ..... Clear Lake, Wis.
Corneliuson, T. ..... Madison, Wis.
Caflisch, W. H. ..... Baraboo, Wis.
Culver, H. W. ..... Platteville, Wis.
Clegg, J. F. ..... 108 S. Water St., Chicago, Ill.
Colwell, R. P. ..... River Falls, Wis.
Cornish, O. B. ..... Fort Atkinson, Wis.
Carter, E. W. ..... Augusta, Wis.
Carver, C. A. ..... 114 Wisconsin St., Milwaukee, Wis.
Carpenter, Mrs. M. G. ..... Chicago, Ill.
Cromer, C. E. ..... Aurora, Ill.
Carver, J. W. ..... 129 S. Water St., Chicago, Ill.
Cannon, J. D. ..... New London, Wis.
Credicott, H. J. ..... Chicago, Ill.
Casperson, H. C. ..... Deer Park, Wis.
Conway, W. F. ..... Janesville, Wis.
Campbell, H. J. ..... Algoma, Wis
Campbell, A. W. ..... Beaver Dam, Wis.
Cole, C. J., Jr. ..... Minneapolis, Minn.

Dudley, Jay ..... Bancroft, Wis.
Dahl, J. F. ..... Princeton, Wis.

Dibble, C. J. ..... Fort Atkinson, Wis.
Dabariner, F. ..... Jefferson, Wis.
Dabariner, L. ..... Hortonville, Wis.
Dillon, H. P. ..... Oshkosh, Wis.
Dufner, S. J. ..... Waukesha, Wis.
Dibble, C. A. ..... Milwaukee, Wis.
Davis, W. E. ..... Chicago, Ill.
Dybevick, I. ..... St. Paul, Minn.
DeCosta, J. T. ..... Eagle Point, Wis.
Dickey, L. ..... Downing, Wis.

Engbretson, Martin ..... Scandinavia, Wis.
Else, R. J. ..... Johnson Creek, Wis.
Erickson, A. ..... Milltown, Wis.
Enright, J. E. ..... Eagle, Wis.
Einfeldt, W. B. ..... Milwaukee, Wis.
Ekelberry, H. ..... Viroqua, Wis.
Ennisson, W. J. ..... LaCrosse, Wis.
Esker, O. ..... Bloomer, Wis.
Ensch, W. P. ..... Mauston, Wis.
Ericsson, Elov ..... St. Paul, Minn.

Flynn, F. A. ..... West DePere, Wis.
Feind, W. J. ..... Jefferson, Wis.
Farrington, E. H. ..... Madison, Wis.
Friday, H. P. ..... Markesan, Wis.
Fuller, Ora ..... Ingalls, Mich.
Fisler, H. C. ..... Milwaukee, Wis.
Flack, W. J. ..... Stanley, Wis.
Fulmer, F. B. ..... Oshkosh, Wis.
Fechelman ..... 101 S. Water St., Chicago, Ill.
Funstad, A. N. ..... Beldenville, Wis.

Garlick, P. A. ..... Coloma, Wis.
Gehrke, Fred J., Jr. ..... Manawa, Wis.
Gregory, Ralph ..... New Franken, Wis.
Grow, A. N. ..... Fort Atkinson, Wis.
Guse, P. W. ..... Neillsville, Wis.
Goodrich, J. S. ..... Augusta, Wis.
Groth, O. J. ..... Cedarburg, Wis.
Gower, C. R. ..... Rusk, Wis.
Guelsav, A. F. ..... Sherry, Wis.
Giesach, Otto ..... Cedarburg, Wis.
Guth, A. ..... Kolberg, Wis.
Gondells, S. F. ..... Milwaukee, Wis.

Galloway, G. ..... Mermillan, Wis.
Graff, C. L. ..... Menomonie, Wis.
Gibbons, T. H. ..... Elgin, Ill.
Green, R. C. ..... Albion, Wis.
Gordon, N. D. ..... 1601 Hawthorne Ave., Minneapolis, Minn.
Gerland, C. ..... Rice Lake, Wis.
Grell, H. L. ..... Johnson Creek, Wis.

Hansen, N. P. ..... Almond, Wis.
Horr, Bert ..... Leesburg, Ohio
Hackbarth, Wm. ..... Ft. Atkinson, Wis.
Hanson, H. K. ..... Mondovi, Wis.
Helmke, Edw. ..... Merrill, Wis.
Halverson, H. J. ..... Eleva, Wis.
Holgersen, L. ..... Troy Center, Wis.
Hein, Aug. M. ..... Waukesha, Wis.
Hathaway, W. E. ..... Jefferson, Wis.
Haag, Wm. ..... Malone, Wis.
Haberstich, A. C. ..... Medford, Wis.
Hanson, O. H. ..... Chaseburg, Wis.
Holm, C. C. ..... Nashotah, Wis.
Hofacher, B. W. ..... Plum City, Wis.
Hegge, O. ..... Whitehall, Wis.
Harless, W. A. ..... Stanley, Wis.
Hunt, C. M. ..... Greenwood, Wis.
Holch, E. C. ..... Marshfield, Wis.
Hagen, L. E. ..... Meridian, Wis.
Henthorne, E. E. ..... Sylvan, Wis.
Hall, O. B. ..... Sylvan, Wis.
Helgerson, T. F. ..... Holmen, Wis.
Hamme, G. ..... Colfax, Wis.
Hansen, E. R. ..... 151 13th St., Milwaukee, Wis.
Herrick, F. N. ..... Eau Claire, Wis.
Hatch, F. L. ..... Eau Claire, Wis.
Haven, Davis ..... Bloomingdale, Mich.
Hedler, John ..... Minneapolis, Minn.
Hamman, A. C. ..... Lodi, Wis.
Hurst, W. ..... Osseo, R. D. Wis.
Henwood, E. M. ..... Madison, Wis.
Hutchinson ..... Gilmanton, Wis.
Hanley, M. J. ..... Freeport, Ill., Ill. Cent. Frt. Agent
Holl, C. L. ..... Wilton, Wis.
Hanan, G. T. ..... Eleva, Wis.
Heyder, A. P. ..... Neillsville, Wis.
Handy, F. ..... Bangor, Wis.

Hansen, H. K. ..... Mondovi, Wis.
Huth, F. W. ..... Seymour, Wis.
Harms, F. W. ..... Loganville, Wis.
Hopkins, C. O. ..... 223 S. Water St., Chicago, Ill.
Hanna, J. R. ..... 141 W. Randolph St., Chicago, Ill.
Hansen, O. H. ..... Chaseburg, Wis.
Hildeman, E. J. ..... Manchester, Wis
Hubbard, L. E. ..... Neillsville, Wis.

Ingram, S. B., Jr. ..... Eau Gallie, Wis.
Ihle, Ed. ..... Coon Valley, Wis.

Jacobson, Thos. ..... Cadott, Wis.
Jacobson, O. C. ..... Wilson, Wis
Johnson, Marine ..... Cedarburg, Wis.
Johnson, Ed. ..... Strum, Wis.
Jordan, G. E. ..... Amherst, Wis.
Jackson, J. J. ..... Union Grove, Wis
Jennings, R .R. ..... Alma Center, Wis.
Jones, F. E. ..... Marshfield, Wis.
Jacobs, E. C. ..... Elk Mound, Wis.
Joslyn, G. C. ..... 1415 20th Ave., No., Minneapolis, Minn.
Johnson, Frank ..... Prophetstown, Ill.
Jenks, G. E. ..... 250 No. Trumble Ave., Chicago, Ill.
Jacobs, F. I. ..... care Wayne & Low, Chicago, Ill.
Jennings, A. D. ..... 4 Sherman St., Chicago, Ill., Star Union Line
Johnson, S. J. ..... Ettrick, Ill.

Kohel, L. M. ..... Augusta, Wis.
Koenig, Max O. ..... Wausau, Wis.
Krogstad, O. J. ..... Chippewa Falls, Wis.
Kelly, Chas. D. ..... Lake Beulah, Wis.
Kaunzner, R. S. ..... Boyceville, Wis.
Kielsmeyer, O. A. ..... Manitowoc, Wis.
Kruger, A. F. ..... Clinton Junction, Wis.
Kristensen, A. ..... Luck, Wis.
Kipp, H. T. ..... Albion, Wis.
Kostner, G. F. ..... Arcadia, Wis.
Kemnetz, Ed ..... Comstock, Wis.
Krog, A. H. ..... Platteville, Wis.
Keppel, V. S. ..... Holmen, Wis.
Korb, E. ..... Boyd, Wis.
King, J. H. ..... 141 S. Water St., Chicago, Ill.
Kubat, W. H. ..... Neillsville, Wis
Kittleson, C. L. ..... Osseo, Wis.

Kiepert, H. J. ..... Almond, Wis.
Key, Scott ..... Wrightstown, Wis

Larsen, A. ..... Edgerton, Wis.
Laurent, Victor J. ..... Green Bay, Wis
Lee, Winter D. ..... Neillsville, Wis.
Limp, Walter ..... Loyal, Wis.
Laabs, A. G. ..... 424 Bruen St., Madison, Wis
Laabs, F. W. ..... Curtiss, Wis.
Lum, C. E. ..... Eau Claire, Wis.
Lloyd, J. E. ..... Sparta, Wis.
Larson, P. A. ..... Onalaska, Wis.
Litzkey, Chas. ..... Whitewater, Wis.
Larson, H. C. ..... Madison, Wis
Lesserman, J. ..... 114 W. Randolph St., Chicago, Ill.
Lounsbury, J. M. ..... Watertown, Wis.
Larson, C. ..... Spring Valley, R. 2
Lindas, M. ..... Marshall, Wis.
Liehe, C. H. ..... Chippewa Falls, Wis.
Lee, Sever ..... Modena, Wis.
Larson, L. P. ..... 5944 Wabash Ave., Chicago, Ill.
Linn, G. B. ..... 103 S. Water St., Chicago, Ill.

McCready, A. D. ..... Argyle, Ill.
Mueller, A. A. ..... Ixonia, Wis.
McCormick, Otto R. ..... Bancroft, Wis.
McCormick, E. C. ..... Plover, Wis.
McGill, Jas. F. ..... Little Suamico, Wis.
Mayer, Wm. ..... Green Bay, Wis.
Mayer, Math. ..... New Holstein, Wis.
Melendy, Guy E. ..... Sheboygan Falls, Wis.
Miller, J. C. ..... Augusta, Wis.
Miller, R. P. ..... Chippewa Falls, Wis.
McLane, A. ..... Whitewater, Wis.
Mason, J. C. ..... Montford, Wis.
Moersch, L. ..... Peebles, Wis.
McClellan, J. J. ..... Edgerton, Wis.
Mericle, Ed. ..... Eagle, Wis.
Moore, J. G. ..... Madison, Wis.
McIntosh, K. J. ..... Eau Claire, Wis.
Meyer, M. H. ..... Madison, Wis.
Moak, C. B. ..... Minneapolis, Minn.
Miller, W. ..... Chippewa Falls, Wis.
Magrane, J. ..... Eau Claire, Wis.

Munroe, F. L. ..... Cadott, Wis.
Moersch, M. ..... Calumet Harbor, Wis.
McKelly, R. C. ..... Milwaukee, Wis.
Meyer, C. ..... Eleva, Wis.
Middlekauff, J. A. ..... Eau Claire, Wis.
Misner, F. H. ..... 458 E. Illinois, Chicago, Ill.
Maw, W. A. ..... Elk Mounds, Wis.
Meinhardt, F. ..... Chicago, Ill., New York Dispatch
Moore, Mrs. E. B. ..... Madison, Wis.
McManners, H. S. ..... Madison, Wis.
Marty, F. ..... Monroe, Wis.
McCaulley ..... Elmwood, Wis.
McComb, C. ..... Eau Claire, Wis.
McNeill, C. E. ..... 161 S. Water St., Chicago, Ill.
McCready, J. B. ..... Sheboygan, Wis.

Nedvidek, Fred ..... Ridgeland, Wis.
Neumann, W. R. ..... Barron, Wis.
Newman, B. W. ..... Madison, Wis.
Newberry, G. W. ..... Houston, Minn.
Nelson, F. N. ..... Gays Mills, Wis.
Nohr, Fred ..... 36 LaSalle St., Chicago, Ill.
Netland, Thos. ..... Reed City, Mich.
Newman, J. B. ..... Elgin, Ill.
Nerhaugen, J. S. ..... 280 E. 6th St., St. Paul, Minn.

Olson, Otto ..... Mt. Horeb, Wis.
Olson, Math. J. ..... Withee, Wis.
Olsen, Lauritz ..... West DePere, Wis.
Orley, H. D. ..... Minneapolis, Minn.
O'Connor, J. M. ..... Eau Gallie, Wis.
Otteson, O. ..... Cumberland, Wis.
O'Brien, Chas. ..... Augusta, Wis.
Olson, H. P. ..... St. Paul, Minn.

Paul, E. N. ..... Greenwood, Wis.
Pierce, Forest ..... Eau Claire, Wis.
Pelton, C. W. ..... Caryville, Wis.
Petersen, Geo. E. ..... Withee, Wis.
Paulson, M. G. ..... Richardson, Wis.
Pischke, G. J. ..... New Auburn, Wis.
Penn, W. E. ..... Lake Mills, Wis.
Priddy, W. N. ..... Bloomer, Wis.
Pyburn, Ed. ..... Pearl City, Ill.
Parman, A. L. ..... Mazomanie, Wis.

Peck, H. J. ..... Shakopee, Minn.
Paulson, W. M. ..... 2836 Colfax Ave., So. Minneapolis, Minn.
Puerner, A. G. ..... Gays Mills, Wis.
Paynter, C. ..... Waunakee, Wis.
Pearson, H. T. ..... Shell Lake, Wis.

Rasmussen, E. G. ..... Fall Creek, Wis.
Roch, F. J. ..... Eau Claire, Wis.
Radke, H. A. ..... Houlton, Wis.
Raven, H. ..... Bloomer, Wis.
Roethle, Martin ..... Sheviz, Wis.
Roou, Ben ..... Sparta, Wis.
Randall, A. O. ..... West Rosendale, Wis.
Reinhard, F. ..... Green Bay, R. F. D. 8
Rebine, S. B. ..... Elk Mound, Wis.
Ralph, H. A. ..... Eau Claire, Wis.
Ryan, E. J. ..... Durand, Wis.
Richards, P. A. ..... Durand, Wis.
Rohn, F. J. ..... Dodge, Wis.
Rivers, Frank A. ..... Thorpe, Wis.
Reckner, G. F. ..... Stratford, Wis.

Snyder, F. E. ..... Whitewater, Wis.
Soltwedel, E. G. ..... Lime Ridge, Wis.
Stryker, J. W. ..... Sharon, Wis.
Schulte, H. C. ..... St. Croix Falls, Wis.
Sorenson, C. H. ..... Fond du Lac, Wis.
Schields, John ..... Fall Creek, Wis.
Schaefer, E. ..... New Holstein, Wis.
Sauer, G. P. ..... East Troy, Wis.
Stewart, W. A. ..... Eagle, Wis.
Spreen, Paul ..... Medford, Wis.
Shilling S. B. ..... 154 Lake St., Chicago, Ill.
Shumway, C. P. ..... Milwaukee, Wis.
Skinner, D. ..... Milwaukee, Wis.
Scott, Z. D. ..... Milwaukee, Wis.
Schulz, R. A. ..... 154 E. 5th St., St. Paul, Minn. N. Y. Cent. Line
Smith, G. W. ..... 1921 Marshall Ave., St. Paul, Minn.
Shepherd, F. ..... Viola, Wis.
Strong, G. R. ..... Winona, Minn.
Southard, R. B. ..... Marshfield, Wis.
Seeber, F. A. ..... Waterloo, Wis.
Schroeder, L. H. ..... Chelsea, Wis.
Scheidler, H. ..... Genesee, Ill.
Scheidler, J. ..... Savanna, Ill.

Shepherd, W. P. .....744 Irving Pk. Blvd., Chicago, Ill.
Switz, Geo. H. .....Rockford, Ill.
Sorge, A. O. .....Reedsburg, Wis.
Schultz, A. C. .....Platteville, Wis.
Szerlong, F. .....Thorpe, Wis.
Scheel, E. W. .....Turtle Lake, Wis.
Schuknecht, H. E. .....22 Fifth Ave., Chicago, Ill.
Somerville, T. A. .....Kinzie St., Chicago, Ill.
Sprecher, J. .....11 No. Broom, Madison, Wis.
Sell, R. O. .....Chippewa Falls, Wis.
Seyforth, J. W. .....Mondovi, Wis.
Serl, F. R. .....Milton, Wis.
Sather, B. O. .....Blair, Wis.
Sudendorf, E. .....Clinton, Ill.
Schneider, Wm. .....Johnson Creek, Wis.
Simmons, J. A. .....St. Paul, Minn.

Tyler, Clay .....West DePere, Wis.
Tingleff, C. P. .....So. Wayne, Wis.
Tamlingson, R. E. .....Cambridge, Wis.
Torpey, Ed. .....Waterloo, Wis.
Thompson, F. C. .....Oregon, Wis.
Tucker, E. H. .....Marshfield, Wis.
Tomter, Theo. .....Pigeon Falls, Wis.
Thym, W. F. .....Eagleton, Wis.
Taylor, D. .....108 Best Ave., Chicago, Ill.

Ullsperger, J. .....Forestville, Wis.

Voigt, W. A. .....Eau Claire, Wis.
Van Kuren, S. J. .....Chicago, Ill.
Van Duser, J. .....Ft. Atkinson, Wis.
Vansistine, L. .....DePere, Wis.
Van Ryn, A. .....Glenwood, Wis.

Weber, J. F. .....Hartford, Wis.
Warnke, Wm. R. .....Kingston, Wis.
Winter, L. H. .....Chippewa Falls, Wis.
Werner, F. M. .....Waterloo, Wis.
Weuthrich, J. .....Greenwood, Wis.
Wiggington, W. W. .....Viroqua, Wis.
Wilcox, A. H. .....Bloomer, Wis.
Warner, T. J. .....Rosholt, Wis.
Willan, J. F. .....Rosendale, Wis.

Walstrom, J. A. ..... So. Minneapolis, Minn.
Werner, P. ..... Bloomer, Wis.
White, F. L. ..... Vesper, Wis.
Wellinghoff, E. F. ..... 182 Kinzie St., Chicago, Ill.
Williams, C. A. ..... Augusta, Wis.
White, D. B. ..... Washington, D. C.
Wuethrich, F. ..... Doylestown, Wis.
Walsh, F. M. ..... Ft. Atkinson, Wis.
White, E. A. ..... 367 Robert St., St. Paul, Minn., Star Union Line
Williams, C. H. ..... 315 Dearborn St., Chicago, Ill.
Whitmore, E. J. ..... Owatonna, Minn.

Zimmermann, A. W. ..... Norwalk, Wis.
Zastrow, F. W. ..... Amherst Junction, Wis.

ARTICLES OF INCORPORATION AND BY-LAWS

of the

Wisconsin Buttermakers' Association

ARTICLES OF INCORPORATION.

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

Article Second. The name of said corporation shall be the "Wisconsin Buttermakers' Association," and its principal office and location at Madison, Wisconsin.

Article Third. The association shall be a corporation without capital stock. Any person who is a practical creamery operator, and such other persons as are connected or interested in the manufacture and sale of pure butter may become members of this corporation by paying one dollar ($1.00) annually in advance and signing the roll of membership.

Article Fourth. The general officers of said association shall be a president, vice president, secretary, and treasurer, and the board of directors shall consist of three members of the association. The term of the officers of the association shall be one year, or until their successors are elected at the next annual meeting following their election, and until such successors qualify. At the first meeting of the members of the association there shall be elected a director for the term of one year, a director for the term of two years, and a director for the term of three years, and thereafter there shall be elected at each annual meeting a director for the term of three years, and each director shall hold his office until his successor is elected and qualifies.

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

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

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

The principal duties of the treasurer shall be to faithfully

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

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

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

Article Sixth. The treasurer of the corporation shall give a bond in the sum of two thousand dollars ($2,000.00) for the faithful performance of his duties. The said bond to be approved by the board of directors before being accepted by the secretary. Whenever the corporation may so desire, the office of secretary and treasurer may be held by one and the same person. This action can only be taken at a regular election of officers.

Article Seventh. These articles may be altered or amended at any regular session of an annual meeting of the members, proposed alterations or amendments shall have been read before the association at least twenty-four hours previously, and

provided the proposed alterations or amendments shall receive a two-thirds vote of the members present.

Article Eighth. The first meeting of this corporation for the election of officers and directors shall be held on the 26th day of February, 1903, and such corporation shall hold a meeting of its members annually during each calendar year at such time and place as may be determined by the executive board.

BY-LAWS.

Article First. All elections shall be by ballot, except in the case of a single nominee, when election by acclamation may be substituted.

Article Second: The Association may accept such special or side premiums as, in the judgment of the executive committee, may seem for the best interests of the members.

Article Third. Only one tub of butter may be entered from any one creamery for competition for any of the prizes or premiums; if more than one tub is so entered such entries shall be debarred from participation in all premiums.

The size of butter packages entered in competition at the Association contest shall be no smaller than a twenty pound tub.

The butter so entered shall belong to the Association. After the scoring contest has been completed the said butter is to be sold; the Association will pay the express charges, the exhibitor's membership dues for the current year and such other expenses as may be connected with the butter exhibit; the balance remaining from the sale of the butter shall be deposited in the treasury and be devoted to the premium fund for the next annual convention.

Article Fourth. The privileges of the Association butter contests are open to exhibitors outside of Wisconsin, but such exhibitor must be present in person, or have a representative of the creamery present at the convention to entitle him to

share in the pro rata premium fund or compete for any other prizes offered by the Association, and must conform to all regulations required of state exhibitors.

Article Fifth. The Association shall give such prizes for the tubs of butter scoring first, second and third as may, in the judgment of the executive committee, best suit the times and be of greatest service to those who receive the same.

Article Sixth, Sec. 1. The score that shall entitle an exhibitor to a share in the pro rata shall be determined by the executive committee in advance of each yearly meeting.

Sec. 2. The scores of those exhibitors not participating in the pro rata shall not be published.

Article Seventh. All points of parliamentary practice not covered by the Articles of Incorporation or these By-Laws, shall be governed by "Robert's Rules of Order."

Article Eighth. These By-Laws may be altered or amended in the same manner as prescribed in the Articles of Incorporation.

EIGHTH ANNUAL MEETING

—OF THE—

Wisconsin Buttermakers' Association

The eighth annual convention of the Wisconsin Buttermakers' Association was opened at Eau Claire, Wisconsin, February 9, 1909, and was called to order at 8 o'clock in the evening, with President E. C. Dodge in the Chair.

The Chairman: We will now listen to the invocation by Rev. Mr. Babcock.

Prayer.

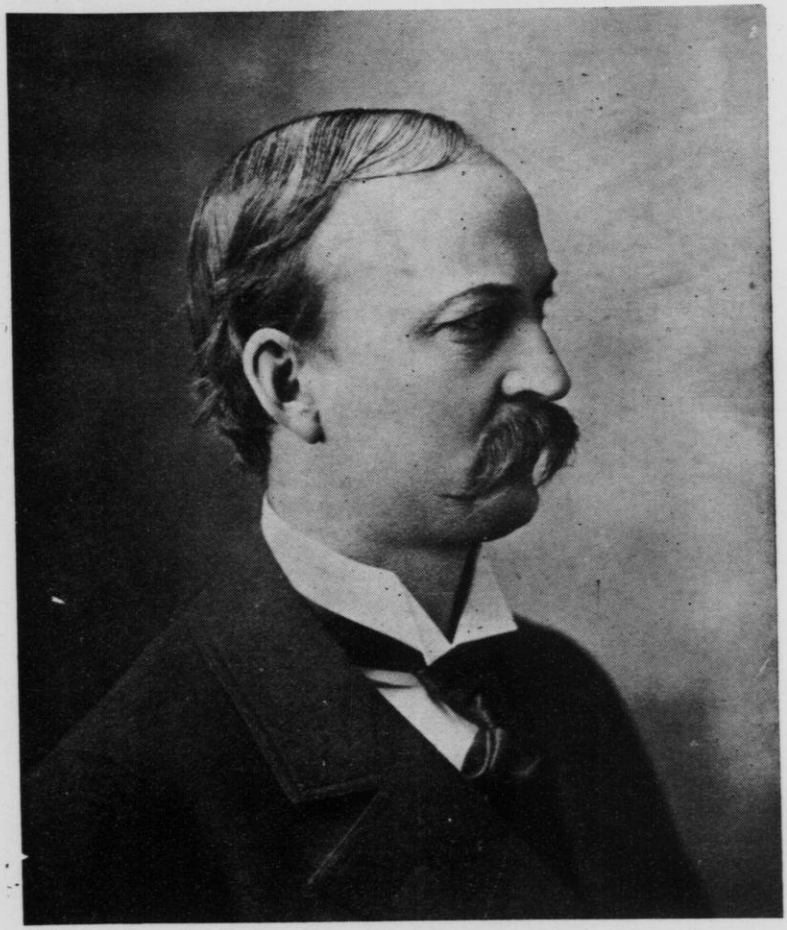
Rev. E. Babcock, Eau Claire.

Let us pray. Our Father which art in Heaven, we remember Thy word that we pray for our daily needs, and our Father in Heaven knows that we have need of all things. We bless Thy name for there is nothing in our lives that is not under the Father's care, nothing that we cannot bring to Thee in confidence as children to their Father. We praise Thy name for our land and all its privileges, for its splendid prosperity, for the homes of the land, for the business of the land and we, who have been commanded by Thy word to pray for all men and especially for those in authority, do pray that they who direct the affairs and counsels of our legislatures shall direct them wisely and that those who direct our business and commercial relations of life shall also be guided by the wisdom of God.

We pray now that Thy blessing may rest upon all who work at this convention, that the result of their deliberations shall be for the benefit of all the people. May the Lord's blessing be with each delegate. May it come to us always

over and over, until it becomes a settled conviction of our lives that all that we do and all that we are should be under the subjection of our Lord and our God. We ask it in Jesus' name. Amen.

The Chairman: The next on the program is the address of welcome by Mayor Wm. H. Frawley.



WM. H. FRAWLEY, EAU CLAIRE, WIS
MAYOR

Address of Welcome.

Hon. Wm. H. Frawley, Eau Claire, Wis.

Mr. President, Gentlemen, Buttermakers of this State and Visiting Guests:

I assure you that it is with pleasure that the people of the city of Eau Claire greet you on this your convention day. The people of this city fully realize the importance of the business in which you are engaged. Many of us who have lived in this city for a great many years and in this state all our lives, have seen step by step the farming interests of this state advance beyond us and with a more rapid pace than in any other state in the Union. What has naturally assisted in that are the new inventions, through which everything that comes on the farm is utilized, and especially in the dairy business those new inventions have almost gone beyond the expectation of any person who has handled the product.

We notice that only a short time ago the state of Wisconsin was not ranked among the dairy states, but today I understand it is at the foremost in commercial importance in that respect. I remember years ago when the farmers used to churn by hand and then had an invention so they could churn by the crank or hand lever. Time has changed all that and I notice in a late report of our state university that the dairy industry, by reason of these new inventions, has become the most productive part of the farming industry in America.

Now, Gentlemen, we have a town which we think has between twenty thousand and twenty-three thousand inhabitants. We have a city which we would like to have you all see so that you may know what we have in the way of public improvements, in the way of business manufacturing concerns, in the way of fine homes, in the way of good stores. I also want to call your attention to the public improvements which have been going on and if suggestions can be made whereby we can better our public improvement system, we would be glad to have such suggestions. We have a city that is beautifully located. Its advantages are just being noticed. Our city has at its command over 100,000 horsepower for manu-

facturing and commercial purposes. Most of that has been developed, some of it is owned by the municipality, and the balance is owned by different private companies, most of which companies are located in this city. We are now taking a step towards the manufacturing business. I believe I am right in saying that for a small town of the class in which we are we have more manufactured articles that have found their way across the water and in all portions of the civilized world than other towns of like size, and the result of that is that it is now known as taking a new lease of life in the way of commercial and manufacturing importance. There are packing houses here which ship direct to Europe, we have machine shops that ship direct to all portions of Europe.

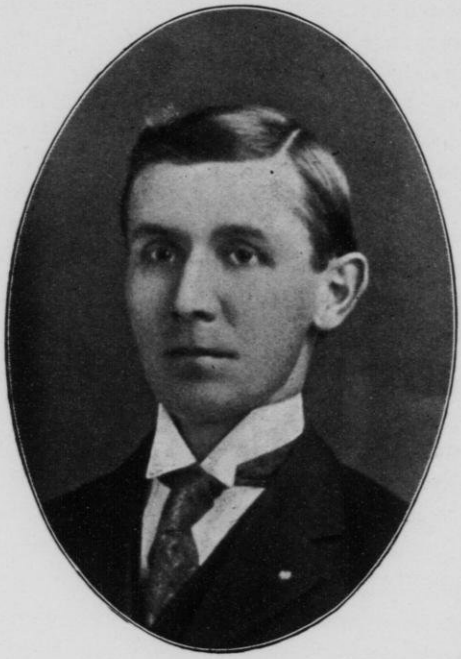
I presume in welcoming you here that I cannot extend the welcome so strongly that we can have you all go back and close out your respective businesses and move your manufacturing establishments up here, making this your permanent home; but we hope by the time that you get through with your convention here that you will see enough of our town so that a great many of you will do that.

Now, my friends, we welcome you to our city and we are very proud to have you with us. We hope that you will have a pleasant and profitable time while you are here. I thank you.

The Chairman: I hope we can all take home some good ideas from some things we see and hear in Eau Claire that will be of benefit to ourselves, our neighbors and our municipalities, and I feel sure that we will. Mr. J. F. McGill will respond to the address of welcome.

Response to Welcome.

Mr. J. F. McGill, Pres. Brown Co. Buttermakers' Assn.



J. M. McGILL
LITTLE SUAMICO

Mr. Chairman, Ladies and Gentlemen:

You may be assured that I am somewhat overcome by the hearty welcome that has been so well extended to us by your honorable mayor on behalf of your people.

Each buttermaker present is delighted to return to your city and again partake of your hospitality. We beg of you, however, not to make the very serious mistake of imagining that the buttermakers themselves are responsible for their coming here at this time to hold their annual convention, for such is not the fact. You alone are responsible for our presence here, if I may term it such. You entertained us so right royally in 1904 that there seems to have been an irresistible power pulling us your way ever since that year. It has eventually got the better of us and here we are.

Few people in Wisconsin appreciate what the dairy interests in this state stand for. You look upon us as a few of the unimportant persons of the state, scattered here and there in the rural districts and in the backwoods. We are never heard of, never thought of except perhaps once a year when we join forces and by our combined effort hold a part of the stage of importance for a few hours.

The great state of Wisconsin has been hewed from the primeval forest in the past fifty years. Woods, rocks and hills have disappeared, until today we have one of the greatest dairy states of the union. It may appear strange to you, however it is true, that the present great wealth producing industry in Wisconsin is the dairy interest. Such interests have made Wisconsin famous throughout the civilized world. Well may it be borne in mind in that connection that this wealth is distributed among those who produce it, something uncommon in the production of most wealth at this time.

It seems to be fair that you, viewing the great advancement and growth of our commonwealth, should at least pay some attention to its greatest permanent industry and assist us and incidentally yourselves in every way possible. While the butter industry is as old as the word cow, still our present methods of buttermaking are new. We in our work meet constant failures, we have many unheard of things to overcome, each in our respective place of labor, making new discoveries each year. Each of us at times meet with obstacles which we cannot overcome. Unlike most of the progressive institutions we are not patenting our ideas. We come together each year, we give our neighbor the benefit of our success. Our neighbor helps us to overcome our defects.

I feel that this will be a great and successful meeting, it will be entertaining as well as educational. I know that your kind people will extend to us the same co-operation and assistance that they extended to us in 1904. The making of butter is your business as well as our business. In that occupation we find the future of this great state. With your assistance, we have determined to make the convention of the year 1909 the most successful we have yet held.

On behalf of the buttermakers I wish to thank you and your honorable mayor for your generous welcome.

The Chairman: I notice Mr. McGill says we are not known or thought of very often. Perhaps in Brown County they make such good butter that the revenue officers do not get after them, but if he was in some sections he might think he was thought of once in a while.

The next on the program is our treasurer's report, Mr. G. Speirs.

MR. G. SPEIRS, EAU CLAIRE
FORMER TREASURER

Treasurer's Report.

Mr. President and Members of the Wisconsin Buttermakers' Association:

I herewith submit to you my Annual Report for 1909.

RECEIPTS.

Balance on hand last meeting	$1469.25
Received from State	600.00
Received from butter sale	1105.92
Received from J. G. Moore	1096.20
	$4271.37

DISBURSEMENTS.

Paid out for Premium Fund	$1117.37
Paid out for Expense Account as per orders	1534.01
Total paid out	2651.38
Balance on hand	1619.99
	$4271.37

Mr. Speirs: In connection with this, I will say that the secretary's report and mine does not balance within $5.13. We find one man has paid us $5.00 twice.

On motion, duly seconded, the report of the treasurer was adopted as read.

The Chairman: The next is the report of the secretary, Mr. J. G. Moore.

Secretary's Report.

Mr. President, Ladies and Gentlemen:

The seventh annual meeting of this Association was held in the city of Milwaukee and was considered well up to the standard of Wisconsin Buttermakers' meetings. Someone recently asked in the dairy press "Why Wisconsin with the largest number of creameries of any state has not the largest convention?" I want to say that I have visited the conventions of Minnesota, Iowa, Michigan and Illinois and in no respect has Wisconsin to take a back seat.

When it is considered that in Wisconsin we have a Dairymen's Association, a Cheese Makers' Association, the Southern Wisconsin Cheese Makers' Association and the State Buttermakers' Association, each holding conventions, any one of which is as well attended with as large if not larger paid up membership as these other states, where all branches of the business are cared for in one association, then I do not think it necessary to ask the question, "What is the matter with the Wisconsin Buttermakers' Association?"

During the past few months several new county associations have been formed under auspices that indicate stability and permanency; we have now the Brown County, the Dane County, Northwestern, Southeastern, Columbia County and Polk County Associations, which should be productive of much good and increase the interest and membership of this association.

To arouse some emulation among the members of these newly formed organizations it was decided to give a suitable prize cup to the association whose members had the highest average score with at least ten entries.

Last year I recommended that the solicitation of funds for the premium fund be discontinued, and as my report was adopted, this year the trade was not asked to contribute, and yet we have a premium fund of $1078.82.

The success of last year's judges' scoring contest was such that it should be made a permanent feature of the annual meeting.

Your officers were unable to make any arrangements with the Dairy School for them to join with us in holding the regular monthly scoring in connection with this meeting.

A year ago last July there was organized an association having for its object the protection of the local creamery from the centralizers through unfavorable rates for the transportation of cream. Your officers have done what they could to protect your interests and still further action may be necessary even though a decision has been handed down by the Interstate Commerce Commission which, notwithstanding re-

ports to the contrary, raised rates at least thirty-three and one-third per cent over the lowest rates which had been in effect. Contributions have been solicited for the purpose of providing funds to pay for this fight and you have responded fairly well, but more will be expected of you if we are to succeed.

Two years ago as your legislative committee I had a bill introduced by Hon. James McKenzie of Waukesha County asking the state to print our reports, as it is and has been doing for the Dairymen, Cheese Makers' and other associations. This bill was vetoed by the governor, not on its own account, but because it had become part of an omnibus printing bill to which in the main he objected. He, however, assured me that if it came to him alone he would sign it, and with that assurance I have secured the consent of Hon. Otto Onstad of Eastern Dane County to introduce a bill to have our reports printed, which, if it passes, will save us nearly $250.00 yearly.

In this connection let me say that Mr. Onstad is the manager of a large co-operative creamery and is expected to attend this convention, his creamery, the Prairie Queen, having agreed to pay the expenses of the manager and buttermaker. It will be necessary for you to bring pressure to bear on your senator and assemblyman to see that this bill is passed. Suggestions have been made in regard to having bills introduced in the legislature for the purpose of having a uniform monthly statement, pasteurizing all milk products, compulsory tuberculosis test, declaring unfit for manufacture or use cream older than forty-eight hours; and if in your opinion these are proper subjects for legislation, resolutions should be passed embodying your ideas on these subjects.

Financially our Association is in good shape. At the close of last year's convention there was, as published in the seventh annual report, a balance on hand in General Fund of $461.49

To which has been added:

Feb. 15, S. A. Cook, donation and membership	$ 26.00
Feb. 15, M. C. Gehl, space in machinery hall	5.00
Feb. 15, Memberships taken at convention	255.00

Feb. 15, Memberships taken from Butter Fund	163.00
Feb. 15, Advertising in last year's program	425.00
April 13, Empire Cream Separator Co., donation	10.00
April 13, N. C. B. Association for postals	10.00
April 18, Additional memberships	7.00
June 15, Balance from theater tickets	7.20
July 2, Received from State Treasurer	600.00
July 17, Albrecht Mfg. Co., donation for space in machinery hall	5.00
Jan. 19, S. A. Cook, Neenah, donation and membership	26.00
Jan. 19, Received from advertisers in this year's program	250.00
	$2250.69

DISBURSEMENTS.

Feb. 15, W. Mayer, printing programs, etc	$ 188.67
Feb. 15, Schwaab Stamp & Steel Co., fobs	84.00
Feb. 15, Sundry convention expenses	115.73
Feb. 17, O. B. Cornish, convention expenses	27.20
Feb. 17, J. C. Joslin, convention expenses	24.50
Feb. 17, E. C. Dodge, convention expenses	21.39
Feb. 17, J. F. McGill, convention expenses	12.60
Feb. 22, Drayage, freight, etc.	14.40
Feb. 22, D. Bewick, stenographer and clerk	10.00
Feb. 22, J. Faville, convention expenses	8.00
Feb. 22, J. G. Moore, secretary's salary	250.00
March 3, F. A. Averbeck, medals and cups	45.00
March 3, J. Q. Emery, convention expenses	5.13
March 3, L. H. Schroeder, convention expenses	18.22
March 3, J. Boning, stenographer	6.93
March 9, W. H. Burrell, convention expenses	12.22
March 9, Schwaab Stamp & Steel Co., National Convention badges	16.00
March 9, A. L. Cross, banquet picture	2 50
March 10, M. G. Carpenter, reporting convention	75.00
March 14, W. Mayer, stationery for officers and express	16.50
March 23, L. P. Holgerson, convention expenses	9.20
March 23, A. J. Glover, convention expenses	6.80
March 23, W. Mayer, printing postals N. C. B. A.	10.00
April 6, Gimbell Bros., packing and shipping chairs	6.00
June 23, W. Mayer, printing envelopes for report	6.25
June 23, Express, stamps, telegram	4.48
July 13, Postage, freight and drayage on reports	35.00
July 14, P. B. Haber Co., printing reports	235.99
July 14, W. Mayer, order books	2.50
Dec. 21, Whitehead & Hoag, one-third of badge order	28.00

Dec. 21, Postage, expressage, 'phones	9.09
1909	
Jan. 12, Whitehead & Hoag, badges, balance	58.35
Jan. 22, Postage on programs, etc.	40.00
Feb. 9, G. Speirs, Postage	6.00
	$1411.65

RECAPITULATION.

Treasurer's Balance	$1619.99
Premium Fund	775.82
General Fund	844.17
Overpaid on last year's advertising by Union Cold Storage Pittsburg	5.00
Balance on hand	$ 839.17
Due from Advertisers	225.00
	$1064.17

On motion, duly seconded, the report of the secretary was adopted as read.

Mr. Parman: The executive board, which constitutes the auditing committee, examined the books of the secretary and treasurer and found the books correct, with the exception of 13 cents additional on the treasurer's books.

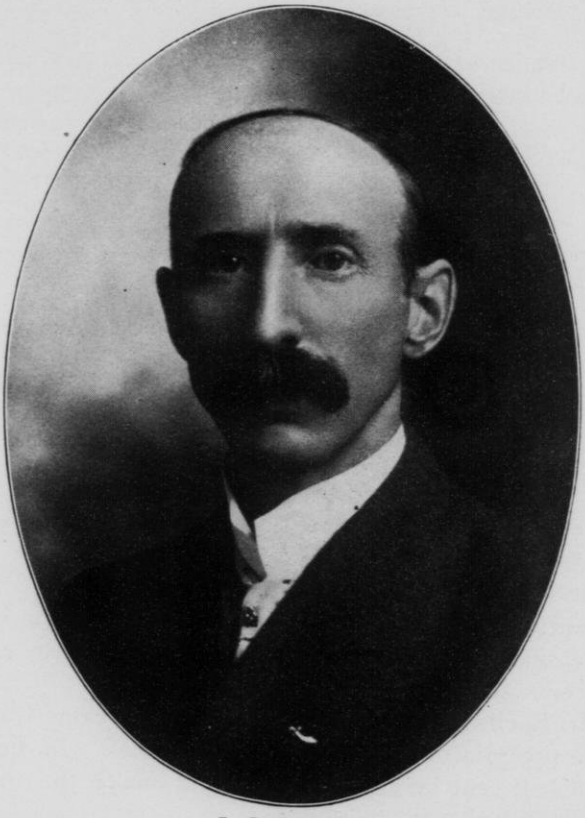
Mr. Speirs: I think that thirteen cents came from figuring the pro rata of last year's premium fund. In figuring a point a half cent here and there would make the difference, and we think that is where it is.

The Secretary: I want to say the figuring of the pro rata fund was done at the dairy school, owing to the fact that they held the scoring contest with us last year, and the figures were $16.61 less than the total amount in the premium fund, which I think will be added to this year's premium fund, making it that much more.

Mr. Speirs: We went over all the figures and gained that much in figuring over the accounts.

The treasurer, Mr. Speirs, takes the Chair.

The Chairman: The next on the program is the annual address of our president, Mr. E. C. Dodge.



E. C. DODGE
LAKE MILLS

President's Address.

Mr. E. C. Dodge, Lake Mills, Wisconsin.

Mr. Chairman, Ladies and Gentlemen:

This is a part of the program that I wish could be cut out. Someway I have not had any inspiration to get up the president's address and give it the amount of thought it ought to have. I would like to reminisce some, as our mayor did, as I started in the creamery business in the stone age, that is when we used the stone churn and stone dash and churned anywhere from one to three days. Now we have gotten to the day when we make butter by electricity. Mr. Speirs I no-

tice is installing that kind of plant down here, and it seems to me as though the business has gotten away from me. I have not been actively engaged in milking the cows the last few years and I realize that I am a back number. It always seems to me as if the president's address should be by an up-to-date buttermaker. I jotted down a few ideas last evening, which I will read to you, and make no apology therefor.

Five years ago this month we held our third annual convention in this beautiful city. Our greeting was so cordial and our stay made so pleasant by your hospitality that we have decided to hold our eighth convention with you and I trust we may prove ourselves worthy of your efforts in our behalf.

From the standpoint of the general dairy interest, we have passed one of the most successful years in the history of the industry. Prices of dairy products have been well sustained and the business seems to be in a healthy state.

Changes are constantly taking place and the buttermakers of five years ago find themselves back numbers today unless they have kept up with the times in dairying.

Chicago has passed an ordinance requiring that all butter sold on its markets must be made from pasteurized cream or else tuberculin tested cows. This is a step in the right direction, but I am a much stronger believer in sanitation than I am in pasteurization.

Were a law passed making it a criminal offence for dairymen to deliver unsanitary milk and cream, and equally binding on the buttermaker for receiving such goods, or manufacturing them in unsanitary creameries, we would be nearing better standards.

Our Dairy and Food Department is doing all it can along these lines under the able management of Mr. Emery and his assistants, but their power is limited.

Our Dairy School under its efficient instructors is doing splendid work toward educating the buttermakers up to a higher standard.

While speaking of the dairy school, I wish to say ours was the first one ever built for that purpose but it seems we have outgrown it. It has served its purpose well, but as our

Dairy Department of our University is a source of revenue, I feel we should, each and every one, labor with our representing regent to see that we get a new building, second to none in the land. With the several hundred short course students who make use of the dairy building, besides the special courses, it is inadequate, and with a constantly increasing number of students, something will have to be done soon.

For the past two years a butter and cheese scoring contest has been held. Now this is open for everybody, and I would like to see the buttermakers who are making the low scoring goods come into this contest, for it is more for their good than for the maker whose goods score 94 points or better. There is an award similar to your diplomas; your records will be kept and this gives to each maker a chance to see what his score has been and a chance to compare notes. Also the Dairy School Alumni Association has recently been formed which will bind together between two and three thousand students. This organization should be enthusiastically received by the Alumni. No doubt an annual banquet will be held and good fellowship prompted.

The controversy over cream rates has at last been heard before Commissioner Prouty and the final hearing of the briefs before the commission in Washington and their decision given. This may not be just as we would have liked it but as a whole, we are satisfied with the decision. I feel that we have labored for a worthy cause and a great amount of praise is due Mr. Moore and Mr. Seeber for the work they have put into this hearing. We will hear from them regarding this matter later in the meeting. We must recognize that the centralizer has a place in certain localities, but where creameries and cheese factories are as thick as in some sections of Wisconsin, it seems to me they are uncalled for.

