

# **Annual report of the Dairy and Food Commissioner of Wisconsin. For the period ending June 30, 1915. 1916**

State Dairy and Food Commissioner  
Madison, Wisconsin: Cantwell Printing Company, State Printer,  
1916

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# ANNUAL REPORT

OF THE

## DAIRY AND FOOD COMMISSIONER OF WISCONSIN

For the Period Ending June 30, 1915

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**GEO. J. WEIGLE**

Dairy and Food Commissioner

*Ex Officio*

State Superintendent of Weights and Measures



MADISON, WIS.

Cantwell Printing Company, State Printer  
1916

## DAIRY AND FOOD COMMISSIONERS OF WISCONSIN

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H. C. THOM.....	May 29, 1889, to May 28, 1891
D. L. HARKNESS.....	May 28, 1891, to June 11, 1894
THOMAS LUCHSINGER.....	June 27, 1894, to Feb. 7, 1895
H. C. ADAMS.....	Feb. 7, 1895, to May 1, 1902
J. Q. EMERY.....	Dec. 24, 1902, to Feb. 10, 1915
GEO. J. WEIGLE.....	Feb. 10, 1915, to .....

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## ORGANIZATION OF THE COMMISSION

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GEORGE J. WEIGLE, Dairy and Food Commissioner, *ex officio* State Superintendent of Weights and Measures (from Feb. 10, 1915).

J. Q. EMERY, Dairy and Food Commissioner, *ex officio* State Superintendent of Weights and Measures (to Feb. 10, 1915).

RICHARD FISCHER, Ph. D., Consulting Director of Chemical Laboratory.

E. L. ADERHOLD, Assistant Commissioner.

H. C. LARSON, Second Assistant Commissioner (resigned Feb. 28, 1915).

HARRY KLUETER, Ph. G., Chemist.

FRED. P. DOWNING, A. B., Chief Inspector of Weights and Measures.

FLORENCE Q. NORTON, Secretary.

ETHEL D. THOMAS, Stenographer, Office of Weights and Measures.

M. LORAIN WALTER, Stenographer and Confidential Clerk.

RUTH NERDRUM, Stenographer, Office of Weights and Measures (from May 1 to June 22, 1915).

WM. A. BRANNON, M. A., Assistant Chemist.

IRVING R. HOWLETT, B. S., Assistant Chemist.

CARL GEIDEL, M. S., Bacteriological Chemist.

F. M. BUZZELL, Chief Food Inspector.

GEORGE H. EIGENBERGER, Food Inspector.

J. D. CANNON.

R. B. SOUTHARD.

J. B. LINZMEYER (from Nov. 1, 1914).

JOSEPH WILLIMANN (to Dec. 25, 1915).

JACOB LEHNHERR.

WM. WINDER.

JAMES VAN DUSER.

S. J. DUFNER.

S. B. COOK.

\*Dairy and Food Inspectors.

J. E. BOETTCHER.

H. L. BORNHEIMER.

GEORGE WARNER.

W. J. KRAMER.

B. A. HASS.

WM. P. STERNS.

CHAUNCEY BECKWITH.

J. J. TSCHUDY (resigned March 31, 1915).

W. A. VOIGHT.

\*\*Sealers of Weights and Measures.

EMPHY BENWAY (from March 18, 1915).

HARRY H. KOSS (from March 18, 1915).

Junior Sealers of Weights and Measures.

\*Sealers of Weights and Measures for creameries and cheese factories.

\*\*Inspectors of sanitary conditions at places where weights and measures work is done.

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MADISON

## LETTER OF TRANSMITTAL

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His Excellency, EMANUEL L. PHILIPP,

*Governor of Wisconsin.*

Sir:—I have the honor to submit herewith, in compliance with law, the report of the dairy and food commissioner for the annual period ending June 30, 1915.

GEO. J. WEIGLE,

*Dairy and Food Commissioner,*

*Ex Officio State Superintendent of Weights and Measures.*





# REPORT OF COMMISSIONER

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This report covers the period from July 1, 1914, to July 1, 1915. My administration, however, covers only five months of this period, but the report shows in detail the work of the department for the year as far as that work can be recorded by me in a report of this kind. Among other things are shown the number of inspections made, moneys expended, samples of food and other materials examined in the laboratory, and convictions secured. A publication giving certain dairy statistics and a list of the cheese factories and creameries will be issued by this department at a later date.

All reports of inspectors and copies of all correspondence are kept on file in the department office and are open to examination by any citizen of the state. We find from the report of the food chemist that the adulteration of food products is diminishing. Our weights and measures laws are being complied with, and the laws are generally being observed.

Coöperation between producers, consumers and this department is absolutely necessary in securing the successful enforcement of the dairy and food laws. I believe we serve the people best by a policy of this kind. The door of the dairy and food department is open to any manufacturer in the state of Wisconsin, so that the problems confronting any food, drug and dairy industry can be worked out for the best interest of the producer as well as of the consumer.

The policy of this department is one of education and not of prosecution. I believe in warning the offending party on the first offense, and not prosecuting until after such warning, except in cases of wilful violation. It is my policy to acquaint the people with the law, to show the necessity of the law, to develop obedience by an educational campaign, and then if a violation of the law occurs, to prosecute without fear or favor. Great good has been accomplished by this method.

New dairy and food bills were introduced in the legislature during the last session. The most important ones were those providing for licensing the operators of cheese factories and creameries and cheese makers and butter makers, and for the securing of full and complete information and statistics relating to the dairy industry and promoting the welfare of that industry. In connection with our food work it seems that legislation is needed to regulate the products in cold storage.

The dairy and food commission also advocated the passage of a law putting manufacturers of Babcock glassware under bond. This law would place the blame for inaccurate bottles where it belongs with the manufacturer, and would do away with a needless amount of testing by this department. Last year over 30,000 bottles were tested and sealed in the office of weights and measures. All this work will be eliminated, so that the service of an inspector can be devoted to the more essential work in the field.



An inspection of the pea canning factories was made for the first time in the state of Wisconsin by Mr. Klueter and myself to ascertain the clean and sanitary conditions of the pea canning factories. During our inspection trip it became evident to me that there is still much to be done in the way of sanitation in some of the factories visited. Especially is this true of the temporary viner stations. The use of canned foods is increasing. The rapidity with which its use increases is to a large extent dependent upon its quality and upon the impression that the factory in which the canned foods are prepared makes upon the consuming public. The quality of canned goods is largely dependent upon the sanitary condition of the factory and upon other places where the raw products are produced and handled.

We found factories that were in every way model factories, but the industry as a whole suffers from the factories which are not properly managed. As Wisconsin produces, it is estimated, 45 per cent of all peas canned in the United States, it is of great importance that the dairy and food department make special effort to improve the conditions and give assistance wherever needed. In Wisconsin, it is unlawful to make or prepare for sale, food, unless in the process of its manufacture for sale, it is securely protected from unclean and unsanitary conditions. An article of food produced, stored, transported or kept in a condition that tends to render it diseased or contaminated, becomes an adulterated article.

A personal inspection was also made by me of cheese factories and creameries. Conditions found in some factories were not a credit to the owners and makers, nor a credit to the community. We found makers and manufacturers