The oleomargarine interests are getting uneasy again. As it is our common enemy, we must unite and use every effort to see that we are represented in our legislative body by men who are willing to stand by one of the greatest industries of the land, for milk is man's natural food, while cotton seed oil, glycerine, and vaseline are simply byproducts of Mother

Earth which God intended for other purposes. Oleo oil and neutral may be healthy as food, but let us have them in their natural state, and not in semblance of butter. We must unite and fight this enemy of the dairy interests.

Our good friend, Hon. S. A. Cook, has again remembered us with his chairs and a generous donation. I wish many more of our prominent men were as much interested in our dairy industry as Mr. Cook.

Located as we are in this grand state, with its beautiful prairies and its fertile hills and valleys, with three thousand butter and cheese factories, let us join hands and see that we make this dairy industry pre-eminent, and this organization of ours, if not the leader, second to none.

Mr. Dodge resumes the Chair.

Mr. Holgerson: I have a resolution here that I would like to offer.

L. P. HOLGERSON
TROY CENTER

Resolution.

WHEREAS, Article fifth of the by-laws of the Wisconsin Buttermakers' Association reads as follows:

"The Association shall give a Gold Medal for the highest scoring tub of butter and a Silver Medal for the second highest," and

WHEREAS, Gold and Silver Medals are of doubtful value to the recipients of the same, therefore in accordance with Article Seventh of the Articles of Incorporation, notice is hereby given that a motion will be made in due time to amend Article Fifth of the by-laws so as to read as follows:

Article V. "The Association shall give such prizes for the tubs of butter scoring first, second and third as may, in the judgment of the executive committee, best suit the times and be of greatest service to those who receive the same."

WHEREAS, Article Second of the by-laws of the Wisconsin Buttermakers' Association reads as follows:

"This association will accept no special or side premiums of any nature whatsoever" and,

WHEREAS, conditions under which it seemed advisable to have such a by-law are now so changed that it is deemed best to permit the association to receive such special or side premiums that may be offered,

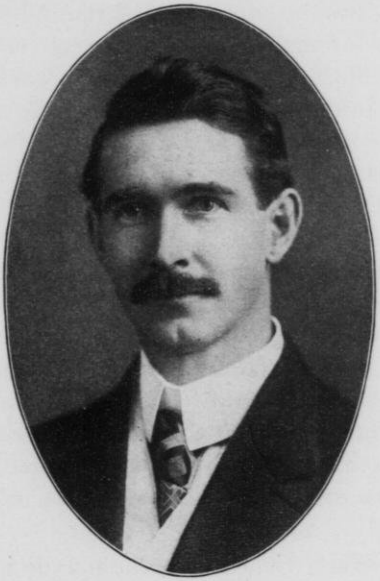
THEREFORE, in accordance with Article Seventh of the Articles of Incorporation notice is hereby given that a motion will be made in due time to amend article second of the by-laws so as to make it read as follows:

Article Second: "The Association may accept such special or side premiums as, in the judgment of the executive committee, may seem for the best interests of the members."

The Secretary: It requires twenty-four hours notice for any amendment to the by-laws and therefore this resolution was offered at this time.

Mr. Cook: That is the sentiment of the Northwestern Buttermakers' Association.

The Chairman: The next on our program is an address by Mr. James P. McAnulty, of this city.



JAMES P. McANULTY
EAU CLAIRE

Address.

Mr. James P. McAnulty, Sec'y. Commercial Assn., Eau Claire
Mr. President and Gentlemen:

I am sure I am pleased at getting applause before starting to talk to you for I fear I will not get any when I have finished. Last Sunday afternoon I started in the ski tournament and fell and broke my arm and it has taken me since to explain that I did not have skates on, so I have not been prepared to address you as I would like to do.

In connection with this broken arm the first thing that came to my mind is the fact that I had to speak at the buttermakers' convention, and when I returned to the house and the doctor was setting my arm, I turned to my brother and said "Tom it is too bad it broke before the buttermakers' convention, because I have to speak there Tuesday night," and he said, "That's all right, Jim, an Irishman does not have to use his hands to talk." In getting this arm broken I considered

myself lucky it was no worse and it reminded me of a story told of an Irish foreman of a stone quarry. It was his place to see that every blast was properly taken care of, if anything happened he was the party that had to look at the dangerous operation. One day while he was working there a blast hung fire and he started out to see what was the matter. He got there in time to put his hand over the blast and the charge went off carrying his right hand with it. He went home, was bolstered up in the bed and some of the neighbors came around, some of those Job comforters who say how bad things are. This neighbor particularly was persistent in saying what an awful accident it was and what an unfortunate thing it was that he should lose his right arm. The Irishman said, "Yes, but Tim it might be worse"—"Well, then I cannot see how it could be worse than losing your right arm."—"It could be worse, now supposing my week's pay was in that right hand when it blew off."

Now, Ladies and Gentlemen, the mayor welcomed you to our city in behalf of the city, and I have been asked to welcome you here in behalf of the Commercial Association. This is a body of business men who have come to the aid of the mayor and council in promoting the business interests of the city. We have a nice city here, such a nice city that if a person started to tell you all its advantages, all of its wonderful beauty spots, you would scarcely believe him. I tried one time to tell a story of the wonderful Mormon temple at Salt Lake City and before starting to tell about that I will tell you my experience. I was once a drummer, a commercial drummer, and while employed in that line of work I sold soap. One night I was telling of the architectural virtues of this Mormon temple, its wonderful acoustic properties, etc. I told how the guide, in passing through the wonderful building, went to the farther end of the building and dropped a pin and the acoustic properties were so perfect in that building that we could distinctly hear the pin across to where I was standing. I told the story and while I was telling it I noticed three or four fellows sitting together who did not seem to believe it. When I went to the hotel that evening one of the fellows was stand-

ing there and another was sitting in a chair with his feet on the radiator. One of them said "Hello, Mac, I was over to hear you talk tonight. You were pretty strong on that Mormon temple business, were you not?" I said "That is the truth, I will swear to it." He said "Say, Mac, you used to sell soap, did you not"—"Yes Sir"—"Well, Mac, it seems to me I read in one of the newspapers that your firm took all the lie out of the soap and put it in their salesmen, but if you stick to that Mormon temple story I think you have more than your share."

But, Gentlemen, our city is one of beauty. You perhaps cannot get an idea of its grandure in the winter because everything is covered with snow. In the summer time the trees overhang our streets in luxuriant growth. They are so grand that I do not believe any person could find a more beautiful spot in the whole United States; they are so grand that I think an Irishman like myself, leaving the old sod and feeling that there was no grander spot in all the world than that dear old Ireland, would change his opinion when he came to Eau Claire. We have a great many different advantages to offer. Our city is built on seven hills, it is built like ancient Rome. If you want a view of our city you must go on one of those hills; you can then look over the city and particularly in winter you can see its nice homes, see how nicely they are scattered. Each home here has a nice piece of lawn around it; in the summer those lawns are well kept, and many of them have nice flower beds. Our houses here are very uniform, all kept well painted and neat. We do not find it necessary here to have an inspector go around and tell people to clean up their yards as is done in Chicago, I came from Chicago, by the way. You will find a condition here that does not exist in the big cities, that is that a majority of the people own their own homes and statistics show that Eau Claire has more home owners per capita than any other city in the United States. That is worth remembering.

In looking over the city from one of the hills here you will see the winding rivers, and really the winding of that Chippewa River reminds me of one of our dear old spots in

Ireland, the Vale of Avoca. I think the windings here are even grander than there and they bring, with perhaps a tremor to my lips, the words of Moore the poet when he wrote the everlasting lines

> There is not in this wide world
> A valley more sweet
> Than the vale in whose shadows
> The bright waters meet"

and right here we have that same condition, everything to make an ideal spot. Water powers, with their energy, converted into electricity, give us an opportunity of interesting factories, give us a chance of offering as a bonus an almost unlimited amount of power at the very lowest rate; they give us an opportunity of building this city so before very long we hope to have a bigger place here than Chicago. It is no dream, we have the opportunities. We have no labor troubles here, our people are contented, they are the home owning variety, they are not people who like disturbances, but work steadily, work faithfully and all those conditions are the very thing that tend to build up a city.

We have the rivers here for pleasure. We hope, perhaps before you next visit here, to have the lordly Chippewa dammed and fixed so we will have a canal here that we can sail up and down in our boats in the evening and perhaps rival Venice in splendor.

It is a startling fact that we have but few fires here. That may be considered from two standpoints; fires in some localities are generally either from business failures or an inefficient fire department, and therefore as we do not have many fires we must have a very good fire department and we must have a very good class of business men.

I am sure if any of you have time to visit our factories you will be gladly welcomed. There is a paper mill here, a company manufacturing ice locomotives, some of which are going into the coldest parts of the world, up to Alaska; we have the McDonough Mfg. Co., making machinery that may be found in Australia.—wood working machinery; the North-

western Steel & Iron Works will come nearer your heart because they make butter making machinery and gasoline engines for that purpose. I think during your stay here if you can find time to call on some of these establishments you will find those people the most courteous you could find anywhere and they will all be willing to show you their plants, and if you visit them you will be surprised at their magnitude.

Now, Ladies and Gentlemen, I shall not keep you here much longer. I consider it an honor to have the pleasure of talking to you this evening and if you will excuse me I will sit down and nurse this baby of mine.

The Chairman: I feel sure that the Commercial Club of Eau Claire will never need to look any farther for a man to introduce strangers to the town. I am surprised to hear that we are in such an important city and how closely it resembles Rome. I hope it meets a different fate. I assure you it is a revelation to me to know there are so many industries here that I never heard of before.

Is there anything further to come before this meeting? If anything can be offered for the benefit of the buttermakers, I would like to have suggestions. There is, by the way, one industry here Mr. McAnulty did not refer to, that is the greatest one in your city, and Mr. Speirs assures me he will be glad to have any of you call and see him and visit what is to be the model creamery of Wisconsin.

The Secretary: I would like to say to the members tonight that I am very thankful to them for turning out so well to this convention. I intended, when the preliminary steps were taken in arranging for this convention, to have the meetings held on the first floor, but the supply people have turned out and so many car loads of machinery are here that they have driven us off the floor. That is the reason we are up here.

Tomorrow morning at Mr. Speirs' creamery will be held the contest for butter judges. The judges tell us they have selected a certain number of tubs of butter so as to give you

all kinds, and you can demonstrate your ability in judging butter. The tubs are to be scored first, then rearranged and scored again. The first time you score against the judge's score and the next time against your own score. There will be one tub set aside which the judges will have scored at 93 extras, and that will be your standard by which to score. The honor of being first in that contest will be rewarded by a fine silver cup. It is a beauty, and for the County Association there is another silver cup. That should certainly arouse some enthusiasm in the judging. There are a number of prizes for the buttermakers and I am sure I would like to be the one getting some of them.

The Chairman: If this is all there is to be said, we will now stand adjourned until 1:30 tomorrow afternoon. Tomorrow morning will be devoted to viewing the exhibits, and to the judges' contest. You will now consider yourselves dismissed until 1:30 tomorrow afternoon.

WEDNESDAY AFTERNOON SESSION.

Meeting called to order at 2 o'clock by President Dodge.

The Chairman: The first on the program this morning is "Buying on Quality Basis," by Mr. W. H. Burwell, of Endeavor, Wisconsin.

W. H. BURWELL
ENDEAVOR

Buying on Quality Basis.

Mr. W. H. Burwell, Endeavor, Wisconsin.

Mr. President, Ladies and Gentlemen:

This association at the present time, it seems to me is something like a family picnic more than a buttermakers' association. I do not know that our worthy president, Mr. Dodge is any better looking but I know he looks better to me each year, and among the well known faces are those of Secretary J. G. Moore and Mr. S. B. Shilling, while perhaps others would go for a nickel apiece.

I am somewhat at a loss how to present my subject this afternoon, "Buying on a Quality Basis," but I want for a moment to touch on the subject I discussed last year at Milwaukee. Perhaps some of you will remember that my subject last year was the laundry as a side issue to the creamery, and for a time after that Milwaukee meeting this was discussed to

some extent. I received quite a number of inquiries and a good many invitations to discuss it through the newspapers, then it dropped out of sight, but I notice recently the interest in the matter is reviving and I think it is a good thing, and I would like at this time to say a few words more along this line.

This laundry business is a thing that will come to the front, most of the laundry work is going to be done by machinery sooner or later, and I believe the creamery can take that work up easier and to better advantage than any other business. A creamery already has a good deal of the machinery necessary, even though it is necessary to hire a little extra help, and I believe it is a good thing, a step in the line of progress and progress is what we are here for, because that is what the buttermakers' convention is for. We all expect to learn something, we expect to get some good out of this. At least I do, if I did not get anything more than something good to eat at the banquet I will have something good before I go home.

As we come down to the subject that was assigned to me "Buying on a Quality Basis," I will give a little of my own experience. As most of you know, two years ago my creamery was burned out. I was then in a whole milk creamery. I thought for a time that I was out of the creamery business for good, but I considered the matter quite carefully and I was homesick for the grind of the old churn. I could not think of starting another creamery on the same plan as I ran the old one, when some of the milk I received was very poor, not enough to amount to very much but still sufficient to spoil a whole batch of butter. After I burned out I decided to build a new factory. Most of my old patrons had hand separators and I thought I would need only a small factory, because I made up my mind to accept only good cream. For a time after I built the factory I thought I had it too large but after a while the patronage commenced to increase and my cream was first class. The patrons seemed to worry a little because they feared the cream would not be good, but that is the way I like to see them feel. I started my creamery one

year ago the 11th of November and made 410 pounds of butter the balance of that month, but today I am getting over 3,000 pounds of cream a week. It is a small factory so I am churning twice a day, three days in the week to take care of the cream. I am going to enlarge my building and output, but I will have the same quality and I am going to stick to it. I have also an excellent commission firm, to whom I have shipped a good many thousand dollars worth of butter and I never have had any reason to complain. He stood by me through the small deal or I would have gone under. As soon as I commenced to ship this butter he recognized it the first shipment and he has paid me well for it, and has paid for every pound of butter I ever shipped him.

I stand for quality of cream and intend to stand for it and I am gaining patrons every day. My expenses are small. The expenses of a hand separator plant are not as large as a whole milk plant. It is expensive to separate, we all know that. It does not take much to take the cream in and in a short time churn it. Much power is not needed. I am churning now with a gasoline engine but I would not advise any of you to put in a gasoline engine, that is if you do not want to spoil your patience. If you do not care whether it runs or not it will go all right but if you want it to run it will never move a wheel. I am going to put in a steam engine as soon as I can because my patience is nearly exhausted. At the same time, a gasoline engine is the cheapest thing a man can run for churning alone.

To grade the cream has worked all right in my locality but as a universal thing I do not think it would be a success. There are localities where the farmers would not take hold of the plan as readily as my patrons did because they had formed the habit of bringing good milk and it was a good deal easier to start them right the second time than to try to make a change. My grade has held up and it will hold up. I have no fears whatever.

As to how to get the quality, I believe there is only one way, and that is through legislation. If a creamery man puts in cream vats and grades his cream there will be objections

from the men receiving the lower price, and there is so much competition that if a man becomes dissatisfied with one factory he goes to another, and if the neighboring factory will not take his cream the centralizer will. The centralizers would rather have him than the good patron. If you undertake to grade your cream you will lose your patrons and you might as well go on the principle of "Every man for himself" because you cannot accomplish anything in that way. The quickest and surest way to remedy this is legislation. If there is a law passed that every man shall handle a certain grade of cream and shall not offer for sale anything but a pure product, I think there is no danger but the local factories can stand up all right, because then the farmers could not ship to the centralizers. They would have to hold their cream long enough to get a can full and when they do that it is often off flavor. It gives the local creamery a better chance and insures good cream. It will cost something to have such laws enforced but what are the game and fish laws that do not amount to a picayune to ten per cent of the people, there are officers to see that those laws are enforced? It will cost something to have inspectors to see that the cream is delivered in good shape but I believe it will pay in the end because every man, woman and child is interested in good milk and cream. I believe that is the only way to successfully get a good quality of cream, is to have laws passed and enforced that no one shall have in his possession or offer for sale anything but a pure product. My speech is rather short but that is all I have to say on the subject.

Chairman: Is there any discussion on this subject?

Discussion.

Member: Have we not already such laws passed? I believe we have.

Mr. Aderhold: It is unlawful for a factory man to accept spoiled cream. Why do they take it?

Mr. McGill: Mr. Aderhold, what is spoiled cream?

Mr. Aderhold: A good share of that which comes to every creamery every day.

Member: I would like to ask Mr. Aderhold if we have not a set of dairy and food inspectors to prevent the creamery men from accepting this spoiled cream?

Mr. Aderhold: It would be necessary to have an inspector in each factory all the time because the buttermaker would not stand by the inspector, he would be working against him. He has to stand in with his patrons and if the buttermaker does not do anything to grade his own cream then the inspector cannot do it unless he is in the factory every day.

Mr. Burwell: There is cream shipped from every station along the line that is unfit for butter. I have seen cream on the platform in my own town in the summer where you could sit by the can and hear the cream bubble, and this goes to a creamery.

Member: I would like to say in regard to the gasoline engine I have had some of the trouble, and my experience agrees with that of the speaker. I would like to suggest to him that it would be one of the greatest satisfactions he ever experienced when he gets his steam engine, is to gear the gasoline engine on the same shaft so as to make that gasoline engine run whether it wants to or not.

Mr. Burwell: There might be some satisfaction in that, for I have often wondered how I would ever get any satisfaction out of it. I have often thought the broncho and gasoline engine were much alike.

The Chairman: I notice in the first part of Mr. Burwell's speech he referred to the little talk he gave us last year on combining the laundry with the creamery. I understand that the president of the State Federation of Women's Clubs last year made that one of her recommendations, she said they could use the same machinery for washing the clothes that they did for making butter. I thought perhaps these washing machines and combined churns look something alike, and then there would be the advantage of having the churn all washed when you got through.

If there is nothing more to be said on this subject, we will pass on to the next "Dairy Farmers and Pure Feed" by

Professor Woll of the Agricultural Experiment Station at Madison.

Dairy Farmers and Pure Feeds.

By Prof. F. W. Woll, Chemist in Charge of Feed Inspection, Agricultural Experiment Station, Madison, Wis.

The subject to which I invite your attention for a few moments this afternoon may not seem of much importance or interest to the buttermaker at first thought, but it will not be difficult to show that it comes close to you all and touches your pocketbooks just as much as the subject of improved methods of buttermaking or finding better markets for your product. The cow, the feed, the farmer, and the maker are the four corner stones of the dairy industry, and the better the buttermaker is able to influence the farmers who are his business partners, to keep better cows and feed those they have better than heretofore, the greater will be the production of the dairies and the output of the factories.

It is only about a dozen years ago that the state began to concern itself with what kind of feeds manufacturers and dealers furnished their customers. If the feeds were sold for pure, unadulterated goods and were made up of a mixture of worthless materials with only enough of the genuine stuff mixed in to pass for a fair article, there was no one who cared especially except the buyer of the feed who was imposed upon, and honest manufacturers who had to meet unscrupulous competition and often could not do so, because the adulterated goods could be sold so much cheaper than the pure article and, unfortunately, often sold as readily. Only a few years ago some samples of wheat bran were forwarded for examination to our Experiment Station laboratory, which contained one-third to one-half of fine-ground corn cobs and corn stalks, and still looked like a fair quality of bran unless examined closely. Even then the amount of worthless material found therein would not be apparent. The manufacturer and dealer handling pure feeds would be hurt just as much by the sale of such bran as the person buying it, for it could be sold

at a much lower price than pure bran and yield a larger profit to the manufacturer at that.

Adulterations of mill feeds with whole and ground screenings and of ground corn and oats with ground corn cob or oat hulls have doubtless been practiced by dishonest manufacturers as far back as there have been buyers of cheap feeds, but during recent years adulterations in commercial feeding stuffs have become more frequent than was formerly the case, both on account of the gradual increase in feed prices, making it more profitable to adulterate than heretofore, and because of the growth of certain manufacturing industries, which furnish large quantities of refuse materials that can be bought for a song, and used as adulterants of common feeding stuffs.

I need only refer to advertisements of oat hulls, "unground in bulk, ground in bag," given in trade papers. See, for instance, last December issue of the Milwaukee "Flour and Feed." If there are any legitimate uses that ground oat hulls can be put to except for firing a boiler, they have not come to my notice. Neither can ground corn cobs be used legitimately in feed mixtures, as they are worthless as a feed when fed alone and, as a rule, reduce the feeding value of feeds which they are put into; and still, only a couple of years ago, we were told by a prominent Milwaukee feed broker that he had that winter shipped to Baltimore 30 car loads of wheat middlings adulterated with ground corn cobs. The reason why he volunteered this information was that none of it had been sold in this state, as he had had no call for it, he said,—presumably because of the kind of feed inspection work done here.

This testimony furnishes the best argument that could be asked for the continuance of this work in the case of mill feeds, as well as for other feeding stuffs. A recent Massachusetts bulletin also calls attention to the presence of adulterated wheat feeds on the market in that state and asks why consumers are willing to pay as much for a feed containing between 30 and 40 per cent of ground cobs as for a high-grade wheat feed. The reason is that the majority of feed buyers are not at all discriminating in the matter of purchasing feeds,

or think more about the price asked for a feed than about its quality. Factory operators who come in personal contact with their patrons here have an opportunity to advise them concerning the value of different feeds by showing them that the cheapest is not always, nor indeed in the majority of cases, the kind of feeds it will pay them to buy. "Cheap and poor" holds true in regard to feeds as in the case of most other commodities.

There has been a greater danger of adulteration of feeding stuffs during recent years than was previously the case, partly as suggested, on account of immense quantities of cheap adulterants having been thrown on the market by large manufacturing concerns, and partly, through the effect of modern business methods which bring strong competition between manufacturers of different kinds of feed articles and involve sales on small margins of profit. This condition of affairs is now generally understood, and a majority of the states in the Union have taken steps to protect their people against deception and fraud in the feed business, by passing feed inspection laws. These laws provide for sales of feeding stuffs under their true name and under guarantees of the contents of valuable food ingredients in the same. Connecticut passed the first law of this kind in 1895. Other New England and eastern states followed the example set during the latter part of the nineties, and gradually more and more states have placed on their statute books laws governing the sale and analysis of concentrated feeding stuffs within their borders, until at the present time every state east and south of us and a number of western states have put such laws in operation, over thirty states in the Union in all having feed laws at this time.

This fact is in itself sufficient evidence of the necessity of such laws under modern business conditions. I suggested other reasons why these laws are necessary. Since January 1902, when our Wisconsin law went into effect, we have every year had striking evidence that the law has had a wholesome effect on the feed trade in this state; through it feed buyers have been able to obtain a much better grade of goods than

they would have had but for the existence of the law, and what is equally important, serious adulterations of feeds have been prevented or nipped in the bud.

As proof of the correctness of the first statement, I may refer, e. g., to the quality of the corn and oats, or ground feed, as it is often called, at the beginning of the feed inspection work of this state and last year. During the first two years after the feed law went into operation, 59 and 51 per cent of the samples of ground feed collected by our inspectors in the feed stores in different parts of the state were either adulterated or of such low grade that it was difficult to say definitely whether they were actually adulterated or whether only very poor materials were used in their manufacture. During the last few years about 10 per cent of the samples collected have been at all suspicious or low-grade, and not a single sample of this class of feed has been collected for three years past that we could say positively was adulterated. The change worked in regard to this feed, of which immense quantities are sold in the cities and in the northern part of the state, is therefore most striking. We are doubtless taking a conservative position in stating that through the improvement in the quality of this one class of feed alone, buyers of concentrated feeding stuffs have been saved tens of thousands of dollars every year and it has, in the aggregate, easily been worth as much to the state as it takes to run our Agricultural College and Experiment Station for a whole year.

The adulteration of ground corn and oats with oat hulls or corn cobs is relatively harmless and affects mainly the pocketbook of the buyer, but we have had cases where directly injurious ingredients have been mixed into cattle feeds. I refer to the use of ground rice hulls as an adulterant of mixed feeds. Rice hulls are provided with fine sharp barbs, which are liable to become lodged in the intestines and cause an impaction of the bowels and death of the animals eating feeds containing large quantities thereof. Southern farmers and breeders of cattle have found this out to their sorrow. This material is used in the south as a fuel, for packing eggs, or for adulterating feeding stuffs. Several carloads of it were im-

ported into our state a few years ago, but through prompt action on the part of the feed inspection department, and through the co-operation of our feed dealers, we succeeded in preventing its use for adulterating feed stuffs sold in this state. Less than two years ago we again came across it, however, in samples of molasses feeds and dried brewers' grains put out by a Milwaukee firm, and took steps at once to stop the manufacture and sale of these feeds. Since the direct injury that may come to buyers of feeds and their stock through the sale of feeding stuffs adulterated with rice hulls, is now well understood, we do not anticipate that this form of adulteration will appear for some time to come. The temptation to adulterate feeds increases with the gradual rise in the price of feeding stuffs, however, and manufacturers of mixed feeds every once in a while receive quotations for carload lots of ground rice hulls from southern millers, with special attention called to the profit that can be derived from the use of this material in making mixed feeds. There is, therefore, no certainty when attempts will be made to use it again, but by keeping a sharp lookout and by prompt action in dealing with offenders, we feel confident that we shall be able to prevent any serious damage being done from this source to the farmers of our state and other buyers of concentrated feeding stuffs.

I might stop here, as you will doubtless consider that even the few suggestions made amply justify the existence of the state feeding stuff law and show that it will be as necessary to keep the law on our statute books as it was to place it there seven years ago. One other point should, however, be mentioned. Two years ago the legislature changed the law so as to include mill feeds and malt sprouts under its provisions, thus rendering these subject to license and inspection, as is the case with all concentrated feeding stuffs, except the pure grains sold separately, or unmixed meals made directly from these. This amendment, which went into effect a year ago, has met with determined opposition on the part of a few individuals of the State Millers' Association. While the opposition has come largely as stated, it is only fair to say that

a majority of the merchant millers in the state are opposed to the law, as it now stands, although as law-abiding citizens they conform to its provisions so long as it is on our statute books. The claim is made that the law is "unconstitutional and void, and is in violation of the constitution of this state and the United States," the reason given being, in effect, that the law exceeds the police power of the state and discriminates in favor of small millers in and outside of our state. A test case was started last summer at Antigo, this state, and was won by the state in the municipal court at Antigo, and also in the circuit court of the tenth judicial district. The case has been appealed and is now on the Supreme Court calendar for the January term (case 42, State vs. Goldberg). The decision of the Supreme Court is not likely to be rendered before next spring and meanwhile the present law will, of course, be enforced to the best of our ability. We know that it is a good law and that it has had a most wholesome effect on the feed business in this state. It would, therefore, in our opinion, be next to a calamity to have the law or any important provision thereof declared null and void.. Without being able, perhaps, to look at the matter from a legal point of view, it does seem to me that each and every objection which those opposing the law have put forward, is fully covered by decisions handed down by the Supreme Court of the United States and of the various states. While it is readily granted that the law puts some hardship on the manufacturers of feeding stuffs in the way of exacting a license fee, guarantees of valuable food components, labeling of bags, etc., this is in reality to their advantage, as it gives consumers confidence in their goods and protects manufacturers against dishonest competition and misrepresentation. Even if such was not the case, they should be willing to go to some trouble for the common good. The public has an unquestioned right to know just what they are buying and to be protected from fraud in the sale of feeds for animals, as well as for man. It is for you and your constituents, and for all good citizens, to see to it that the efforts which probably will be made to have the law repealed by the legislature now in session shall not be successful. Every-

body's business is always in danger of becoming nobody's business, but we trust that if it comes to a fight before the legislature this winter we shall have the hearty support of all who keep and feed farm animals or whose material welfare is dependent on the agricultural industries of the state, so that our law makers will not be left in doubt as to whether or not the people of the state think this is a good law and ought to be left on our statute books.

Prof. Woll: In regard to examination of samples that are being made in the chemical department of the experiment station, the results are published in bulletin form at intervals during the year and analyses are given in annual feeding bulletins, which are free to anyone in the state who requests them. If you want bulletins for distribution to your patrons, if you will give us the number you can use to advantage we will send them if they can possibly be spared. Those bulletins ought to be consulted by the farmers and others who buy concentrated feed stuffs.

The Chairman: Does anyone desire to ask the professor any questions?

Mr. Tanner: I would like to ask Prof. Woll if he knows anything about the Badger Dairy Food? A number of my patrons have asked about this food and I am not sufficiently posted to answer their questions.

Prof. Woll: We know a great deal about it, and one reason is that a great many farmers have sent in samples asking our opinion of its value, and also the manufacturers are desirous that the people be properly posted as to the value of their food. Therefore a number of samples have been taken and examined, also a number of samples received from farmers. I have no reason to condemn it in any way. It is a pretty good food. If I had a choice between a good quality of wheat-bran and the Badger dairy food at the same price I would select the Badger dairy food, but if the price of Badger dairy food were higher than bran I would take the bran. The Badger dairy food is one of the numberless mixed feeds that

have been put on the market during the last year, molasses feed. It is palatable. It was put out last year and until recently it contained a good deal of weed seeds and sprouts, but of late the manufacturers have succeeded in grinding all the screenings so there is no objection to the feed from that score; in fact the samples that we have examined, to see if the weed seeds would germinate in case of manure from the cows, when put on the fields to test have shown that the seeds would not germinate.

The Chairman: If there is nothing further on this subject, I will appoint the committees, as follow:

Resolution Committee—Mr. J. F. McGill, A. Wilcox, F. A. Seeber.

Legislative Committee—Mr. J. G. Moore, Mr. G. H. Benkendorf, as they are both located in Madison.

The Chairman: The next on the program is, Creamery Management, by Mr. W. J. Brennan, Manager of the Tomah Co-operative Creamery, of Tomah.

WM. J. BRENNAN
TOMAH

Creamery Management.

Wm. J. Brennan, Tomah, Wis.

Mr. President, Fellow Buttermakers:

With my limited experience in Creamery management I feel a little out of place among so many men of expert knowledge and far wider experience along creamery lines than I have had and I feel that I can say nothing new, only repeat, in a little different way perhaps, the same old ideas that you have heard a hundred times before.

In the course of my remarks I will deal chiefly with the co-operative plan, being as we believe the better system to follow where a sufficient amount of cream can be produced contiguous to the creamery.

We are not antagonizing private creamery ownership, we wish them well, but if the cost of manufacture can be reduced

and money saved to the producer you must agree with us that such a system produces the greatest benefits to the greatest number.

Organization.

In organizing a creamery great care should be taken to see that the creamery stock is widely distributed. By this I mean not over a wide territory, but as few shares as possible in the hands of one individual, and that this individual be a producer of cream. Let the shares be of small denomination, say $5 or $10 per share and non-interest bearing so that there will be no incentive for a non-producing individual to buy up the stock for an investment or for mercenary purposes.

Keep the stock account closed and from time to time as new individuals move in or young men start out for themselves open a small block of stock that will be immediately taken up by the non-stockholding producers. This selling of new stock will often be strongly opposed by the original stock holders for the reason that the money derived from the sale of the original stock did not meet over 20 or 25 per cent of the initial cost of the creamery plant, the balance having to be made up by a sinking fund created by deducting a cent or fraction thereof, from each pound of butter fat to meet the original cost of building and equipment. Thus making each original share of $5 or $10 worth from $20 to $25.

Now it would not be fair to the original share holders to let a new individual purchase a share for the original flat rate after the creamery plant is paid for. And furthermore it would make it harder for the non-stock-holding purchaser to pay the lump sum of $20 or $25 which the original $5 or $10 share is worth.

A better plan would be to fix a fair price on new stock and deduct a cent or fraction thereof from each pound of fat for a short period of time, thus enabling the new stockholder to purchase on the installment plan and also making him pay somewhat near the true value of the original shares. Another thing, stipulate that the prospective stockholder patronize his

creamery to the extent of his product during the period of time that this small margin is being deducted or the unscrupulous patron will send his product to a neighboring creamery or ship to some outside party to avoid paying his margin of a cent or so a pound and thus obtain his share for the original flat rate and then go around telling his neighbors how nice he outdid the creamery manager.

Different Divisions of Creamery Work.

Sharp lines should be drawn between the work of the buttermaker, manager and treasurer.

It is not a very good plan to make or allow the buttermaker to keep the books of a creamery unless the business be so small that a competent secretary and manager can not be afforded, and even then it is hardly right to make the buttermaker assume all the responsibility.

I make this statement without fear of contradiction, that with very few exceptions each buttermaker has all or a little more than he can do to look after the cream and make the butter without being saddled with clerical work.

And another point I wish to bring out here, do not make or allow the buttermaker, his helpers, or the secretary and manager to do the treasurer's work. Draw the lines sharp and keep them tight.

I do not wish to go on record as charging creamery men in general with being grafters, for I firmly believe that a more honest and conscientious body of business men never existed than those connected with creamery work.

On the other hand you will agree with me that the unscrupulous, grafting creamery man, be he buttermaker or manager has no better field to work his graft to the limit than in creamery business.

Have the buttermaker keep a day check of the number of pounds made and also a record of the local sales (no cash taken) and hand the day sheet to the secretary who books the same and when the proper time comes issue bills for the collections.

Therefore the dishonest buttermaker has very little chance to get away with anything but his salary check which should be sufficient to support himself and family. An instance has come to my knowledge wherein the buttermaker kept a record of the day's sales and collected for the same, also kept the books for the creamery. At the end of each day the original day sheet was destroyed and he booked what he thought proper and took the balance to supplement his salary check. The same would apply to a grafting manager who kept a daily record and collected the cash for the same, only his chances for graft would be greater on account of his handling thousands of dollars where the buttermaker handled only hundreds.

You may charge that I cast the odium of suspicion upon all honest buttermakers and managers, if it be suspicion it is a system we have to follow to keep the unknown dishonest grafter honest, for the known dishonest man we have nothing to fear, he can't get a job.

Treasurer's Work.

Have a treasurer and keep him bonded for a sum sufficiently large to cover at all times the amount of money in the treasury. Hold him responsible for every penny of the creamery receipts. Have him collect for all local sales except sales to patrons which should be deducted from their cream checks to save time and expense.

If the secretary and treasurer do not live where they can be together every day in the same office, have the secretary get the mail, draw the sight drafts, and deposit the checks returned for butter, in the local bank, having a receipt book especially written so that the banks can receipt for the same in the treasurer's name.

The treasurer has a bank book, the secretary a receipt book, and once a month or oftener they can get together and check up. The creamery books, bank book and receipt book must balance to be correct, thus one system is a check on the

other and works well. The secretary should issue all bills for local collections once a month or oftener, and turn them over to the treasurer for collection, having the treasurer receipt for the same and charge him with the full amount of the bills and see that he has that amount in the bank on each auditing day, or if he has some bad bills which he cannot collect have them returned and credit him with the amount of such bills.

This system may appear to be a lot of red tape to some, but it works better in practice than I am able to express it in this paper. The buttermaker, secretary and treasurer constitute each a department in itself and each department is a check on the other by which the individuals can easily prove their innocence or be proven guilty in case of being charged with wrong doing.

Good Cream An Essential to Good Buttermaking.

We now come to the most important point of creamery management; how to get the best quality of cream obtainable from the ordinary care given it by the average patron. One of the best means to this end is to get the good will and co-operation of each patron. This cannot be attained by constant nagging and we would not keep a man in our employ who is constantly applying such epithets as "Your cream is rotten" and "Not fit for a hog." It often times is the truth but even the truth can be much better expressed.

The best buttermaker in the creamery is none to good to be placed on the weigh stand, in fact it is his place, if the cream is not properly looked after at the initial point a good grade of butter cannot be made.

The manager and the man on the weigh stand should work together to get a better quality of cream. Select a competent man to inspect each can and give him full authority to reject any cream that is not in his judgment fit to make a good quality of butter, then stand by him with all the authority at your command. When a can is rejected tell the patron what the trouble is and how to remedy it and nine out of ten will

heed your suggestion. On the tenth man you may have to use the majesty of the law and call in the state inspector but this is not very often necessary.

The patron will often resent advice given him by the helpers about the creamery, and it is well to have it understood that when anything arises demanding authority, the aggrieved patron should be sent to the manager, or in his absence to the head buttermaker who should give him a respectful hearing and send him away good natured if possible.

This hearty co-operation among buttermaker, patron, manager and state inspector will do more to raise the quality of the cream than all the good advice and nagging one could do in a life time.

Where the cream is gathered on the farm by a cream hauler another system has to be followed. The average cream gatherer is not over particular as to the quality of cream he dumps into his barrels, thinking that the good and bad cream being mixed together will pass muster at the creamery.

How often do we see irresponsible men, men who, if two cans of cream were placed before them could not tell the bad from the good, hauling cream to our factories and the manager blaming the buttermaker and calling the commission man bad names because his butter is off scored and the contract price reduced.

Who is to blame? Certainly not the cream hauler for he often does the best he knows how. Place the blame where it belongs, on the shoulders of the man who employs him, the manager who should know better, and if he does not he has no right to be custodian of other people's property. How can we remedy these conditions?

The most effective way would be to do away with the cream gatherer altogether and have the cream delivered in individual cans, and most buttermakers would hail this with delight.

But different circumstances produce different conditions, and how best to meet and handle these conditions requires careful study.

In the first place employ no one for a cream gatherer but a man of the strictest integrity, one whom you can trust to weigh and sample properly. If he be a new man give him instruction from time to time and if he proves himself capable keep him at it year after year for he like the buttermaker learns to tell good from bad cream by actual experience.

I notice that some creameries advertise their cream route and auction them off to the lowest bidder. I do not believe this to be a good plan, in fact I would just as soon advertise for a buttermaker letting the job to the lowest bidder. Both would eventually lead to the same result.

It is preferable to have the hauling done for a fixed amount per hundred pounds of cream rather than a butter fat basis, for then there will be no incentive for the gatherer to take unfair samples to swell his hauling check.

Keep a check on the gatherer by weighing the cream from time to time and taking a composite sample and compare the same with the average test for the period for which his patrons are paid.

Another very effective plan would be to have the buttermaker, manager or state inspector, preferably the latter, go around with the gatherer and view the conditions as they exist on the patron's farm.

We can't get them all to see as we do. Reforms in the dairy business like politics can't be revolutionized in a day, a month or a year. But systematic work along better lines will bear abundant fruit as the years go by. I would like to take up in detail the relations of the secretary and manager to the patrons, but time will not permit. But just a word in passing.

Show me the patron who has systematically been a reader of good dairy literature for a period of years and I will show you a profit making dairyman. On the other hand let us visit the unsuccessful patron, with his scrubby cows, dirty, unventilated stable, unsanitary milk, and filthy cream, and nine times out of the ten he does not read a dairy paper at all. He never heard of a Colantha 4th's Johanna, a Jacoba Irene, a Yeksa Sunbeam or a Rena Ross.

Ask him what those names signified and he would be apt to tell you they were fast horses, chorus girls, or some grand old dames of Colonial times.

Tell him that they were cows that hold yearly records from 643 to 998 pounds of fat and he will laugh you to scorn. Place a dairy bulletin in his hands and he will throw it aside and call it "Madisonian." If he does put another one just like it in his hands as soon as possible. After a while he may read it, and "after a while" he may find his cows have tuberculosis.

Oh, what a field for missionary work. And no one stands in a better position to help them than the secretaries and managers of creameries. We stand in commanding positions with the field of campaign radiating in all directions from us. And we fail in our duty to patrons if we let a single opportunity to help go by without rendering assistance where we can.

Let us begin when we go home if we have not already begun to induce our patrons to subscribe for some good dairy paper and gather together the best dairy bulletins obtainable and place them in their hands. Of course a great number of patrons already are well versed along dairy lines. I speak only of those who are either careless or skeptical and have not access to any dairy literature or will not make any effort to obtain any.

Let us now consider for a moment the relations of the secretary and manager to the patrons in a business way.

To begin with a manager should be broad minded, liberal, conservative and progressive. One who can stand criticism without being peevish or trying to retaliate, flattery without being carried away, success without thinking that he is the only one on earth who has been successful. Always keep in mind that there are others in our communities who can do just as well or a little better in our positions than we are doing.

It is no place for a narrow minded man, one who is always looking for trouble or insults. He should be successful in his own business affairs before trying to manage a busi-

ness perhaps 50 times as large for some one else. Use all the ability and business training at your command to make every penny possible for the patrons, and get them to help you.

How often do we hear that we dairymen are the hardest men in the world to get along together. I don't believe it. Experience has shown that the dairy farmer when given a square deal is the easiest and most intelligent man on earth to get along with. When I hear of a manager who is everlastingly quarreling with and complaining of the patrons I know that the manager and not the patrons is to blame.

He either lacks business ability to properly manage the creamery, or some defective scheme in his business management he has failed to correct by which he can render a true accounting to the patrons.

There are none of us above criticism, and all of us are subject to errors in judgment. Let our business conduct be so that we can and do command respect from the patrons. Unless we have the confidence of our patrons we cannot get them to work with us.

Become acquainted with and study the conditions of each patron as far as possible. What a field for action and food for thought. Three or four hundred different individuals, each a little different in character, but all good fellows together. When we have gained their confidence then we have nothing to fear when we ask them to help us to make a little better grade of butter to command a little better price.

Begin the work of educating the patrons to furnish a high standard of cream, at the initial and most essential point the stable where the milk is produced. I care not whether the cow is tied to a pole or placed in our most modern sanitary stalls if she is kept clean. But clean she must be kept to get a high quality of cream.

Keep tab on the modern barns and stables being built in your vicinity and try to persuade those who don't know any better the value of sanitary floors and thorough ventilation and some form of cow tie to keep her clean.

Another point I wish to bring out, in regard to testing we will assume that it is properly done. But frequently pa-

trons are dissatisfied and can't understand why the test is so low or why it varies so. We can explain and expound and offer causes and theories until we are black in the face, with little effect. Give this dissatisfied patron a cream sample jar and a tablet and let him take a composite sample of his cream and you also take one at the creamery for the same period of time. Give him instructions how to take the sample and let the manager test his cream sample in the patron's presence. Seldom if ever do the two samples so taken vary but slightly and you send away a better satisfied patron and a friend.

Do away with this old idea that the manager is always right and the patron always wrong. Both are subject to errors. Don't try to force your ideas onto them, they have rights as well as you. Let us keep our eyes and ears open for the patrons can teach us many things we did not know before.

Buying and Selling.

We have two more important points to bring out namely, the buying and selling end of the business, which we will discuss briefly.

Let us take the buying end first. Study market conditions thoroughly, become acquainted with the Creamery Supply men and make them your friends. It is not necessary to buy from them all to retain this friendship, in fact I number among my best friends, men from whom we have never purchased a dollar's worth of goods and have no notion of doing so now, but just so soon as these men can give us an article just as good, a little cheaper, or something a little better just as cheap as those we are now using, then we will buy immediately. Don't bother with cheap supplies, they are a poor investment.

If your supply house through its salesman treats you on the square and you can buy a good article just as cheap as you can anywhere else, stick to them. They will save you money.

Buy supplies in car load lots if possible and save freight, also take advantage of one per cent discounts. Lay in the

coal supply in the early fall before the advance in price and save from 25 to 50 cents a ton under ordinary conditions.

Centrally located and economically managed, in creameries where the product ranges from 250,000 to 500,000 pounds annually, the cost of manufacture should be well down toward the 1¼c per pound mark after the cream has been delivered at the creamery.

The new manager will often experience difficulty in the selling of the finished product. He seems to be good fishing for the unscrupulous buyer and his skin game. Beware of those buyers with little or no financial backing who offer wide margins and assure you that "It matters not even though the butter be a little 'off' they will pay you the price anyway." Such buyers know and every manager should know that an inferior article will not sell for a fancy price for any length of time.

First of all make just as good a grade of butter as it is possible to make under your circumstances. Then don't stop here but try each year to make the product a little bit better than the year before and there will be no difficulty in selling the product and selling it well.

If you sell to commission men, as most of us do, select some strong reliable firm, make the best contract possible with them and let them have the most or the entire product of your creamery year in and year out.

Have a distinct understanding with them, that whenever your butter shows any signs of being "off" they are to notify the manager or buttermaker immediately, so such defects may be nipped in the bud before any great harm is done.

Such an understanding systematically followed will save hundreds of dollars to both buyer and seller, over a period of years.

Put the butter up in neat packages marking plainly the gross weight on the outside of each box or tub, and see that they are placed in the refrigerator car with the least possible exposure to heat and sun. Keep tab on the butter in transit so it may reach its destination in the shortest possible time.

Just a word in closing. Successful management depends greatly upon the following points: Get the good will of the patrons and keep it. Tack up a monthly statement of your business in the creamery showing the amount of money received, number of pounds butter made, average test, overrun, etc. Keep the books and accounts open for inspection at all times. Run the business so straight that were you called upon to vacate tomorrow the next man could go on without a hitch or break.

Equip the creamery with the best and most modern machinery obtainable. Insist on a good quality of cream from the patrons. Get a first class buttermaker, pay him a good salary, then keep him. See that the buttermaker manufactures the greatest number of pounds of butter from each hundred pounds of fat, consistent with law and without sacrificing quality. Be certain that a normal overrun is obtained and maintained without cutting the test.

And lastly quit knocking. I have no use for a knocker, be he buttermaker, patron, manager or supply man. If your creamery is not doing as well as your neighbor perhaps its your own fault. Recognize that your neighboring creamery has a right to exist as well as you. Never mind the other fellow. Run your own business so well that the other fellow will be kept on the trot trying to keep up to you. Be fair.

I thank you.

Discussion.

Member: What would you do where competition is so strong the centralizer will take any kind of cream and our patrons leave us?

Mr. Brennan: Let the centralizers have it.

Member: Well we would have to shut up.

Mr. Brennan: The centralizers never bothered us. They could not get any stuff if they did come out there.

Member: That is not the case in my part of the state.

The Chairman: One is evidently more fortunate than the other. Are there any more questions? It is an important subject.

Member: Mr. Brennan says to keep track of the butter shipment to its destination.

Mr. Brennan: What I had reference to was keeping track of the number of days that the butter is shipped until it arrives at its destination. You know how long it should take and if there should be too long a time used in transit, go after the railroad companies.

Member: I would like to ask what the gentleman means in reference to sending out individual cans, where he criticises the gathered cream system. Does he mean the patrons should bring their cream themselves or the cream haulers should take each patron's cream in a can by itself?

Mr. Brennan: 75 per cent of our cream is delivered in individual cans and the cream hauler dumps it into the large cans. If he brought it separately we could test it separately, otherwise we have to trust to him. As a general rule those haulers take cream and dump it into the can that the buttermaker would not take into the creamery. I think the sooner we get to the point where we can do away with the cream gatherer altogether the better off we will be.

Member: I would like to say the system has many objections but at the same time it has many advantages. We are getting more and more into that system and I have never seen the gathered-cream system adopted and then dropped and the farmers go back to whole milk delivery. I believe the economy is so great in gathering cream that, even though some quality is sacrificed, it will be continued. My idea is that we have to find some way so as to conserve the quality and have the cream gatherer. Either he has to gather the patrons' cream individually so each one can be tried out at the factory, or we will have to send men out that are capable of gathering, because the system seems so general and so much more economical than the other system that we are coming to it.

Mr. Carswell: I agree with the last speaker in his views on this question, because all our cream is delivered by our individual patrons, but I believe the time is coming when we will have to put out wagons, not only to get a better quality of cream but to protect ourselves from the centralizers, for I believe by putting out wagons we will get a better quality of cream. If Mr. Brennan were in the section of country where I am and also where many of those present are located, I believe he would have trouble; the centralizers would have his scalp before they got through with him if he kept on with the methods he has outlined today. By sending out wagons three times a week we could have cream three times a week, but in strong competition with the centralizer, if we told a man to bring his cream three times a week on certain days or we would not take the cream, he would take his cream to the centralizers. That has been my experience and I believe when this competition is as strong as some of us have it today, it will be looked at in a different light.

I would also like to ask Mr. Brennan if he has tried daily testing of cream? That is something the creameries have got to come to and a great many of us are doing it now. I would not go back to the old system. I believe the only right way to check with the driver is to weigh the cream when he brings it in, take a sample from it and test each individual's cream when it comes in, and you will then know within a pound of fat whether he has brought in the right amount. The only way to run routes, in my opinion, is to weigh and test every pound of cream that comes in. By doing that, the buttermaker as he takes in the individual sample knows the quality of the cream he has dumped in. I know in a neighboring creamery a man brought in a lot of cream and when we checked him up we found he was 30 pounds short. If the buttermaker had taken a composit sample and left it to the end of the month or even the end of the week, he would have been out $250.00.

Mr. Brennan: Do you have your men haul on the butter fat basis or 100 pound basis?

Mr. Carswell: On the 100 pound basis, and I believe that is the worst basis yet.

Mr. Brennan: With us the patron pays for the hauling, and in that way we get 2 per cent higher cream from those that send it in by the hauler than if the patron brings it in personally. You see the patron and not the creamery pays the hauler. We find where the haulers bring in the cream the average is 2 per cent higher than that delivered by individual patrons. We have tested that from time to time and know, it is not theory. It is my personal experience.

Mr. Aderhold: I would like to ask Mr. Brennan if his cream haulers are instructed to inspect conditions on the farm, as to where the separator is kept, as to the condition of the premises, and whether or not the separator is kept clean?

Mr. Brennan: They are instructed to do that but it is a question whether they do it or not. That is one reason why we will have to have some other system, a manager, or buttermaker or someone will have to go out and see to those things.

Mr. Aderhold: Does the manager know whether the instructions are followed out?

Mr. Brennan: He does to a certain extent. He gives certain instructions one day but he does not know whether his instructions are followed the next day or not.

Mr. Burwell: I think it is a difficult matter to get competent cream haulers. A little incident in regard to a cream hauler has just come to my mind. After he had dumped the can of cream he broke the test bottle and his cream was brought into our town and shipped to Portage. They take a daily sample there. The farmer got a lower test that day than ever before, and knowing that the hauler had broken his bottle, he wondered how the test was obtained, so he asked the driver and the driver said that if he sent in a bottle without any cream he knew he would get a "jacking up," so he took some cream from another can. I think Mr. Carswell brought out a good point in handling those patrons. The only system of handling that part of the work is to weigh and test and know exactly where you are at. That has a good ef-

fect on the hauler also, it puts him on his mettle. I have had some experience in that work. The haulers will bring in cream short in weight from one-half to two pounds for each patron, and the test is not much more accurate; but if he knows you will check him up and test the cream to see that his figures are correct, it is surprising how close every hauler will come to the actual weight and test. That in my opinion is the only way to handle the cream gathered system.

The Chairman: In some of our factories we adopted that method a little over a year ago, weighing up all the cream that came in and testing every day. We usually do the testing before the churning is done and we know then how much butter we should have, figuring from an 18 per cent overrun.

I think that anyone who is doing any centralized business or getting cream in with haulers will find that it is not safe to do business in any other way, because there is a tendency to loss through the gathering of cream by haulers.

Mr. Ingram: We have been in the business four years. The first year we did not weigh the cream brought in from the haulers but we found we were running short. We then began to weigh the cream, took samples and followed them up and we found we came out all right. This year we averaged nearly 18 per cent overrun.

The Chairman: I went out on one of our routes one day with a boy who was instructed to take samples after he poured the milk into the weigh can. The first five samples he took were taken from the can of the farmer. He had one of those little dippers that he took with him to get the samples. He would take that and stir up a shotgun can full, and you can imagine how much he would stir it, then take a sample. I soon became convinced where our overrun was going to, and I suppose a good many haulers are doing the same thing when we are not watching them.

Mr. DeCosta: There is considerable trouble with samples freezing up at times, and where they test those individual samples, taking no composit samples, I would like to have some of those fellows tell us what to do where there is no

sample of some patron's cream. They have the cream but have no composit sample to go by. In the whole milk creamery we take a composit sample, so if one sample is lost we do not think much of it. At times there is a sample lost and they have the cream but not the sample. What test do they give this patron?

Mr. Carswell: I think there is a good deal less dissatisfaction by losing a sample for that one time than by losing a composit sample. Once in a while you lose the composit sample for two weeks. If you lose an individual sample it is tested before that, and it generally runs pretty close. If he was 31 the next test would be 30½ and you would come pretty close to it. I never have any trouble with my patrons although I lose a sample once in a while.

Mr. McGill: Mr. Brennan was talking about individual cans, and the necessity of the good cream and bad cream all going into one can. The idea came to me to keep it separate but the gentleman said "Do not take the cream, keep it all in one can and send it to the centralizer."

The Chairman: I have heard of people doing that.

Mr. Dybevick, Minn.: I wish to give my experience with centralizers. I was in St. Paul at the state fair and a certain St. Paul concern advertised for a man to go on the road. To find out how they felt in regard to cream, I approached the party and let him think I was looking for a job. In the course of my conversation with him, I drew him out and got some of his plans. To use his own expressions he said, "We do not want to butt in where there is a large co-operative creamery. We want to break up all the weaker concerns," that is probably why this gentleman has not been bothered by the centralizers. He practically said he would not molest a strong co-operative creamery until the smaller creameries were crushed.

The Chairman: If there are no more remarks on this subject, Mr. Moore would like to make a few remarks.

Mr. Moore: I explained to you last night that we intended to be on the lower floor, and we now find that our audience is so large we are going to move over to Pythian

Hall, not only for tonight but for tomorrow. I think you will all appreciate hearing Dr. Morrell of Chicago speak. I have a telegram here from J. M. Wolf, which I will read at this time: "I sincerely regret my inability to meet with you. Wishing you success." I also have a letter from the Citizens' Business League of Milwaukee, as follows:

Milwaukee, Feb. 8, 1909.

Mr. J. G. Moore, Secretary,
Wisconsin Buttermakers' Association,
Eau Claire, Wisconsin.

Dear Sir:

The Citizens' Business League offers its hearty greetings to your association, in convention assembled, and begs to extend you a hearty invitation to hold your next convention in Milwaukee.

In recent years it has been the custom of a large number of the state associations to hold their conventions in this city every year. Milwaukee is easily accessible from all parts of the state; its railroad facilities are the best; its hotel accommodations are ample; and, in addition, it has many features to attract the delegates who come from throughout the state. They find it to their advantage to visit the Metropolis once a year. Among the organizations which have been doing this for years is the Wisconsin Cheese Makers' Association. We think that you would find it to your advantage to meet in Milwaukee, as other organizations have found it so, and their meetings here have resulted in an increased attendance.

Milwaukee is now working to secure the National Dairy Show for this year. The prospects of securing it are bright. Would it not be an excellent idea to hold the annual convention of the Wisconsin Buttermakers' Association at the same time as the National Dairy Show, if Milwaukee secures it? If this idea appeals to you, may I be permitted to suggest that you postpone the selection of your next convention city until March, when the matter of the location of the National Dairy Show will be fixed? The Dairy Show will bring together the

best of what is in America in the specialty which you follow, and a visit to it would be of untold advantage to your members.

Trusting that we may be able to meet you and greet you in Milwaukee at your next meeting, we remain,

Yours truly,
CITIZENS' BUSINESS LEAGUE,
F. A. Cannon, Secretary.

Milwaukee, Feb. 8, 1909.

Mr. J. G. Moore, Secretary,
Wisconsin Buttermakers' Association,
Eau Claire, Wisconsin.

Dear Sir:

A strong effort is being made by Milwaukee to secure the holding of the next National Dairy Show in this city. If it is once secured, we believe we can make it a permanent feature. It would be of great advantage to the dairy interests of this state to secure this Show, as it would give Wisconsin a distinction and a dominent position as the leading dairy state of the country. If permanently located here, thousands of dairymen from all parts of this country and Canada would wend their footsteps to Wisconsin every year and there the best that has been said and done and that has been written of the dairy interests would be placed in close touch with Wisconsin dairy men.

Believing that the idea of holding a Dairy Show in this city will appeal to you, we would greatly appreciate it if the Buttermakers' Convention would pass a resolution on this point and invite the next National Dairy Show to Milwaukee. At the convention of the Wisconsin Cheese Makers' Association, held here in January, action of this character was taken and I believe it will appeal to the buttermakers. Resolutions of this character would have great weight with the directors as showing that the dairy interests of Wisconsin are a unit to secure this great show for their own state. Would you be

good enough to call this matter to the attention of your convention and lend your efforts to the adoption of such resolutions?

Thanking you in advance, I beg to remain,

Yours truly,

F. A. Cannon, Secretary.

P. S. Permit me to enclose a copy of resolutions which have been passed on this subject and which may suggest the line our efforts are taking.

WHEREAS, Wisconsin is one of the greatest dairy states in the union, its dairy products challenging comparison with those of any other state and its dairymen being men whose calibre and reputation have won them distinction throughout the country, numbering in their ranks some of the foremost friends of the dairy interests in America.

WHEREAS, the city of Milwaukee will soon have the finest convention hall on the continent for the housing of a Dairy Show of this character and the people of that city, the Metropolis of Wisconsin, are making an endeavor to secure the location of the National Dairy Show in that city; therefore, be it

RESOLVED, that we, the Wisconsin Buttermakers' Association, as a body and as individuals, cordially join with the people of Milwaukee in their efforts to secure the National Dairy Show and that we will, as individuals and as a body, use our influence in securing the same for Milwaukee.

Green Bay, Wis., Feb. 9th, 1909.

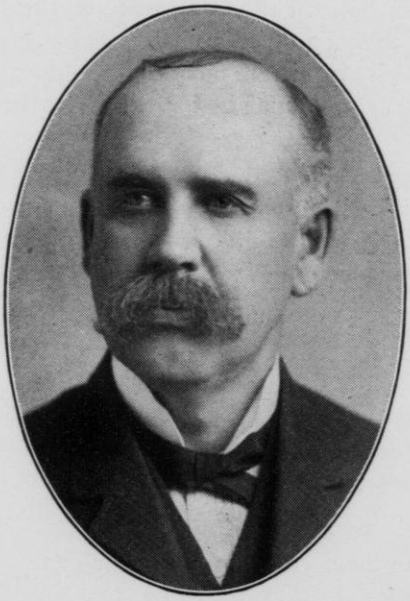
Wisconsin Buttermakers' Association,
Now in session at Eau Claire, Wis.

Gentlemen:—In behalf of our citizens we kindly invite you to hold your next convention in our city. You all know Green Bay is a good place to come to. Our citizens as a

whole will receive you with welcome and will see to it that you are well taken care of while here.

Yours very truly,
Business Men's Association of Green Bay,
Nic Bur, President.
H. W. Sims, Secretary.

The Chairman: Along sometime in the last century, I do not remember the date, I was making a collection of foreign coins and as many of our American coins as I could run across. I had interviewed Mr. F. B. Fargo (that was the time this firm was on earth) and one day as I was going out of his office Mr. Fargo called me back and said "Dodge, I have a coin for you." I went back and what was my surprise when he brought out a sleek, smooth round faced Sam Shilling, he has been with me more or less ever since and today I want to introduce to you Mr. S. B. Shilling, of the National Dairy Union, who will speak to you.



S. B. SHILLING
CHICAGO

Address.

Mr. S. B. Shilling, Pres. Nat'l Dairy Union, Chicago.

Mr. Chairman, Ladies and Gentlemen:

I consider that a very unkind cut from your president to introduce me to you in that manner. I suppose that he and I had always been the best of friends and he knows my lonely condition, but when he referred to the ancient part of it I took it as a reflection on me, that he was trying to place me in disfavor with you by making me appear older than I really am.

I can hardly tell you how much I appreciate the honor and pleasure of standing before you this afternoon for a short time, and I confess too that I hardly know how to talk to you. You have honored me with this privilege year after year and I fear I have always had to come to you with some kind of scare, something that was not pleasant, always with a limited time to speak and it does seem to me that I should be able to give you something that will benefit you, to give you some ideas along the line of your creamery work that would be of benefit to you and your patrons, but I have to confess to you that I have got to consume a part of the time at least this afternoon with the same old story that I have brought to you before and I have with me something that I want you to examine as an object lesson in the shape of a piece of oleomargarine, about which I shall talk to you a little later.

The subject that you have just had under consideration, and which has been brought up two or three times before during the sessions, is of greater importance to you than you realize. You do not know what the quality of your butter really means to you today and you do not realize the extent of the injury that is being done to the dairy industry by the continued placing of an inferior product of butter on the markets of our country. We made last year in this country 7,327 million pounds of butter. We have in the United States today a population of eighty-five million people, approximately. During the last three years do you know the butter product of this country, the output, has decreased seven per cent, each year in the four principal markets of this country? There has been a seven per cent decrease in the output in the last three

years, making a 21 per cent decrease, and do you know that during the same time this decrease has taken place there has been nearly 27 per cent increase in the output of oleomargarine? Of this seven billion pounds of butter that were made it is estimated that only 13½ per cent graded extra. Think of it! Only 13½ per cent extras, 22½ per cent extra firsts, 33 per cent extra seconds, and the balance extra thirds and fourths. A conservative estimate of the product sold at less than extras, if sold at extra price, would have put over sixteen million dollars in the pockets of the dairymen of the United States. To me this is a dreadful situation. We went into the season last year with seventy-six million pounds of storage butter. It was butter that was manufactured during the season of the year when we have the largest make, and today we are in what we might say is also a serious condition so far as the butter that still remains in storage is concerned. I understand there are over twenty million pounds of butter still in storage, most of it of an inferior quality.

When I first came into the room I thought I would talk only a few minutes to the buttermakers, but after I came here I found a great many people here who it seemed to me were the men behind the gun, the men that milked the cow, and I wondered if they fully appreciated the terrible strain that our milk is under, the conditions into which we are getting and where we are drifting with it, and I wondered if it would not be a good idea for me to talk to them a little while. I promise not to detain you long. While I believe the subject is of so much importance that I am warranted in taking a little of your time in entering into the matter in detail, still I want to say to the dairymen of the country that I am not presumptious enough to stand before you with an idea that I can instruct you in any line of dairying. I do not think that, although I am a sort of dairyman myself and engaged in the dairy industry, probably I have never made as much of a success of it as you have, but knowing the conditions as I do at the present time I fully realize the necessity of better methods along dairy lines, better methods of the average dairy farmer.

I thought I would not tell a story when I got up, yet somehow I never can get away from telling a story. I am going to tell just one and the reason I tell it is because it so completely illustrates the general enthusiasm necessary to be a good dairyman. I may have told it to you before but I will risk telling it again because it so well illustrates the point that I want to impress on the dairymen of this country, that they are not sufficiently enthusiastic. I want to tell you about the breeders of thorough bred dairy cattle. If you have ever had any experience with them you know how enthusiastic they are, you know they will stop at no kind of story to brag about their respective breeds, there is no story too big for them to tell, and if there is any class of people in the world that I am afraid of it is the breeders of thoroughbred cattle. This story I want to tell you is about three or four men, representing the different breeds, who were going to the country one time with three or four loads of dairy cattle. They got to bragging about the merits of their respective breeds and the first one that spoke up was a Jersey man. He said he had a Jersey heifer that when she was three years old gave 350 pounds of butter fat a year; the next man who spoke was a Holstein breeder and he said he could beat that a little, he said he had a Holstein heifer that the first year she was milked gave 400 pounds of butter fat; the next man was a breeder of Guernseys and of course he had to go a little better so his heifer gave 450 pounds the first year; the Short Horn man was the last speaker and he said, "Gentlemen, I have got you all beat. I have a three year old Shorthorn heifer that gave 500 pounds of butterfat in a year and never had a calf, and her mother before her never had a calf." That is the kind of enthusiasm it takes to make a good dairyman and that is the kind of enthusiasm it takes to make a good breeder of dairy cattle.

This idea of seven per cent decrease in the output of our dairy farms means something to me, it means that, notwithstanding the increased price of this product, we as dairymen are not doing our duty, for some reason or other we are not engaged in the industry to the same extent we should. I have

said this for a great many years and I want to repeat it, and then I will make another statement because I believe facts in the case warrant me in this. I said ten years ago that we could turn every foot of land in this country adapted to the production of butter into dairying and we would never have too large a supply, and I think everything has borne out the statement I have made and I want to say to you now that we are never going to see cheap butter or cheap food in this country again. I want you to take that into consideration and yet I am claiming that the price of butter although it is high is not proportionately higher than any other food product that we have today, but the facts of the matter are in our country with its great centers of population, its great manufacturing centers calling on the farms of this country, that the consumptive demand is so great that we will never see the time when butter will be cheap or when we will have cheap food in this country.

I do not believe that we fully realize this fact. I do not believe the average dairy farmer realizes the value of dairying outside of the market price he gets for his dairy product, and I do not believe there is a thing the buttermakers in this audience could take up with more profit to their patrons than to impress upon them the value of dairying outside of the value of the product they sell.

Wisconsin is advanced in the dairy industry. We are ready to take off our hats to you because you have made greater progress in the industry than any state in the Union. We are willing to acknowledge that with your three thousand creameries and cheese factories that you outstrip any of the other states in the union in the production of dairy products, so that it seems foolish for me to stand before you and tell you what it means to you because I realize the fact that you must know what it means to you better than I can tell you; but I want to call your attention to one thing. I just returned this week from a trip through the east, through Pennsylvania, New York and Ohio. It is my privilege to do this year after year attending conventions. This year I had an opportunity to study their conditions probably better than ever before and

I want to make this statement to you dairy farmers because to me it means that unless we do engage in dairying more extensively than we are at the present time that we will drift into the same conditions those Eastern farmers are. It has been said that there are twenty-five thousand deserted farms in the state of New York. They have disputed that but they acknowledge that there are nearly nine thousand deserted farms that are producing nothing of value to their owners. In Pennsylvania they estimate there are ten thousand deserted worthless farms. The western part of Ohio, once the most fertile and the richest country in the world, is fast coming into the same condition. The majority of the questions at the agricultural meetings in those states is how to get clover to grow. You are not troubled with that here, yet their land at one time was as fertile as your land is now, but by continual exhaustion of the soil, cropping it continually and selling the crops off they have got the soil to where they are adding lime to get a stand of clover on their farms. You have stated that you could increase the fertility of your soil by the cultivation of clover and soiling crops, but down there they have their land in such a poor condition that they cannot do it. Those twenty-five thousand farms in the state of New York are in such a stage of exhaustion of fertility, they have cropped it and sold their crops until they have got the land where they can produce nothing on it, and those farms can be purchased at $25 or $40 an acre today, and the buildings and improvements on them cost more than that. I want to point that out to you because I believe you are drifting into the same condition as they. This is hardly the subject I expected to talk so much on but I regard it of so much importance to the farmers of this country that they conserve the fertility of their soil, and there is nothing that will do it like the dairy cow. You can go into the dairy sections of Iowa, Wisconsin or Minnesota and wherever the farmers are engaged in the dairy business they are raising more corn to the acre, more oats to the acre and bigger hay crops than before they engaged in dairying. For that reason I do not believe we, as dairy farmers,

realize the possibility of the dairy cow or what it means to us in the end.

Do you know that civilization, from its very beginning up to the present time has left a trail of desolation behind it in the stealing of the fertility of the soil of this country? You can trace that from the beginning up to the present time and until we got our agricultural schools such as we have today, and such as you have at Madison, the first that was ever established in this country, when those schools taught us how to conserve the fertility of our soils and I want to say as farmers, I do not care how well you stand by your agricultural school, you are not giving that institution the support it deserves and the support that should come to it from you, we want to throw it open. I have quoted one man more I think lately than I have ever any other and I do it because it so fully illustrates the trend of thought of one that I regard as the greatest mind in this country today, that is J. J. Hill, the great empire builder of the west. On the anniversary of his birthday in St. Paul a couple of months ago, he made this statement, and I know it is something that must appeal to the intelligence of every man within the hearing of my voice,—he said if he had the making of the laws of this country, if he had the appropriation of the money from the National government of the United States that instead of building twenty-three or four battleships a year he would build one and with the other ten or fifteen million dollars he would establish ten thousand agricultural schools.

Now I wish I could say something to you boys that would do you some good, I wish I knew something that would help you, but the fact of the matter is that we cannot do it. That is all there is about it. If I were to tell you anything today all I could say to you under present conditions is to go back home and do the very best you can. It has got right to that point where we cannot tell you what to do, and I was pleased when the gentleman got up and said he was not troubled with the centralizers. I think the majority of the buttermakers in the United States must look at him with envy and hink his life is a pleasant summer day's dream. I was sur-

prised when he told you not to take that cream if it was not good. I knew the minute he said that that he was not up against the same conditions as the majority of you. I am here to say to you that you have to take that cream, you cannot do any differently if you value your jobs; unless you want to see your creameries closed down and your product go to other creameries that are willing to take it, you have to take that poor cream or go out of the business. I see a good many nod their heads and I know I am speaking the truth to you. As another man said, I do not believe that legislation alone will ever reach this question. I believe it is nearer solved today than ever before in the difference of price that is being paid for a good and poor product. If you buttermakers could have been on the Chicago market for the last two or three weeks, if you could have been there during this dull time, if you could have seen the consumers willing to pay almost any price for the product if it was fine enough, and then see the accumulation of common grades in every cellar, which nobody wanted because of the quality, you would realize the situation, and yet I know you are doing the best you can. That is the reason I say I cannot stand before you and tell you what to do, all I can say is go home and do the best you can. I do not believe legislation will reach this matter, although legislation may be one of the factors that will reach it. It has to be legislation, education and pasteurization.

Now I am going on to the last part of my subject because I do not want to detain you, but I would not have done my duty unless I told you something of the oleomargarine situation. I believe if I have ever been warranted in talking to your organization seriously and earnestly on this subject it is at the present time, because I do believe that never since the passage of the oleomargarine law, which has been of such great benefit to the dairymen, have we stood in as great danger as we do at the present time. I have stood before you several times and warned you that we were in danger. We have realized that the only way to be ready at the necessary time to confront the manufacturers of the oleomargarine product was to be ready at all times, and for that reason our organiza-

tion has been maintained and although we may have held up pictures before you at certain times reflecting great danger, it has been for this reason and because our judgment told us we were in great danger. I want to tell you briefly why we base our opinion on this. During the past year there has been more literature flooding the country from oleo manufacturers, all leading in the same direction. It has been asserted in advertising their product that the present law is largely responsible for the high prices of butter; then after telling of the purity and quality of their product they have gone on and told us that if the tax could be repealed butter would go back to the price it should be, and the people have been in a receptive mood because of the high prices of butter, therefore the oleomargarine people have made great progress in educating the people to opposing our law.

The oleomargarine forces have made their first real organized move during the past year, that is the first great organization to take the matter up was the National Retail Grocers' Association, which is probably one of the strongest organizations of the kind in the United States today. At its last session a resolution was passed condemning the law and asking for its repeal. There was another organization that immediately followed, the Meat Dealers' Association, and those are the two strongest organizations back of it. Their repeated demands for a repeal of this law has at last resulted in the introduction of a bill in the House of Representatives, asking for a repeal of this law. Burlson of Texas presented the bill. We have predicted continuously during the past year that this attempt would be made, we have told where it would originate but we missed it in the fact that we supposed a Missouri member was going to introduce it; but because it was placed in the hands of Mr. Burlson, of Texas, (one of the most prominent men in the House today) who has lent great prestige to the bill, it shows an organized movement is behind it and those matters have been decided on.

The first round in the battle came day before yesterday and resulted badly for the dairymen. Heretofore these bills

have been spasmodic efforts, introduced by somebody who was trying to curry favor with his constituents at home and make a showing, but this bill has an organized movement back of it. It came up in the House. It is a revenue measure and always has been referred to the committee on agriculture, but this time they succeeded, in spite of the hardest fight that could be put up by Representative Tawney and others in getting it to the committee on ways and means. It being a revenue measure they considered it should be in the way of raising revenue for the government and they got it into that committee. That insures the fact that it will be referred out for passage sometime during this or the coming session, probably not until the coming session.

That is the condition we are confronted with so far as the present law is concerned. We are today confronted with a situation more serious than ever before and it will take the united efforts of the dairy interests of this country to be successful in prohibiting the repeal of our law. I will give you an idea of what is being done at the present time. On my eastern trip I visited the Pittsburg market. I had been informed that the conditions there were very bad and I found them so much worse than I imagined they could be that to me it was surprising after having seen the depths of iniquity that the oleomargarine industry has dragged people down too. I found oleomargarine offered for sale on the Pittsburg markets, and I have here a sample of that product that is being sold under the quarter cent tax on oleomargarine. There were only a few dealers on the Pittsburg market handling butter, almost invariably handling oleomargarine in place of it. The butter merchants of the city are sitting down and saying "We can do nothing." I went to Harrisburg to see the State Dairy Commissioner. The facts are that there is probably not as bad a state of affairs in any city in the United States as in Pittsburg. You know today there are seven of the city aldermen under indictment before the grand jury for grafting during the last three months, and there are four more indictments pending. In addition to that he says there have been so many bank cashiers that have defaulted and absconded that it has

taken the entire time of the prosecuting attorney and that he cannot get to the oleomargarine cases. Pennsylvania, as you know, has a good oleomargarine law, one that prohibits the sale of any kind of colored product in the city, and in conference with Commissioner Faust the prosecuting attorney has agreed to bring cases about the 15th of this month against the dealers who are selling it in the city. We are in perhaps as bad shape as that at the present time in Chicago, but it is simply as a result of the conditions existing in our gubernatorial and senatorial fight in the state, so we are without a commissioner at the present time who can devote his time to enforcing the law. Our organization is doing this in that city. I do not know whether I am doing right in telling this, although it has gone so far it may not do any harm. They have continually fought in that city the trying out of our state law. We believe there is a law in the state of Illinois that is more effective and will prevent the sale of colored oleomargarine in that state, but in the many cases brought by Commissioner Schuknecht last year the dealers all pleaded guilty and paid their fines. We have been anxious to have a case brought to the Supreme Court to establish the constitutionality of the law. We finally got that case, we have had the first trial, it has been appealed and it is now on the way to the Supreme Court, will be argued there sometime during the next thirty days and we will have the decision in February or March. It is costing our organization from $150 to $200 to carry this out.

In Denver, one of the canker spots in the United States for the sale of oleomargarine, in connection with the revenue department (and I want to give credit where it is due) the government at Washington undertook to inspect affairs with the result that there are seven of the biggest dealers in Denver, among the rest a state senator, indicted in that state before the grand jury and will soon be brought to trial. We have also undertaken to establish the constitutionality of the law in that state. We have the assurances of the dairy commissioner that if we furnish the money to establish the constitutionality of the law that he will see to its enforcement throughout the state. It will cost $300 or $400 to do that. We are getting

the same work done in Chicago in the hiring of an attorney for $200 that will cost us $400 in Denver, but it is the best we can do and we feel that it will be money well spent.

We want this organization to represent you people, to represent the dairymen of this country because it is going to take the united effort of every man interested in the dairy industry to prevent the repeal of the law we have, that law which has been of so much benefit to you, and I want to post you on the situation so you will pass a resolution, and you cannot pass it too strong, instructing your members of Congress to view with disfavor any attempt to change the oleomargarine law in any way, and see that a copy of that resolution goes to the members of both houses from your state. The states of Wisconsin, Iowa and Minnesota are all right. The work has got to be done in other states. I succeeded in having resolutions of the same kind passed in Ohio and Pennsylvania at their dairymen's conventions, and awakened all the enthusiasm I could in as small conventions as they have. They do not have conventions like this in those states. I believe if a Pennsylvania or Ohio dairyman could stand before an audience of this kind he would be inspired enough to turn preacher himself.

I want you boys to know what you are up against. I have brought here from Chicago a sample of the product of the Armour Packing Co. Chicago, Pittsburg and every eastern city is flooded with this product, which is being retailed at 25 cents a pound and pays the quarter cent tax, it being sold under the understanding that it contains no vegetable coloring matter, and it is possible that it does not. We have a package in Washington for investigation along that line, and if through their chemists they can produce a product of that color which contains no vegetable coloring matter, then we shall have to have another law to protect ourselves. I want you all to see this product I have here because I want you to know what you are in competition with.

I thank you for your attention and trust you will carry out as nearly as possible the instructions I have asked for.

The Chairman: This matter that Mr. Shilling has brought before us is of a great deal of importance. It is something that is going to require some money, because it is necessary to go out and hire attorneys, and the only way to get this money is to go down in our pockets and contribute it. It seems to me now would be a good time to start a paper circulating here during this meeting, and let everyone subscribe what he is willing to pay towards this fight for the aid of the National Dairy Union. I was in Chicago at the time the National Dairy Union was established and I know that Chas. Y. Knight and Governor Hoard spent their time and money in this cause. They sent out a call asking every farmer in the country for fifty cents towards this good cause, which was for the benefit of the farmers. I started a petition in my factory and got two or three subscribers but that was all I could get, and I believe a good many other buttermakers met with no better success in that direction. It is therefore up to the buttermakers to take this up and I would like to see a paper started at this convention before we leave Eau Claire, every buttermaker subscribing all he feels he can afford towards this cause.

Mr. Shilling: I did not refer to the financial side, not because I did not think of it but I have done it so often I did not feel like doing it again, but every dollar received in the treasury of the National Dairy Union is used for actual expense. There is not a man drawing a salary out of it, nor is there a man drawing a dollar for any special purpose unless it takes us away from our business. For over a year not one of the officers has drawn any salary, but we want your support, for unless we have it we can do nothing. I want to make it plain that there is nobody drawing any salary except the stenographer and a small amount to the bookkeeper, who keeps the books for us. All the money is expended in hiring attorneys and pushing such cases as those I have referred to in Denver.

The Chairman: This evening the session is to be held at Pythian Hall. There is going to be something that you can-

not afford to miss. This lecture of Dr. Morrell's is a good business building lecture and I feel it is something you should all hear. If there is nothing further to come before this meeting, we will stand adjourned until 8 o'clock tonight.

WEDNESDAY EVENING SESSION.

Meeting called to order at 8 o'clock by President Dodge.

The Chairman: The first on the program this evening will be the reading of the resolution which was presented here last evening, and which will be once more presented to this convention. Mr. Moore will please read the resolution.

Resolution.

WHEREAS Article Fifth of the by-laws of the Wisconsin Buttermakers' Association reads as follows:

"The Association shall give a Gold Medal for the highest scoring tub of butter and a Silver Medal for the second highest" and

WHEREAS, Gold and Silver Medals are of doubtful value to the recipients of the same, therefore in accordance with Article Seventh of the Articles of Incorporation, notice is hereby given that a motion will be made in due time to amend Article Fifth of the by-laws so as to read as follows:

Article V.: "The Association shall give such prizes for the tubs of butter scoring first, second and third as may, in the judgment of the executive committee, best suit the times and be of greatest service to those who receive the same."

WHEREAS, Article Second of the by-laws of the Wisconsin Buttermakers' Association reads as follows:

"This association will accept no special or side premiums of any nature whatsoever" and,

WHEREAS, conditions under which it seemed advisable to have such a by-law are now so changed that it is deemed best to permit the association to receive such special or side premiums that may be offered,

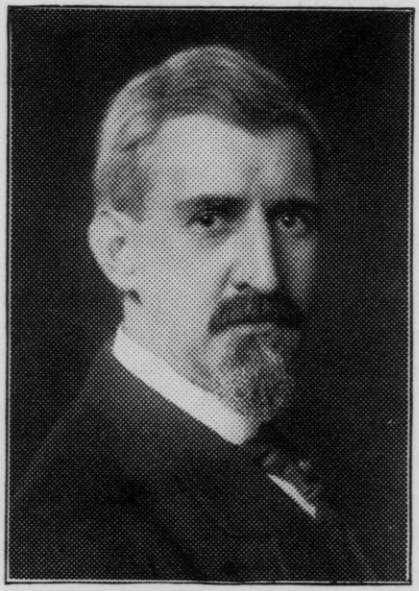
THEREFORE, in accordance with Article Seventh of the Articles of Incorporation notice is hereby given that a

motion will be made in due time to amend article second of the by-laws so as to make it read as follows:

Article Second: "The Association may accept such special or side premiums as, in the judgment of the executive committee, may seem for the best interests of the members."

On motion, duly seconded, the resolution was unanimously adopted as read.

The Chairman: This evening our program is given to a subject that will interest everybody who has anything to do in a business way. Building of a Business. Everyone has to build a business of some kind and in some way. Tonight we have with us a gentleman who has had wide experience along those lines and has met, perhaps, as many different representations of business men as anyone in the country. I take great pleasure in introducing to you Dr. Chas. B. Morrell, of Chicago who will talk to you at this time.



DR. CHAS. B. MORRELL
CHICAGO

Address.

Dr. Chas. B. Morrell, Chicago.

Mr. President, Ladies and Gentlemen:

I appreciate the honor of the introduction of your president and especially do I appreciate the privileges that have been accorded to me by the business men of the northwest. Many years ago I was in the butter business, not theoretically but to make my living for I was a butter sorter in a commission house and I can remember with a great deal of feeling (and it is that feeling that usually accompanies sea sickness) the undoing of tubs of butter that used to come in. I used to classify it as blonde butter and brunette butter, not on account of its color but on account of the hairs we found in it. That was a good many years ago, that is a great many for me back nearly thirty years ago, and I realize as I see the splendid tubs of butter at your convention, see it on the tables, I realize that the world has been moving, some things have been going on towards a better relationship and a better understanding of the necessities of human life.

Now I am going to speak tonight on the science of salesmanship first and then on business building, but the reason that I speak first of the science of salesmanship is because you are all sales people. I am a salesman. Every farmer, every dairyman, every man connected with every institution which is for the satisfaction of human wants is, to a certain degree, a sales person. The idea that the man who hands a package of butter (I will talk considerably about butter tonight) to the consumer is the salesman and the only salesman in the proposition is absolutely absurd. The farmer who buys the calf, the farmer or the dairyman who milks the cow either by hand or by one of those machines so wonderfully complicated that I do not understand them, they are all a part of the selling proposition.

Now I am not an investigator by any means but having ears I hear and as I move around among men, I hear a low murmur, you might call it a growl, and it runs something like this. There is a great deal of competition in this business,

there is a great deal of feeling between the different parts of the organization, this man feels that he is aggrieved, somebody is trying to steal his livelihood, the other man feels he is aggrieved somebody is trying to steal his livelihood, but when you come to look the matter broadly and squarely in the face you are all a part of a great commercial whole and in treating the subject scientifically, in studying it scientifically, we must study it with a view of studying the different elements that make up the commercial transaction of your work, of every other line of work that has a part in the production and distribution of human necessities.

Let's look at the salesman proposition as a science. Ten years ago a man would have been considered a little bit off, a little bit of a crank to have stood on a public platform and said "I am going to talk about the science of salesmanship," and some of those high parties, some of the men that wear plug hats and long tail coats, say there is no such thing as the science of salesmanship. There may be the science of medicine, the science of law or electricity, but that there can be no such thing as the science of salesmanship. That is absurd, but there arose a prophet in Israel, a man who asked "What is a science?" and began to ask questions, just as I hope you will ask questions. I hope you will bring out the different things that are troubling you in the selling proposition. This man asked "What is a science?" and somebody said "A collection or organization of facts about any business." What would the science of salesmanship be, or what is the science of salesmanship? A collection of facts about selling. Here is one man, a butter salesman we will say. He meets people, talks to people and he seems to be a good salesman. Here is another man on the road who meets people, talks to people, but is a poor salesman. Would it not be a good thing if No. 1 could sit down to No. 2 and tell him why he failed in selling goods? Ladies and Gentlemen, it is a sad commentary when we come to get at the science of merchandise in this country to realize that 95 per cent of the men who go into business absolutely fail. The head of a great institution told me only a few weeks ago, speaking of another line of business,—the

vehicle and machine business,—he told me that the average life of a man who started in that business as a business man was seven years. He fails. He has sold his farm, gone in to business; at the end of the first year he finds he is a little worse off than he was when he started, so 95 per cent of those men actually fail. There is a reason for this, admitting that it is true. The way to remedy the evils in any line of business is to prevent those evils by bringing them to the searchlight of judgment and reason.

We have in the science of salesmanship four great divisions and some of those in this audience belong to either of those divisions. The first division of the science of salesmanship is the salesman himself. Who is he? What is he? Those of you that are salesmen when you leave here tonight ask yourselves this question. As a salesman have you ever stopped to analyze and know what are the factors for mental development and knowledge that makes for success of a part of my life and a part of my daily activities? The second factor in the selling transaction is that of the customer,—the salesman and the customer. Both are persons. The third factor is the goods or things sold, and the fourth factor is the sale itself.

Now we are concerned with the idea of building a business, building the butter business, the dairy business, and in order to raise it to the highest plane possible we must consider the four factors that enter into the sale. What must we consider on the part of the salesman? I said a moment ago that the salesman begins not when that butter is packed for shipment and sent to the commission house or grocery store or wherever it is sold, not at that end but back in the beginning with the man who is looking down at his farm, looking down upon the product of his farm and asking himself "What kind of butter am I going to put on the market?" "If my butter goes down to Chicago is it honest butter, do I know whether it is honest butter?" Let me say that over again because that is the keynote of science. There are two thoughts in business today that are recognized as tremendously important, and one

of them is this—salesmanship is to sell the goods for profit. Do not forget the profit end of it. It is not the mere doing of things that makes for success. It is not the following around of a life or the following around of a churn that makes for success, it is where the recognized result of that success is when the transaction is completed. The conclusion of that transaction, that is when the man looks down into the green. He says, I know he should say it if he does not, "I know that is a good pound of butter, an honest pound of butter, a high quality pound of butter that will bring the highest price in the market." Now then, Mr. Salesman, do you know what makes a good pound of butter? When you look at yourself in the looking glass in the morning you have a general idea of your appearance, but when you look at an article that is to be consumed do you know what you are talking about, because the science of salesmanship, the science of business success today is based upon accurate knowledge. One man picks up a pound of butter, looks at it and says "That is a fine piece of butter, how did you do it?" Another man picks up a pound of butter, looks at it and says "That is a fine piece of butter; I know how you did it because I can do it myself."

Behind every great achievement in the business world today has been a studious man, has been a man willing to accept the knowledge of other men. As I walked through your convention hall this afternoon and saw there the machines, somebody said that I was a cream separator man. I never saw a cream separator in my life except a little machine I used when I was a health officer, but the most inventive minds of the age have been brought to help you make a better pound of butter, but no power on earth can be brought to help you make a better pound of butter if you do not begin by the analysis of those facts that make for clear thinking, for judgment, for reason, for knowledge of the proposition which you are handling. Consequently the first factor in business success is self study. It is a very easy thing to be a little bit careless, it is a very easy thing to be just a little bit indifferent, and yet that little carelessness and that little indifference

goes into your tub of butter, and the tub of butter goes on the market just a little off in quality.

Today business men are succeeding better than they have at any time in the history of business. Why? Because more men are giving themselves to a study of themselves and to a study of the customer and to the relations between the businessman and his customer.

Tonight at the supper table I overheard a little conversation, in fact I was sandwiched in between two men and took a part in the conversation. They were talking about this beef butter they made in Chicago being in competition with real butter. Gentlemen, it is in competition with real butter, there is no question about that. The reason it is in competition with real butter more than anything else is because human life is in competition with real butter, simply because there are a great many men in the city of Chicago who do not understand what a really good article of butter means to the farmer. They do not know what it costs the farmer to produce butter. They simply have an idea in a general way that it is a poetical thing,—the dairy maid, the cows, the green fields, the blue sky, the humming bird, and all that sort of thing and that the butter naturally comes. Consequently I want to say to you that the second stage in the deveolpment of your particular line of business, and pardon me if I apply the science to your business direct, is the merchant of the streets, the man with whom you do business, to give him such knowledge as will give him clearly to understand that it costs money and takes time to produce a really good article.

In all lines of business today the consumer and the salesman are coming together. In some lines of business it requires that the producer and the dealer study the personality of the consumer. I do not think it would be worth my while to talk much about that tonight except in a general way. The study of the consumer, the study of the conditions, the study of the other end of your business is vitally important to your success but, ladies and gentlemen, there has a thought borne in upon my consciousness with tremendous power in the last four or five months, and that is this,—it is a grand thing for

you to know your business. It is necessary. It is a grand thing for you to know yourselves and I want to say that a most hopeful sign of business prosperity in this country is manifested in just these conventions, similar to yours, that are being held. Why? I am a strong believer in every element coming together in the form of a common mind, to operate one with the other with the aim that the average shall be greater.

Take the thought I advanced a moment ago,—what is the best method of marketing your product? Now do not forget the important thought. The first thought was the best method the simplest method, the surest method of producing the best pound of butter that can be manufactured in Wisconsin. That is the first thought. The second thought was the best way of marketing that best pound of butter for a fair and equitable price. Here is a man that has a thought, here is another man over here that has a thought, here is still another man down here that has a thought. One man is on a farm one hundred miles from here, one is on a farm fifty miles in the other direction, and the other on a farm two hundred miles in the other direction, and they come together and when they come together the same thing happens as when a mighty flash of electricity flashes over the wire, a life is born, you get together and discuss a question. That is science. You bring up the facts pertaining to the different requirements of your business; you bring these facts together and put them into the melting pot of the common mind, consequently I say, both directly and indirectly, one of the strongest ways to build a business is to build manhood and womanhood; the next best way is to put your hand in the other fellow's hand and say to him "Brother, let's do this thing square, let's be fair to every man on every farm, in every section who is producing his individual pound of butter. When a man comes into your community, I do not care where he is or what he is, when that man endeavors to start a throat-cutting competition of prices or anything of that kind, that man is an enemy to business building, I do not care who he is or what he represents. There is a price for every pound of butter which will enable the far-

mer to look every other man in the face and be perfectly satisfied with what he is doing. I do not know what it is worth to produce a pound of butter, but I do know this,—that there is a fair price for it and a fair relationship, so the first and second factor of the science of salesmanship is the study of the salesman and the study of the consumer, and the third factor is the study of the goods.

I know that you could all tell me more than I ever dreamed about butter, but do you know as individuals, do you know as a dairymen's association the facts that the scientific world has uncovered by the most intense thought of the age, bearing upon the production of a pure, clean, saleable pound of butter? I remember the time, as I stated before, when the production of a good pound of butter was an accident. Time was when we would look through a lot of butter, pick up and smell it, then put it down, look at another lot of butter, smell it and then put it down, and we would hardly dare put a trier into it,—too much risk. No question but that is all done away with now, but what has done away with it? Somebody, perhaps miles and miles away from here, has been burning the midnight oil, has been thinking of the scientific side of this, perhaps some humble man, perhaps some man who does not even till the soil has been thinking of the problems and of the questions that concern you and your work, and the thought that the science of salesmanship and business brings to you is after you have shaken hands with the man who is your associate in this work, also reach out into the great world and know and realize and learn there is a brotherhood with those men who are raising the standard of cleanliness of your product.

Now I am not advertising a separator, I do not know much about them, I am not advertising any particular theory, but I am pleading this as a matter of business building, that it is knowledge that makes for power. It is association that makes for the interchange of knowledge, it is both association and knowledge that makes the product itself, that gives you a knowledge of the market itself, that gives you the power to

say to the world "We are producing the highest grade article possible under the circumstances in which we are working." The price that you put on this article is a just and equitable price. What do we call that in the science of business building ? We call that analysis. We will say that all conditions that surround your business we will proceed to analyze. Now how do we analyze those things? I could not organize a scientific school of salesmanship that would be one-half as good as the school of scientific salesmanship which you have here organized and which you have been conducting for the past two days. That is the science of salesmanship, that is the science of business building. You men get together and pour into a common center, pour into a common fund your experiences, and all I can add to it is just this thought that the more you do of that, the more you do it with the real spirit of fraternal interest, the more you do it with the real spirit of scientific investigation, the more you will bring your minds to the great facts that bear upon the development of your business, the stronger will you become as an organization and as your organization becomes stronger the stronger will you become as individuals.

There are a number of things in the life of a farmer, in the life of a dairyman, that differ from the life of an ordinary salesman, that differ from the type of people with whom I am most conversant, that is the men who go out in the great city, but there are some things common to all men. Until Mr. Sheldon and those around him, many, many others now, took up this study, selling was a matter of accident. I remember a couple of years ago Mr. Sheldon and I were sitting under a great tree out in the country and he told me how he discovered what is known as the mental law of sale, the harmony of selling. He said "I knew that there were certain things in the life of a salesman that were absolutely necessary to develop," which I shall speak of in just a moment." "I knew that the best salesman, the best business man, all things being equal is the man who studies human nature, the man who knows the other fellows. That is one of the secrets of success in business, is to know the other fellow." It is a good

thing to know yourself but better to know the other fellow. Think once in a while about his side of the proposition, think how he feels about it all, think of his share. What is he working for. You want to satisfy a man you never saw, perhaps, but he is a part of the great field of humainty. Now what takes place at this moment of a sale? Here is a salesman, here is a customer, here is the goods. Did you ever stop to think that there is a law behind it all?" Every pound of butter that ever was sold is the result of a law, a simple law but a vitality important law and it is this, that the man passes through four changes. The first is attention, the second is interest, the third is desire and the fourth is resolve to buy. Now watch the thought just a moment. The first is attention, the second is interest, the third is desire and the fourth is resolve to buy. Can't you see the beauty of the law? What is it that causes one man's product to bring four or five cents a pound in the market more than anybody elses? Without advertising anybody's business I am going to tell you what a leading butter man said to me after the convention at Montivideo. "It is the tubs, the way the fellow puts it up. A clean tub means what? It attracts a customer's attention, his eyes, ears, nose, fingers and taste. They are all in your butter business. In order to buy a pound of butter a person uses the eye, the touch, the taste and the smell, all five senses, the five factors that make for attention. Now is it anybody's fault when the customer goes through that mental process of attention if the value of the product drops three or four cents? Yes it is somebody's fault. Somewhere down along the line there has been that little bit of neglect.

Now then, take up the subject of interest scientifically. What does your customer know about the difference between really good butter and inferior butter? How much money did you as an organization spend last year, how much attention did you pay to the man or the woman (because it is the woman that usually buys the butter) that buys the butter? Do you care? This is practical, Gentlemen. Did you care? Did you think of the housewife down in Chicago? Can you look a pound of butter in the face and say "Mr. Pound of But-

ter, you are absolutely the most honest pound of butter I have ever sent out," or does it go under the stigma of "Almost, but I guess it will go." Attention, interest is making minutes from step to step. Do you blame the madam down in Chicago or even in your own town when her sense of smell, her sense of taste, her sense of attention as the combination of them all leads her to be interested and leads her to desire your product? Gentlemen, put this down as an absolute business fact, the time never will come in the dairyman's business when a pound of bad butter will be worth as much in the markets of the world as a pound of good butter, any more than the time will come in the markets of the world when a bad salesman will be worth as much as a good salesman, and consequently that law of selling which says "Go into the details, go into the study, go into that element of mutual relationship in which the information of many minds becomes the property of every single man in your organization."

When we start to train a salesman down in Chicago, the first thing we ask him is this "What do you know about your goods. How much of a study have you made of the relations that enter into your business?"

Now I want to speak for just a moment to the young men. I want to speak of the elements that make for business building, that will redeem the merchandising world from the stigma of 95 per cent failures, a contemplation and consideration of a few simple thoughts in which I have been interested and found to be true. They are these,—that trade is based upon confidence, confidence is based on personality, personality is based upon character, and character is the development of the internal forces of a man. You may call a man a liar, you may call him anything you please, but it does not have any more influence on his life than to whittle on a granite monument, but let the internal forces of that man begin to degenerate and the result is a poor pound of butter, no question about that. Character is the development of the positive forces of the body mind and soul, and no system of salesmanship, no system of business building can be based upon any other foundation.

Any man that says to you if you study this particular book, or that particular book of the selling of butter, about increasing your business relationships without developing the positive elements of your mind which make for force of character, that man is simply telling you an untruth.

Another thought. They say that Methusalem lived 960 years. I do not know anything about how it was before my time but I know that if he did live 960 years, the young men of today can see more on any corner in Eau Claire in twenty minutes than Methusalem saw in all that time, because there is more doing, consequently one of the strong factors in business building is to do it right now. Right now. A man who is thinking of competing for that $50 prize, about which Mr. Moore talked a moment ago, wants to begin thinking about it tonight not forty-eight hours before the time of that competition, but tonight, because when he thinks about making a pound of good butter he is thinking about making a good man when he is thinking about making a good man he is thinking about making a good husband or a good lover, and when he is thinking about making a good husband or a good lover he is thinking about making a good citizen and when he is thinking about making a good citizen he is making the greatest factor in good business, because Gentlemen, what are the factors in the business world today but the men and women that make it up? One disreputable man has been known to ruin the reputation of a thrifty and thriving town; one disreputable man has been known to destroy an organization perhaps as strong and healthy as your own. The fundamental principles that underlie business today are those of simple truth and honesty.

There are some facts today within reach of the young man that were not within reach of the men when I was in the commission business thirty years ago. Today man can study himself, he can know how to develop the best qualities of the body, mind and soul, he can know how to enrich the mind with those factors that make for pure business, but, ladies and gentlemen, there is no secret about it, the test of successful busi-

ness today is the test of beautiful, well developed, consecrated manhood and womanhood, and so we have the four elements.

The elements of the salesman, what about him? He must have it in his mind first that salesmanship is to sell the goods for profit. We have two kinds of profit, one is legitimate profit and the other illegitimate profit. We have the honest pound of butter that is worth in the markets of the world an honest price and we have the dishonest pound of butter that is not worth the honest price. It is not salesmanship, ladies and gentlemen, to try to get the honest price for the dishonest pound, but it is salesmanship to raise that pound of butter to the highest per cent standard possible.

The second thought is study your fellow man, study your neighbor. The greatest thought that has been impressed upon my mind in the nearly four years of teaching is this,—as a man thinketh in his heart so he is. It is an old, old thought, as a man thinketh in his heart so is he. I remember the first time that I heard it applied to business by a veteran salesman. He was talking to a number of young men and used this thought. He said "Gentlemen, no man can be a successful salesman who hates the other fellow." It is impossible. Why? Because of the sociological law that is as true as the law of propogation that is the human mind does but one thing at one time; if it is filled with hate and rancor, filled with distrust and lack of confidence it is not filled with essential factors that make for successful business. When a man says the world hates each other he is hurting himself because of his own fault. From Boston to California men are gathering as you are gathering, men are shaking hands as you are shaking hands, men are discussing problems and questions of business as you are discussing problems of business, and it is only now and then that a man is hating himself and hating his fellow men, and consequently one of the essential principles of building business, the dairy business as well as any other business, is to make your own life, as a man thinketh in his heart so is he, because you want to clear out the rubbish.

I remember the time when it was an unsightly place, an

exceedingly bad smelling place to go into a dairy. I do not know how it would be now. I served as health officer three years. I do not know what I would do to your place if I were appointed inspector of dairies, but I think I could take some chances, but unsightly as a filthy dairy can be it is not one-half as unsightly as to see men filled with the spirit of malice and hate, lack of confidence, mutual distrust and that throat cutting part of the business. I nor the science I represent cannot help you. It is you among yourselves who will help yourselves as individuals, as an organization to be upon the highest and best terms of fellowship. When you make a common ground of knowledge accessible to all those who are members of your organizations, when you concede what you cannot prevent, when your search for that which is the cause of dissension and trouble, when you make a partnership not only with yourself and your immediate family but with your neighborhood, with your state, with your country, with all that consume the products that you produce. In other words, the science of business building is that each man, each business organization shall be as true as each brick shall be to build a great building.

Trade is based on confidence, confidence is based on personality and personality is based on character. Now I want to say a few more things, then I want you to do the talking. I do not know what great problems in business distract you in your particular line, nor do I claim in any sense of the word to be an encyclopedia of business facts. It has been one of the most remarkable things for me to realize that all businesses are alike in some things, all businesses follow the same general lines. The principles which I have laid down tonight are the principles which govern every mercantile business in the world! The man who turns his attention to the study of his business, the man who turns his attention to the development of his knowledge, the man who turns his attention to the study of his customer, the man that turns his attention to the relations that bear upon his business, whether he sells butter and eggs, whether he sells agricultural implements, whether

he sells boots and shoes, he is elevating his business to the plane of success, but he has a problem.

Salesmanship today is being regarded as a profession. Why? Because a profession is something which is supposed to be made up of men who think, and the business world today has very little place for the man who does not think. A man today who wants to achieve success upon the plane of business building must make up his mind that while he is a part of that organization he must use those powers of mind which God has given him to study the conditions and relations which surround him.

Let me close my talk with this thought, do not forget the other fellow. I do not know whether this work you are doing is going to be profitable from a financial standpoint or not, and I do not think you care very much about that part of it, but I know that I should feel it was a waste of time and lack of vitality if you had not helped to do the very thing that this subject tonight indicates, the raising of the plane of business, and I want to say just a word for the other fellow. I want to say just a word for the element of just co-operation with those men who must work with you. I know a butter salesman in Chicago, an intimate personal friend. I meet him almost daily. I know how he tramps through the city of Chicago, how he tries to sell, how he tries to market the product which you produce, and he tries sufficiently hard so he can take care of his little part and be a part of the business. I am not going to say what his trials are but I am going to say this,—when you think of the butter business think also of the men who consecrate their lives to the building of those things that make a part of your business.

What a wonderful, wonderful vision people had in old New England four hundred years ago when they plowed their way through those western plains to build the homes that now gladden the country clear out to the Pacific Coast, and the farmer had his place. There is no question about that. The farmer who went forth axe in hand was a wood cutter, was a tiller of the soil, and he had his part and his place, but he

would have been a lonesome Robinson Crusoe if someone else had not followed close behind him and joined with him to help him do this work in a better and easier form than he did it before! I am not pleading the cause of any outside men, only just on the single general proposition that if you wish to raise the plane of your business to the highest possible standard you must fully co-operate while having an intelligent interest, a concrete knowledge of all the factors that make for your business.

Let's hope there will be a stronger organization, a larger and more generous exchange of thought, a more powerful executive ability because it is a compound of many minds, a greater degree of prosperity because it will result in the most interest in the goods that you produce. I thank you.

The Chairman: I believe we have all enjoyed this address and I hope you will all join in asking questions. I am sure Dr. Morrell will be glad to answer any questions along any line of salesmanship. There are a number of salesmen here that we think are pretty good but there may be a chance for them to improve a little and I would like to have them get a few points. I would like to have you quiz Dr. Morrell a little.

Dr. Morrell: The way to make a meeting of this kind is not for me to do all the talking. Somebody start a question. What specific question troubles you in the salesmanship line in connection with your business? I may not be able to answer your question but on the other hand I will try. Let's have a little symposium for fifteen or twenty minutes.

Q.: How do you figure the cost of doing business.

Dr. Morrell: That is a question that has come up in other conventions this fall. How do you figure the cost? Of course in your particular business you cannot figure the cost as accurately as a manufacturer. Let me give you a little illustration, drawn from a talk made by the president of one of the great agricultural institutions. He said the average country merchant figured cost in this way. He bought the stuff and

hung the invoice on a hook behind the desk and when somebody came along and offered to take the thing away he let him have it, he guessed at about what it cost him. Sometimes he guessed right and sometimes he did not. Here is the point in figuring cost and I heard that brought out a few days ago at a printing convention. In the first place you cannot expect to get back the price of the cow in every pound of butter but you ought to get back a fraction of that, you ought to get back a percentage on everything, even on the cost of the farm, because there is no question but what there is a deterioration of the farm, but what you can figure with a good deal of accuracy is your own labor. A great many men today forget themselves, forget the labor, forget the time they put in. I would not know how to figure the cost of a pound of butter, would not know how to suggest it. I can figure the cost of a piece of jewelry because I would weigh in the silver, weigh in the cost of the setting, then add 15 per cent (I happen to have an interest in that line of goods) then add 15 per cent, as I said, to that cost, then call that the first cost. When that article comes to be marketed, we have to add the percentage of the salary of the man who sells it. I think that is a pretty fair answer to your question. I would not know what percentage of wear and tear there is on the farm, there is a certain wear and tear to your dairy instruments, ten or fifteen per cent in a year's production. The number of pounds of butter per year produced by any organization, plus ten per cent for wear and tear of their instruments that you use, plus a percentage for wear and tear of your cows (I suppose there is wear and tear to them) and a percentage for your own labor. Most farmers do not count their labor. I do not know enough of the details of buttermaking to know how you go at it, but you figure in all the expenses and then divide that by what you have given as cost and charge to that cost a fair ratio of expense.

Q.: Will you explain on what profit is based?

Dr. Morrell: Profit is based on the interest earning power of a dollar. Profit is that which is added to the original investment. If you pay $25,000 for a farm, go to work on the

farm. We will say your own time is worth $5,000 a year. If you raise a crop on that farm and at the end of the year sell the crop for less than your time was worth you have not made a profit, have you? $25,000 is the value of that farm; we will say money is worth four per cent, which is a fair valuation for money in $25,000 lots. On the interest on $25,000 you have a reasonable return for your operations. That is the way profit is figured in business. It is figured as an increase of what that money would be worth if you took it out. I know lots of men that have figured on this basis. They say "I put $10,000 in my business and I put it in my own time. At the end of that time I made money, I made five per cent." They did not figure their time as worth anything. They could better have put their money in the bank at four per cent interest and gone to work for somebody else or done nothing, so profit is figured on the value of your holdings and the value of your own services, added to that.

The Chairman: From your observation do the best salesmen come from the city or from the country?

Dr. Morrell: They come from the country. I want to say something else to you, I want to say it because I will take the early train in the morning and perhaps never see you again. The salvation of the city is the country boy, the salvation of the race is the country girl, the salvation of the country today has been its farming institutions. The thing which has made this great country what it is today has been the vitality of the men of the soil, and that is recognized today as one of the greatest and most profound thoughts of social and political economy. Now I am going to "knock" with my little hammer. The most ungrateful man in many cases is Mr. Farmer. The stingiest, meanest, most grasping, most avaricious, the most unreasonable man is Mr. Farmer. Why? He thinks he has done it all, he thinks because the country blossoms with millions and millions of bushels of wheat he did it, but he did not do it. He is what he is today because men have fought, because men have wrought, he is what he is today because of the men in their studies of the great factories that have helped

the farmer. Let me say in closing this, Gentlemen, man cannot live alone but by all that makes for the great civilization of which we are a part it is possible to make a uniform pound of creamery butter today, but we cannot live alone. We live by all the things that make for our welfare and the farmer is today a part of the great factor in which the millions unite.

Mr. Moore: I have a thought along this line. I have not been a salesman, I do not pretend to be one yet but having been in business of this character it seems to me that the greatest factor to overcome is the one of lack of confidence between the two interests, the buyer and seller. The seller is too apt to think that that pound of butter has had the greatest amount of care put to it, that it is a first class pound of butter and when the other fellow gets it he ought to receive a first class price for a first class article when it is not first class, and sometimes when he knows it is not first class, he expects to get a good price for it. In the matter of weights and tares I find too often the fellow in the country is apt to think the buyer is taking advantage of him all the time. He fails to realize what Dr. Morrell has brought out here that any business man who is worthy of the name knows that in confidence alone he can build his business. That is what we want to overcome, this lack of confidence and have those fellows put themselves in the other fellows' place and realize what they are up against.

The Chairman: As there is an election of officers tomorrow morning and likely to be a good turn-out, I will call the meeting in this hall at 9 o'clock, and I hope you will all try to be here at that time. We will now stand adjourned until tomorrow morning at 9 o'clock.

THURSDAY MORNING SESSION.

Meeting called to order at Pythian Hall at 9:30 o'clock by President Dodge.

The Chairman: The first on the program this morning is Pasteurization by Forest Pierce, of Eau Claire, Wis.

Pasteurization.

Mr. Forest Pierce, Eau Claire, Wisconsin.

Pasteurization of Cream as Applied to Buttermaking.

When I was informed that the subject of pasteurization was assigned to me, I felt very diffident for I realized that I had a very broad and important subject. I would much rather listen to some one who has had more experience in this line, but if I can awaken some interest by bringing out a discussion, I shall feel well repaid.

Pasteurization, as we all know, consists of heating and cooling in a manner which will destroy the vegetative or actively growing bacteria. Cream is also considered pasteurized when the bulk of the bacteria is destroyed.

The objects of pasteurization are to secure more uniform quality, better keeping quality, also more effect from a starter.

The standard of American butter is becoming higher every year. Methods that suited the general market five years ago are away out of date at the present time.

The use of good starter has done much to raise the general standard of butter in America, but the finest starter added to cream already teeming with good and bad bacteria, can not produce the best results.

It is evident that the best results are obtained only when the bacteria in the cream are first destroyed by pasteurization so that the pure germ introduced by the starter may have a clean field for development.

If nothing but clean, uncontaminated cream was received at our creameries, there would be no necessity of pasteurizing as such cream could not be improved by this process, but we can not hope, for some time, at least, to have all cream arrive at the creameries in good clean condition, some cream will still come to the creameries too good to reject and too poor to make the best quality of butter.

During the past few years, a great many experiments have been carried on at the various Dairy Schools with a view

of determining the advantages of making pasteurizing butter. These experiments had for their immediate objects,

1st, To study the extent to which pasteurization improves the quality of butter,

2nd, To study the keeping qualities of pasteurized butter.

Where the cream was of average purity, the butter from the pasteurized cream scored on an average, three points higher than from the unpasteurized, using the same amount of starter in each case.

Where the cream was below the average purity, the butter scored 4 to 6 points higher from the pasteurized than from the unpasteurized, using the same amount of starter in each case.

The keeping quality of the butter, made from the pasteurized cream was in most cases, so far superior to that from the unpasteurized, that it alone should warrant the general introduction of pasteurization in our system of buttermaking.

The process of pasteurization is not a difficult matter, providing you are equipped with the proper machinery to do it with and use the proper amount of care, but both these things are highly essential.

We have found the Wizard Agitator, to fill all requirements as it thoroughly heats, cools and aerates the cream besides serving its purpose as a cream ripener.

We heat the cream to 140 degrees Fahrenheit with hot water and steam circulated through the coils taking about 20 minutes. It is held at that temperature for 30 minutes then quickly cooled to 65 degrees, starter added, left at that temperature until sufficiently ripened, then cooled to churning temperature then left long enough to thoroughly harden the fat globules and churned.

We have as yet to find cream that can not be improved by this method of pasteurization.

The cost of pasteurization according to Danish experiments is approximately one cent per pound of butter. This is also confirmed by practical buttermakers in this country who have practiced pasteurization for several years. Thus, it will

be seen that the cost is very small when compared with the increase in price which it should bring if the butter scores from 3 to 6 points higher. I believe the time is not far distant when the pasteurization of cream for buttermaking will be compulsory, but let us not wait until compelled by law to make better butter. Let us make the best butter we know how, by pasteurizing every pound of cream used in buttermaking.

Thanking you all for the kind attention, I am yours for better butter quality.

Mr. Olson: Would not something besides the Wizard Agitator pasteurize the cream?

Mr. Pierce: I think so, Yes Sir.

Mr. McGill: Have you any trouble with the cream burning on the disc?

Mr. Pierce: Very little trouble where I use steam and water at the same time.

The Chairman: The next on the program is an address by Hon. B. D. White, of the Dairy Division, Washington, D. C.

HON. B. D. WHITE
WASHINGTON, D C.

Address.

Hon. B. D. White, Washington, D. C.

Asst. Dairyman Dairy Division.

Mr. Chairman, Ladies and Gentlemen:

I can assure you that it is a pleasure for me to be with you. This is the first opportunity that I have had to meet with the Wisconsin buttermakers. It has been my ambition to meet with you for a number of years but something has always prevented. I know something about the work that you are doing, about the number of creameries and cheese factories that you have. Wisconsin, no doubt, can be classed as one of the very best dairy states we have in the United States and I do not know how long it will be until it will rank first. In looking over the records of the Dairy Division recently, I find that you have in some counties over 100 cheese factories and

twenty or thirty creameries. That, of course, is intensive dairying and you no doubt are realizing a great deal of profit from your work, especially when you make a comparison between the production per cow in Wisconsin with that of some of the other states which we class as dairy states. You perhaps are producing on an average 20 or 25 pounds per cow more than any other state in the central west. Now I am not saying this to flatter you nor to find fault with the other states, but it shows distinctly that you have been working along dairy lines. It shows that someone has been at work here to interest the farmers in getting better stock from which they reap more benefit than if they were to work, as some are doing, in a haphazard manner with any and all kinds of cows.

The line of dairying in which I am most closely engaged, is creamery work and what few remarks I have to make will be along that line.

Some two years ago we started out to ascertain what the creameries of some of the states were doing. It devolved upon me to get some reasonable statistics along this line and I began with my friends in Minnesota. I took up personal correspondence with the creamery operators and secured reports from them. Later on we took up the work in other states and during the year 1907 we were in correspondence with the creameries of three states, Iowa, Minnesota and Wisconsin. After we had received some reports we found in them a great deal of interesting information; we found that there was a great variation in the different reports; we found that creameries running side by side, receiving the same amount of products, paying the buttermakers the same salaries, operating practically under the same expense, paid different prices to the patrons for butterfat. We became quite interested to know why that was true. After a compilation of the records it became quite evident, and that is what I want to bring out at the present time, therefore with your permission I shall read just a few facts.

In compiling these figures we took into consideration certain items,—the amount of product received, the amount of

overrun, the price received for the product, and the price paid the patrons. Now the main thing we always had in view was the price the creameries paid the patrons. That is no doubt what you are all looking for, the higher price that you can pay your patrons the larger will be your business. Now in this compilation I will give you the figures of the annual reports for the year 1906, which were gathered in the fore part of January, 1907. During that time the price that you paid patrons depended upon certain conditions that I want to bring out at this time. As I said before, we found a variation and in looking up this matter we found the variations were due somewhat to the amount of the overrun each creamery was getting, therefore we placed the creameries in two groups. Those which received an overrun which we considered up to or above standard—the standard is 18.5 per cent—we put into one group; the creameries that dropped below that point we put into the other group, and the result was this: The average we found for that year was 15.43 per cent; the average of those above 18.5 per cent was 21.22; the average below 18.5 per cent was 13.8. That was not very striking, but when we came to analyze the other figures and found the difference that the two groups were paying their patrons, it became very interesting. This was the result—The creameries that received an overrun of 18.5 per cent or above paid the patrons 24.32 cents per pound for butterfat, net, for the year 1906; those that dropped below 18.5 per cent, paid the patrons 23.26 cents, or a little over a cent less. Now then, computing the entire loss to this state, we found that it amounted to $1,081-214, that is assuming that the creameries from which we did not receive reports were operating on an average in the same way, and I believe it was fair to assume that those which did not report were not operated any better than those that did report.

I wish to correct the popular impression that when we talk overrun we are talking moisture. That is not true, we do not advocate incorporating excessive amounts of moisture, neither do we advocate the incorporation of moisture within two per cent of the limit. In other words we try to work on

the safe side of the standard allowed by law. All our compilations have been made on the basis of 14 per cent water while the law allows 16 per cent, so you can see that there is a liberal allowance. You can also appreciate that if you were operating alongside of a creamery that was paying one cent a pound more for its material than you were, the other creamery would perhaps get the business.

Now it might be well to consider what influences the overrun and what the causes are for low overrun, so that you may have a better understanding of what we are trying to accomplish. In the first place, we found that a large number of the creameries were not able to make an accurate report. We found that month after month there was a large variation, due very often to the uneven distribution of the butter, i. e., the butter from one month was put in the account of the next month. Sometimes the shipment should have been divided but was not divided. As a result the patrons received a higher price one month and a higher overrun was evident. The next month they received a lower price and very often did not know the reason. That of course was because the records were not kept accurately.

Following this matter up month after month, we found practically the same thing, then an improvement was made. In the year 1906, 87.1 per cent of creameries in the state dropped below what we considered standard; at the close of the year 1907 only 59.8 per cent of the creameries were below standard, so you can see the great improvement made along that line in 1907.

The difference between the two groups in the price paid for butterfat from month to month is shown in the following table:

	Above 18.5 per cent overrun	Below 18.5 overrun
	Cents	Cents
January, 1907	33.21	31.21
February	35.26	32.83
March	31.36	29.62
April	32.14	29.33
May	24.63	23.49
June	25.12	24.64
July	26.75	25.55
August	26.90	25.75
September	30.22	28.78
October	29.93	28.46
November	28.55	27.00
December	31.26	28.48
Average	29.61	27.92

Average of both 28.76.

I do not care to give you all these figures but will give you enough to show the difference between the two classes.

Now let me read a little further. In the year 1906, according to our compilations and averages, this state lost over one million dollars due to low overrun. At the close of 1907 the loss was reduced to $790,831. There has been a still further and a more rapid improvement during 1908, or in other words the creameries that ran below the standard are gradually getting up to the mark.

In reference to this standard, we really adopted it arbitrarily, in a way, and yet only after averaging thousands of those creameries' records did we take it upon ourselves to say that a creamery should have a certain per cent of overrun, not only by examining those records, but by going out in the creameries and making a personal investigation of those that were getting what we considered a proper per cent of overrun.

In August, 1908, a change was made. Previous to that time we did not make any distinction in reference to the kind of creamery, whether it was receiving whole milk or gathered cream or both, and I came to the conclusion that it was not fair to class them all the same because in a whole milk creamery the losses in the skim milk would of course have to be taken into consideration. In the gathered cream plant there was no such loss and the resulting difference in overrun amounted to about 2.5 per cent; therefore the standard was changed and we placed whole milk at 18.5 per cent, the mixed (half milk and half cream) at 19.5 per cent, and the gathered cream factories at 21 per cent. Those are the percentages of overrun that we believe are possible for any creamery to get.

I am not criticising you for these losses. The state of Wisconsin was not the only state that was sustaining losses or where we found those variations. We found them everywhere in practically the same ratio and it showed that something was wrong, something lacking in a large number of our creameries,—what was it? It was a lack of system. It has often been said that the closing of the majority of the co-operative creameries was due to lack of proper management, and I believe that assertion is true. It rests with the creameries to correct this trouble, and they are doing it very rapidly, which of course is gratifying to us. Previous to the time when there was sharp competition, I doubt very much if the creamerymen would have been very much interested in this subject because every creamery was operating in its own way, had its own system, had its own standard or no standard at all because we had no standard before the law went into effect in reference to the moisture content in butter. We did not know what the proper per cent of overrun should be, therefore it would be unfair to criticise the creamery men for not being up to the standard; but now that we know what the standard is I believe it is up to the creamery men, if they are not up to what the standard established to look about and find where the trouble is.

Now in reference to factors which have a bearing on

overrun I mentioned that it was sometimes due to the uneven distribution of butter, but that is not the only thing. It is also due to the inaccurate weighing of cream and milk, the inaccurate calibration of apparatus, the difference in the temperature of testing and largely the difference in the manner of reading the test due to the many different kinds of glassware. Some of the glassware that is being used at the present time should be discarded, broken to pieces. That does not speak very well for some of the manufacturers but it may not be all their fault. It requires more skill, more care, more time, and more money to make glassware and bottles that are accurate than those which are not, and if we demand cheap glassware we are going to get it. If the demand is for high class glassware I believe it will be possible to get that, and I also believe state laws can do a great deal to regulate some of these difficulties. That was brought to my attention very forcibly in some of the eastern states, where they require the bottles that are used for distributing milk to the consumers to be tested by what they call a "sealer." Every bottle in the city of Boston goes through a laboratory and is tested for size. If it is either under or over size it is discarded. What is the result? The manufacturers of glassware do not ship to Boston bottles of all sizes, or bottles either under or over size. If they did they would have to pay the freight to Boston and back again, also pay for testing the bottles. If a manufacturer of bottles has some that are not regular he avoids Boston, but he may ship them to Wisconsin, Iowa, Minnesota, or somewhere else, because there is no law regulating their size in those states. If it is possible to test every milk bottle that is used in a city like Boston, to determine whether or not it contains a fraction of an ounce more or less, it is of far more importance to know if the glassware you are using in connection with the Babcock test is accurate or not, and it would not require a great amount of help to test the accuracy of every test bottle that is used in the state. I believe that is one way of regulating the matter. There may be other ways but I believe a stringent state law, requiring a certain size, certain diameter of bottle, will be the means of correcting a great deal of this trouble. I

drop this merely as a suggestion and you may take it for what it is worth. I know that some of the glassware that is on the market will vary one, two or three-tenths per cent, sometimes as high as four-tenths and even six-tenths per cent. I have reference to the milk and cream bottles, especially the six-inch, 50 per cent cream bottles that are being so widely used. I would like to have an expression of how many are using the six inch 50 per cent cream bottle? There are quite a number. We find it so everywhere. You cannot get accurate results by the use of those bottles and the quicker you discard them the quicker you will find that you can do accurate work.

The Chairman: What size bottle do you recommend, Mr. White?

Mr. White: That is one of the questions I do not like to answer, but I am going to since it has been asked. The nine inch, 30 per cent bottle will give you very good results. The reason I do not like to answer that question is because the tester used at the present time will not take the nine inch bottle and it would necessitate the purchase of another tester. I am not working for the manufacturers, and you can get reasonably accurate results by the use of the 9 gram bottle which is only six inches long and can be read more accurately than the wider necked 50 per cent bottles.

But let me go a little further into this matter of management of creameries. I understand that you have a course for managers in session at Madison now. I have just come from Minnesota where they are offering a similar course. They had about sixty, and a more interested lot of men I never saw. They were seeking for information; they were willing to spend their time at their own expense to go there and study to get some information relative to the lines along which they are working. I believe that is one of the best moves that has been made because we cannot expect a man who is not trained along the creamery line to step into a creamery and manage it to perfection. As a rule, the co-operative creamery selects some popular man in the neighborhood to act as manager or secretary. Generally he has had no training along that line and it therefore devolves largely upon

the buttermaker to educate the manager, which has been done in many instances, but on the other hand if the buttermaker is not capable or competent to teach the manager what is the result? Very often poor management; incompetent management that very often results in distrust and eventually in the closing of the creamery. The centralizers have taught us the necessity of better management because they are using the most up to date methods in conducting their business and keeping record of it. Their competition is forcing the local creamerymen to adopt business principles or get out of the business. Therefore if we want to stay in the business we must keep up with the times, we must do better than we have done heretofore.

Speaking of competition, I believe if a creamery company or centralizer, whichever you choose to call it, can go out into the country in a fair legitimate way and pay a certain price for cream, pay more for it than the local creamery can pay, that centralizer or company is entitled to the business. I will add, however, that if they use unfair methods, which I know has been the case, and get the business by raising the price at one point and lowering it at another where there is no competition, that kind of business should be stopped. It devolves upon the states to step in, take that matter in hand and see that it is regulated. I understand that several states are endeavoring to pass laws regulating the buying of cream, and to the paying of different prices in different localities on the same day for the same quality of cream. The trouble heretofore has been that we have had no standard. There was no law to prevent anyone from paying five cents a pound more at one place than at another. In case a complaint was made one could say that the cream for which the high price was paid was worth that much more,—therefore I believe it will be necessary to have standards of quality. I believe it is entirely possible to establish a standard for at least first grade cream, which is cream that is sweet and free from bad odors and flavors.

I had the pleasure of meeting some of your people in con

nection with the cream rate hearing, which took place at Chicago during the last summer. You have among you some dairymen who are very much interested and who have exerted a good deal of energy to see that the farmers got their just dues, to see that the farmers would be protected, and those men are entitled to a great deal of credit. I understand that they have given their time without any remuneration of any kind. I believe that we should co-operate with those men, they understand the situation very thoroughly, they know the needs of the dairymen in your state, and they are in a position to recommend what is best for all. Therefore I hope you will co-operate with them to the extent of carrying on work that will be of benefit to the creamery people in the state of Wisconsin.

Now I believe it would not be out of place to say a word in reference to the moisture question. Some of you have had experience, perhaps to your sorrow. Creamery men in other states have had similar experience, they have come in contact with the internal revenue department for incorporating an excessive amount of moisture. I want to say this much in reference to that matter. The state laws are lenient as a rule. If a man makes a mistake but can prove to the state authorities that he did not wilfully violate the laws, the state deals leniently with him. This is not true with the internal revenue department. You can make up your mind, that if that department finds one shipment of butter or even a few tubs in a single shipment of butter that does not comply with the laws, it is not going to be lenient, it will treat you the same as it treats everybody else. The internal revenue department has no respect for the size of the creamry or the size of the man. It simply enforces its rulings and enforces them most rigidly, therefore it is necessary for the buttermaker and manager of a creamery to know definitely that butter which they ship complies with the federal laws as well as with the state laws. That is comparatively easy, because there are simple tests upon the market now, (moisture tests) used for the purpose of determining the per cent of moisture in butter. They are not very expensive but are reliable. The buttermaker should

have a test and use it every day. I believe it is necessary for a buttermaker to test every churning of butter that he makes and keep a record of it. If he does that he will know he is on the safe side; you know that it would be a hardship on your creamery and upon yourself to have an internal revenue officer come to your creamery and tell you that you are going to be assessed $500 or $1000 and that you have to take out a license for $600, and besides that be fined for not having a license. In some cases the fines run up to thousands of dollars, therefore I wish to throw this out as a warning to you.

Now we come to another subject. We find that the buttermakers are afraid they are going to exceed the limit of moisture and they stay far below, and as a result they do not get the proper per cent of overrun. We take the position that every buttermaker can, by using the ordinary methods, incorporate in the neighborhood of 14 per cent moisture, which will give them the overrun that we advocate. I have received letters from creamery buttermakers stating that they felt it would be better to stay on the safe side, but on making examination of their butter we found it contained between 10 and 11 per cent of moisture. Now is it possible for a creamery incorporating 10 per cent moisture to compete with the creamery incorporating 14 per cent? Is it possible for a creamery that incorporates 14 per cent to make a good quality of butter? I want someone to answer that question. I will wait for a moment to get your views on the subject. In other words, what per cent of water can you incorporate and make a fine article of butter? Will someone answer that, please?

Member: Fifteen per cent.

Mr. L. Olson: It depends on who incorporates it. Some men have poor butter even with 13 or 14 per cent, and others incorporate 15 per cent and still have good butter.

Member: I do not believe it depends on the moisture that is incorporated but it depends on the man that incorporates the moisture.

Mr. White: Seeing you are buttermakers, I believe we could not possibly spend time to better advantage than to set

aside thirty minutes to discuss this question. It is true that we find some buttermakers who are capable of incorporating 15 per cent moisture and turning out a fine piece of butter; it is also true that we find butter containing 12 per cent moisture and yet the butter is slushy, leaky, and does not hold out in weight. Some of you here understand the principle of proper incorporation. Why not get up and tell how you do it and not incorporate more than the limit? I shall close very soon and I would advise that about thirty minutes be allowed for the discussion of this question, which is of so much importance to the creameries. It is of importance because we find some creameries shipping butter that have a very heavy shrinkage, two to two and a half pounds and sometimes as high as three pounds to the tub. In some cases it is due to the butter being leaky, but the creamery men do not appreciate that and they accuse the commission man of stealing. On the other hand, we find some cases where there is excessive shrinkage and still the butter is made properly. That is another subject of considerable importance. We have had an opportunity to look into that during the last year or two and we find there is considerable friction between creamery men and commission men in reference to weights. We find it is due in some cases to the poor quality of the butter, in other cases to the improper preparation of the package, lack of uniformity in the size of the package and variation in tubs. We have advocated a radical departure from the old way of doing business, e. g., the making of butter, dumping it into a tub and shipping it to market, and then when the returns are received calculate how much butter was made. I contend that every buttermaker should know the pounds of butter that he makes, every manager should know the pounds of butter that he ships. In that way you know whether you are getting the proper weights and if you are not it is time to find out why. If it is due to the leakage in the butter then it is time that you adopted some improved method of making. If you find it is due to something else then you can remedy that. I know a creamery that had a shrinkage of two and a half pounds per tub for an entire year. That same creamery with the same

buttermaker now has a shrinkage of less than a half pound per tub. This is how they accomplish it. They soak their tubs until they weigh 11 pounds. Here I shall tell you a little experience I had in reference to paraffining tubs. I believe in paraffining tubs and I advise creamerymen to do it. I said that it was not necessary in that case to soak the tubs. The creamerymen paraffined the tubs, sent them to the market and, instead of the tubs weighing 11 pounds, they weighed only nine pounds. The commission man took 11 pounds and the creamery had a greater shrinkage than before. They said "Your method of paraffining is nonsense, our shrinkage is bigger than ever before" and I found that was the case. After the creamery soaked the tubs to weigh 11 pounds, then steamed, paraffined and lined them, there was practically no shrinkage.

Still another matter along the same line is the varying size of the tubs. We find tubs of butter that will weigh 60 pounds, 61 pounds, 62 pounds, 63 pounds, 64 pounds and even 65 pounds, and the tub manufacturers say it is due to the demand of certain creameries. One creamery wants one size tub, another creamery another size. I asked if they could make a uniform package and they said "Yes we can make them as we used to make them to hold 60 to 61 pounds," but we have paid little attention to the size, whether they were made to hold 61 pounds or 63 pounds, and the result has been that the tubs have been very ununiform and very unsatisfactory and the creamerymen have been the losers. I think it is about time for the creamerymen to know the number of pounds they put in each tub. After the tub has been properly prepared put it on the scales and weigh in a definite amount of butter. Weigh in 60.5 pounds, if you please in a 61 pound tub, weigh the same amount into every tub, and send them to the market. You will have less trouble with your commission man and he will be pleased with the uniform shipments. You will save many pounds of butter which will mean many dollars in the course of a year. Some will say you cannot finish the top of the tub. How many here believe that you cannot? Well I know that you can because I have done it myself. You re-

member when you first commenced to line the tubs with paper? You made a botch of it the first time you tried it, perhaps the second time. I know I did and I used paper as soon as it was introduced, but I did not have much trouble after a little practice. The same is true in finishing off the top of the tubs. I will try to explain how you can do that. If you weigh the butter into the tub and pack it down as near level as you can, take an ordinary butter ladle and stroke off the top, go round one way and then the other and with about two strokes you can smooth the top of the butter just as smooth as you can by cutting with a string or any other way. Perhaps you will not be able to do that the first time but you will do it very soon and in that way you can put a definite amount of butter in every tub and know how much it contains, perhaps saving a pound on every tub. I have talked this matter over with the commission men and they say they would be glad to see an improvement on that point, they would be glad to have the tubs of uniform size. I have talked with the tub manufacturers and they say they would be glad to make tubs of uniform size, so it seems to me that all that is necessary is for you to go ahead and demand from your tub manufacturer such a tub as you want. I would advise the adoption of a uniform size; would not a sixty pound tub be about the right size, instead of a 62 or 63 pound tub? Let us take up this matter and see what we can accomplish in the next year. I would like to see hands up to ascertain how many are willing to try this out, and report to your dairy school or dairy and food commissioner. We will get the information from them and compile it with that from other states to see if we cannot improve conditions. (A number of hands are lifted.) Good. Thank you.

I will say just a word in reference to the reports that we have been asking for from the creameries. Those reports are useful inasmuch as we can use them for your benefit and that is all that we want them for. If we did not get records from you we could not give you the figures that I have just read. I believe we could not work out a uniform system, we could not

formulate a standard, therefore some progress has been made and a great deal more can be made.

There are a great many things I would like to take up in connection with the authorities of your state. How many creamerymen can tell me what it would cost them to manufacture a pound of butter if they were making 75,000 pounds a year, 100,000 pounds, 25,000 pounds or any other amount? How many creamery men can tell me what it should cost for fuel in a creamery of a certain size in a certain locality? How many can tell me what it should cost for oil and other supplies? I believe that most of you could tell what it costs you in your creamery but not what the average should be. The only way that you can size up the situation is to compare with your neighbor, but he may not be right. I would like to see some of these things determined. If it costs one creamery twice as much for fuel as another, which makes the same amount of butter, what is the reason? Some of the records show that one creamery uses twice as much fuel as the other or it costs them twice as much. It may be in the kind of coal they use, it may be in the way of firing, it may be in the kind of boiler, but who can tell why? Those matters should be taken up by your own state authorities because it is necessary to get down to fine points, to get down to the minimum cost of manufacture and pay the maximum price to the patrons for butterfat.

I am very glad to have had this opportunity to be with you. I have perhaps given you some radical views, but I want you to feel perfectly free to discuss and criticise anything I have said. If I cannot prove my assertions I am willing to acknowledge it and go home with the satisfaction that I have learned something, so I invite your criticism.

Discussion.

The Chairman: There is one thing I want to recommend most strongly, that every buttermaker keep a moisture test of every churning. It is mighty important. If the revenue officers get after you, you will feel a little different than you ever

did before. I had a couple of them call at my office a while ago, they found some butter I had in storage made last summer. I did not sleep much that night or for three days but I sent some telegrams and found the butter belonged to somebody else, but I assure you it was a very unenviable feeling and, as Mr. White said, I know from the talk I had with those officers and with the people who have had experience with the internal revenue officers, that they are not very liberal. You had better be on guard. I would like to hear from Mr. Kayser on the moisture question.

Mr. Kayser: I do not know that I have anything new to say on the moisture question. I have been successful to my own satisfaction and the people I am working for. I invented a moisture test of my own. I get a fair overrun. I have been criticised by our dairy and food department for getting an overrun of 16 per cent, they said I could not do it and do honest work. Of course that was a few years ago. Our dairy and food department came out with a bulletin, and I believe the dairy school furnished a bulletin along the same line, saying a buttermaker could not get an overrun of 16 per cent without doing something wrong, but our creamery told me they could not find anything wrong in what I was doing, and I was getting an average overrun of 19 per cent at that time, so they told me to keep on doing it. I do not therefore know anything that I can say on moisture except to say while I frequently test for moisture I do not test every churning.

Mr. Hy. Larson: I do not know how long ago that bulletin was issued but it must have been before my time because we certainly know better than that now. As far as the dairy and food department is concerned, we are satisfied to know that accurate work, proper samples taken, proper tests and the loss reduced to the minimum, will give an overrun of better than 18½ per cent.

Mr. Kayser: I am glad to hear Mr. Larson bring out that point, but other members in the house have the bulletin and know what I say is true. I believe Mr. Moore will bear me out in the statement that there was a time when the dairy and food department made this assertion.

Mr. Larson: I am reminded of a little story which took place in a farmers' institute. A little Swede heard our friend Goodrich talk about the manner of handling the fertility of the farm. He had talked some six years before on the same subject and he handled it so and so; when he came back he had learned something in six years (God pity him if he had not) and he talked the other way. He had learned more scientific methods and he gave them. This little Swede got up and said "Mr. Chairman, I would like to ask a question. Sax years ago this little red fellow came here and talked this way, now he come here and turn it over this way, and I would like to have you explain that." Governor Hoard was the chairman. He scratched his head, but he is always equal to the occasion, and he said "If that little red fellow had not learned anything in six years I would feel sorry for him."

Mr. Kayser: Would it not be well for our dairy and food department and our dairy school to come out in bulletin form and admit that they had learned something?

Mr. Larson: I am free to admit that I am learning something here this morning.

Mr. White: In reference to the issuing of bulletins, if it had devolved upon us several years ago to have issued a bulletin we would have issued it in the same manner that the Wisconsin bulletin was issued; but we did not issue one therefore we cannot be criticised but I believe if the Wisconsin people were to issue a bulletin at that present time they would not recommend the same ideas that they did at that time, so it is simply an advancement. We have learned and they have learned, I think we have all learned in the last six years, so I would not criticise the bulletin because they did what others would have done at the same time.

Mr. Carswell: I would like to say a few words along the last part of Mr. White's address, regarding bringing the cost of production in the creamery to the lowest possible basis and returning every cent possible to the patron. When you come to bring down the cost of manufacture to the lowest possible price, even that matter of fuel cuts quite a little item. I re-

member not more than two or three years ago they built quite a few brick creameries over in Minnesota and the cry was what was the reason those creameries in the winter were so wet. Most of them were cut down to the lowest amount on fuel. They put in pipes so they could drain them down every night and let them freeze up; next morning the water was dripping off the walls, every pieec of iron in the creamery was full of sweat, the machinery was rusting and they had a poor looking creamery. With a little more fuel those creameries could have been kept in good shape. My creamery is an old creamery, built fourteen years. I never drain my pipes, keep an even temperature, as near as possible, night and day during the winter. It costs a little more for fuel but I feel I am well repaid. This holds good almost all the way through the creamery. The creamery that skimps itself with regard to equipment, if it has a good buttermaker and a good quality of raw material, can pay a little higher price perhaps at the time, can pay a little better than the man who is trying to keep up with the times with machinery and equipment, moisture test, apparatus, and paying his men wages that will not only provide a living for themselves and families but leave a little over so they can look ahead, so they will not have to look for charity when they get knocked out of the buttermaking business in the course of a few years, or fall back on common, everyday labor. I believe this is a pretty serious question and it can be overdone in a good many ways.

Mr. Kayser: There was one more thought I would like to have brought out in Mr. White's discussion, and that was the size of the buttertubs. We used to use a sixty pound tub but they varied in size as much as the 63 pound tub does, and we were asked by our commission houses to use the 63 pound tub because they paid us f. o. b. shipping station, they paying the freight on the butter, and they said the railroad companies would accept the 63 pound tub for the same shipping weight as the 60 pound tub, so the 63 pound tub was a saving to them on freight. We adopted the 63 pound tub and I do not find the tare on it is any more than on the 60 pound tub. They

all ship those tubs 60 lb. gross weight, as you know. I would like to hear from Mr. White further on the subject.

Mr. White: I am afraid you are not familiar with the general practice of shipping at the present time. If they follow the rules, and I believe that they do in both cases, the butter is weighed and the gross weight paid for, therefore the creamery men do not gain anything in weight . I believe that was the reason why the tubs were increased in size because the railroads received them for the same weight, but later on there were rules followed and they shipped them at actual weight, so there is really no gain in their weight. There may be in some local territories and may be on some roads, but not as a general proposition shipping from the west to New York.

Member: I find in shipping our butter that every tub of butter that goes into the depot is put on the car and weighed by the company. It may be the company accepts a certain number of pounds in a smaller place but every article is weighed in our depot and we would not gain anything by having larger tubs. I would like to ask Mr. White what is the difference, in his opinion, between a nine inch test bottle 30 per cent and a nine inch test bottle 50 per cent?

Mr. White: The graduations are finer on the nine inch 30 per cent bottle. The nine inch 50 per cent bottle may be necessary in some cases, and if so they are all right to be used. The graduations are farther apart. You can read the test more closely with 30 per cent than with 50 per cent. That is the only reason.

Mr. Sommerville, Chicago: It seems to me the subject of uniform weight is not nearly so great as Mr. White thinks it is. If butter were sold by the tub through the commission man I would agree with Mr. White that uniform weights are necessary, but butter is sold by the pound and every tub of butter is weighed, and if the tub weighs 75 pounds, then we settle for 75 pounds. The important thing, it seems to me, is not that the butter should be weighed into the tub but that the tub should be weighed just before it is shipped. Every tub should be weighed just before it is shipped, then the butter-

maker can know how much butter he ships. I think the question of putting so much butter into a tub is quite unimportant so long as the butter is sold by the pound and not by the tub.

Mr. White: I will agree with Mr. Sommerville under certain conditions, but I have had an opportunity to both sell and buy butter on the market. The tubs are weighed in and the tare is taken. If you have a shipment of thirty tubs, you take the tare of about five or six tubs, do you not Mr. Somerville?

Mr. Sommerville: Five tubs.

Mr. White: In that way there is a difference in the weight. You may get some heavy tubs or you may get some light tubs. Sometimes it may be to the advantage of the commission house and sometimes it may be to the advantage of the creamery, but you never know unless you weigh and strip every tub and know the amount of butter in each and every tub. Is that not true?

Mr. Sommerville: That is true in a measure, yet I do not think there is a very great difference in tubs as a rule. Tubs that will hold 75 pounds of butter will not always weigh more than tubs holding 70 pounds, and even if they did the commission man protects the shipper against any difference that may be in the different size tubs because if a lot of butter runs from 70 pounds to 75 pounds, they take a tub of each weight in testing for tare, so that I think on the average the tare arrived at is quite as near as we can get at weights in any large lot of merchandise and I really do not see that there would be any advantage in having a uniform size tub, because it would be very difficult to get a uniform quantity of butter in a tub no matter how uniform the tub might be.

Mr. White: Do you know a manufacturer of any article whatsoever, whether it is a matter of salt, sugar or anything else that is worth only a few cents a pound or a half cent a pound, but weighs a definite amount into each and every package? An article that is as valuable as butter, it seems to me, that the creamery men should know the amount of butter they put into the tubs, not dump it in and have some tubs

weigh three or four pounds over. I have seen packages of butter in the New York market where there were large holes in the tubs. Had Mr. Sommerville happened to get that tub to make his tare upon, it would be to the advantage of the creamery, it would be to the disadvantage of the buyer. So the way I look at the matter is that you should know definitely what you are doing.

Mr. Sommerville: I do not see whether there is any difference whether there is a hole in the butter or not. I do not weigh the holes.

Mr. White: On your averages there is a difference.

Mr. Sommerville: We do not average the gross weights at all. We simply average the weights of the tubs.

Mr. White: Why is it then that if a creamery ships a lot of tubs that weighed nine pounds and the commission man (now I am not criticising the commission man because there are a lot of honest commission men that do not do that) says he must take 11 pounds tare. That is the rule, is it not?

Mr. Sommerville: It is not the rule. The rule is not to take any definite number of pounds for tare. The rule is to test a certain number of tubs for actual tare. That is the rule. It may be that some small markets do want a definite number of pounds but they do not get it from a commission house that knows its business.

Mr. White: That is the practice in many cases where the commission man must give his buyer 11 pounds and that is the objection I have to that method of testing.

Mr. Sommerville: In the markets I know about the actual tare is taken off and no more.

Mr. White: I believe you are mistaken.

Mr. Sommerville: I know what I am talking about. I am speaking of the trade generally. I think that is true of all houses. There may be some houses that do that but they do not do business right.

Mr. White: That is just what I admit exactly, that the larger number of commission men do business in the same way but from what you say there are some that may not, and

therefore I think that the creamery men should do the other thing.

Mr. Sommerville: They should ship to houses that do business right.

Mr. L. Olson: I shipped to Chicago and had tubs that weighed from 10 to 12 pounds and I had twelve pounds tare taken on the whole shipment.

Mr. Sommerville: You did not ship to the right house, but I want to say it is unusual to have a lot of butter run that way. I think that few tubs will vary as much as that.

The Chairman: The next on our program is the Government Inspection of Cream by Mr. I. O. Dybevick, of St. Paul.

I. O. DYBEVICK
ST. PAUL

Government Inspection of Cream.

Mr. I. O. Dybevick, St. Paul, Minn.

Mr. Chairman, Ladies and Gentlemen:

The subject that I have here today is something that is

entirely new and I do not know that I can do justice to it, but will try to see what we can do. I do not want to say very much here but I would like to have a good discussion of the subject, because it is very important—government inspection of cream, and not only of cream but of milk also.

Before I touch on this subject, we will see what this means to this country, and the amount of milk, cream and other dairy products handled in this country every year. In 1907 this country produced $2,500 million dollars worth of milk that was sold in different forms,—milk and cream consumed in the cities, also manufactured into butter and cheese which were sold in the market. What does that represent in this country? That represents one-fifteenth of the total wealth of our nation. That would cancel all the interest bearing bank debts we have in this nation, build the Panama Canal, build fifty battleships at four million dollars apiece and still have one-half the amount left. That is just what it means.

There is government inspection on a good many other things we manufacture in this country but so far we have had no inspection of cream and milk in the big markets, so I think it is pretty nearly time for the government to take a hand in this industry and see what is done with the product brought into the large markets of this country.

There is no one thing we consume that we use more of than milk, cream and butter and cheese, and there is nothing that will carry other ingredients into the family of the human race quicker than the milk and cream will do, so why should we not have an inspection of these and see that they are thoroughly pure and fit for human consumption.

I think it is nearly time for the government to take a hand in this industry and see what is being done. I do not think there is anything that spreads more disease through the human race than milk and cream which is consumed in the big cities today. We know if it were not for the milk supply in the large cities one-half the little babies born today would starve to death, and still we have paid very little attention to this product to learn whether it is fit for the babies to con-

sume, so I maintain that we should have inspection and thorough inspection, of this product before it is put on the market and sold to the public. I do not know what you will think of my view of the matter but I want to bring out these points and discuss them to see if there is not a reason why we should have such government inspection.

So much for the matter in a general way. I will tell you what it would mean if we had government inspection of cream. In the last few years this cream industry has spread out so we are shipping cream to a central point where it is manufactured into butter. This cream comes from different states. We may have state inspection in some states where we try to control this cream and determine whether it is fit to make into butter, but why not have this control in all states? There is a great deal of cream shipped from different states into a certain state, and even under the state laws we have at the present time we cannot control these things in that state where the cream is received. For instance, in Minnesota we can condemn cream there as it comes from other states but that is all we can do; we can condemn it but we cannot go outside of our state and correct those evils that exist there and those same people can keep on shipping cream; but if the government had a hand in it, had laws under which the inspectors could work and see that the cream was inspected, then you can see they could go out and correct those things, but as long as we are working under individual state laws we cannot do it. That is why I say we ought to have government inspection on cream, and make it a thorough inspection.

There is at the present time, in my opinion, more cream shipped into central points from a long distance, cream which is not fit to make into a product to be sold on the open market for human consumption as it is today, but there is no way of stopping it, the individual states cannot control it, and that is why we should have some other means of controlling these things. Cream is shipped to St. Paul away from Montana, Dakotas, Wisconsin and Illinois; there is cream shipped from Minnesota down to Illinois and Chicago, and even to St.

Louis; there is cream from Minnesota going to Iowa and Wisconsin, so they are exchanging these things and I find that it is the worst quality of cream that is shipped in that way. The best cream is kept at home in the local creameries where it can be controlled. That is why we should have government inspection and have inspectors stationed at those central points so they can see and correct those things if possible. I may be wrong on this point and after I have finished I wish those interested in this subject would get up and discuss it. I am not going to take up much time but there is another thought in connection with this and that is I believe the government should have a law requiring that all cream and milk manufactured into butter, or otherwise sold in the market, should be pasteurized. There is nothing I know of that is more effective than pasteurization. Some people may say they pasteurize, but do they? That is the next thing. For instance, in the big markets like Chicago and New York, where the consumption of milk and cream is so great, and the product is received from so many different sources, I think that milk and cream ought to be thoroughly pasteurized before it is put on the market, and I believe the government ought to have laws compelling this. The cream and milk consumed in the large cities ought to be shipped into a central point where it may be pasteurized thoroughly under government inspection.

This industry is so large and it means so much to this nation that we have to take some steps to protect it and I believe the time is coming, perhaps not as fast as it ought, but still I believe the time is coming when the government will have control of the product the same as is the case in other countries. We have not paid enough attention to this question of cream inspection because we go at it in a haphazard way and we have never stopped to see what it really means to the human race. I know of no product that we are so careless in handling as we are with milk and cream. There is a law governing almost every other food product on the market today, but what have we done for cream and milk so far? Instead of getting a better quality, butter has been going backward in

the last few years and we are becoming more careless every day, since the adoption of the hand separator.

I may leave the subject of government inspection of cream a little, but I want to touch on the matter of hand separators because they are so closely related. After we got the hand separators the farmers commenced to skim their milk at home on the farm, and what did they do? They thought "This is only one-half as much work as to care for our milk because we have to place it in cold water to keep it sweet until we bring it to the creamery," so they skim their milk and let the cream stand, not caring whether it sours or not; they do not wash their separators because it is too much work to wash them every time they use them. I have seen separators stand a week or more without being washed. Now then, what happened? When the farmer takes that sweet milk and skims it through the separator that has not been washed since it was last used, what does he do? He spoils that sweet milk and cream because by experiments we have found by running water through a separator that has stood for hours without being cleaned, the water contains more germs of all kinds than sewer water in the large cities. You bring that cream to your creamery or sell it in the markets; you feed the skim milk to your pigs or calves and spread disease all around. That is another reason why we ought to have government inspection, and have it thorough.

I am not going to take up any more time on this subject but I would like a good discussion of it, and if you desire to ask questions I will answer them if I can.

Discussion.

The Chairman: I would like to hear from the members It is an important subject and will be more so as time goes on.

Mr. Dybevick: I would like to ask for Mr .White's opinion on this subject because it is something that has not been discussed before. Mr. White's experience in the country would be of value in this matter.

Mr. White: Mr. Chairman, a government official is only supposed to act when he is given instructions to act, therefore I believe it would be out of place for me to say anything on this subject only that personally I believe our product would be more pure if it were pasteurized; it would be better if it were pasteurized, therefore it seems to me that it is a step in the right direction. I do not care to say anything with reference to the other matter Mr. Dybevick brought up but I have been and I am today heartily in favor of the pasteurization of milk and cream for consumption and manufacture into butter. I believe that is all I will say on the subject.

The Chairman: In your travels you visit New York and different markets, don't you hear considerable complaint among commission men with regard to pasteurized butter?

Mr. White: I do not believe they know anything about it. That is not a reflection on the commission men because there may be so many things that enter into it. I believe this, however, that there is poor butter shipped into the market because it is pasteurized, simply because the buttermaker did not understand how the work should be done. That is not the fault of the pasteurization but the fault in manipulation of the pasteurizer or because of the way in which it is done. If it should be taken up I believe it should be done very carefully and I would not be in favor of passing a law to go into effect tomorrow to compel all the creameries to pasteurize their cream for buttermaking purposes, because some of them no doubt would ship butter of inferior quality and then our good friends, the commission men, would say that pasteurization is a failure. It is not a failure if it is properly conducted. Therefore, if a law should be passed it should not be made effective for a year or a year and a half or two years, to give the creamery men time to study the proposition and go at it in a careful manner; also give the dairy and food department and the state time to send out men to see that the work is done right. Where pasteurization is done properly the quality of the butter is improved. It is improved in quality in the first place, in keeping quality in the second place, and in

the healthfulness in the third place, which I believe is a long ways ahead of the ordinary butter that is being made at the present time.

Mr. Dybevick: In one sense I am sorry I asked Mr. White's opinion on this subject, but I did not stop to think of his official position when I did it. I would like to hear from some of the other state inspectors that are present as to what effect it would have on the raw material in case we had government inspection in all the big centers to which cream is shipped. I would like to know what other inspectors think of that. I know what I think of the effect it will have on the raw material shipped to those points providing we have such inspection which would come under the interstate commerce. As it is now, each state having an inspection of its own, we cannot control this matter.

Mr. H. P. Olson, Minn.: There is one thing Mr. Dybevick said about how bad those little hand separators are kept in some places. We have all heard about these conditions and perhaps seen them. While he was speaking, the thought occurred to me how would it be to put a license on the little fellows who knew when they were doing badly for closer inspection and look into them once in a while?

Mr. Dybevick: I would like to say another word on the subject. For the last few years I have been on the farms throughout our state and have investigated cases thoroughly in a good many localities and in different parts of the state, and I find as a rule that those that are shipping cream to the big central plants are the most filthy people in the use of the hand separator. This is the rule in localities where there are local creameries and some of the farmers have their cream rejected and they start shipping it, but it does not mean that all cream shipped to central points is poor in quality. We have lots of territory where the cream is shipped into big centers simply because there is a good market for it and the farmers are doing well by doing this. However, we ought to have thorough inspection to see if the cream is good, but it would take a big army of men to inspect the hand separators and see

that they are kept in a sanitary condition and keeping their milk so they get a big profit out of it. If they can tell the people that by doing a certain thing and taking a little more care of their raw material before it is shipped they will get a better price. I believe much can be done, but as it is now with what education we have from one state to another I do not think we can stop it with single state laws. We have to go a little farther than that and that is why I would like to hear from the different state inspectors.

Mr. Aderhold: I would like to ask the speaker a question. Under the present management of these large centralizing plants is there any object whatever for a shipper to wash his separator as long as he can get milk through it?

Mr. Dybevick: Yes sir, there is. Even if I could sell my cream if I did not wash my hand separator every day, if I did not wash it more than once a week, for my own benefit I would wash it thoroughly because if I did not wash my separator I would lose every time, because the separators we have on the market at the present time are finely constructd machines and there are lots of small holes in the machine, there for a purpose. If you let those machines stand twelve hours without washing them, lots of slush will be soaking up in the holes that are there for a purpose and when you start skimming again you do not get all the cream out of the milk, and you lose. Therefore I would wash the hand separator for my own benefit even if I could sell my cream from a dirty separator.

Mr. Newman: I believe this is the proper time for Mr. White to tell how he can tell pasteurized butter on the market.

Member: I believe the time is too short to discuss this at this time. We have lots to do before we carry this on.

Mr. Davis Haven: Chicago commission men do not buy pasteurized butter or unpasteurized butter, they buy butter on the score. If butter that has been pasteurized comes in and is scored 86 they pay for it as 86 and not as extras. I want to say about government inspection just this, that the lack of co-operation among co-operative creameries, or in other words

the strong competition among co-operative creameries and competition among commission men in buying has done a great deal to lower the quality of our butter, so if you want to get a better quality co-operate.

Member: Mr. Dybevick claims they have no jurisdiction over anything but state cream, still he states that some cans of cream are confiscated. Who stands the loss?

Mr. Dybevick: In our state we cannot confiscate, we can condemn it as unfit for food. That is all we can do. Two years ago we condemned over five thousand dollars worth of cream in St. Paul alone. Now you see there is a total loss to somebody there, to the state if to nobody else. But that is not the point, to just condemn the cream, we have to teach the farmers a lesson. If the cream is shipped from some point in our state we can go out and prosecute the shipper but when the cream comes from another state, we cannot do that.

The Chairman: The next on the program is an address on the Cream Rate Case by Mr. Seeber.

F. W. SEEBER
WATERLOO

The Cream Rate Case.

Mr. F. W. Seeber, Waterloo, Wisconsin.

Mr. Chairman, Ladies and Gentlemen:

The men that have been talking here today have had their ideas on some particular subject. We became aroused on the unjust rates that were enforced on this centralizing of cream, and I will endeavor to be as brief as possible in telling you what has been done.

Do the Dairymen Need a Protective Association? What Has the Wisconsin Manufacturers and Milk-Producers' Protective Association Accomplished?

I have been invited to give you a little talk on the subject, "Do the dairy interests need a protective association," and "What Has the Wisconsin Dairy Manufacturers and Milk-

Producers' Protective Association Accomplished?" Whether the dairy interests need such an association is a question that each of us must decide for himself.

As far back as 1894 frauds against the dairy interests began by the manufacture of oleomargarine and filled cheese and the placing of them on the market as pure and genuine articles. At that time the dairymen organized what was known as "The National Dairy Union" for the purpose of securing legislation to prevent the fraudulent sale of the substitutes as high grade dairy products.

You know of the long struggle, the expense of which was voluntarily contributed by some of our most progressive dairymen, before we secured the passage of a bill in 1902 which raised the value of our pure products, cheese and butter, from 25 to 33 per cent. Did it pay to make the fight at that time?

Within the last few years the use of hand separators has opened a field for large centralizing plants. The methods they have used have been most detrimental to the local butter industries and in many states have practically driven out large numbers of local factories. Now the centralizers are reaping their reward by paying the farmers in these localities from two to eight cents lower for butterfat than the farmers get who have their local factories. These centralizers have at times been very unjust when they come into competition with small local factories. They raise their price to a point which makes it impossible for the local factories to continue and forces them out of business. After securing a monopoly in a certain locality the price paid to the farmer is lowered.

The present danger to the dairy interests of the northwest was called to the attention of the dairymen at the buttermakers' convention at Wausau, in February, 1907, by our Dairy and Food Commissioner, the Hon. J. Q. Emery, who said in part as follows: "In my judgment never in the history of the state has the local industry of Wisconsin been so menaced. If this magnificent dairy state, with a total annual income of more than Fifty-seven Million Dollars, is to continue

and advance that industry, there are certain conditions that are absolutely indispensable. There must be no discrimination in railroad transportation by the roads between the various classes of the dairy products."

At that time the railroads charged from certain local factories $1 per cwt. to ship butter to Chicago by express and from the same place they would take 100 pounds of cream which would usually test 40 per cent or more fat for 26c. The result is simply this, Chicago and other large centralizers get their butter fat to Chicago for 52c per cwt., cans returned free, to say nothing of by products (butter-milk), while the local man pays for the same service $1.00 per cwt. Thus it is evident, that by this action of the railroads our local industries are menaced. Reports for July 1907 show that in Kansas and Nebraska, where the centralizers have full swing the farmers received from 17 to 18 cents per pound for butterfat, while in Northern Iowa, Minnesota, Wisconsin, and Illinois the local industries paid from 25c to 26c.

This system of killing the local factories can be shown by looking up the dairy reports from Kansas from 1900 to 1905. In 1900 Kansas had 133 creameries while in 1905 there were but 67 in the same state.

I have tried to show you why we heeded the warning of Mr. Emery and organized what is known as "The Wisconsin Manufacturers and Milk-Producers' Protective Association." I will try to show you what we have done and ask your cooperation in carrying on the struggle.

On July 30, 1907 having been informed that the Beatrice Creamery Co., et al, had secured an injunction from the United States Circuit Court at Chicago preventing the several railway and express companies from putting into effect the rates on cream which they had advertised would begin on September 1, 1907, we considered it time for the dairymen to organize and try to protect their local interests. Consequently on that date a meeting was called at Watertown and our Association was formed with the following officers: J. G. Moore, secretary; H. Sorge, treasurer; F. A. Seeber, president, with instructions to proceed.

Permit me to say no one realizes the amount of work done and time and money spent to successfully organize and carry on a work of this kind and I wish to add that in my opinion our worthy secretary, Mr. J. G. Moore, by his energy, large acquaintance and hard work (without pay) has accomplished more than all others combined.

At the meeting in Watertown it was decided to attend the hearing before Judge Kohlsaat in Chicago, but we learned that in order to have any opportunity of presenting our side of the case, it would be necessary to be made parties to the suit and to employ an attorney to represent us. This we decided to do and our attorney, Mr. John Barnes, former chairman of the Wisconsin Railroad Commission, filed an intervening petition with the Interstate Commerce Commission at Washington, setting forth our interests in the matter, which was accepted, making us parties to the suit.

Previous to the hearings in Chicago, the Wisconsin Railroad Commission, said to be the best Railroad Commission in the United States of its own motion decided to investigate the rate on milk and cream and at the hearing Nov. 5, 1907, the Wisconsin Protective Association had a chance to show what it was worth and it was no doubt the able presentation of our side of the case by Judge Barnes that led the Commission to make a favorable decision, separating for the first time milk and cream and raising the rate on cream. The printed decision covering 64 pages is said to be the best exposition of this matter so far made and was introduced as part of our exhibit in our case at Chicago.

The state of Iowa in 1900 had 994 creameries and in 1908 only 552, the falling off largely due to the work of the centralizers in that state. President Haskell of the Beatrice Creamery Co., testified that when the company he represented started in Chicago in order to obtain business, he shut up ten factories around Elkader, Ia.

From such a showing it would seem as though the industries of Iowa were awake to the situation and yet, in the face of this sentiment no organized assistance had been rendered

by Iowa in this fight up this time, but at this time, after the evidence was shown as to what had been accomplished by organized dairy associations in other states, at the Buttermakers' convention held at Waterloo, Iowa, November 18-20, '08, the opinion was that unless some change was made, the local factories would go out of existence. And when it was considered that in 1900 Iowa had 994 factories and in 1908 only 552, it would seem as though the fear was well founded.

At this meeting, the Association having expressed itself as being in favor of this movement, looking toward an equalization of rates, the following action was taken by the executive board: "We the Executive Committee hereby recommend to the dairy interests of Iowa that they give such financial assistance as they can toward the prosecution of the case."

Signed,

W. B. BARNEY, President.
W. B. JOHNSON, Secretary.

In all this argument about rates and the effect it will have on the different systems of dairy management, one fact should not be overlooked, and that is what is best for the producer.

As to prices paid let me say that according to the summary compiled by Hon. B. D. White of the Dairy Division, Washington, from reports received from the factories themselves, it appears that in 1907 the farmers in Minnesota were paid by the local creamery on an average of 27.99c per pound net for butterfat. In Wisconsin the net price to the farmer was 28.76c per pound. In Iowa the farmers are paid 28.20c for butter fat. The average price in Nebraska is 23.95c and certainly there must be some good reason why the local industries of Wisconsin pay net to the farmer 28.76c as against the 23.95c paid to the farmer in Nebraska. It is well said that this great difference is not accounted for by any change in natural conditions.

It has been charged that the centralizers pay different prices on the same day dependent on whether there was local competition or not.

February 25, 1908, Fairmount Creamery Co., paid prices as follows:

Gallatin, Mo., 34c, distance shipped 230 miles.
Stewartville, Mo., 30c, distance shipped 180 miles.
Hamilton, Mo., 40c, distance shipped 220 miles.
Albany, Mo., 29c, distance shipped 210 miles.
Difference of 11c.

On the standpoint of quality, it is general knowledge that the quality of our product has deteriorated in the last ten years and speaking on the subject Chief Webster said, "As the systems exist now, the local industry is making by far the best product."

The local system is the only one that furnishes opportunity for proper inspection and supervision on the part of the state, and our experience in the past has demonstrated the great value of such inspection, and as a rule such supervision has come largely from the insistent call of the organized dairymen, and it seems to me that if the future is to see the proper development of the dairy business along proven lines, then certainly the dairymen need the protection of organized effort. The Hon. John Barnes, our attorney, having been elected as Judge of the State Supreme Court in the spring of 1908 left us in bad shape and we were fearful all of our efforts were lost, but we were very fortunate in securing the services of John M. Olin of Madison who appeared for us at the last hearing in Chicago and the final hearing at Washington. Too much praise cannot be given him.

The centralizers are reported to have raised $30,000.00 to fight the case and up to the present time in Wisconsin by subscription, we have raised more than $900.00; while in Minnesota contributions, to nearly the same amount, have been raised through the efforts of the Minnesota Dairymen's Association, Butter and Cheese Makers' Association, and Co-operative Dairies' Association. All expenses have been paid so far, except attorney's fees, which amount to about $3,000.

The very existence of the creamery interests in my opinion depends on organization to hold Wisconsin as the Banner

Dairy State of the Union. With Minnesota and Iowa already with a better perfected organization Wisconsin must have the united support of the butter and cheese industries. What is your verdict?

Minnesota has contributed about $900, we have raised that much from this state, Iowa is helping us some. We are still owing our attorneys in the neighborhood of $3,000. My opinion is that Wisconsin, through our little protective organization of thirty-three men in Watertown, has had the honor and prestige of being the banner state to carry on the fight. Iowa and Minnesota have recognized it and have endorsed the idea at their conventions, but our convention comes last and my object is to get the endorsement of the buttermakers of the state of Wisconsin. This fight is not ended. It has to go on and we cannot continue it unless we have the united efforts of the forces that we are fighting for. Thirty-three of us organized in the first place, of course others have contributed, but that is not sufficient backing or reputation to get the best results in a skirmish of this kind and I sincerely hope you will pass resolutions endorsing this fight and lending us your assistance if you can see your way clearly to do it.

The Chairman: I appreciate fully the amount of work these gentlemen put into this hearing. I have been connected with them more or less and I realize how they are handicapped for funds. I do not know that now is the time to take this up but I believe a resolution could be introduced through the committee.

Mr. Seeber: I think it is an action for the convention to take as to whether they want to go on with this. I would like to get an expression from the convention as to whether they want to go on with this fight, whether they believe the fight is worthy of recognition, and then our trustees can do whatever the wishes of this convention seem to be. In Iowa I believe they expressed themselves and then their executive committee took action.

The Chairman: Will some one please offer a motion to that effect, if you so desire.

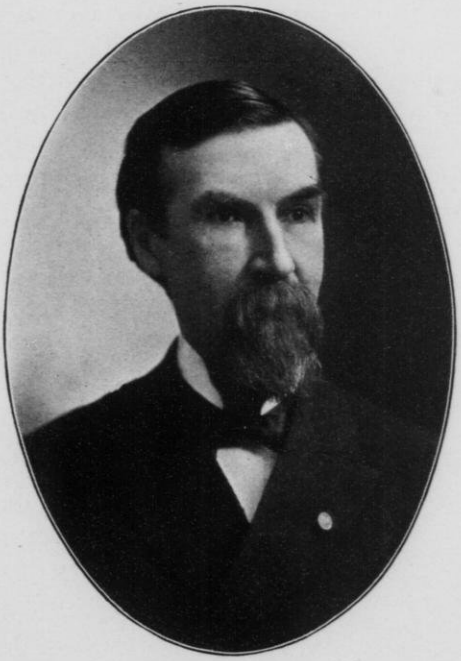
Mr. Seeber: Mr. Chairman, I am interested in this question and perhaps if I offer a motion some member will second it.

I move that it is the sense of this convention that the cause of the Wisconsin Protective Association, in conjunction with the sister states, is worthy and it is the opinion of this convention that our trustees be instructed to assist in the fight as far as they deem they can do consistently in a financial way and to further the cause.

Motion seconded and unanimously carried.

Mr. Seeber: Gentlemen, I thank you for your expression because it has been a hard fight.

The Chairman: We have with us today one who I think is perhaps one of the best friends to the buttermakers of Wisconsin, and I will ask him to say a few words to us at this time.



HON. S. A. COOK
NEENAH

Address.

Hon. S. A. Cook, Neenah, Wisconsin.

Mr. Chairman, Ladies and Gentlemen:

What little I have to say to you I want it understood you are welcome to criticise. I do not want you to feel that I have come to give you any scientific opinions, you have them with you, I will hurry this through and if any of you take exceptions to what I say you are at liberty to tell me so. I am very glad to have the pleasure of meeting with you and I shall be very glad if I can say a word that will be of some little interest or help in the good work in which you are engaged.

I thank you for this opportunity of coming before this meeting. It would be a double pleasure and satisfaction to me, if I could say or do that which would be of assistance to you in the good work you are engaged in.

My efforts have been not so much to encourage large holdings of land and great number of cows, as it is to get the largest possible results from each cow or acre of land.

You have with you here good men high up in knowledge on scientific principles in butter making and the dairy products of the farm, you are here with your practical knowledge from your own experience; I am a firm believer in practical work done along the lines of scientific principles. We either progress or we fall behind.

With this combination that you have here in this convention to do business with, you must if you will use it succeed.

I began some active work fourteen years ago, when I saw cheese selling at six and a half to seven cents per pound, butter 15 to 19 cents, hay at $5 per ton, high grade of unregistered cows at $15 to $17, and good farms in Winnebago county selling for $45 per acre, and we consider that Winnebago county is numbered among the best agricultural counties in the state.

We now frequently hear the consumer say that the price of butter is too high, in fact a similar statement appeared on the editorial page in one of our good dairy papers some months ago, it is possible the writer of the article was viewing it from the consumer's standpoint, but I am convinced based

on practical tests that the cause of the so called high price for butter is not due to combination or that less butter is being made than formerly, but it is largely due to the high grade of butter you are producing, which can and much of it is being shipped to the market of the world. I have in mind a condition that to my knowledge existed in years gone by, as compared to what I have found to be true last summer, which furnishes to me the evidence.

Twenty-five to thirty years ago I was conducting a general store, the price of butter was then from ten to twelve and a half cents per pound. There were first class buttermakers then in the old way, and the old way was good and is yet, if we want good home butter produced by the prudent and practical housewife or daughters, who did then or will now give it the care and hard work required to produce a high grade article, but many homes were so poorly provided for the handling of milk and cream, and the worn out mother or daughter with the cares of home and the lack of strength to perform the labor required, a large amount of poor butter was produced and offered for sale, and all it had to recommend it was the name "butter." It had to be brought to the store very early in the morning in the summer time, and a considerable amount of the butter I bought at those times had to go into what was called mill grease for which I received about seven cents a pound, as it was a losing deal to ship such an article to any city market in the state. Refrigerator cars on the road that passed through our town was not even a weekly occurrence, and ice in or around the farmer's home or milk house was almost unknown. I made several shipments of the medium grade as a trial along with the good to Milwaukee and other cities of the state, and most always met a loss, not only on the poor grade alone, but also found it damaged and helped to hold down the price for the best grade by reason of the large amount of the poor butter in the market, much of it in the hands of commission men in the cities, and in such condition that they would sell it for what they could, so as to get the freight they had paid and their commission. I know of many intances where job lots were sold at five or six cents a pound.

and while scarcely fit for a poor quality of grease for machinery, it went on to the poor man and working man's table under the name of butter. It created no appetite for more, but was bought and used only as a necessity and any other kind of grease more pure would be taken in preference, and the great loss to the buttermakers came mostly through the large percentage of poor butter that was being made.

Conditions are different now, of course there have been various causes to assist to bring about the conditions that now exist; better grade of cows, better sanitary conditions, refrigerator cars, ice houses, and laws to prevent adulteration or fraudulent imitation of dairy products, but the greatest victory in the industry, the largest cause by far to bring about the condition that now exists as to price is the high grade of butter you are making and I have a practical lesson on that line.

Last summer in July I was invited to Troy Center to attend a buttermakers' picnic and organization presided over by Mr. L. P. Holgersen of that place. He being the person who had taken first chair prize the last two years in the contest for high grade of butter.

During my visit with the good people there that warm July day, the matter of high grade of butter was being discussed and I casually remarked that I would like to see some of his make of butter of which so much had been said, so along in the afternoon about three o'clock on going to the railroad station to take the train for home, my satchel having been brought to the depot by some kind friend, and as the train came in sight on taking hold of my ever faithful grip sack, I noticed it felt heavy and at once proceeded to investigate, on opening it up I saw several packages of butter, which was plain to be seen through the thin paper around them, I turned to Mr. Holgersen, who with a number of others present, and said to him, Mr. Holgersen, that little satchel is a present from my daughter and I would not have it spoiled for your whole factory, he looked pleasant as usual and replied do not worry, the butter will stand the trip alright. The train was ready to

start, I got aboard, satchel in hand containing five pounds of butter and the weather up in the nineties. I watched the contents with some anxiety, but after nine hours that very warm day and evening on the cars, and waiting at the depot in Waukesha, I reached home at midnight, and on taking the butter out of my grip to put it in the refrigerator, I found it apparently as firm and in as good a condition as when I started from Troy Center.

That make of butter will stand up to be shipped to the markets of the world and the world's markets are so broad and so lightly supplied, that they can and will take all the good butter that can be spared from this state should the product become four times as great as it is, and the good quality you are making is creating a greater demand, as the people can and will eat a vast amount more of good than poor butter, and to this more than to any other cause I attribute the price of butter.

Wisconsin has become famous with her dairy products, and to you is due the credit for the state standing as it does today without a peer among the nations of the earth for butter, and the end is not yet.

I have in this only been rehearsing facts of the past, which is history, and perhaps is in no ways new to you, but the future can only be seen and judged at this time by a reflection of the past. We think we can see into tomorrow but we cannot, we plan for tomorrow from our experience of today, yesterday, or the further past.

The two great industries, butter and cheese, are as I believe and so stated to the cheesemakers in convention at Milwaukee, so closely allied together, both drawing their supply of raw material from the same source, both selling in practically the same market, that to do what will cripple one must necessarily soon be felt in a simliar way by the other.

You have made wonderful progress in the industry, still you have grave problems confronting you, the great success or failure, the loss or gain, will come from the difference between a high and a low grade article, having in mind that it

costs about as much and sometimes more to produce a poor article, than a good one.

The habit of wanting to be let alone in our own old way, producing an article in the manner that suits us, without due regard as to where and how it is to be sold, is the great danger line that you must meet and cross in the no distant future, or may be driven back to the old method and low prices.

It is the facts as given to the public by inspectors. And by jury trials shown to be true; to-wit: the care, feeding, method of milking the cows by some, is cruel. And allowing the milk or cream to go to the factory in cans, that to permit his child or any member of his family to eat from the same can or especially the material that gathers in and around the seams and cover would be adjudged by doctors, as well as courts, to be a serious crime.

Now these conditions may not be numerous and there may not be a person in this convention to which this will apply, but the conditions referred to do exist and that product may come to the same factory to which you bring your milk or cream; it mixes with yours, which may be the finest and best that care and cleanliness can produce, and the public must take the mixture.

One authentic report coming to the butter eaters from such factory would be sufficient to practically ruin the market for the product of that factory, if there was no market beyond where the facts had become known.

There is a small per cent of the public, who will take food product without reference to the quality, if the price is low enough, but the great mass of people are asking for a pure and clean article of food. They cannot be forced to buy poor goods only in limited quantities as their wants actually demand, but they can be educated to use a good article of food, until the demand exceeds the supply, and this especially applies to butter, which if not properly made will soon deteriorate.

A well made article of butter is practically sold in the making, and no buttermaker need have any fear of an over-

crowded market or extreme low price, only as it may come by Wisconsin losing the high position on butter and cheese now held in the cities of this country and the market of the world. And that loss will never come by a high price on a high grade of butter, but may come from an overcrowded market of low grades backed by reports of the sanitary care of the cows by some few farmers, who do not particularly care to improve on the old method, and perhaps with the idea that a cow is a cow, a barn a barn, the quality of feed immaterial, any kind of a man will do to milk, and a milk can is just a vessel to carry the milk to the factory in and the more dirt that gets into the can the more it will add to the weight of the milk: If such conditions do exist they are a serious injury and prevent honest efforts in buttermaking from getting their just dues.

I have given the question of quality serious thought and while I have not been able to accomplish very much, I have tried to at all times do the best I can with what I have to do with, and in offering prizes to those receiving the highest mark in grade, it is not done with a view of individually helping the one or more who win the articles; as they win it on their own merits, and get their reward in the satisfaction of winning and the high price they receive for their butter, but my object is to try to offer some little inducement to others to raise their product to the higher grade.

The greatest asset an individual can have is the spirit of progress in conjunction with good ideas.

The spirit of progress is the desire to know what constitutes success and the willingness to take patient steps that lead to it; the eagerness to utilize every wholesome opportunity and pause only when victory is won.

With this spirit success must come, it is as natural that it should as the growth of a tree.

Big things are only a group of little tasks put together, any one of which you can easily do, it is without thought of this fact that makes some men afraid to try.

Ideas, and all have them, they start as the bud of an

acorn; ideas raise the plow boy to president, they connect the currents of energy with the wheels of industry.

I am glad that I live in Wisconsin that has such great resources and intelligent citizens. I take much pride in this privilege of being a member of and permitted to meet with the men and women of the Buttermakers' Association; you have done much to gain the high standard the industry now occupies.

May the good work go on and with unity of action there is strength, keep in mind what is due to other industries, that the laborer may find employment to earn the money to buy your butter and other farm products, and the laborer owing to their number are the great consumers.

Work for just and fair laws, both state and national, for the mutual benefit of our fellow men and thereby protect and build higher the great and growing industry represented by the Wisconsin Buttermakers' Association.

Member: We all know that the Wisconsin Protective Association is in debt. Iowa and Minnesota have come to the front, Minnesota with $900 and Iowa $450, making in all $1350. I think, and I believe all the other buttermakers agree with me, that the Wisconsin Buttermakers' Association has enough money in its treasury to set aside $650 towards that debt, and I offer that as a motion.

Motion duly seconded and carried unanimously.

Election of Officers.

The Chairman: The next on our program is election of officers, and the first in order is the election of president. We are to elect by ballot. I will appoint Messrs. Aderhold, H. C. Larson, Kaiser and Wilcox as tellers. Nominations for president are in order.

The nominees for president were Mr. G. P. Sauer of East Troy, L. H. Schroeder of Chelsea, W. J. Brennan, of Tomah.

When the ballots were counted, the Chairman of the tellers reported as follows:

Total number of votes cast 167, of which

Mr. Dodge received one, Mr. Cornish five, Mr. Schroeder forty, Mr. Brennan thirty-three and Mr. Sauer eighty-eight. On motion, duly seconded and carried, Mr. Sauer's election was made unanimous.

The Chairman: Who will you have for vice president?

Member: I nominate Mr. A. G. Peurner, of LaCrosse.

Nomination seconded, and there being no other candidates for the office, on motion duly passed, the rules were suspended and the secretary cast the ballot of the convention for Mr. Peurner, and he was declared elected vice president of the Association for the ensuing year.

The Chairman: Who will you have for your secretary?

Member: I place in nomination the name of Mr. J. G. Moore to suceed himself.

Mr. Seeber: I would like to say a word here. The convention has seen fit to award what I asked for here. I ask this convention for the assistance of Mr. Moore in the struggle going on, and therefore second the nomination and ask this convention to think twice before letting Mr. Moore leave at this time. It is imperative in this struggle that we have his experience, that we have his knowledge of the work to go on successfully, and I most heartily second the nomination of Mr Moore.

Mr. L. Olson: I nominate Mr. James F. McGill for the office of secretary. Nomination seconded.

There being no other nominations the ballots were cast and on being counted, the chairman of the tellers reported as follows:

Total votes cast 182, of which Mr. McGill received 71 and Mr. Moore 111.

On motion, duly seconded and passed, the informal ballot was made formal, and Mr. Moore was declared the unanimous choice of the convention as secretary for the ensuing year.

Mr. Speirs: Mr. Chairman, the election will be over be-

fore we go to dinner. The supply men have been to great expense in coming here and I believe the crowd this afternoon will not be too large for the hall over at the machinery exhibit. I therefore move that the meeting this afternoon be held over the river.

The Chairman: I think the motion is out of order at the present time but I will announce that the meeting will be held this afternoon at the other hall.

The Chairman: Will someone nominate the treasurer for the ensuing year?

Mr. Speirs: I nominate Mr. A. Wilcox of Bloomer.

Messrs. S. B. Cook, of Bloomer, F. A. Schultz, of Platteville and John Schields of Fall Creek, were also nominated.

The ballots were cast for treasurer and were as follows:

Total votes cast 84, of which A. Wilcox received 32, Mr. Schultz 21, Mr. Cook 19 and Mr. Schields 12.

The Chairman: There not being enough for a majority, we will vote again for the two men receiving the highest number of votes.

The voting the second time, resulted as follows:

Total votes cast 60, of which Wilcox received 24, Cook 19, Schultz 16 and Schields 1.

Mr. Speirs: Mr. Chairman, as the hour is late I move that the election of treasurer be postponed until the first thing this afternoon.

Motion seconded and carried.

The meeting thereupon adjourned.

THURSDAY AFTERNOON SESSION.

Meeting called to order at 2:30 o'clock by Vice President Schroeder.

The Chairman: The first order of business is the election of treasurer.

Mr. Holgerson: I move that we suspend the rules and elect the balance of the officers by acclamation.

Motion seconded and carried.

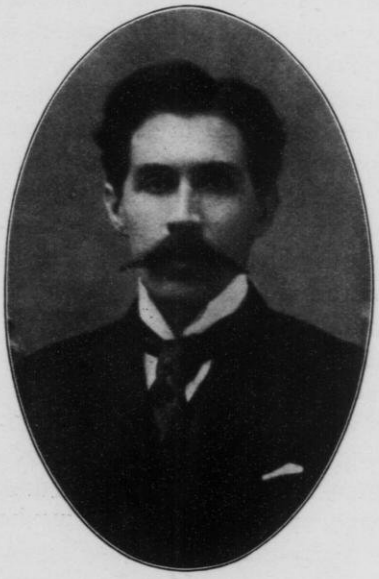
Mr. Holgerson: I nominate Mr. S. B. Cook for treasurer.

Nomination seconded, and there being no other nominations, Mr. Cook was unanimously elected to serve as treasurer of the association for the ensuing year.

The Chairman: The next is a member of the executive board to succeed Mr. A. L. Parman.

Mr. L. P. Holgerson, of Troy Center, and Mr. Clay Tyler of West Depere, were placed in nomination, and election proceeded by standing vote, which resulted in the election of Mr. Holgerson to serve on the executive board of the association for three years.

The Chairman: The first subject on the program this afternoon is Sampling and Testing Cream, by Mr. A. Carsweli of Clear Lake.



A. CARSWELL
CLEAR LAKE

Sampling and Testing Cream.

Mr. A. Carswell, Clear Lake, Wisconsin.

Mr. Chairman, Ladies and Gentlemen, and more particularly Brother Buttermakers:

Our secretary notified me that he wanted me to give a ten minutes' talk on this subject. I have not prepared any paper and will just give a general outline of what I am doing in the way of every day testing and sampling of cream.

We have been testing our cream daily for the last two years, not because we are particularly anxious to cause more work for ourselves but because we have to contend with very strong competition. We are situated in the northern part of the state, between Minneapolis, St. Paul and Duluth, where the competition is very strong, so I will give you a general outline of the way I handle the samples and the apparatus, and I will give the reasons I follow up the work in the way I do, not saying my ideas will agree with those my brother buttermakers have. Perhaps some of you have better ideas in following out the lines indicated in sampling and testing cream.

First at the weigh room door I put up my sample racks and number my bottles from one to two hundred. If I have over two hundred patrons, I have done away with the idea of giving each patron a particular bottle. For the last year and a half the first patron in is No. 1. I give him a receipt for his cream with his number, and I keep a duplicate. The boy that takes that in puts his initial on it and we copy that on the tally sheet. Of course we run all the way from 50 close to 200 samples a day in the summer, off days not quite so many.

The next thing to talk about is sampling. I bought a gallon can, an ordinary weigh can; I have an ordinary dipper, such as we all have, and I do not allow my helper to dump a can without first stirring it, then dumping it into the weigh can. He handles the weigh can by the end where he takes the sample. By that time the can is well drained and if it is not too thick or a little sour, as a good deal of my cream is, he takes out his sample and weighs his cream. I find that about the best way I ever tried to take a sample. The reason that I

have taken up this weigh can idea is that no matter how careful a man may be, when there is a rush he will not take the trouble to stir up a can of cream thoroughly. I noticed in centralizing plants where they have adopted that plan, at first they frequently took the sample right out of the can, but they have long ago given up that idea, as they found it takes away too much butterfat. The only way is to dump the can and take your sample after you dump it.

We follow that to the testing room. I have a little room separate from the creamery proper, between that and the engine room, that is in a dry, good condition, the scales in good order, good large windows, plenty of light and everything nicely arranged so as to have it most convenient. We use the nine inch bottles, have used them for nearly two years. I find them much preferable to the six inch 30 per cent bottle or the six inch 50 per cent bottles. I use the nine inch 40 per cent bottle a good deal more than the nine inch 30 per cent. It is not much larger and in the 30 per cent bottle you have too much cream that runs over 30 per cent, consequently you have too much handling to get your test from a 30 per cent bottle. I think Mr. White spoke this morning about having correct glassware. I found I had trouble that way. I got six dozen new bottles a year ago, and I sent three dozen of them to the experiment station to have them calebrated. Over 20 per cent of them were inaccurate. It was a well known brand of glassware, guaranteed to be perfectly correct but the guarantee was not worth the paper it was written on. One bottle in the lot was graduated for 40 per cent and it was a 50 per cent. The experiment station wanted to keep that bottle to demonstrate to the students. They said it was the most remarkable case of inaccurate calebrating they ever saw. I wrote the manager to send six dozen more direct to the experiment station. I made up my mind I would not have another bottle in my creamery unless it was calebrated, but everyone of this last lot of bottles was absolutely correct. It shows that if the managers have to they can turn out accurate glassware. I returned the first lot of bottles and got new ones in their place, which was rather expensive, but I had the satisfaction of knowing

then that I had absolutely correct glassware. I sent the rest away and had them calebrated. We have a law making it a criminal offense to sell glassware that is not accurate, but we might as well not have it on the statute books of the state. I believe that law is good enough to have it enforced. I bought those bottles in the state of New York.

Mr. Aderhold: How can we enforce our state law in the state of New York?

Mr. Carswell: That of course may be a point where we cannot get at a firm outside the state. I do not see any particular need of having a 50 per cent bottle because I do not allow any of my patrons to deliver cream that runs over 35 per cent. My cream as a rule is too low. Our average test last year was 24.7 per cent. I would like to get cream testing 28 per cent to 30 per cent, not over 30 per cent. I will say that I always had trouble in running a tester on the table. I cut out a piece in the top of the table large enough to run a solid brick wall right up from the floor, a brick pier right through the table, even with the wooden top, and since then I have had no trouble.

In regard to testing scales, I do not believe it is a good thing to advertise any particular brand of goods, but when it is the only thing on the market that I have been able to find that fills the bill, I see no reason why I should not give the name of it. I use the Torsion balance and rest. I think that is the only scale for a man making daily tests and make them as quickly as possible. I find I can do the work one-third quicker with that scale than with the old style scale, and much more accurately.

After weighing in the sample, I put the bottles in water at 65 degrees, colder in summer if the weather is warm. By the time I have sixty or one hundred bottles laid out, the first bottle I put in is the same temperature, 65 degrees. I take my acid the same temperature. I believe I omitted to say I always take 18 grams sample. I add the acid to the samples immediately, mix the acid with the cream as I pour it in from the combination acid bottle, mix the acid and cream together

as I put it in the machine. I have a thirty-two bottle machine. I add water to twenty of the bottles right away. I put in about one inch in the top of the bottle. I let the rest of them stand three, four or five minutes, then turn on the steam and run them for five minutes, open up the machines, fill them up as high as I desire for good reading, and I get just as good a reading test as if I added the water before I added the acid, which a good many practice and object to using the 18 gram sample on that account, because by adding water there is not room in the water to mix it up thoroughly after you have the water in along with the cream, but by adding the water as I do after mixing the sample I do not have any trouble and I have nice samples. I do not think there is the least bit of matter on the top of the test, it is as clear as crystal all through. I tried the nine gram bottle but did not like it. In the ordinary creamery it is almost impossible to get cream or sweet milk in condition to use that small bore neck; it is impossible to do it and do accurate work by using the 40 per cent bottle; by using the 18 gram sample it does away with that, it is just as accurate and I find the best possible way to run tests on it.

I will say that I believe I never went into a creamery in my life but I learned some little point, no matter how young the buttermaker was or how new in the business.

If there are any questions the boys would like to ask I will do my best to answer them. Probably I have omitted some points as this is my first public talk on my work in the creamery, so you will excuse me if I have omitted some important facts.

Discussion.

Mr. Larson: At what temperature do you add the water to the test after making the run?

Mr. Carswell: 140 to 145 degrees.

Member: You run your tester only twice during the operation?

Mr. Carswell: Some recommend running it only once. Of course it will come out a nice clear test but there will gen-

erally be a few air bubbles on top. By running it twice it takes only a short time, and adding the water twice instead of once eliminates those air bubbles on the top of the tests, so I find a little better result by adding the water twice instead of once.

Mr. Chapin: How do you take your samples?

Mr. Carswell: With a two ounce dipper. Just take enough for two samples so if an accident happens to one I am sure to have enough for another sample. In putting the cream into the test bottle on the scale I never use a pipette. I find it is too hard to use a pipette where you test every day and draw two hundred samples of cream. It is harder to wash the pipette. I use a 17.6 acid measure. They are made quite large, larger than the ordinary acid measure. They are just right for sampling cream. I find them convenient and a little quicker than handling the pipette, also much nicer to use.

The Chairman: Do you warm your samples at all?

Mr. Carswell: If the cream is pretty heavy to handle smooth, I heat it. If the cream is in the condition it ought to be, it does not need any heat at all.

Mr. Larson: You stated you use exactly the 40 per cent six inch bottle?

Mr. Carswell: The nine inch. I would not have a six inch bottle in the factory. I find the nine inch bottle is a little more convenient. Some think they are too clumsy and liable to get broken but I do not find that to be the case. I had a six inch tester that was in pretty good shape but I brought the matter up before the board and got them to let me trade that off for a nine inch tester, and I never regretted it.

The Chairman: The time is getting short and we will pass on to the next subject. The next subject is Handling Cream in the Vats by Mr. Nedvidek.

F. NEDVIDEK
RIDGELAND

Handling Cream in the Vats.

F. Nedvidek, Ridgeland, Wisconsin.

In discussing the subject "Handling the Cream in the Vat," I think it is well to first consider the reasons for placing it in the vat. These are: for purpose of storage, for ripening and for cooling to proper churning temperature.

The length of time that cream remains in the vat simply for storage purposes, may vary a great deal and in modern practical buttermaking should be as short as possible owing to the rapid development of bacteria, both of the desirable as well as the undesirable species. Therefore, the sooner we can get the cream ready for the churn the better.

Our object in holding the cream in the vat for ripening purposes, is the development of the proper per cent of acid. In ripening, the milk sugar undergoes a fermentive change caused by the action of the lactic acid bacteria. Upon this change depends to a great extent the flavor and aroma of the

butter. Therefore, it must be watched very closely. This ripening process is controlled mainly by the temperature at which the cream is held.

The mechanical process of cooling the cream to a churning temperature also is very important for we can injure an otherwise perfect piece of butter by improper cooling before churning. Consequently, it behooves us to exercise care in that respect.

I will now give you an outline of methods employed by me and which have given satisfactory results in my practical work in the creamery. I do not think we can handle all grades of cream in the same manner to an advantage. Therefore I have made the following division and will treat each separately.

FIRST, taking up the treatment of cream separated at the creamery, and such sweet, clean and fresh hand separated cream as we may get. Taking such cream and adding about 25 or 30 per cent of good starter prepared from a commerciai culture and mixing the starter thoroughly with the cream; then, holding it at a temperature of 70 degrees Fahrenheit for about four hours or long enough to produce an acidity of .45 per cent, now, cooling the cream to the proper churning temperature and churning at once gives very good results.

But, let me say that in taking the acidity of cream a person should bear in mind the fact, that the fat content of the cream has a great deal to do with the degree of acidity we are to ripen to. For example, a 35 per cent cream showing an acidity of .4 will really contain more acid than a 20 per cent cream showing an acidity of .4 owing to the smaller amount of serum in the richer cream.

SECOND, handling sour and over ripe cream from hand separators is quite a different proposition and if we are so unfortunate as to be forced to accept it, about the best thing to do with such cream is to cool to a low churning temperature and churn it immediately. The object of this is to get the butterfat out of the already over ripe serum.

THIRD, in handling pasteurized cream, I find that very

good results can be obtained by adding to it a liberal amount of starter as soon as it is pasteurized. Then, cooling the cream to 48 or 49 degrees Fahrenheit I hold it at that temperature for two hours and churn at once. One object in churning immediately is to eliminate the chance for the spores which are not killed by pasteurization to develop a new and undesirable bacterial life in the cream.

In all of the three divisions named, care should be taken in cooling the cream so that it will be thoroughly agitated in order to get it to an even temperature and to have the starter properly incorporated.

This is very easily accomplished in creameries which are equipped with cream ripeners as all ripeners have some device for agitating the cream. But in creameries where open vats are used, the buttermaker has much more to contend with and must exercise more care in ripening and cooling. Using ice in the cream is not advisable as it is liable to injure the quality of the butter owing to impurities often found in the ice.

To the buttermakers who are now using open vats for cream ripening or even cooling purposes, I wish to say, by all means try to get rid of the open vats and install a good cream ripener for with it you can control temperatures. I would suggest that you approach your board of directors or the manager from the financial side of the question. For example, a creamery can easily gain one cent per pound, on the price of the butter if the buttermaker has proper cooling facilities at his command during the hot weather. Therefore a creamery manufacturing 10,000 pounds of butter per month, would gain $100 in one month. A first class ripener of ample capacity for a creamery of that size can be purchased for about $400. So it may readily be seen that the ripener would soon pay for it self at that rate.

In conclusion I wish to say, that in ripening cream, we should keep close watch on the starter, the temperature and the acidity.

I wish to thank you all for your kind attention.

Discussion.

Member: I would like to ask the gentleman if he prefers churning at once where he gets overripe cream, part of it being sweet cream?

Mr. Nedvidek: If I did not have a pasteurizer I think I should hold it for a very short time and then churn, but with a pasteurizer I should pasteurize and churn right away.

Member: Wouldn't you hold that cream a little while before you churned it?

Mr. Nedvidek: I said I usually hold it at 48 or 49 degrees for about two hours to allow the fat to solidify, otherwise I would have a weak bodied, greasy butter.

Mr. McGill: After pasteurization do you test for acid to find how much acid your cream has?

Mr. Nedvidek: We do not pay much attention to that. We add a well ripened starter as soon as the cream is pasteurized, about 30 per cent starter, and churning after it is cooled down.

Mr. Holgerson: Can you get as exhaustive a churning by doing that?

Mr. Nedvidek: Yes by allowing sufficient time for the cream to cool. If you do not allow sufficient time for the cream to cool you will have a loss and your butter will have a greasy body.

Mr. Sauer: How long does it take to cool off the cream?

Mr. Nedvidek: That depends a good deal on the temperature of your well water and after cooling run it through the ordinary coolers, one of those coolers down here on exhibition. It leaves it all the way from 54 to 64 degrees, and that 64 degrees was while our pump was a little out of order and not supplying the full amount of water. It usually cools it down to within six degrees of the temperature of the well water.

Member: What kind of pasteurizer do you use?

Mr. Nedvidek: It does not matter what kind of pasteurizer you use, if you have one and use it right.

Member: Do you ever have any trouble with cream curdling?

Mr. Nedvidek: I said we are new at the business and have had some little trouble but hope to overcome that by holding the cream at a higher temperature. If we heat the cream to from 176 to 180 and rush it through we get good results and do not have any trouble with it. I understand that cream will curdle from 165 to 170 and cause considerable trouble.

Chairman: What result would you get if you churned right after pasteurizing?

Mr. Nedvidek: The results I have given have been practically as good as those from raw cream. Of course a person must remember to get the cream cooled low enough and then hold it there.

Mr. Kayser: What does your buttermilk test?

Mr. Nedvidek: It will vary all the way from .3 to .5 of 1 per cent. Sometimes it will go below that and it rarely runs up to .5 of one per cent.

Member: If your cream got in so you could pasteurize before five o'clock in the afternoon, would you advocate cooling down two hours?

Mr. Nedvidek: Our cream arrives at the factory all the way from four to six o'clock. We pasteurize after that and sometimes we churn it; at other times we hold it at a low churning temperature and churn the next morning, but in that case I add my starter the next morning.

Member: Do you ever pasteurize at 180 degrees and churn right away, and do you have any trouble with scorched flavor?

Mr. Nedvidek: You may have a little but not much. If you are careful in getting it into the machine so as not to get the casein baked on the side of the machine, you will not have much trouble.

Member: If you do not get your pasteurizing done until five or six o'clock in the evening, do you cool that down and churn the next morning or churn that night? In the summer

a great many of the boys do not get their cream until 5 or 5:30 in the afternoon.

Mr. Nedvidek: We never get ours in before that time in the summer. I have not had a very wide experience with pasteurization but I have had some.

Mr. Wilcox: Do you mean to say your churning loss is .3 of one per cent? I have churned with the sweet cream method as low as .06 of one per cent.

Mr. Nedvidek: There are different conditions at different times. I say it rarely runs up to that. I have churned down to as low as .05 of one per cent. It rarely runs up to .3 because that is quite high and the loss would be too much.

The Chairman: Any other questions? If not we will pass on and take up the next subject, "Aids in Starter Making," by Mr. S. B. Cook, of Bloomer.

Aids in Starter Making.

Mr. S. B. Cook, Bloomer, Wisconsin.

Mr. President, Ladies and Gentlemen:

The subject our secretary has asked me to discuss is, "Aids in Starter Making."

I do not care to go on record as an authority on this subject, as I believe there are others present who have studied the question more closely than I have, and who are in a position to answer all questions.

I am merely going to give you a synopsis of my methods as I use them at the Creamery, and if there is any point brought out by so doing, that will be of benefit to my brother buttermakers, all is well.

I can look back twelve or thirteen years and remember working in a creamery as helper. The "Starter" subject was not much heard of, and especially Commercial Starters, but we would occasionally make what is known as the "Home Made Starter."

After I got to operating a Creamery on my own responsibility, I used a home made starter all the time for a few years,

but the commercial starter came on the market, and, as I found that the home made starter could not be depended on, I began to try them. I have found by careful use that they are very much better, although you must watch the Pure Cultures you get from your Bacteriologist. Some of them are not good, as they will not coagulate. Such bottles I throw away, for I think, if used, they would be of more harm to the Starter than good.

If we could get cream in as good condition as we did when we were getting all whole milk, we would not have the trouble to contend with, that we now have, but as the hand separators have pushed their way to the front, and the creameries are turning to hand separator plants, the cream has made a decided change, I am sorry to say, for the worse.

Some patrons will bring cream four days per week, some it is hard to get in once a week; some patrons wash their separators every time it is used and some wash it once a day, while others only wash it twice a week. I do not lay the blame on the hand separator but on the patron. If care was taken, separators washed, cream cared for and delivered often, I believe that just as good butter could be made as from the whole milk. But, since we all have these conditions to contend with, we must have something that will overcome this undesirable bacteria, and the only thing that will help is a good starter.

The use of any starter is adding an enormous quantity of bacteria to the cream, and this is not only to hasten the ripening process, but also to control and improve the flavor. For this reason the starter should be as pure as it is possible for us to get it, containing only the desirable germs,, and it should be used when it contains the most of them and when they are most vigorous. When preparing a starter, we should bear this fact in mind and strive towards the fulfillment of these requirements.

I will now try and give my method of care and making of the starter.

First of all, your milk must be good, or else all your work

in preparing the same will be in vain. I select my milk from one patron whose chief virtue is cleanliness.

I will now give my method of cleaning my starter can; I take a brush and cold water and rinse all the milk out; I then take some hot water and washing powder, and wash the burnt milk all off, then rinse it out with hot water, set it in place and turn on the steam until the can is thoroughly sterilized. I strain my milk through a clean cheese-cloth tied over the top of the milk can, into my starter can, turn on the steam and sterilize the milk; that is, I come as near sterilizing it as I can, and that is to 210 degrees Fahrenheit. The milk is kept constantly in motion by the agitator and is uncovered while heating.

After it has reached the desired temperature I allow it to stand 30 minutes or longer. I then cool it down to 70 degrees Fahrenheit in summer and 75 degrees Fahrenheit in winter and add the mother starter, using about one to two quarts in 30 to 40 gallons of milk. This ripens at about the time I want to use it in the morning and should contain from about 38 to 40 CC Mann's Acid Test. After the milk in the starter can is cooled down to 70 degrees Fahrenheit, I take out my mother starter milk.

I use the glass stopper jars as I think they are preferable to any other vessel yet devised for propogating mother starters, as they exclude the air and you can always see the condition of your starter. They are sanitary and easy to clean. When you wish to stir your mother starter you shake the bottle instead of sterilizing a spoon for the purpose. The hollow of the stopper is a convenient measure when you wish to inoculate them. I hold these bottles at 70 degrees to ripen. This is hard to do in the ordinary creamery, so I have made an incubator, which I will here describe:

I made a tight box the size required to hold my bottles, then made another box large enough to have an air-tight space around the first box, letting the outside box run down far enough to hold a small lamp No. 1.

By putting some holes above the lamp in the air space and a hole in the top down to the air space, gives a circulation of

the heat from the lamp and you can hold the temperature as high as you wish.

In closing let me say that there is no item in the process of buttermaking that is of more importance, or that will give you more satisfaction for the amount of labor expended, than will a good starter, and you can have it every day in the year if you will only put your knowledge into practice.

I thank you for your attention.

Discussion.

The Chairman: Any questions you want to ask Mr. Cook?

Mr. Kayser: I would like to ask Mr. Cook in pasteurizing this milk in the starter whether he uses water or simply turns on the steam?

Mr. Cook: I turn on the steam. I do not think we can get water at 210 degrees.

Mr. Holgerson: Is it necessary to hold at that temperature?

Mr. Cook: I think it is best. I have tried lower temperatures but did not get as good results.

Member: Do you hold your mother starter at 70 degrees to ripen?

Mr. Cook: I do in the summer. In the winter at 75. I do not find that too high.

Member: In my experience 70 degrees is pretty high because we are not always prepared to watch our starter. We have lots of other work to look after and if we run at a lower temperature we get a better flavor, and it is not so apt to get over ripe.

Mr. Cook: That is the benefit I found with this incubator. I can hold my temperature even and so regulate the temperature as to have the starter ripen about the time I wish, by using a little more of the culture or more starter to inoculate.

Member: Do you find the flavor is good?

Mr. Cook: I think it is just as good.

Member: Do you use skim milk or whole milk?

Mr. Cook: Whole milk. I prefer that to skim milk be-

cause we cannot get our skim milk and run it through the separator as should be done.

Mr. Sauer: I want to say this about the mother starter, it would make quite a difference how high a temperature you used if your mother starter was not strong. If you have a strong starter a lower temperature would work all right, with a strong mother starter the high temperature would work all right.

Member: I would like to ask to what acidity do you run your mother starter?

Mr. Cook: I never determined that but I have carried my old starter to about 38 or 40 c. c.

Member: What test do you use there?

Mr. Cook: Mann's.

Mr. Wilcox: I would like to ask Mr. Cook whether he pasteurizes his mother starter more than once?

Mr. Cook: Where I take my starter from the full can and set my starter every day it is impossible to do that, it would only be pasteurized once. The next time it is held twice, but I believe where you can, it is better to pasteurize the mother starter twice.

Mr. Schields: You pasteurize the mother starter in the bottle when you pasteurize it the second time?

Mr. Cook: I pasteurize the large starter twice.

Mr. Schields: How long can you keep your culture?

Mr. Cook: I aim to renew once a week although I have carried a culture for two weeks.

Mr. Holgerson: How long can you keep your mother starter?

Mr. Cook: Just as I have answered Mr. Schields, I have carried it two weeks but I aim to renew once a week.

Member: What culture are you using?

Mr. Cook: Ericsson's.

Member: If you were running every other day you would advocate pasteurizing your main starter milk twice before adding your mother culture?

Mr. Cook: I would, Yes Sir.

Member: Do you stir the milk in your cans at intervals during ripening?

Mr. Cook: I do not. After I put my mother starter in I never touch the can until it is ripe.

Mr. Sauer: How long does it take to set your mother starter?

Mr. Cook: I generally set it about two o'clock and figure on having it ripe by morning.

Member: How would you carry your mother starter when you run only twice a week?

Mr. Cook: I would ripen my mother starter and cool it down. If your starter is good it will keep its flavor after it is cooled down for a couple of days. I have used it that way and found it was all right.

The Chairman: Any other questions? If not, we will take up the next subject. The next topic on the program is Churning and Working, by Mr. A. Wilcox, of Bloomer.

A. WILCOX
BLOOMER

Churning and Working.

Mr. A. Wilcox, Bloomer, Wisconsin.

Our Secretary has asked me to discuss the subject, The Churning and Working of Butter.

This is a great subject and one that is capable of bringing out many intensely interesting remarks and discussions. But it has been so thoroughly threshed over on the platform and in the Dairy Press, that in attempting to discuss this subject now, I feel that I am compelled to steal somebody's "Thunder."

Be that as it may, however, this is a question that is before the buttermakers at the present time and too much light cannot be thrown directly upon it.

We have, as I have said before, a great subject and in order to get a proper start in the right direction, we must first find the definition of churning, for if there is anything a buttermaker needs it certainly is a good "Starter." "By churning we understand that it is the agitation of cream to such an extent, as will bring the fat-globules together into such a mass as will enable the buttermaker to separate them from the buttermilk." This agitation is brought about in many different ways and by many different devices, but the most practiced of them are the combined churns which are in use in every up to date creamery.

The temperature is one of the many conditions which effect the churning of cream, and is the most important factor to be taken into consideration during the churning process. Too high a temperature must be avoided, as it causes the butter to gather in soft flaky lumps. Butter churned this way generally shows up with a greasy body; the butter also retains a large amount of buttermilk which is very deleterious to the quality as it cannot be readily washed out.

Too low a temperature is also undesirable, although it is better to have the temperature a little low rather than too high. If the churning temperature is too low, the cream becomes more viscous, consequently it will stick to the sides of the churn and rotate with it, and no churning will take place.

No certain temperature can be given, as it will have to be varied according to the locality and season of the year, but at all times it should be low enough to insure a good body and a good clean churning.

Another important factor that must be taken into consideration, is the ripeness of the cream. The acid developed during the ripening, tends to reduce or cut down the viscosity of the cream, consequently the fat globules will unite more readily and a quicker churning will occur. An experienced buttermaker will ripen his cream to such a percentage as will give him an exhaustive churning and also add to the flavor and keeping quality of his butter. Some buttermakers practice churning their cream by first adding the starter, cooling the cream to a very low degree, and churning. This is a very good method, providing the cream is pasteurized, but I would not advise any one to churn raw cream in this way; for the pasteurizing tends to reduce the viscosity of the cream in a like manner as the ripening does, consequently you will get a more clean churning than by churning unripened raw cream.

When the churn is about one-third full, the greatest agitation is obtained. If a small amount of cream is being churned it is often very difficult to gather the butter properly. When the cream is thin, the granules are thrown around in such a way that they are gathered with difficulty. If the cream is thick, the small amount of cream will stick to the inside of the churn and in that way delay the churning.

I venture the assertion, that there are many buttermakers who do not know the speed of their churn. I honestly believe that many are running them too slow, which will materially affect the time it takes to do the churning. In a churn that runs too slow, there is greater friction which will tend to give the butter a sticky and greasy body . A speed of about twenty-five revolutions will be about right as I believe many will find their churns running about eighteen revolutions.

Different buttermakers have various ways of ascertaining the proper time when the churn should be stopped. It has been the general rule in the past, that a churn should be

stopped when the granules are a little larger than wheat kernels. If the churn is stopped when the butter is gathered to the size of wheat kernels, the buttermilk will strain out very easily, will wash better and cleaner, and aid in keeping the moisture at a more even percentage.

Over churning should be guarded against as well as under churning, for butter that is over churned will retain a large amount of buttermilk, which is very difficult to remove by washing. Consequently the butter will in time take up a rancid or buttermilk flavor directly from the buttermilk that is retained.

I think these are the most influential factors in the churning of cream, and as my time is limited, I will not go further into details.

The chief object of washing butter is to remove as much buttermilk as possible and put the butter in better condition for working. The temperature of the wash water should be as nearly like the cream as is consistent with other conditions. Sudden changes in the temperature should always be avoided. Occasionally it is necessary to use water that is colder than the cream; at other times it is necessary to use water at a higher temperature. If the butter should become soft, do not chill it with ice cold water, as this will give the butter a tallow like appearance. Neither should hard butter be softened with water at a high temperature as this is likely to cause the butter to assume a greasy or slushy body.

The best results will be obtained at this time of the year by using the water about 20 degrees higher than that of the butter. A great many buttermakers make a mistake in trying to increase the overrun, by washing their butter at too high a temperature, and I believe that this is one of the chief causes of so much mottled butter. A buttermaker had better by far, have a 17 or 18 per cent overrun, than by spoiling the sale and appearance of the butter by over loading it with water.

The churning and working of butter is alike as is the beginning and finishing of a piece of work. If you do not get a good beginning, you will have a hard time finishing. If you

do not get the butter churned in good condition, you will have a hard time working the same. The object of working butter is to evenly distribute the salt and to get it in a more compact form for commercial use.

The number of revolutions of the churn will vary according to the condition and the kind or style of churn used.

In the Victor where a double set of rolls are used, it will take from twelve to eighteen revolutions, while in the Disbrow with a single set of rolls, it will take from twenty to thirty revolutions to evenly distribute the salt. There is one point that I want to bring out right here, that I think causes a great deal of mottles and that is the arrangement of the rolls in the churns.

In the Victor where there are two sets of rolls, they are placed in pairs and are about six inches square. Now they should be so adjusted that the corner of one meshes in the middle of its fellow. If this is not done, the butter as it passes through the rolls is subjected to varying pressure, which will positively produce mottles if all other factors are correct. Gritty butter is caused by insufficient working and usually causes mottles.

Mottled butter is butter that is uneven in color and is not very common in factories where the manufacture of butter is properly carried on. In making butter, unless the greatest care is taken, more or less buttermilk is left in the butter and the buttermilk contains casein lactate.

When the salt is added to butter that contains a great deal of buttermilk, it forms with the small amount of water, a very strong brine that acts upon the casein lactate just as it does when the latter is free in the buttermilk to which salt has been added. It collects in the small interstices left between the lumps of butter, hardens it, and localizes it. When the butter is worked the white casein lactate is spread and drawn into streaks, clouds and spots which we call mottles. The mottling does not show itself immediately, since it takes some time for the salt to produce its greatest effect upon the proteid. If the buttermilk is thoroughly washed out and the salt evenly dis-

tributed, all other factors being the same, I hardly think there will be any mottles.

At this time of the year it is best to skim a medium heavy cream. Have your cream at such a temperature that the butter will break in from thirty to fifty minutes. Drain your buttermilk off as soon as possible, rinse the butter, and wash with water a few degrees above the temperature of the buttermilk.

If you practice dry salting do not drain all of the water off as sufficient moisture should be retained to properly dissolve the salt. The salt should have the chill taken off in cold weather and after being added, revolve the churn four or five revolutions to properly distribute it before putting on the rolls.

Do not stop the churn at every revolution to drain off the surplus moisture through the doors. Keep the doors closed tight until the working is finished.

Follow these lines and study your local conditions and your commission man, patrons and all concerned will wear the "Smile that won't come off."

Discussion.

The Chairman: Any questions you would like to ask Mr Wilcox?

Mr. Cook: Would you run the churn at 25 revolutions?

Mr. Wilcox: The churn of course will have to vary according to the size. A No. 4 churn will run faster than a No. 6.

Mr. Nedvidek: I run a Simplex. Would what you say, apply to that?

Mr. Wilcox: I never ran a Simplex.

Member: Does the amount of cream churned make a difference?

Mr. Wilcox: It certainly does.

Member: Do you find the amount of butter you have in the churn makes any difference in working? Is it not necessary to work a small amount of butter more than a large amount?

Mr. Wilcox: That depends on the judgment of the man that is working it.

Member: Do you salt twice with salt brine?

Mr. Wilcox: I do not, I think that is too expensive.

Member: I do not think so. How often do you work your dry salt?

Mr. Wilcox: One working.

The Chairman: The next on the program is a paper on Overrun by John Schields, of Fall Creek, Wis.

JOHN SCHIELDS
FALL CREEK

Overrun.

John Schields, Fall Creek, Wis.

Ladies and Gentlemen:

Your secretary has asked me to prepare a short paper on the subject of overrun.

Overrun in the creamery business means the difference in the amount of pure butterfat which goes into any given churning, and the amount of finished butter from that churning. In

other words, the overrun is the excess of finished butter over the amount of butterfat from which this butter was made. The overrun plays an important part in the creamery business, and especially so where contracts are made by which the overrun has to cover manufacturing, selling and shipping expenses, as well as profits.

Twenty and even as late as ten years ago the subject of overrun was little known and received still less attention.

As competition grew sharper, the attention of the creamerymen naturally was drawn towards the widely varying difference between butterfat and finished butter, in different churnings. Chemists long ago told us that the greatest part of the overrun in butter consists of moisture or water, a lesser amount of salt and a very small amount of caseins.

These constituents are contained in butter in a purely mechanical way. They are the result mainly of washing, salting and working the butter under certain temperatures.

Soft butter will hold more moisture than hard butter.

The softness or hardness of butter may depend on several causes. Certain kinds of feed, when fed liberally, may cause either hard or soft butter, the period of lactation also influences the butterfat, and lastly the temperature at which cream is churned and the butter washed.

It was then found that soft butter would give a bigger overrun than butter of a much harder texture.

No sooner had this principle generally become known, then creamery men began to work in more water in theirs till the government stepped in and said 16 per cent water is the limit.

Since then most creamery men have contented themselves by working in water in their butter up to this limit.

The most common and probably the only methods employed, in getting the moisture in butter up to the limit, are first churning to large lumps in wash water of a much higher than the churning temperature, and second running the butter through the rollers in the wash water which is also of a higher temperature than that used in churning.

The object of these methods is to soften up the butterfat in which state it will hold and retain more moisture than at lower temperature.

In this way we have succeeded in getting the moisture content close to the limit, some even get a little past this point and in consequence thereof get into an unpleasant and costly acquaintanceship with the revenue officials.

I have said that we have succeeded in getting the moisture in our butter up to the limit. Whether we should call it success or retrogression is a matter of dispute. It is a fact that high temperatures such as are used to get a high percentage of moisture in the butter are detrimental to the body and grain. The same effect have over churning as well as over working, This gives a weak bodied butter, in other words, makes the butter salvy and greasy.

Some even claim that these methods and manipulations affect the flavor of the butter. There seems to be a silent controversy going on in this matter, some seem to say, "as long as it is all one price and as long as others, especially my competitors, are loading the butter with water, why should I not do it." The opposition seems to say you should under no circumstances and regardless of your overrun use such temperature, or employ such methods, as will impair the body and grain of your butter.

It is with this matter the same as with the acceptance of poor cream. Poor, rotten cream will be accepted just as long as it is possible to sell the butter from such cream, or good butter also as long as the returns for poor bodied, greasy butter are the same as for the A No. 1 article, so long will the creamerymen load their butter with water to the limit, because in that way there is more profit in 16 per cent moisture, than in 12 or 13.

What the country is looking for is a method whereby 15½ per cent of moisture, as well as a perfect grain and body can be realized.

It seems to me that a contest would be in order, where special attention would be given to body and moisture and

their relation to each other, in other words the aim should be to learn which method would give the highest moisture content with a perfect body left.

We have yet the other constituent, overrun to consider, namely salt and casein. Salt is added to butter mainly as a matter of taste, it also adds greatly to the keeping quality of the product.

The salt content of butter varies. It may be a little or almost nothing, or it may go as high as four per cent. The saltness of butter, that is, its taste to salt does not always depend upon the amount of salt in the butter, but the way it is worked in and dissolved. It is my opinion that butter containing 1½ per cent of salt poorly dissolved, will taste saltier than butter with 3 per cent of salt all dissolved.

Here is a pointer, give your salt plenty of moisture, and plenty of working without breaking the grain, but don't be afraid to work . In this way you will work your salt in and your mottles out.

In regards to casein, this constituent of the overrun seems to be the least amenable to mechanical manipulation, it varies from around three-fourths of a per cent to a little over one per cent. Only a chemical analysis would show what could be gained or lost by different methods of handling the churn and with cream of different conditions.

In conclusion I wish to say to all buttermakers that the question of overrun is an important, a vital one. A buttermaker should not take his monthly overrun altogether for conclusive proof that he is doing either good or poor work as the case may be. Where it is difficult to get a correct daily average sample, go to work now in the winter time and weigh your cream from the vat into the churn, take a sample from each weight into a receptacle, take at least a duplicate test from this sample and you can get as close as it is possible to get to the correct amount of butterfat in your churn. After you are through churning you can figure out your overrun. Do this for a while, the longer the better, you may learn something in this way, which you entirely overlooked before.

Discussion.

The Chairman: Any questions you want to ask Mr. Schields?

Mr. Holgerson: At what temperature do you hold your wash water?

Mr. Schields: As a great man once said, that is quite personal. I use it four degrees warmer than the buttermilk.

Mr. Larson: Was the speaker referring to whole milk and gathered cream or simply cream when he spoke of butterfat in the churn and the amount of butter made to determine the overrun?

Mr. Schields: I meant where it is impossible to get a correct average sample to find out how much butterfat you have in that churning.

Mr. Larson: Do you receive milk at your creamery or just cream?

Mr. Schields: Milk and cream.

Mr. Larson: Did I understand you to say the overrun was the difference between the butterfat you have in the churn and the amount of butter made?

Mr. Schields: I did not say that. You might figure overrun in two ways—the actual overrun you make day by day from your churn and the monthly overrun. There may be quite a difference between the two.

Mr. Larson: I understood you to say that the overrun was the difference between the butterfat delivered into the churn and the number of pounds of butter made from that given churning.

Mr. Shields: That is what I said.

Mr. Larson: Is that a fact?

Mr. Schields: The overrun is the difference between the butterfat and the finished butter.

Mr. Larson: When do you determine butterfat, when you receive your milk and cream, or when you put it into the churn?

Mr. Schields: When you figure the overrun on the monthly statement or after you figure the monthly business,

but if you take the daily average sample you get it the other way.

Mr. Larson: I find a great many of the boys in the field are somewhat at sea as to the proper way of calculating the overrun. The overrun is nothing more or less than the difference between the original fat contained in the milk and cream delivered at the creamery and the total amount of butter made.

Mr. Schields: That is my idea.

Member: Overrun seems to be quite a question. Today they talk about leaky butter. What causes leaky butter, does anybody know?

The Chairman: Churning at too warm a temperature, or having the wash water at too high a temperature might cause leaky butter.

Member: That means the boys have to look out for the high wash water. One more point to look out for is not to churn at too high a temperature. It is safe to churn as cold as possible, but not cold enough to get the butter lardy. Wash water may be higher than churning temperature but not too high.

The Chairman: Any other questions?

Mr. Sauer: What is the highest overrun Mr. Schields gets?

Mr. Schields: I have had overrun all the way from 12 to 23½ per cent, that is from the churn, by weighing the cream into the churn and testing from that.

Mr. Sauer: Is 23½ a lawful overrun?

Mr. Schields: That depends on the moisture content of the butter?

Mr. Sauer: Can you get it without too much moisture?

Mr. Schields: That overrun was lawful but I would not guarantee the body of the butter, so if anybody is here that can give us a method by which we can incorporate 15 per cent moisture and have a good bodied butter, that is the man I would like to meet.

Member: Is it necessary to have the wash water any warmer than the milk to incorporate a large amount of water?

Mr. Schields: There is a difference in localities. I experimented for a long time with common temperatures and I never could get more than 12 to 13 per cent moisture. I have heard of men that could with 52 degrees and 54 degrees wash water get 15 per cent moisture, but I do not know whether that was due to their method of manufacture or the locality in which they lived.

Mr. Larson: Relative to the 23½ per cent overrun, the United States standard for butterfat is 82½ per cent of fat, and the state legislature saw fit to incorporate this standard into the state law. There is a ruling, as I understand it, of the department that butter must not contain to exceed 16 per cent water. The standard is 82½ per cent fat, regardless of moisture, casein or salt, therefore it is absolutely impossible to make 23½ per cent overrun with 82½ per cent fat.

Mr. Schields: That rule is not enforced so we do not pay any attention to it.

Mr. Larson: I asked a creamery manager whether he used a moisture test and he said "No, I have not been picked up on that. I do not think there is any danger." The next time I visited his creamery he had paid over $1300 and was using the moisture test every day.

Mr. Schields: I would not advise it either, I shall buy a test.

Mr. Kayser: I would like to ask Mr. Larson for further information concerning this. What buttermaker or what commission man buying butter for that matter, knows what per cent of butterfat his butter contains? It is the standard, there is no question about that, but I do not know what per cent of butterfat my butter contains and I do not know of any buttermaker that does.

Mr. Larson: There are tests you can make of butterfat but the revenue officers are the only ones that have been taking action in this matter, and it is true that the centralizers are trying to get the fat standard reduced and that may be done some day. I hope to see the time when we will have only one standard, that to be the butterfat standard, and the rest

of the ingredients that make a pound of butter will take care of themselves. That may be determined by the Babcock test if so desired. Of course these laws are not enforced by the United States department or the state department at the present time, but we do not know how soon they will be, consequently it might be well to give them attention.

Member: Mr. Larson says the fat standard is 82½ per cent. Why is it that in some places it is only 80 per cent? In Iowa it is only 80 per cent of fat and 16 per cent moisture, which allows four per cent for casein and salt.

Mr. Larson: I do not know that the standard in Iowa is 80 per cent, but I do know that the U. S. standard is 82½ per cent.

Member: I took the dairy course at the Ames College, and they claim 80 per cent fat is their standard.

Mr. Schields: I believe Mr. Larson is right, the U. S. standard and Wisconsin standard is 82½ per cent. Perhaps Iowa reduced it there because the sentiment there was to reduce the standard on fat. I am in favor of Mr. Larson's idea of judging butter by its fat content. Then we can not manipulate the product as is done now. Now all we have to do is to keep within the moisture content, then put in as much salt or casein as we please, because no one looks after that.

Mr. Larson: The moisture standard is being enforced today. A creamery man in Wisconsin the other day had an experience through incorporating casein in his butter. One or two educators (?) went up and down the state for $100 or $200 showing how to do those things. A creamery man invested, followed their advice and shipped out quite a large quantity of the butter. He lost between $500 and $600 on the output because of the incorporation of an excessive amount of casein. The butter soured on him and became cheesy anl that caused his loss. I want to drop this warning,—do not try to incorporate casein or you will have trouble with it.

Mr. Carswell: I would like to say something in regard to the moisture question and I can say, to my sorrow, that what I say is from experience. The old saying is that he who talks

from experience knows something about it. I have been up against the U. S. Revenue department, in fact, it has a case of mine there now and I do not know how it will be decided. I am not ashamed to admit this openly because I do not believe there is a buttermaker in this audience that had the same experience that I had last summer. We made from two to five churnings a day during the summer. I have three different helpers and almost always have two competent men to do the churning. I spend my time doing the testing, taking in the cream, etc., so a good many days I do not churn the butter at all. Someone said every churning should be tested. I agree with that but like the other buttermakers, with all I have to do there is not time for this, consequently I test as often as I possibly can, but every once in a while four or five churnings would go through without being tested for moisture. I got one shipment of butter made last July that was held up in November, when I heard about it. The butter was bought and put in cold storage, but we have to stand responsible for it just the same. I would like to see how many buttermakers in this audience can stand up and say they do not send out a churning of butter that contains more than 16 per cent moisture. Of course 16 per cent is the standard for butter. I do not believe I am the only one that let butter go through without testing it for moisture, but it is up to everyone of us to do it; if we have not enough help we must have more to do this testing.

Member: I think it would be a good deal better to test twice a month and test every churning for moisture and not pay over $600 and a license besides.

Mr. Carswell: Do you test for moisture every day?

Member: Yes Sir. We are not running a large plant, only one churning a day.

Mr. Carswell: If I only tested twice a month I would not have the creamery I have today. Those little things do not matter when you are up against the centralizing competition. If you do not do business the way the farmer wants to do business he will take his stuff to the other fellow if he treats him

right, the way he expects to be treated in these up to date times. Therefore, if it costs four cents extra to do these things right, I believe that is the way we ought to do them.

Mr. Larson: I appreciate as well as anybody in the house what it is to be taxed and over-taxed with work as a buttermaker. The creamery management of this state and every other state is away behind as regards furnishing ample help and apparatus sufficient to work with that would protect them and the buttermakers, but it is of vital importance that every sample of cream delivered at a creamery be tested every day, as Mr. Carswell does, and it is just as important that the butter that goes out of the creamery be tested to know exactly what kind of butter goes out, and if a creamery has not sufficient help it should have it. The creamery management of this state and of every other state should see that they have help, and if they have not the help when those misfortunes come to them they must simply charge the bill to neglect.

Member: While we are talking about moisture, I would like to know if you have your butter in the refrigerator two or three days, then put the trier in to test for moisture, and you find the fat run over that trier is it possible then to get the correct amount of moisture in that tub? Is not part of that moisture squeezed out?

The Chairman: They have a different way of taking samples now. A sample is taken out of the top and then out of the sides.

Mr. Larson: When the revenue officers test for moisture they strip the tub. They have a little instrument in V shape. They strip right across and take probably a half pound from the top of the tub, from one side of the tub and then across, then take it from the bottom because the moisture content is different from the top to the new bottom. The total amount taken is about one pound. Their reason for doing that is to overcome the plugging of the tub in four or five places and making it objectionable to butter buyers. In that way it can be easily done and the samples accurately taken.

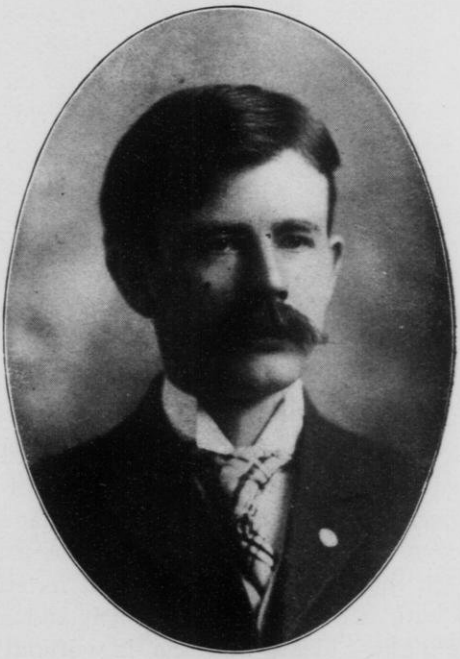
The Chairman: Is there anything else to come before this meeting? The banquet will be this evening at 7 o'clock at the Commercial Club. The meeting will convene tomorrow morning at 9 o'clock at this hall.

We will now stand adjourned.

FRIDAY MORNING SESSION.

Meeting called to order at 9:30 by Mr. R. C. Green.

The Chairman: The first on the program this morning is the reading of the address of Hon. J. Q. Emery, by Mr. Henry Larson, Mr. Emery not being able to be present.



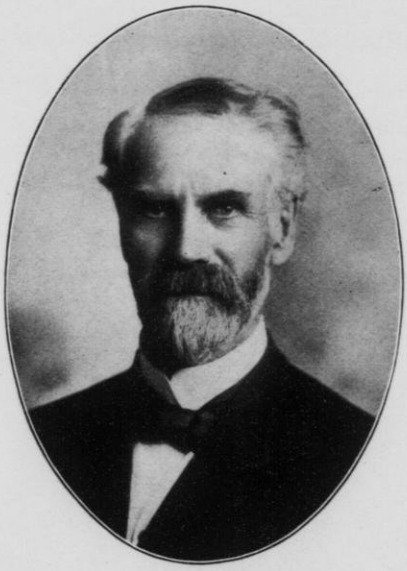
HENRY LARSON
MADISON

Address.

Mr. Henry Larson, Madison, Wis.

Mr. Chairman, Ladies and Gentlemen:

I am sorry Mr. Emery could not be present and talk to you himself. However, if you will bear with me I will read his message.



J. Q. EMERY
MADISON

Good Enough is An Enemy of the Best.

By J. Q. Emery, Dairy and Food Commissioner.

The National Cash Register Company, located at Dayton, Ohio, is conceded by those having a knowledge of the facts to be the most perfectly organized and best managed establishment in this country. It is a profit-sharing company and concerns itself with the welfare and success of its employes and all associated with it. In all its equipment and management it pursues the highest ideals, and this is without doubt the reason for its pre-eminent success. In a place where it can be

read and noted by all its employes, the company has conspicuously posted the subject of my paper—"Good enough is an enemy of the best." I wish that this sentiment might be engraved on the mind of every Wisconsin creamery manager, buttermaker and patron. It would do more than anything else to promote the creamery interests of this state. The indifferent, unenterprising accepting of existing conditions as "good enough" is the bane of the creamery industry. Nothing in the creamery business is good enough if it can be made better.

Let me recount some of the improvements that would be made in the Wisconsin creamery industry if each person connected with that industry should adopt the subject of my paper for his motto and earnestly and honestly strive to live up to it.

If this motto were adopted by the proprietors or managers of creameries it would result in making the following provisions for their creameries: Suitable light and ventilation necessary to promote the health of the operators and to maintain clean and sanitary conditions in the creamery; adequate drainage, without which the creamery cannot have the degree of scrupulous cleanliness and requisite sanitary conditions necessary to insure wholesomeness and the highest quality of the creamery product; suitable floors instead of leaky floors through which liquids may soak and befoul the ground beneath,—a condition which would not be tolerated in any creamery in the state if our motto were carried into effect; and first-class, up to date apparatus of all kinds would be present in every creamery.

If this motto were adopted and lived up to by creamery managers or proprietors, the walls, windows and ceilings would be at all times scrupulously clean and every incompetent, unenterprising, tactless, intemperate buttermaker would be replaced by one who is competent, well trained, enterprising, industrious, progressive, tactful and temperate, and who would receive for his services a just share of the profits of the business.

If our motto were accepted and lived up to by the buttermakers, every buttermaker who in person or in clothing is habitually unclean and whose creamery, apparatus and premises are not kept in a clean and sanitary condition would be replaced by a buttermaker who is habitually clean in person and in clothing and who habitually keeps his creamery, apparatus and premises in a clean and sanitary condition.

If our maxim were accepted by creamery managers and buttermakers as their inspiring rule of action, the pipes in the creamery through which the milk must flow to reach the vat would be of the sanitary kind and kept scrupulously clean and free from rust and the rotten accumulations of days, weeks, months or years, and they would recognize that when they demand from every patron, that milk or cream be delivered in bright, clean cans, they should keep their own apparatus free from rust and unclean accumulations. Confidence in the management on the part of the patrons, begotten of confidence in the integrity of the management would take the place of distrust and the failure due to the distrust on the part of the patrons would give place to success. The milk or cream received each day would be accurately weighed on accurate scales and the weights thereof carefully and accurately recorded. The milk or cream received from the patrons would not be allowed to suffer any deterioration on account of shiftless or incompetent handling or by being allowed to pass through unclean or unsanitary pipes or received or held in unclean or unsanitary vats. The tests made for butter fat would be strictly accurate, and to this end proportionate samples would be taken of each delivery of milk or cream and cared for intelligently and honestly, or what is better, cream would be accurately graduated and kept scrupulously clean. would be tested daily, pipettes used in the testing of milk The amount of cream for testing would be determined by accurate and sensitive scales and not by a pipette, and the weights used in these tests would be absolutely true and the scales would at all times be properly kept and cared for. Six-inch 50 per cent test bottles or any other bottles the use of which is liable to result in inaccurate reading of the test

would be banished from every creamery as unreliable. The tests would be made with the tester run at proper speed, with acid of the right strength, and the test read with the butterfat at the right temperature, and accurate and permanent records of these tests would be systematically kept. The skim milk and the buttermilk would be daily tested for butterfat and a record made and kept of these tests and the butterfat content of the skim milk and the buttermilk would be at all times reduced to the minimum. A legitimate overrun would be secured and such apparatus, records and practices as are necessary to accomplish that end would be provided and employed. Each patron would be credited with every ounce of butterfat that he delivers to the creamery and he would have an accurate and intelligent accounting for every ounce of butter which might legitimately be made from the butter fat delivered by him. Lead pencil testing would be done away with and every practice that does not with painstaking care and scrupulous honesty return to each patron the full proportionate value of every ounce of butterfat furnished would be discontinued.

The creamery management would recognize itself as in a certain sense a trustee charged with the care of the patron's property and responsible for an accurate accounting. It would feel itself no less obligated to account to the patron for every penny's worth of butterfat received from him in milk or cream and for every penny's worth of butter which could be legitimately manufactured from the butterfat furnished than does the bank feel itself obligated to account to each depositor for every penny entrusted to its care. For the money represented by the check the patron receives today from the creamery and deposits in the bank was only yesterday in the care and keeping of the creamery management in the form of milk or cream,—products of highly concentrated money value.

If our motto were accepted by the patrons of our creameries, the practice of too many of them of furnishing creameries milk or cream in dirty, rusty or battered cans would be discontinued and in its place there would be delivered to the creameries milk or cream that was obtained from clean and

healthy cows, kept in well lighted, well ventilated, sanitary barns, fed wholesome feed and milked by clean men into clean vessels and promptly removed from every contaminating influence and quickly cooled to a temperature between 60 and 40 degrees and held at that temperature until delivered to the creamery.

If the buyers of our creamery butter were moved by the spirit of our motto, the product of our creamery would be bought and paid for strictly on the basis of quality. Recognizing that the strongest incentive to the production of extra quality of butter on the part of the creamery management and its patrons is that it is more profitable to do so than to produce butter of a poorer quality, they would promote the production of butter of extra quality by paying for it strictly upon the basis of relative merit and the producer would realize all that the product is really worth.

Among the objects of the Wisconsin Buttermakers' Association as expressed in its articles of association is the following: The education of its members for a better practical knowledge of creamery operation, promoting progress in the art of buttermaking, in the care and management of creameries, the sale, transportation and storage of butter and in the weeding out of incompetency in the business of buttermaking. All of the suggestions and statements which I have made in this paper are in harmony with the objects of this association as thus stated. The end to be attained by the Wisconsin creamery industry is the uniform production in all of our creameries of butter of extra quality at reasonably remunerative profits for all of the legitimate services necessarily rendered in the achievement of that end. For butter of extra quality there will always be a demand at remunerative prices. The demand for that kind of butter by those who have abundant means to pay for it is in excess of the supply. The competition of oleomargarine is much less serious with butter of extra quality than with that of inferior grades of butter. But butter of extra quality is not to be produced by indifferent, unbusinesslike, haphazard, shiftless methods.

Good enough is an enemy to the best.

We will now pass on to the next subject. The next speaker is a gentleman who is one of the founders of the Wisconsin Buttermakers' Association, who has devoted in the past much time and attention and his best efforts to help build up the association, Mr. F. B. Fulmer of Oshkosh, who will address us on Mechanical Refrigeration.

F. B. FULMER
OSHKOSH

Mechanical Refrigeration.

Mr. F. B. Fulmer, Oshkosh, Wisconsin.

Mr. President and Members of the Wisconsin Buttermakers' Association:

It is needless for me to say it gives me great pleasure to meet with you again, as I have met with you several years in the past, and as we come to discuss one of the features that pertain to our profession, that of mechanical refrigeration, I trust you will bear with me in some of the remarks I will

make, which may be rather hurried. This address which I am giving, when given in full, occupies an hour and twenty minutes. Under the stress of circumstances this morning we will try to contract considerably, and, while there was a little feeling evinced a few moments ago, and perhaps Brother Moore felt a little bit warm, I am going to the other extreme and turn around and freeze you now.

To properly understand mechanical refrigeration, there are some terms that may be of a technical nature that we shall briefly have to consider. These are six in number. The British thermal unit, the mechanical equivalent of a unit of heat, specific heat, latent heat, absolute pressure and absolute temperature. These are all intimately connected with mechanical refrigeration, that is, producing cold by mechanical or artificial means.

To briefly describe these various terms that are used, we will say the British thermal unit is the unit used in this country to specify or designate a certain amount of heat. In other words, it is the amount of heat required to raise one pound of water one degree Fahrenheit in temperature, or from 32 to 33 degrees, conversely it is the amount of heat given up by the pound of water in cooling down from 33 to 32 degrees. Sometimes in engineering works you see that given a little different. They might say it is the amount of heat necessary to raise one pound of water from 39 to 40 degrees. That class of scientists go on the theory that water should be taken at its maximum density. We know if we cool water down, for every degree we cool it a certain amount of contraction takes place until we reach 39 degrees, after we reach that stage it expands. Why? It is one of the wonderful processes of Nature, a manifestation of natural power. If it were not for that as quick as you got ice formed at 32, instead of the ice floating on the water, it would sink to the bottom, and we know if ice sank to the bottom some very curious things would happen. Another class of teachers say the water should be at 60 because that is the standard temperature at which a great many of the tests for specific gravity are taken, not only in testing

milk but in other lines. Still another class say it is one-eightieth of the amount of heat necessary to raise a pound of water from 32 to 212 degrees, or through a range of 180 degrees.

The mechanical equivalent of a unit of heat, which is the second term we wish to briefly discuss, was found by Dr. Joule a great many years ago to represent the energy generated by a weight of one pound falling from a heighth of 772 feet. By a suitable arrangement of complicated levers that he constructed and having a plunger placed in a tank of water, he found enough energy was generated by one pound falling this distance to raise the temperature of the water one degree, or the weight of 772 pounds, falling a distance of one foot would give the same effect. More recent determinations and more accurate experiments have placed that mechanical equivalent at 778 rather than 772.

Third, specific heat of a substance is a number of British thermal units necessary to raise the temperature of one pound of any substance one degree. Water has been taken as a standard by which to gauge most substances. It has the greatest specific heat of any known substance with the exception of hydrogen. Water is taken as a unit, or one hydrogen has three and three quarters times the specific heat of water. If it took a certain amount of heat to raise one pound of water one degree in temperature, it would take three and three quarters times as much to raise a pound of hydrogen one degree. Alcohol is a substance that is very common, sometimes people try to prevert the use of it from what it was originally intended for. Its specific heat is about two-thirds that of water and the mercury, which is the substance used in common thermometers, has a specific heat only .033 of that of water. In other words, if you take two pounds of water and heat them from 32 to 42 they would absorb the difference in temperature which is ten degrees times the two pounds times the specific heat, which would be 20 British thermal units, and to take two pounds of alcohol times the ten degrees times the specific heat would equal 13.32 heat units. Mercury would be two

pounds times ten degrees times this specific heat, which would be .66 of one British thermal unit.

What do we mean by specific heat as given in practice? Take two substances, which in this case here we will briefly exemplify by a little bit of alcohol and a little bit of water. I do not know whether the water is any colder than the alcohol or not. We will try to get equal amounts in the two test tubes here. We will proceed to improvise a British thermal unit here. We do not know how much heat it would take for we have no suitable apparatus to determine it. Instead of using a British thermal unit, we will use a number of matches. We will let each match represent for the time being the equivalent of a British thermal unit. You will note how many matches I use to get this water to a boiling point. At the beginning of the fourth match it boils quite violently. Now we will substitute something else and see how many matches we will have to take with the alcohol. That will represent the difference in the specific heat. This is going to boil with one and one-half matches, so we see though substances may resemble each other in appearance the amount of heat necessary to produce boiling may vary considerably one from another. Increase of temperature or pressure usually increases specific heat. If these two substances were boiling under pressure it would take a higher degree of heat to produce the boiling than that which we have just shown here. So much for the specific heat.

We will now strike the fourth proposition, that of latent heat! Latent heat is of two classes, latent heat of liquefaction and latent heat of evaporation. Latent heat of liquefaction,—if we had two vessels and put in one vessel a pound of ice, in the other vessel a pound of water, set them in a warm room at a temperature of 50 degrees, free from all circulation of air, and allow them to stand under equal conditions, it is reasonable to assume that each of them would be absorbing heat at the same rate, is it not? And if each one was absorbing heat at the same rate we would expect the two would rise in temperature, other conditions being equal, at about the same de-

gree of rapidity; but if we were to put a pound of ice in one place and a pound of water in the other, the ice would be at 32 and the water at 33 degrees Fahrenheit, we find it would take twenty-one times as long for the ice to melt and heat up to a temperature of 40 degrees as it would the water to heat up from 33 to 40 degrees, or approximately twenty-one times as long. The water is heated equally in a range of seven degrees in temperature. If the ice took twenty-one times as long, it would be twenty-one times seven degrees or 147 degrees; but the ice has only warmed from 32 to 40 or eight degrees, consequently 147 minus eight will give 139 degrees, which is roughly taken as the latent heat of ice. Now to state that in another way. If we were to take a pound of boiling water and a pound of water at 32 degrees, just at the freezing point, and mix them together, we would have a temperature of 122 degrees. If, on the other hand, we were to take a pound of ice at 32 degrees, instead of a pound of water, and mix that pound of ice with a pound of boiling water, we would get a temperature of approximately 51, 212, the boiling temperature, minus the temperature that we have here, 51, gives us a difference of 161 degrees between the two and the ice, and so far as we have been able to observe, the temperature on the thermometer has only ranged from 32 to 51 degrees, or a difference of 19 degrees, so 161 degrees minus the 19 will give us 142 degrees, which you see is a trifle more than we got the other way, or 139. These are approximations. Accurate determinations have placed the latent heat of ice at 142-144. That means energy that is tied in there, something that we are not able to measure by the ordinary thermometer. We see there is a tremendous power there because we know a little water placed under a building allowed to freeze and utilize the wonderful forces of Nature will generate power enough to raise that building. We can take a cannon ball, have it hollow inside, tap a hole and fill it with water, then cover the hole over with iron and allow it to freeze, and no matter how strong the iron may be the wonderful forces of Nature will burst and rend asunder that iron. So you see a tremendous force of energy

lying there, and it is that energy that is utilized in refrigeration when natural ice is used.

Now in regard to evaporation. Water will not heat in an open vessel and get above 212 degrees. If you want to raise the temperature of water above 212 degrees, or the boiling point, you have got to enclose it and create pressure. If you would generate your pound of water into a pound of steam you will create a wonderful transformation. If the pound of steam is condensed it will absorb heat equivalent to 966.6 pounds of water one degree in temperature, or heat sufficient to raise 6.4 pounds of water from 60 to 212 degrees. Those of you who sit up in front probably can see the bubbles of gas generated, due to the heat rising all the time in the flask of water. Now, in order to show the effect of heat and pressure, we will let that simmer for a moment with the crock closed, and of course that will have a tendency to concentrate a little pressure in this flask here. That being true, the temperature would slightly rise in there. Now there is a certain amount of latent heat tied up there, latent heat of evaporation. That is supposed to be under a slight pressure at the present time and if we pour cold water on the outside there and reduce the temperature a certain action should take place. As we pour cold water on the outside we can see a bubbling taking place on the inside of the flask; in other words, as we pour cold water on the outside it boils on the inside. The pouring of the cold water on here condenses the steam on the inside and the pressure in there is reduced, consequently the water will keep boiling at a lower and lower temperature. You could keep it under that process, so if you took all the air out you could boil water at less than 100 degrees. That shows that one of the principles in heat is evaporation.

In order to convert one pound of ice into water it takes 142.4 British thermal units. The water, in going from 32 degrees of temperature to the boiling point, goes through a range of 180 degrees. The number of British thermal units necessary to condense a pound of steam to a pound of water is 966.6, or a total there of 1289 British thermal units, which is the amount of heat that would reduce 2½ pounds cast iron or

9 pounds of silver to the molten state, so that it is no wonder that such disaster results from a burn or scald by steam.

The fifth point, that of absolute pressure, we know that is the so-called ordinary pressure. At sea level it is 14.7 pounds to the square inch; in higher altitudes pressure decreases and perhaps at this point it might not be more than 14.4, in other words, here in Eau Claire water might boil at 200 or 210 degrees while it would take 212 degrees at sea level. Suppose a cylinder had an area inside of just one square foot and it was about 18 or 20 inches in length. If we had a piston across this cylinder, so constructed as to be air tight and weighed so the space above it was absolute vacuum, and the pressure on the gas or the air on the under side 14.7 atmospheric pressure at a temperature of 32, the piston would be in a state of rest. All gases expand and contract at about the same ratio so it does not make any difference what particular gas we use. In this case we will consider common air. If a certain amount of heat is applied it rises to a temperature of the air at that pressure from 32 to 212 degrees, or from the freezing to the boiling point, while you expand the air a given amount. If we make accurate measurements we will find the piston has raised in the cylinder a trifle over one-third of a foot, the exact figures being .367 of a foot. If we allow that to go back to 32 the piston is where it set at first. If we abstract heat the same rule holds good and the piston, instead of expanding, contracts, so if we take away 180 degrees of heat out of this air, the piston would come down the same distance and we would have the air contracted 0.367 of a foot. If we allow it one step farther and abstract 180 degrees and then go on and abstract another 180 degrees of heat, we contract the air, theoretically speaking, to nothing, in other words we bring it down to where it is liquid. That point would be 490 degrees below our present point of freezing, or in other words 458.46 degrees below zero in the Fahrenheit scale. That is what is known as absolute temperature. In mechanical refrigeration problems, where they figure absolute temperatures, the formula of 460 is used; so if you pick up a book of engineering and see absolute temperature at 460 you know it is consider-

ably below what we know as zero today. Of course that is theoretical speculation; they have never been able to absolutely come to that because when you get to that you are getting to a point where it almost freezes a man to look at it, not alone to handle it.

The theory of refrigeration, as above exemplified in an imperfect way and by the brief explanation up to this time, will give us something to think of. First, that expanding a gas will absorb heat and compressing a gas will generate heat. There are three ways to produce refrigeration. The first way would be by solution, second by evaporation, and the third way by expansion. Were we to take two parts of ammonium nitrate, one part of ammonium chloride, three parts of water and mix them in a vessel, put a little water in a test tube and stir with that test tube, it would not be many moments before the water in the test tube would be turned to ice. That is one of the examples of refrigeration by solution. Another principle which comes into use a great deal is that of mixing ice and salt together. If we take three parts finely crushed ice and one part salt, we will have a solution that will give us intense cold. This is a method that is used a great many times when ice cream is manufactured on a small scale, for the greatest cold is obtained by intense action in dissolving of the ice by the salt. The only benfit of the salt is that it dissolves the ice rapidly. No more energy is obtained by dissolving a pound of ice in one minute than though you took one hour to do it, but if you took an hour to dissolve a pound of ice what temperature you obtained would be spread over a larger area of time. If you dissolve it in a short time the latent energy tied up comes out in a short period of time. In other words, it is concentrated and thus we produce refrigeration, and that is what enables the operator to freeze ice cream and produce cold quickly.

Now I have two ordinary mercury thermometers here. This thermometer stands at 52, which seems to be the temperature of the room at this time. Mr. Voigt, let me put a little of this on your hand and tell me whether it is warm or

cold. ("Cold.") The gentleman says it is cold. In other words, we are producing cold here by evaporation. That liquid is a little common ether. Now we take and wrap the bulb of this thermometer with a little common cheese cloth, saturate that cloth with ether, and the action of forcing air on here is to hasten the evaporation. The more rapid the evaporation is, the lower the temperature will show. Now, Mr. Voigt, what is the temperature you see? It is down to 16 now 16 is sixteen degrees below freezing, just by rapid evaporation forcing a current of air against the ether. That shows us one of the principles of producing cold is by evaporation.

The third method, the one idea in refrigeration, that of producing cold by expansion. In these refrigeration systems they have used a various number of subjects in the past, principal among which are compressed air, ether or vacuum system, and anhydrous ammonia. The latter is the system to which we shall devote a few minutes time. Anhydrous ammonia means that the ammonia must be absolutely pure, free from moisture and other impurities. The ammonia used is principally obtained from the gas works; as the coal is made into coke, then the gas of this is a direct product, coke is a by-product. You get two-thirds as much heating from the by-product as from coal. The gas is forced through a stream of water, the water flows to the bottom of the scrubber and is shipped away in large tanks as ammonia liquor, and comes to ammonia distilling plants. It depends on how large percentage of ammonia is in the liquid as to how many times it is distilled, anywhere from eighteen to forty times. It is re-distilled to a point where pure ammonia is obtained, and that is known as anhydrous ammonia.

If we were to give a homely expression of what a refrigeration system is, we would place on this side of the wall a clothes wringer and a clothes line on the other side, with a series of sponges hanging from the middle; in the center here is a tub of water. As we turn the crank, the clothesline would be in motion and as we drag through the trough of water, the sponges would absorb moisture and bring it over here to the

wringer, the wringer would squeeze the sponges as they passed through and, of course, squeeze the moisture out. This is the principle of the system to get heat from where you do not want it and take it by some correspondingly easy method somewhere else where it is economically disposed of.

I have had different buttermakers come into a plant in which I have been working and say they do not understand how cold can be produced by expansion. We will suppose we have a cubic inch of ammonia gas that is at a temperature of 80 degrees. There is a certain amount of heat there. Suppose we expand that cubic inch of gas at a temperature of 80 into two cubic inches. You simply draw down air and, instead of having a temperature of 80 degrees in one cubic inch you have only 40 degrees in two cubic inches. If you expand that farther and keep thinning and thinning it down, you will get to a point where you will produce frost on your coils, and when your gas is compressed, if nothing happens to it, it will expand again if allowed to do so. If you generate a certain amount of heat in compressing it will absorb the same amount of heat when allowed to expand, and if you take and cool that gas when it is compressed (and by compressing the gas you will have a temperature that runs up to 400 degrees) and run a lot of cold water over it and take the heat out of it, when you put that gas back where it will expand you will have it at a point where it will have to absorb heat in order to get to its normal state. If you have one pound of air at a pressure of 14.7 pounds and 60 degrees temperature, and compress it to 110 pounds absolute pressure, the temperature would be 475 degrees. If you cool that down to 65 you take 410 degrees out of the gas. The specific heat of the air being 23-100 gives you value of 97.58 British thermal units. If you extract 107 British thermal units from a pound of water at 60 degrees Fahrenheit you convert it into ice. One pound of air at 60 is compressed to 110 absolute pressure and cooled to 65 and if surrounded by .57 pounds of water you can convert that water into .57 pounds of ice when the gas is allowed to expand.

I think, perhaps, we had not better discuss this subject

further. I see a great many have to take a train shortly and we have gone over the time which your secretary has allowed me. I thank you.

The Chairman: The next on the program is Dairy School Pointers by Mr. L. W. Winter, of Chippewa Falls.

L. W. WINTER
CHIPPEWA FALLS

Dairy School Pointers.

Mr. L. W. Winter, Chippewa Falls, Wis.

Mr. President, Gentlemen:

I think perhaps there are older men here who could handle this subject to better advantage than myself, but will try and give you my views as best I can.

I might say as a starting pointer, that had it not been for the training that I received at a dairy school, I would not have been able to have given you a talk.

The few weeks and months that I spent at different dairy schools were weeks of pleasure as well as busy ones to me.

While there I met with men, who were skilled in their own individual work, men who have worked themselves up from the very bottom of the profession until they stand as ideals for us to go by, and I feel that I received instructions while attending these schools that are scarcely ever met with outside of college walls.

Although we may be just as good creamery workmen, without the dairy school training, we do not realize that higher responsibilities rest upon us and inspire us to give the best there is in us, to the cause we represent and which will sooner or later by grasping every opportunity offered us, reap us a reward.

To the young man who has made up his mind to be a buttermaker, and has had no experience along that line, I would not advise him to go at once to a dairy school, for I think a man should work in a creamery at least six or eight months as helper before attending dairy school, it will give him a chance to get an insight into the work and see whether he really cares for that kind of work or not and he can then better understand the terms and methods used at school.

And after spending a few months in a dairy school he should not go out to work thinking that he is a full fledged buttermaker, for it takes years of practical work in a creamery for a man to develop himself into the kind of buttermaker that is wanted, yes and needed to fill these first class positions, and I think a man should take up the work with a full determination to be one of the best.

The old saying of Better to know too little then to know too much, does not I think hold good in the dairy industry, for there are very few of us who will ever know too much about the business, and the more we can reach out and grasp new and beneficial ideas the better will we succeed with what we are trying to accomplish.

It was a very surprising fact to me, while attending different dairy schools to see how many of the older buttermakers there were who fell down on the simple problems that were given us, such as figuring overrun and so forth, they under-

stood what the overrun was but they could not figure it out, and some of these men had been in the business as much as ten years. You may think I am putting it rather strong, but at the same time, it is an absolute fact and I think the dairy school instructors here will bear me out on that point.

At the same time I was pleased to see some of the older men there, for it showed that they were interested and knew that it was to their interest to attend these courses in order to meet the new conditions of affairs as they exist today and to make a success of them.

I have talked with a few buttermakers and there are a lot of others of the same mind whom I have been unable to talk with, who think that a dairy school is all humbug, men who think that all there is to buttermaking is to sour the cream and churn it, turn the butter over to the manager to dispose of and there let it drop, knowing not whether they had an overrun or an underrun, whether their butter scored an extra or a second, more apt to be the latter.

These kind of buttermakers are a disgrace to the creamery business and some day they will find out as the farmer said of his calf which had gotten through the fence among a lot of steers and after working and sweating for about an hour to get the calf back without results he said, darn you go it, you'll find out the difference when supper time comes, so it is with this class of buttermakers, they will find out the difference when it comes to the shake down and they find that they are left behind.

In taking part and listening to debates, I have always noticed (when no partiality was shown) that the judges always decided in favor of the debater who had some authority backing him up in the points he brought out.

So it is with us when taking part in creamery discussions or settling disputes at our own creameries, we must have some authority on which to fall back upon and we most naturally turn to the dairy school for we know that these schools are represented as a general rule by the best men of the country and so stand as high authority.

The most important advantages gained by attending a dairy school are the chances of experimenting and trying out the different methods used and in case of failure to bring about the desired results the loss does not fall upon any individual creamery and one cannot meet with the other fellow without learning something.

I found this exceptionally true while attending the course at Ames, Iowa, this winter, as nearly every state west of the Mississippi river was represented there by one or more buttermakers and by associating together and telling one another of our experiences we found it very interesting and instructive indeed.

There is one thing I have noticed that the buttermakers do not take enough interest in and that is the bettering of conditions on the farm, they are not interested in farm life and do not care to learn anything about the feeding and care of cows and so forth.

Now this is a great mistake, a buttermaker ought to know these things so he can help the farmers to solve the difficulties that confront them, while doing this he is gaining their friendship, getting them interested, so as they will feed and care for their cows better, produce a better quality of milk and cream and will eventually bring about more desirable results.

Now the dairy schools offer a little training along this line but they do not offer enough (except in the long course) and the average buttermaker does not even take advantage of the little they do offer.

I spent the better part of two years at an agriculture school which covered pretty well the subjects of better breeding, better feeding, and better care of stock in general, before I took up the creamery work and gentlemen I can assure you it was time well spent, for we have got to come down to this fact, that the creamery and the farm must work hand in hand if we are going to better the conditions and raise the quality of our butter.

The legislature may pass all the laws they wish to, send out as many inspectors as they care to but as long as this re-

mains a fact that the creameryman and the farmers are pulling in opposite directions and are not working in harmony, we will never better the quality of our butter and the Oleo people will eventually win out.

I have often heard this assertion made, what's the use of going to a dairy school, they don't tell you how to make good butter out of poor cream, now it appears to me this is a very foolish idea. Do we want to make butter out of poor cream, do we want to encourage the production of poor cream, I say no, there is too much time and money spent now in trying to manufacture a machine that will make good butter out of poor cream, why not make a machine or a good cream vat that will sell at a nominal cost, one that will be in reach of every farmer so that he can keep his cream good and save the expense of all the machinery it takes, to take care of it after it is partly spoiled, pasteurization may help, but it is not a cure all by any means.

Well I think I have about covered this subject but in closing I wish to say to those buttermakers who are stay-to-homers and are continually kicking about their lot, to leave the monotony of the creamery for a while and take a course in a dairy school, for if you don't I am afraid you will be like the fellow who died and went to heaven, but when he got there he did not find things as lovely as he thought he would, the streets were muddy, the houses were poor mean little affairs and he had to work just as hard as he did down below, so he thought he would go to St. Peter and ask him why it was, so he goes and says St. Peter you don't do as you advertise, in your good book you tell us of the beautiful walls of Jasper, the streets of gold, the singing birds, the laughing rills and beautiful flowers, now you haven't any of that here.

St. Peter says to him, "Young man, you are in the wrong place, you ought to be in hell, they can afford all those things down there, they are doing a bigger business."

The Secretary: It is understood that the silver cup will go to the association having ten entries. The association having the largest score has only nine entries.

LIST OF OFFICIAL ENTRIES

Eighth Annual Convention, Wisconsin Buttermakers' Association.

NAME	ADDRESS	Score.	Prem. Fund	Sep. Used.	Starter Used.	Vat Used.	Churn Used.	Color Used.	Salt Used.	Wash Powder.
L. Aderensen.....	Ashland	92.50	10.50							
G. W. Allen.....	Stevens Point..	90.83	5.49							Wyandott
T. J. Berge.....	Northfield	90.16	3.48			Twin	Vic.	W. R.	D. C.	Fairchild
W. C. Boldt.....	Waterford	88.66		De L.	Han.	Open	Vic.	W. R.	Wyn.	Wyandott
G. E. Borchert....	Forks	93.16	12.48	De L.	Com.	Twin	Vic.	Han.	Wyn.	Fairchild
H. Borschinger....	W. Depere.....	91.16	6.48	Alpha	Han.	Wiz.	Vic.	Han.	Wyn.	Fairchild
Fr. Blumenstein...	Berlin	91.33	6.99	De L.	Eric.	Open	Vic.	Han.	D. C.	Wyandott
C. Bragg.....	Poynette	90.16	3.48							
C. Bowar.....	Cazenovia	93.00	12.00							
M. R. Cross.....	Mauston	90.85	5.55		Skm.	Mc A.	Vic.	W. R.	Wor.	Wyandott
S. B. Cooksley.....	St. Joe, Mo.....	91.66	4.98		Han.	Wiz.	Vic.	Han.	Wor.	Wyandott
J. F. Chapman.....	Whitewater ...	93.16	12.48	De L.	Eric.	Open	Vic.	W. R.	D. C.	Wyandott
R. P. Colwell.....	River Falls.....	92.83	11.49		Eric.	Wiz.	Vic.	W. R.	Col.	Wyandott
B. J. Chapin.....	Cushing	92.00	9.00	De L.	Eric.	Open	Dis.	Han.	D. C.	Fairchild
E. A. Cobb.....	Sun Prairie	88.83			Eric.	Wiz.	Dis.	Han.	D. C.	Wyandott
Christensen	Tomah	89.00			Han.	Simp.	Simp.	Han.	Wor.	Wyandott
A. O .Christians...	Jefferson	91.50	7.50	De L.	Com.	Twin	Simp.	Han.	Col.	Wyandott
L. E. Chaflin.....	La Valle.....	91.16	7.98	De L.		Open	Simp.	W. R.	D. C.	Wyandott
Walter Christensen	Darien	92.50	10.50	De L.	Eric.	Wiz.	Simp.	Han.	Wyn.	Wyandott
W. J. Clark.....	Lake Beulah...	92.66	10.98	De L.	Eric.	Com.	Perf.	W. R.	Wyn.	Wyandott
S. B. Cook.....	Bloomer	95.00	18.00	Alpha	Eric.	Twin	Dis.	Han.	D. C.	Fairchild
A. Carswell.....	Clear Lake.....	93.16	12.48							Wyandott
Jay Dudley.....	Bancroft	90.50	4.50	De L.	Cult.	Twin	Vic.	W. R.	D. C.	Wyandott
C. A. Dibble.....	Ft. Atkinson...	90.66	4.98	De L.	Doug.	Wiz.	Vic.	W. R.	Col.	Wyandott
J. F. Dabereiner...	Jefferson	91.16	6.48	De L.			Vic.	W. R.	Col.	Wyandott
L. Baberareiner....	Hortonville	93.16	12.48	Alpha	Eric.	Can.	Vic.	W. R.	D. C.	Fairchild
J. F. Dahl.....	Princeton	93.16	12.48	Simp.	Han.		Dis.	W. R.	Col.	Fairchild
R. J. Else.....	Johnson Creek.	93.16	13.50	Alpha	P. D.	Wiz.	Vic.	Han.	Col.	Wyandott
M. Engbretson.....	Scandanavia ...	87.33		C.	Com.	Open	Vic.	Han.	D. C.	Swift
J. E. Enright.....	Eagle	91.16	6.48	De L.	Eric.	Open	Vic.	Han.	Wyn.	Soap Pdr.
Al. Erickson.....	Milltown	93.16	12.48	De L.	Eric.	Jen	Simp.	Han.	Wor.	Wyandotte
W. J. Fein.....	Jefferson	92.83	11.49	De L.	Flav.	Open	Vic.	Han.	Col.	Wyandotte
F. A. Flynn.....	W. DePere	91.66	7.98	De L.	Han.	Barb.	Simp.	W. R.	Col.	Wyandotte
R. Gregory.....	New Franken ..	91.16	6.48	De L.	Eric.	Simp.	Vic.	Han.	Col.	Wyandotte
F. J. Gehrke, Jr..	Manawa	91.00	6.00	De L.	Han.	Wiz.	Vic.	Han.	D. C.	Wyandotte
P. A. Garlick.....	Coloma	91.66	7.98	De L.	Eric.	Twin	Vic.	Han.	Wor.	Badger
J. S .Goodrich....	Augusta	92.66	10.98	De L.	Milk		Vic.	W. R.	Col.	Fair
P. W. Guse.....	Neillsville	90.50	4.50	De L.	Han.	Simp.	Simp.	Han.	Wor.	Wyandott
A. V. Grow.....	Ft. Atkinson ..	90.66	4.98	De L.	Han.	Open	Vic.	W. R.	Col.	Fair

LIST OF OFFICIAL ENTRIES.—Continued.

NAME	ADDRESS	Score.	Prem. Fund	Sep. Used.	Starter Used.	Vat Used.	Churn Used.	Color Used.	Salt Used.	Wash Powder
Otto Gierach.....	Cedarburg	92.83	11.49	Simp.	Eric.	Open	Simp.	W. R.	D. C.	Wyandott
A. F. Guelzow.....	Sherry	92.00	9.00	Alpha	Mar.	Open	Vic.	W. R.	Wyn.	Wyandott
C. R. Gower.....	Rusk	89.83		Eric.	Eric.	Simp.	Simp.	W. R.	Wor.	Golden Rod
O. J. Groth.....	Cedarburg	95.66	19.98	De L.	Han.	Twin	Perf.	Han.	D. C.	Wyandott
N. P. Hansen.....	Almond	92.16	9.48	De L.	Eric.	Vat	Vic.	Han.	Wor.	Wyandott
Wm .Hackbarth...	Ft. Atkinson ...	89.66		De L.	Flav.	Open	Vic.	Han.	Col.	Wyandott
Bert. Horr.....	Leesburg, O	90.00	3.00	De L.	Han.	Vat	Dis.	W. R.	Col.	Wyandott
Wm. Haag.....	Malone	92.83	11.49	De L.	Eric.	Mc A	Dis.	Han.	D. C.	Fairchild
H. K. Hanson.....	Mondovi	92.83	11.49	De L.		Vat	Dis.	W. R.	Col.	Wyandott
H. J. Halverson....	Eleva	92.00	9.00			Wiz.	Vic.	W. R.	D. C.	Fairchild
W .E .Hathaway.	Jefferson	92.50	10.50	De L.	Flav.	Twin	Vic.	Han.	Col.	Wyandott
O. H. Hanson.....	Chaseburg	91.33	6.99	De L.		Mc A	Dis.	W. R.	Wyn.	Fair
Edw. Helmke.....	Merrill	93.33	12.99	De L.	Han.	Twin	Dis.	Han.	D. C.	Wyandott
C. C. Holm.....	Nashotah	92.33	9.99	Alpha	Eric.	Vat	Vic.		D. C.	Wyandott
L. P. Holgerson....	Troy Center ...	95.00	18.00	Alpha	Eric.	Com.	Dis.	Han.	Wyn.	Fairchild
A. M. Hein.....	Waukesha	90.33	3.99	De L.	Eric.	Far.	Vic.	Han.	Wor.	Wyandott
A. C .Haberstich..	Medford	90.50	4.50							
O. C. Jacobson....	Wilson	94.00	15.00	De L.	Eric.	Boyd	Vic.	W. R.	D. C.	Wyandott
J. J. Jackson.....	Union Grove ...	93.00	12.00	Alpha	Eric.	Vat	Vic.	Doug.	Wyn.	Wyandott
Thos. Jacobson....	Cadott	89.33				Wiz.	Vic.	W. R.	Cad.	Wyandott
Ed. Johnson.....	Sirum	89.00				Open	Vic.	Han.	D. C.	Fairchild
Marine Johnson....	Cedarburg	94.00	15.00	Alpha	Han.	Open	Perf.	Han.	D. C.	Wyandott
G. E. Jorran.....	Amherst	89.50		Alpha	Milk	Vat	Vic.	W. R.	D. C.	Wyandott
O. A. Kielsmeir....	Manitowoc	91.33	6.99							
G. F. Kostner.....	Arcadia	89.33								
R. S. Kaunzuer...	Boyceville	86.00			Han.	Open	Vic.	W. R.	D. C.	Wyandott
O. D. Kelly.....	Lake Beulah ..	88.66		De L.	Eric.	Open	Dis.	Han.	Wyn.	Wyandott
Max O. Koenig...	Wausau	92.66	10.98	De L.	Han.	Curtis	vic.	W. R.	Wyn.	Wyandott
H. T. Kipp.....	Albion	91.16	6.48	De L.	Han.	Farr.	Dis.	W. R.	D. C.	Wyandott
L. M. Kohel.....	Augusta	88.33		Alpha		Open	Pedf.	Ald.	Wor.	Wyandott
A. F. Kreuger....	Clinton Jct.	92.33	9.99	De L.	Han.	Vat.	Vic.	W. R.	Col.	Fairchild
Axel Kristensen...	Luck	92.50	10.50		Eric.	Wiz.	Dis.	W. R.	Wor.	Wyandott
O. J. Krogstad....	Chippewa Falls	91.83	8.49		Eric.	Wiz.	Vic.	Han.	Cad.	Wyandott
Walter Limp.....	Loyal	90.50	4.50	De L.	Han.	Twin	Vic.	Han.	Wyn.	Wyandott
A. Larsen.....	Edgerton	92.66	10.98	De L.	Han.	Curtis	Vic.	W. R.	D. C.	Wyandott
V. D. Lee.....	Neillsville	90.83	5.49			Open	Vic.	Han.	Wor.	Fairchild
Sever Lee.....	Modina	91.50	7.50	De L.	Eric.	Wiz.	Simp.	W. R.	Wor.	Fair. & Wyi
Victor Laurent....	Green Bay	90.66	4.98	De L.	Eric.	Vat.	Vic.	Doug.	D. C.	Wyandott
A. D. McCready....	Argyle, Ill.	92.00	9.00	De L.	Han.	Open	Dis.	W. R.	D. C.	Wyandott
C. McCombs.....	Eau Claire	90.66	4.98		Milk	Open	Vic.	W. R.	D. C.	Wyandott
J. C. Mason.....	Montfort	91.33	6.99	Alpha	Flav.	Open	Vic.	W. R.	Wyn.	Wyandott
J. F. McGill.....	Little Suamico	93.33	12.99		Eric.	Open	Vic.	W. R.	Col.	Wyandott

LIST OF OFFICIAL ENTRIES.—Continued.

NAME	ADDRESS	Score.	Prem. Fund	Sep. Used.	Starter Used.	Vat Used.	Churn Used.	Color Used.	Salt Used.	Wash Powder
E. C. McCormick	Plover	90.83	5.49	De L.	Eric.	Open	Vic.	Doug.	D. C.	Wyandott
A. A. Mueller	Hornia	89.16		De L.	P. D.	Boyd	Vic.	Han.	Wyn.	Wyandott
O. R. McCormick	Bancroft	92.33	9.99	De L.	Eric.	Open	Vic.	Han.	D. C.	Wyandott
J. J. McClelland	Edgerton	91.50	7.50	De L.		Open	Vic.	W. R.	Wyn.	Wyandott
Q. Moersch	Peebles	93.16	12.48	Alpha	Eric.	Wiz.	Vic.	W. R.	D. C.	Fairchild
A. McLane	Whitewater	92.66	10.98	De L.	Eric.	Boyd	Vic.	Han.	D. C.	Wyandott
G. E. Melendy	Sheb. Falls	91.16	6.48	De L.	Han.	Vat.	Vic.	W. R.	Wyn.	Wyandott
Ed. Mericle	Eagle	90.66	4.98	De L.	Eric.	Wiz.	Vic.	Han.	Wyn.	Wyandott
Math. Meyer	New Holstein	93.16	12.48	De L.	Han.	Vat.	Vic.	Han.	Wyn.	Wyandott
R. P. Miller	Chippewa Falls	93.50	13.50	De L.	Eric.	Open	Pedf.	Han.	D. C.	Wyandott
Wm. Mayer	Green Bay	89.00				D. H.	Vic.	Han.	Col.	Wyandott
J. C. Miller	Augusta	95.50	19.50	De L.	Eric.	Wiz.	Vic.	Han.	D. C.	Wyandott
F. Nedvideck	Ridgeland	93.50	13.50		Eric.	Jen.	Sim.	W. R.	D. C.	Wyandott
M. J. Olson	Withee	88.66								
Lauritz Olsen	W. De Pere	93.66	13.98	De L.	Eric.	Sim.	Dis.	Han.	Col.	Wyandott
Otto Olson	Mt. Horeb	90.83	5.49	De L.	Eric.	Open	Vic.	Han.		Fairchild
Forest Pierce	Eau Claire	92.33	9.99		Han.	Wiz.	Vic.	W. R.	Cad.	Wyandott
G. E. Peterson	Withee	90.16	3.48	De L.			Vic.	W. R.	Wor.	Wyandott
W. G. Paulson	Richardson	91.50	7.50	De L.	Han.	Twin	Dis.	W. R.	Wor.	Wyandott
E. J. Pischke	New Auburn	95.00	18.00		Eric.	Vat	Vic.	W. R.	D. C.	Wyandott
C. W. Pelton	Caryville	88.50			Eric.	Wiz.	Dis.	W. R.	D. C.	Fairchild
E. N. Paul	Greenwood	92.16	9.48		Eric.	Wiz.	Vic.	W. R.	D. C.	Wyandott
E. G. Rasmussen	Fall Creek	89.16		De L.	Eric.	Open	Dis.	Han.	D. C.	Wyandott
H. A. Radke	Houlton	93.50	13.50	De L.	Eric.	Boyd	Wiz.	W. R.	Wor.	Wyandott
Martin Roethle	Sherry	92.33	9.99	De L.	P. D.	Open	Vic.	W. R.	Wyn.	Wyandott
F. J. Roch	Eau Claire	92.00	9.00							
H. Raven	Bloomer	94.16	15.48							
B. Roon	Sparta	90.16	3.48							
Carl Sorenson	Fond du Lac.	90.00	3.00	De L.	Eric.	Wiz.	Vic.	Han.	D. C.	Wyandott
E. G .Soltwedel	Lime Ridge	92.33	9.99	De L.	Eric.	Far.	Vic.	Han.	Wor.	Wyandott
F. E. Snyder	Whitewater	91.83	8.49	De L.	Milk	Far.	Wiz.	W. R.	D. C.	Wyandott
H. C. Schulte	St. Croix	93.50	13.50	De L.	Eric.	Open	Dis.	Ald.	Wor.	Wyandott
I. W. Stryker	Sharon	91.83	8.49	De L.	Eric.	Open	Vic.	Han.	Wor.	Wyandott
John Schield	Fall Creek	93.00	12.00	De L.	Eric.	Wiz.	Vic.	W. R.	Wyn.	Wyandott
W. A. Stewart	Eagle	92.66	10.98	De L.	Eric.	Vat	Vic.	Han.	D. C.	Wyandott
E. Schafer	New Holstein	90.33	3.99				Vic.	Han.	D. C.	Wyandott
G. P .Sauer	East Troy	96.66	22.98	De L.	Eric.	Simp.	Simp.	Han.	Wyn.	Wyandott
Clay Tyler	W. De Pere	93.00	12.00	De L.	Col.	Boyd	Vic.	Doug.	Col.	Wyandott
R. E. Tamlingson	Cambride	93.50	13.50	De L.	Eric.	Vat	Vic.	W. R.	Col.	Wyandott
E. H. Tucker	Marshfield	90.33	3.99	De L.		Twin	Vic.	Han.	Wyn.	Wyandott
Frank Thompson	Oregon	93.50	13.50	De L.		Wiz.	Vic.	W. R.	Wyn.	J. B. Ford
C. P. Tingleff	So. Wayne	92.33	9.99							

LIST OF OFFICIAL ENTRIES.--Continued.

NAME	ADDRESS	Score.	Prem. Fund	Sep. Used.	Starter Used.	Vat Used.	Churn Used.	Color Used.	Salt Used.	Wash Powder
Ed. Torepy.....	Waterloo	92.00	10.50							
Wm. R. Warnke...	Kingston	92.00	9.00		P. D.	Open	Vic.	W. R.	D. C.	Fairchild
J. F. Weber.....	Hartford	92.00	9.00	De L.	Han.	Open	Vic.	W. R.	D. C.	Wyandott
W. W. Wigginton..	Viroqua	90.83	5.49			Mc A.	Vic.	W. R.	Wyn.	Wyandott
T. J. Warner.....	Rosholt	90.33	3.99	De L.		Wiz.	Vic.	W. R.	D. C.	Wyandott
J. T. Willan.....	Rosendale	85.33			Eric.	Mc A.	Vic.	W. R.	Col.	Wyandott
F. M. erner.....	Waterloo	93.16	12.48	De L.	Han.		Vic.	Han.	Wyn.	Wyandott
A. H. Wilcox.....	Bloomer	95.83	20.49	De L.	Eric .	Vat.	Vic.	W. R.	D. C.	Wyandott
L. H. Winter.....	Chippewa Falls.	90.16	3.48		Eric .	Wiz.	Vic.	Han.	Cad.	Wyandott
J. Wuethrich.....	Greenwood	90.66	4.98							
F. W. Zastrow.....	Amherst Jct. ..	91.16	6.48			Boyd	Vic.	W. R.	D. C.	Wyandott
A. W. Zimmermon.	Norwalk	93.66	13.98		Han.	Vat.	Vic.	Han.	Wyn.	Wyandott

L. H. SCHROEDER, CHELSEA
FORMER VICE-PRESIDENT

The silver cup goes to the Southeastern Buttermakers' Association.

Here is a silver cup that goes to the buttermaker scoring highest in the judges' scoring contest, and it goes to Mr. H. C. Raven with a score of 82.7. He is 17.3 points off. I will take the time to read the averages of the first three.

The second and third prizes, silver plated butter triers go to A. H. Wilcox, second, score 80.8 and G. P. Sauer, third, score 75.8. There were eighteen contestants.

Contestants participating in the butter judging contest:

First Prize—Silver Cup, won by H. C. Raven, Bloomer. Score 82.7 per cent.

Second Prize—A. H. Wilcox, Bloomer. Score 80.8 per cent.

Third Prize—G. P. Sauer, East Troy. Score 75.8 per cent.

Second and Third Prizes being silver plated butter triers.

NO. ENTRIES.		SCORE.
10	South Eastern Association	92.30
15	North Western Association	92.00
9	Brown County Association	92.33
4	Dane County Association	91.41
9	Jefferson County Association	91.40
4	Polk County Association	91.91
1	Fond du Lac County Association	90.00

The Silver Cup was won by the South Eastern Butter Makers' Association. G. P. Sauer, President, East Troy, Wis.; J. E. Enright, Secertary, Eagle, Wis.

Members of County Butter Makers' Association, competing for the Silver Cup, donated to the County Association having the highest average score on ten entries.

NAME.		Jef.	Dane	Brown	N. W.	S. E.	Polg
R. J. Else	Jef	93.5	.....	.....	.....	.....	.....
F. Thomson	Dane	.....	93.5	.....	.....	.....	.....
O. Oleson	Dane	.....	90.83	.....	.....	.....	.....
W. J. Fiend	Jef.	92.83	.....	.....	.....	.....	.....
W. A. Stewart	S. E.	.....	.....	.....	.....	92.66	.....
J. W. Goodrich	N. W.	.....	.....	.....	92.66	.....	.....
Cnas. Kelly	S. E.	.....	.....	.....	.....	88.66	.....
T. Oleson	Brown	.....	.....	93.66	.....	.....	.....
Victor J. Laurent	Brown	.....	.....	90.66	.....	.....	.....
O. C. Jacobson	N. W.	.....	.....	.....	94.00	.....	.....
W. Mayer	Brown	.....	.....	93.16	.....	.....	.....
F. Pierce	N. W.	.....	.....	.....	92.33	.....	.....
Vinton Lee	N. W.	.....	.....	.....	90.83	.....	.....
John Schields	N .W.	.....	.....	.....	93.00	.....	.....
J. C. Miller	N. W.	.....	.....	.....	95.5	.....	.....
G. E. Peterson	Dane	.....	90.16	.....	.....	.....	.....
H. Borrschimer	Brown	.....	.....	91.16	.....	.....	.....
L. B. Kazner	N. W.	.....	.....	.....	86.00	.....	.....
A. McLane	S. E.	.....	.....	.....	.....	92.66	.....
L. P. Holgerson	S. E.	.....	.....	.....	.....	95.00	.....
J. Enright	S. E.	.....	.....	.....	.....	91.16	.....
H. H. Kipp	Dane	.....	91.16	.....	.....	.....	.....
A. A. Christiansen	Jef.	91.5	.....	.....	.....	.....	.....
Ed. Meracle	S. E.	.....	.....	.....	.....	90.66	.....
John Dobarinn	Jef.	91.16	.....	.....	.....	.....	.....
Walt. Christiansen	S. E.	.....	.....	.....	.....	92.5	.....
H. Christiansen	Polk	.....	.....	.....	.....	.....	89.00
Albert Erickson	Polk	.....	.....	.....	.....	.....	93.16
W. J. Clark	S. E.	.....	.....	.....	.....	92.66	.....
G. P. Sauer	S. E.	.....	.....	.....	.....	96.66	.....
C. R. Gower	N. W.	.....	.....	.....	89.83	.....	.....
M. G. Paulsen	Polk	.....	.....	.....	.....	.....	91.5
L. P. Cook	N. W.	.....	.....	.....	95.00	.....	.....
A. H. Wilcox	N. W.	.....	.....	.....	95.83	.....	.....
Aug. Heine	S. E.	.....	.....	.....	.....	90.33	.....
A. J. Pischke	N. W.	.....	.....	.....	95.00	.....	.....
L. H. Winter	N. W.	.....	.....	.....	90.16	.....	.....
H. K. Hanson	N. W.	.....	.....	.....	92.83	.....	.....
R. Gregory	Brown	.....	.....	91.16	.....	.....	.....
F. A. Flynn	Brown	.....	.....	91.66	.....	.....	.....
E. G. Rasmussen	N. W.	.....	.....	.....	89.16	.....	.....
T. M. Kohel	N. W.	.....	.....	.....	88.33	.....	.....
Clay Tyler	Brown	.....	.....	93.00	.....	.....	.....
Carl Sorensen	Fond du Lac	.....	.....	.....	.....	.....	90.00
C. A. Dibble	Jef.	90.66	.....	.....	.....	.....	.....
J. F. McGill	Brown	.....	.....	93.33	.....	.....	.....
Geo. Borchert	Brown	.....	.....	93.16	.....	.....	.....
R. E. Tamblingson	Jef.	93.50	.....	.....	.....	.....	.....
Wm. Hackbarth	Jef.	89.66	.....	.....	.....	.....	.....
H. C. Schultz	Polk	.....	.....	.....	.....	.....	93.5
B. C. Chapin	Polk	.....	.....	.....	.....	.....	92.0
A. A. Miller	Jef.	89.16	.....	.....	.....	.....	.....
C. V. Grove	Jef.	90.66	.....	.....	.....	.....	.....

H. C. RAVEN--82.7--First

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	96.0	.2	96.0	0.0
2	90.5	92.5	2.0	92.5	0.0
3	92.0	94.5	2.5	94.0	.5
4	87.3	90.0	2.7	93.0	3.0
5	88.3	88.0	.3	88.0	0.0
6	92.2	92.5	.3	90.5	2.0
7	90.2	91.0	.8	90.0	1.
8	94.0	93.5	.5	93.5	....
9	92.2	93.0	.8	92.5	.5
10	92.8	93.0	.2	93.0	0.0
			10.3		7.0

P. W. GUSE--75.3--Fourth

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	94.0	1.8	95.0	1.0
2	90.5	91.0	.5	89.0	2.0
3	92.0	94.0	2.0	94.5	.5
4	87.3	89.0	1.7	91.5	2.5
5	88.3	89.5	1.2	91.0	1.5
6	92.2	89.0	2.8	90.0	1.0
7	90.2	90.0	.2	89.5	.5
8	94.0	92.0	2.0	93.0	1.0
9	91.2	93.5	2.3	93.5	0.0
10	92.8	93.0	.2	93.0	0.0
			14.7		10.0

WILCOX--80.8--Second

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	96.	0.2	96.	....
2	90.5	92.	1.5	92.	....
3	92.	94.5	2.5	94.5	....
4	87.3	90.5	3.2	93.	2.5
5	88.3	87.5	.8	88.	.5
6	92.2	92.	.2	90.	2.0
7	90.2	91.5	1.3	90.	1.5
8	94.	93.	1.	93.	....
9	91.2	92.5	1.3	92.5	....
10	92.8	93.	.2	92.5	.5
			12.2		7.0

F. M. WERNER--74.9--Fifth

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	96.	.2	95.5	.5
2	90.5	91.	.5	89.5	1.5
3	92.	93.	1.0	95.	2.
4	87.3	90.	2.7	92.	2.
5	88.3	90.	1.7	91.5	1.5
6	92.2	91.5	.7	90.5	1.
7	90.2	90.5	.3	91.5	1.
8	94.	92.	2.0	94.	2.
9	91.2	94.	2.8	93.5	.5
10	92.8	93.5	.7	93.	.5
			12.6		12.5

G. P: SAUER--75.8--Third

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	95.0	.8	93.5	1.5
2	90.5	88.5	2.0	89.	.5
3	92.0	92.0	0.0	93.5	.5
4	87.3	89.0	1.7	89.5	.5
5	88.3	89.0	.7	89.0	0.0
6	92.2	89.0	3.2	87.5	1.5
7	90.2	91.5	1.3	88.0	3.5
8	94.	92.5	1.5	94.	1.5
9	91.2	92.5	1.3	91.5	1.0
10	92.8	93.	.2	92.	1.0
			12.7		11.5

HOLGERSON--71

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	94.0	1.8	93.5	.5
2	90.5	85.5	5.0	89.0	3.5
3	92.0	93.0	1.0	94.0	1.0
4	87.3	91.5	4.2	92.0	.5
5	88.3	89.0	.7	90.0	1.0
6	92.2	92.0	.2	90.5	1.5
7	90.2	89.0	1.2	90.0	1.0
8	94.0	94.	0.0	93.5	.5
9	91.2	93.5	2.3	94.5	1.0
10	92.8	93.5	.7	92.0	1.5
			17.1		11.9

O. A. KIELSMEIER--70.3

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	93.0	2.8	92.5	.5
2	90.5	94.3	3.8	92.0	2.3
3	92.0	93.5	1.5	94.0	.5
4	87.3	90.5	3.2	91.5	.9
5	88.3	90.0	1.7	89.0	1.0
6	92.2	88.0	4.2	88.0	.0
7	90.2	90.0	.2	88.0	2.0
8	94.0	93.0	1.0	94.0	1.0
9	91.2	94.0	2.8	93.5	.5
10	92.8	93.5	.7	93.5	.0
			21.9		7.8

NEDVIDEK--68.7

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	94.0	1.8	93.5	.5
2	90.5	89.0	1.5	90.0	1.0
3	92.0	95.0	3.0	94.5	.5
4	87.3	87.0	.3	89.0	2.0
5	88.3	88.5	.2	93.0	5.5
6	92.2	88.0	4.2	89.0	1.0
7	90.2	89.5	1.7	92.0	2.5
8	94.0	94.0	.0	95.0	1.0
9	91.2	92.0	.8	93.0	1.0
10	92.8	92.0	.8	94.0	2.0
			14.3		17.0

J. C. MILLER--69.8

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	92.5	3.3	92.	.5
2	90.5	93.	2.5	91.	2.
3	92.	93.	1.	94.	1.
4	87.3	91.	4.7	91.	....
5	88.3	89.	.7	89.	....
6	92.2	89.	3.2	89.	....
7	90.2	92.	1.8	93.	1.
8	94.	93.	1.	94.	1.
9	91.2	93.5	2.3	92.5	1.
10	92.8	93.5	.7	91.	2.5
			21.2		9.

J. L. BJERKENG--66.9

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	94.5	1.3	95.5	1.0
2	90.5	92.0	1.5	90.5	1.5
3	92.0	96.	4.0	95.5	.5
4	87.3	91.5	4.2	89.5	2.0
5	88.3	90.5	2.2	89.5	1.0
6	92.2	91.5	.7	91.5	0.0
7	90.2	88.	2.2	91.5	3.5
8	94.0	96.	2.0	93.5	2.5
9	91.2	93.	1.8	93.	0.0
10	92.8	93.5	.7	94.	.5
			20.6		12.5

LORITZ OLSON--69.3

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	93.0	2.8	93.0	0.0
2	90.5	88.0	2.5	89.0	1.0
3	92.0	94.0	2.0	94.0	0.0
4	87.3	88.0	0.7	90.0	2.0
5	88.3	90.0	1.7	88.0	2.0
6	92.2	91.0	1.2	88.0	3.0
7	90.2	91.5	1.3	89.0	2.5
8	94.0	93.0	1.0	94.0	1.0
9	91.2	93.5	2.3	93.0	.5
10	92.8	93.5	1.7	92.5	1.5
			17.2		13.5

ENRIGHT--66:9

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	92.5	3.3	93.	.5
2	90.5	94.0	3.5	93.	1.0
3	92.0	95.0	3.0	94.0	1.0
4	87.3	91.0	3.7	92.	1.0
5	88.3	90.0	1.7	89.0	1.0
6	92.2	89.0	3.2	87.0	2.0
7	90.2	90.0	.2	87.0	3.0
8	94.0	94.0	.0	94.	.0
9	91.2	94.0	2.8	93.0	1.0
10	92.8	93.0	.2	94.0	1.0
			21.6		11.5

O. J. KROGSTAD--66.8

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	93.5	2.3	94.	.5
2	90.5	92.	1.5	91.5	.5
3	92.	93.5	1.5	93.5	0.0
4	87.3	87.	.2	92.5	5.5
5	88.3	88.5	.2	92.5	4.0
6	92.2	87.	5.2	91.	4.0
7	90.2	89.	1.2	91.	2.0
8	94.	93.	1.	94.	1.0
9	91.2	92.5	1.3	93.5	1.0
10	92.8	92.5	.3	92.5	0.0
			14.7		18.5

R. S. KAUNZMER--59.1

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	90.0	5.8	93.5	3.5
2	90.5	95.0	4.5	94.5	.5
3	92.0	94.5	2.5	94.0	.5
4	87.3	87.0	.3	92.0	5.0
5	88.3	91.0	2.7	89.5	1.5
6	92.2	94.0	1.8	90.5	3.5
7	90.2	92.5	2.3	91.5	1.0
8	94.0	94.0	.0	94.5	.5
9	91.2	93.5	2.3	93.0	.5
10	92.8	94.5	1.7	94.0	.5
			23.9		17.0

G. E. MELENDY--62

	Judges Score.	First Score.	Difference from Judges Score.	Second Score.	His own Difference.
1	95.8	92.0	3.2	92.5	.5
2	90.5	91.5	1.0	93.	1.5
3	92.0	92.	0.0	92.	0.0
4	87.3	92.0	4.7	93.5	.5
5	88.3	92.	3.7	92.5	.5
6	92.2	89.5	2.7	93.	.8
7	90.2	92.	1.8	91.5	.5
8	94.0	90.	4.0	91.5	1.5
9	91.2	93.5	2.3	92.5	1.0
10	92.8	92.5	.3	90.	2.5
			28.7		9.3

LOUIS ADRIANSEN--58.6

	Judges Score.	First Score	Difference from Judges Score.	Second Score	His own Difference.
1	95.8	93.	2.8	91.	2.
2	90.5	92.	2.5	94.	2.
3	92.	92.	.0	92.	.5
4	87.3	90.	2.7	93.	3.
5	88.3	88.	.3	92.	4.
6	92.2	93.	.8	88.	5.
7	90.2	93.	2.8	87.	6.
8	94.	93.	1.	92.	1.
9	91.2	92.	.7	90.	2.
10	92.8	92.	.8	94.	2.
			14.4		27.

L. M. KOHEL--61.4

	Judges Score.	First Score.	Difference from Judges Score.	Second Score	His own Difference.
1	95.8	92.5	3.3	92.	.5
2	90.5	93.	2.5	89.	4.
3	92.	92.	0.0	94.	2.
4	87.3	92.	4.7	90.	2.
5	88.3	89.	1.0	91.	2.
6	92.2	88.	4.2	88.	0.0
7	90.2	92.	1.8	93.	1.
8	94.	92.	2.0	94.	2.
9	91.2	95.	3.8	93.	2.
10	92.8	92.	.8	92.	0.0
			23.1		15.5

H. CHRISTIANSEN--47.5

	Judges Score	First Score.	Difference from Judges Score.	Second Score.	His own Difference
1	95.8	90.	5.8	90.	5.5
2	90.5	93.	2.5	90.	3.0
3	92.0	92.	0.0	90.	2.0
4	87.3	91.0	3.7	93.	2.0
5	88.3	91.0	2.7	89.	2.
6	92.2	92.	.2	88.	4.2
7	90.2	89.0	1.2	91.	2.
8	94.	89.	5.0	91.	3.
9	91.2	93.0	1.8	90.	1.8
10	92.8	92.	.8	91.	1.8
			23.78		28.8

The butter scores are as follows:

BUTTER SCORES.

Buttermakers' Convention, Eau Claire, Wis.

No.	Name	Address	Score
116	Aderensen, Louis,	Ashland	92.50
135	Allen, G. W.,	Stevens Point	90.83
12	Berge, Thos. J.,	Northfield	90.16
51	Borchert, G. E.,	Forks	93.16
83	Boldt, Wm. C.,	Waterford	88.66
8	Bragg, Clarence,	Poynette	90.16
121	Blumenstein, F.,	Berlin	91.33
132	Borschinger, Henry,	De Pere	91.16
134	Bower, F.,	Cazenovia	93.00
42	Cooksley, S. B.,	St. Joe, Mo.	91.66
57	Cross, M. R.,	Mauston	90.85
13	Chapman, J. F.,	Whitewater	93.16
109	Chapin, Byron J.,	Cushing	92.00
18	Christensen, Walter,	Darien	92.50
19	Cobb, Ernest A.,	Sun Prairie	88.83
31	Christens, A. A.,	Jefferson	91.50
62	Claflin, L. E.,	La Valle	91.16
63	Colwell, R. P.,	River Falls	92.83
75	Cook, S. B.,	Bloomer	95.00
107	Clark, W. J.,	Lake Beulah	92.66
110	Christensen, H.,	Tomah	89.00
130	Carswell, A.,	Clear Lake	93.16
52	Dudley, J.,	Bancroft	90.50
39	Dahl, J. F.,	Princeton	93.16
40	Dibble, C. J.,	Ft. Atkinson	90.66
101	Dabareiner, F.,	Jefferson	91.16
111	Dabareiner, L.,	Hortonville	93.16
85	Engbretson, Martin,	Scandinavia	87.33
99	Else, R. J.,	Johnson Creek	93.16
122	Erickson, A.,	Milltown	93.16
125	Enright, J. E.,	Eagle	91.16
41	Flynn, F. A.,	W. DePere	91.66
92	Feind, W. J.,	Jefferson	92.83
49	Garlick, P. A.,	Coloma	91.66

14	Gehrke, Fred J., Jr., Manawana	91.00
26	Gregory, Ralph, New Franken	91.16
29	Grow, A. W., Ft. Atkinson	90.66
36	Guse, P. W., Neillsville	90.50
64	Goodrich, J. S., Augusta	92.66
79	Groth, O. J., Cedarburg	95.66
88	Gauer, C. R., Rusk	89.83
104	Guelzow, A. F., Sherry	92.00
128	Gierach, Otto, Cedarburg	92.83
56	Hansen, N. P., Almond	92.16
11	Horr, Bert, Leesburg, Ohio	90.00
32	Hackbarth, Wm., Ft. Atkinson	89.66
2	Hanson, H. K., Mondovi	92.83
20	Helmke, Edw., Merrill	93.33
61	Halverson, H. J., Eleva	92.00
77	Holgersen, L., Troy Center	95.00
84	Hein, Aug. M., Waukesha	90.33
87	Hathaway, W. E., Jefferson	92.50
96	Haag, Wm., Malone	92.83
97	Haberstich, A. C., Medford	90.50
119	Hanson, O. H., Chaseburg	91.33
133	Holm, C. C., Nashotah	92.33
1	Jacobson, Thos., Cadott	89.33
34	Jacobson, O. C., Wilson	94.00
81	Johnson, Marine, Cedarburg	94.00
95	Johnson, Ed., Strumm	89.00
114	Jordan, G. E., Amherst	89.50
124	Jackson, J. J., Union Grove	93.00
7	Kohel, L. M., Augusta	88.33
37	Koenig, Max O., Wausau	92.66
4	Krogstad, O. J., Chippewa Falls	91.83
16	Kelly, Chas. D., Lake Beulah	88.66
28	Kaunzner, R. S., Boyceville	86.00
54	Kielsmeyer, O. A., Manitowoc	91.33
100	Kruger, A. F., Clinton Junction	92.33
118	Kristensen, A., Luck	92.50
123	Kipp, H. T., Albion	91.16
126	Kostner, G. F., Arcadia	89.33
21	Larsen, A., Edgerton	92.66
55	Laurend, Victor J., Green Bay	90.66
66	Lee, Winter D., Neillsville	90.83
69	Lee, Sever, Modina	91.50
98	Limp, Walter, Loyal	90.50
35	McCready, A. D., Argyle, Ill.	92.00

22	Mueller, A. A., Ixonia	89.16
45	McCormick, Otto R., Bancroft	92.33
70	McCormick, E. C., Plover	90.83
30	McGill, Jas. F., Little Suamico	93.33
47	Mayer, William, Green Bay	89.00
25	Meyer, Math., New Holstein	93.16
43	Melendy, Guy E., Sheboygan Falls	91.16
59	Miller, J. C., Augusta	95.50
65	Miller, R. P., Chippewa Falls	93.50
78	McComb, Eau Claire	90.66
80	McLane, A., Whitewater	92.66
91	Mason, J. C., Montford	91.33
112	Moersch, L., Peebles	93.16
120	McClellan, J. J., Edgerton	91.50
127	Mericle, Ed., Eagle	90.66
73	Nedvidek, Fred, Richland	93.50
89	Olson, Otto, Mt. Horeb	90.83
103	Olson, Math. J., Withee	88.66
131	Olson, Lauritz, West De Pere	93.66
33	Paul, E. N., Greenwood	92.16
15	Pierce, Forest, Eau Claire	92.33
17	Pelton, C. W., Carryville	88.50
44	Petersen, Geo. E., Withee	90.16
86	Paulson, W. G., Richardson	91.50
93	Pischke, G. J., New Auburn	95.00
38	Rasmussen, E. G., Fall Creek	89.16
58	Roch, F. J., Eau Claire	92.00
72	Radke, H. A., Houlton	93.50
74	Raven, H., Bloomer	94.16
90	Roethle, Martin, Sherry	92.33
129	Roou, Ben, Sparta	90.16
23	Snyder, F. E., Whitewater	91 83
46	Soltwedel, E. G., Lime Ridge	92 33
115	Stryker, J. W., Sharon	91.83
50	Schulte, H. C., St. Croix Falls	93.50
48	Sorenson, C. H., Fond du Lac	90 00
67	Schield, John, Fall Creek	93.00
82	Schafer, E., New Holstein	90.33
113	Sauer, G. P., East Troy	96.66
117	Stewart, W. A., Eagle	92.66
9	Tyler, Clay, W. De Pere	93.00
102	Tamblingson, R. E., Cambridge	93.50
24	Torpey, Ed., Waterloo	92.50
94	Thompson, F. C., Oregon	93.50
10	Tingleff, C. P., So. Wayne	92.33
106	Tucker, E. H., Marshfield	90.33

5	Weber, J. F., Hartford	92.00
27	Warnke, Wm. R., Kingston	92.00
3	Winter, L. H., Chippewa Falls	90.16
6	Werner, F. M., Waterloo	93.16
68	Weuthrich, J., Greenwood	90.66
71	Wigginton, W. W., Viroqua	90.83
76	Wilcox, A. H., Bloomer	95.83
105	Warner, T. J., Rosholdt	90.33
108	Willan, J. T., Rosendale	85.33
53	Zastrow, F. W., Amherst Junction	91.16
60	Zimmermann, A. W., Norwalk	93.60

Awarding of special prizes.

International Salt Co. offered to the buttermaker winning highest average score for 12 months in the scoring contest, using Wyandotte salt, a set of dishes; won by L. P. Holgerson, Troy Center, score 95.24.

The three highest scorers for December, January and February were L. P. Holgerson, Troy Center, 95.44; G. P. Sauer, East Troy, 95.10; A. W. Zimmerman, Norwalk, 93.20, each being presented with a suit case.

The Chairman: We will now have the report of the resolution committee:

Report of Committee on Resolutions

We, the buttermakers of Wisconsin, in convention assembled hereby petition the State Agricultural College to issue a bulletin for milk producers illustrating and descriptive of improved stalls and arrangements that make for sanitation, healthfulness and cleanliness in dairy barns and whereas, the wants of the milk producers along the aforesaid lines have not been satisfied: Therefore be it resolved that we again urgently request the management of our agricultural college to issue such bulletin.

Resolved further that copies of this resolution be sent to the president of the university, Dean Russell, and to the committee on agriculture of the board of regents.

Whereas the Mayor, Common Council and Business Men's Advancement Association, also the kind people of Eau Claire

having shown us such a hearty welcome and entertained us so right royally during our convention here:

Therefore be it resolved that we extend to them our hearty thanks.

Whereas Mr. S. A. Cook, of Neenah, has shown his great interest and appreciation of our association and in the advancement of the same has donated three leather covered chairs and cash prizes,

Therefore be it resolved that we extend our hearty thanks for the same.

Be it further resolved that a copy of these resolutions be sent him.

Whereas, the J. B. Ford Co., Wells Richardson Co., Chr. Hansen's Laboratory, International Salt Co., having donated special prizes for our high scores in butter,

Be it resolved that we extend our hearty thanks for the same.

Whereas, Hon. E. H. Webster has resigned as chief of the dairy division bureau of animal industry of the U. S. department of agriculture, and whereas, we buttermakers realizing the great ability of Mr. D. B. White, now assistant dairyman in the dairy division, and believing him fully capable of fulfilling the duties of this office, be it resolved that we hereby petition the Hon. J. A. Wilson, secretary of agriculture and the Hon. Dr. Melvin, chief of the bureau of animal industry to appoint Mr. D. B. White to fill the vacancy caused by the resignation of Hon. E. H. Webster, as chief of said department.

Resolved that the best interests of Wisconsin would be served by having a uniform monthly statement and such statements to be furnished by the dairy and food commission for filing and auditing. Resolved that the legislative committee should be asked to pass such laws as to compel all dairy animals to be tested for tuberculosis, and the delivery of cream not over 48 hours. And the strengthening of such laws as are now on the statute books as experience suggests would make for better enforcement, be it resolved that we pledge our support to the Wisconsin Protective Association in its fight for a square deal in the transportation of cream.

A. J. WILCOX,
F. A. SEEBER,
JAS. F. McGILL,
Resolution Committee.

On motion, duly seconded, the resolutions were adopted as read.

The Chairman: Are there any other committees to report? We have heard the report of the committee on the paper. What will you do with that report?

Mr. Raven: I move that the report of the committee be accepted. Motion seconded and unanimously adopted.

The Chairman: Is there any other unfinished business?

The Secretary: There is one matter that has been spoken of to me and I would like your ideas on the subject. That is, at the Iowa and Minnesota conventions they make a difference between gathered cream and whole milk butter, and whether or not the boys who are making gathered cream butter feel they are getting a square deal as compared with the fellows making whole milk butter, is what the officers want to know and to comply with their wishes. If you want to express yourselves at this time I would like to hear from you.

Mr. Winter: I do not think there ought to be any line drawn because at the scoring contest this winter in Iowa gathered cream butter won out as against whole milk butter. I think we should not draw the line.

The Chairman: Nearly everything received at the creameries now is gathered cream and it will only be a matter of time before the gathered cream butter will be as good as that made from the whole milk.

Mr. Carswell: I would like to say a few words along a new line of thought that has come to me since attending this convention. As long as I have been making butter, the conventions have been conducted in about the same manner, going along in the same rut one year after the other. We have a thousand buttermakers in this state. The attendance at the convention this year is 150. I believe that is a pretty small percentage of the buttermakers of this state. I believe we have the best state conventions that are held in this country, but I believe there can be improvements made to bring out a better attendance of buttermakers. Ninety-five per cent of the buttermakers who are here this year will attend next year,

perhaps there will be five per cent of new men. This idea of putting a thousand dollars into a premium fund to go to the buttermakers that have the best creameries, situated in the best manner, does not seem to me to be the right thing. That thousand dollars is divided among the buttermakers that are the least in need of it in the way of encouragement or financial benefit. I believe there could be something decided upon so we could have a scoring competition, to which each buttermaker would bring a five pound jar of butter, and if necessary have it scored by a set of judges. The boys have stood by the scoring contest and it does as much good as competing for a thousand dollars. I believe we could do more good by spending this thousand dollar premium fund in some other way, either paying the railroad fare of the buttermakers or devoting it in some way towards their expense in attending the convention, that we would have, instead of 100 members, five hundred members. We ought to have half the buttermakers in the state here. I just offer this as a suggestion. I would like to see a little change made in this. Like everything else, the convention plans get old and stale. We all have a good time but it is the same old routine year after year for the last ten years.

Mr. Moore: Do I understand Mr. Carswell to suggest that there should be a difference made in the premium fund between those that come to the conventions and those that do not?

Mr. Carswell: I would do away with the premium fund. I would use the money towards paying the expenses of the men coming to this convention. A good many cannot afford to come to the convention and I believe a way could be worked out by helping them pay their expenses. I would do away with the premium fund altogether. I do not believe it is necessary. The same men get the biggest share of this fund year after year. The fellow that needs this assistance has no chance so he does not send his butter and does not come to the convention. We have to show the other fellow that he will be used at this convention exactly like the other fellow that is at

the top and has a good creamery, if our association is to help the business of buttermaking.

When we attend the dairy schools and different conventions the professors get up and tell us how the buttermaking business is of such importance. Not only has it become a trade but it has become a science or profession. But what does it amount to? There is no inducement for a good man to stay in the business. We are losing our best men from the creameries. Ninety-five per cent of the best men that have been in the creamery business during the last ten years have left it. They have been in the creameries for the last ten years have gone to dairy schools, have been trained for the last ten years, but after ten or twelve years, after they have the knowledge, the state dairy commission comes along with a salary of $1200 a year and takes those men out of the business. The commission men and supply men take them. I believe there is something radically wrong. We will never keep the men in the business the way it is conducted today. I believe that not over fifteen per cent of the buttermakers at this convention today have any expectation of being in the creamery ten years from today. They look forward to the time when they will get out, and perhaps not ten per cent expect to be in the business ten years from now. I believe this business has to be built up much in the same way as has been done in Denmark. We have got to get this business on a good sound footing so when a man goes into a creamery he expects to stay there. He has a good job and sticks to it. To get it on such a footing as that we have got to keep the men in the business. If we send a young fellow just off the farm or from some other business out to run a creamery, the farmers say they cannot trust such a young fellow, but if we put the business on the same basis as it is in the old countries and let the men in the business stay in the business, the young fellows would have to work up, which would take time, and by the time they have to take a manager's place in the creamery they will be competent to do so. The business today is in such a state they cannot afford to pay good wages.

I believe this association can do 100 per cent better to ad-

vance the profession of a buttermaker. If you build a canning factory, you do not take as manager of that plant a man that is producing vegetables around there, even though he has some stock in the business, but you put a man in as manager who knows the business from the ground up. It is the same with the creamery business. I believe a great deal can be accomplished by this association if it is only brought about in the right way. The association is all right but we must have it to draw the men engaged in this trade in closer relationship one with the other, and put it on a more permanent basis. The business is only temporary now. A man enters the buttermaking business because the wages are a little better than in ordinary trade, it does not take him as long to work up and he goes into the business because he likes it, but he only tries to get a little ahead so as to go into some other business. He does not go into it with the idea of making it a permanent business, or a life study. There are good jobs in the creamery business, as good as in any other business, and the wages are good enough if the men will stay in the business.

The Chairman: I think it is a very good suggestion and I believe the association ought to try to do something along that line. We have been trying but possibly we have failed, although I know in a great many ways we have not.

Mr. Carswell: I simply offered that as a suggestion.

The Chairman: It would be a good thing to have more of the members offer suggestions. If any of the boys have suggestions it would be a good plan to write the executive committee and put them before them.

The Secretary: Your officials will be glad to do anything that they think will be to your best interests. I am impressed with what Mr. Carswell has said. It is very true, but he must realize that this country differs greatly from Denmark, although there may be a time when we will be on the same plane in some respects. The buttermakers have to deal with farmers and we have to educate the farmers so we can deal with them as business men.

The first day I came to Eau Claire I was talking to a very

prominent man, a farmer who is at the head of a large state organization of farmers. He is president of a farmers' creamery not many thousand miles from Eau Claire. He said he did not know that they would have their present buttermaker for another year. The buttermaker has been there a couple of years and they thought he might want a raise and this man thought he was getting enough. In another creamery in which he is interested the buttermaker is getting $125 a month and he thought the buttermaker should not get over $60 or $75 a month, as that was high enough. The other trades have a union which hold up wages and keep men in the business, but I do not know whether that time will ever come in the dairy business of Wisconsin or any other dairy state when we can work along that line and have a union. We are told we have a butter trust and perhaps we might as well have a buttermakers' trust also. It is up to you to tell us what your wishes are in this regard and we will be glad to be of assistance to you in any way that will be satisfactory to you.

Mr. Carswell: I do not believe myself that we will see the time for a good many years when we will have such a thing as a buttermakers' union, but my idea is to keep the good men in the creamery and by so doing they will educate the farmers. When the creameries are run by a set of young fellows that have only commenced the business and stay in it a few years, they will necessarily be followed by another set of young fellows, it leaves a set of incompetent operators throughout this broad country in charge of the creameries. How can we expect to educate the farmers? If we stay in the business we will show the farmers it takes a little knowledge to run a creamery and they will appreciate what it means.

I had a little experience of my own. I went to Clear Lake some four years ago. The creamery had been through many changes. Two years ago we organized into a farmers' creamery. I make by the pound, receiving three-quarters of a cent a pound for every pound of butter I manufacture. I have got to employ the help that is necessary to run the creamery and turn out the goods in first class shape. Last year they knew

I drew over $2,000. I pay my help good wages, my first man $50 in summer and $25 in winter. They knew what my expenses were and I told them how much I made. I told them last year I made $1285. Our board of directors I believe is as good as a creamery ought to have, and the board thought I ought to have a little more. I said I was satisfied but the board said I ought to have more money so as to make a higher salary next year. I told them an increase in the business would mean more money for me next year and they said they were willing to make an agreement in writing that if I did not make as much money next year as in the past they would make the deficiency good. Those are the kind of farmers it has been my luck to do business with. They know it takes money to run a business right. They appreciate what a man does for them.

We hear people say the creamery is not healthful to stay in. I do not believe that. If a man takes care of himself he will find buttermaking is a more healthful business than almost any other indoor occupation. I believe a man can spend a life time in the creamery.

The Chairman: You evidently have been very fortunate in the people for whom you work because the majority of co-operative creamery directors do not feel that way towards the buttermakers.

Mr. Moore: I worked for a co-operative creamery and I did as much as any man could do to build it up. We started with 80 patrons and got up nearly to 200. I bought their coal at wholesale price. When feed was scarce and farmers had to buy feed, I bought feed by the car load, bought salt by the car load for them, in fact did everything it was possible to do for them, and when I asked for a raise of wages they would not give it to me. Finally the manager, who appreciated my services, said "Jim I will give you that raise out of my own salary." I said "No, I will not do such a thing." I do not know but it was the best thing that ever happened to me that they did not give me the raise.

Mr. Hildeman: It is a fact that the farmers ought to have a good show but in one way they have too good a show. They

are allowed to do as they please in many ways, for instance in hiring a buttermaker. Mr. Moore spoke of one farmer thinking of changing his buttermaker. I am in a creamery at Chippewa Falls and we have had letters from 25 to 50 buttermakers looking for a job. It seems to me there ought to be a different system of getting buttermakers. Instead of certain parties having advertisements in some of the dairy papers that have advertised to engage buttermakers, there ought to some different way of getting them some way by which buttermakers can only be engaged through this association, or else have licensed buttermakers. The farmers have the opportunity to engage a buttermaker cheap now and they take advantage of it.

Mr. Moore: What we want is a buttermakers' license.

Mr. Hildeman: Now we have no system at all. Anybody can go into a creamery and attempt to make butter. There is no system whatever.

Mr. Carswell: I think my point would cover that. If the old men staid in the business the young men would have to work up.

The Chairman: It is not the old men in the business that are helping it. I believe it is the young men that are coming on that are going to make the future buttermakers, and are going to stay with the business. They are going at it in a scientific way. The old fellows were not willing to accept anything new. I am not referring to the speaker, however.

Mr. Carswell: I have been in the creamery eleven years and call myself young in the business yet, and there are mighty few old buttermakers left in the business. When I entered the business there were many bright young fellows in it and out of 75 that were at the Minnesota Dairy School in '99 I believe there are not over 15 or 20 of those boys making butter today, and there were as bright boys there that year as are there this year. Where will those bright young fellows of today be ten years from now? You will not find them in the creameries.

The Chairman: Conditions are changing the last five years, in fact during the last three years. The men who are running creameries have come to an understanding of the fact

that they have to make improvements right in their own business or they cannot keep the good men there, and those improvements are being made every day. They have better conveniences and you will find creameries today where there is everything for a buttermaker to do with to save labor. Even some of them have packing rooms and things like that, which we never before thought of, but they are coming to today.

If that is all a motion to adjourn will be in order.

On motion, duly seconded and carried, the meeting adjourned.

PREMIUM MONEY

Check No.	NAME.	Address.	Amount.
1	Ed. Torpey	Waterloo, Wis.	$ 10.50
2	R. E. Tamblingson	Cambridge	13.50
3	E. H. Tucker	Marshfield	3.99
4	C. P. Tingleff	South Wayne	9.99
5	J. Wuethrich	Greenwood	4.98
6	F. M. Werner	Waterloo	12.48
7	W. R. Warnke	Kingston	9.00
8	J. F. Weber	Hartford	9.00
9	W. W. Wiggington	Viroqua	5.49
10	A. H. Wilcox	Bloomer	20.49
11	T. J. Warner	Rosholt	3.99
12	F. W. Zastrow	Amherst Junction	6.48
13	A. W. Zimmerman	Norwalk	13.98
14	E. W. Paul	Greenwood	9.48
15	O. J. Krogstad	Chippewa Falls	8.49
16	F. J. Roch	Eau Claire	9.00
17	L. H. Winter	Chippewa Falls	3.48
18	Forest Pierce	Eau Claire	9.99
19	Clay Tyler	West De Pere	12.00
20	F. C. Thompson	Oregon	13.50
21	W. A. Stewart	Eagle	10.98
22	G. P. Sauer	East Troy	22.98
23	E. Schefer	New Holstein	3.99
24	J. Schield	Fall Creek	12.00
25	C. H. Sorensen	Fond du Lac	3.00
26	H. C. Schulte	St. Croix Falls	13.50
27	I. W. Stryker	Sharon	8.49
28	E. G. Soltwedel	Lime Ridge	9.99
29	F. E. Snyder	Whitewater	8.49
30	Ben Roou	Sparta	3.48
31	M. Roethle	Sherry	9.99

Check No.	NAME.	Address.	Amount.
32	H. Raven	Bloomer	15.48
33	H. A. Radke	Houlton	13.50
34	E. J. Pischke	New Auburn	18.00
35	M. G. Paulson	Richardson	7.50
36	G. E. Peterson	Withee	3.48
36	L. Olsen	West De Pere	13.98
37	O. Olson	Mt. Horeb	5.49
38	F. Nedvidek	Ridgeland	13.50
39	Ed. Mericle	Eagle	4.98
40	J. J. McClellan	Edgerton	7.50
41	L. Moersch	Peebles	12.48
42	J. C. Mason	Montford	6.99
43	A. McLane	Whitewater	10.98
44	McComb	Eau Claire	4.98
45	R. P. Miller	Chippewa Falls	13.50
46	J. C. Miller	Augusta	19.50
47	G. E. Melindy	Sheboygan Falls	6.48
48	M. Meyer	New Holstein	12.48
40	J. F. McGill	Little Suamico	12.99
50	E. C. McCormick	Plover	5.49
51	O. R. McCormick	Bancroft	9.99
52	A. D. McCready	Argyle	9.00
53	Sever Lee	Modena	7.50
54	W. Limp	Loyal	4.50
55	W. D. Lee	Neillsville	5.49
56	V. J. Laurent	Green Bay	4.98
57	A. Larsen	Edgerton	10.98
58	H. T. Kipp	Albion	6.48
59	A. Kristensen	Luck	10.50
60	A. F. Kruger	Clinton	9.99
61	O. A. Kielsmeier	Manitowoc	6.99
62	Max O. Koenig	Wausau	10.98
63	J. J. Jackson	Union Grove	12.00
64	M. Johnson	Cedarburg	15.00
65	O. C. Jacobson	Wilson	15.00
66	L. Adrianson	Ashland	10.50
67	G. M. Allen	Stevens Point	5.49
68	T. J. Berge	Northfield	3.48
69	Geo. E. Borcherts	Forks	12.48
70	C. Bragg	Poynette	3.48
71	F. Blumenstein	Berlin	6.99
72	H. Boerschinger	East De Pere	6.48
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75	M. R. Cross	Mauston	5.55
76	J. F. Chapman	Whitewater	12.48
77	B. J. Chapin	Cushing	9.00
78	W. Christensen	Darien	10.50

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80	L. E. Claflin	LaValle	7.98
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82	S. B. Cook	Bloomer	18.00
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85	J. E. Dudley	Bancroft	4.50
86	J. F. Dahl	Princeton	12.48
87	F. Dabareiner	Jefferson	6.48
88	L. Dabareiner	Hortonville	12.48
89	R. J. Else	Johnson Creek	13.50
90	A. Erickson	Miletown	12.48
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92	C. J. Dibble	Ft. Atkinson	4.98
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94	W. J. Feind	Jefferson	11.49
95	R. A. Garlick	Coloma	7.98
96	F. J. Gherke, Jr	Manawa	6.00
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102	A. F. Guelzow	Sherry	9.00
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106	H. K. Hanson	Mondovi	11.49
107	E. Helmke	Merrill	12.99
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109	L. P. Holgerson	Troy Center	18.00
110	A. W. Hein	Waukesha	3.99
111	W. E. Hathaway	Jefferson	10.50
112	A. C. Haberstich	Medford	4.50
113	W. Haag	Malone	11.49
114	O. H. Hansen	Chaseburg	6.99
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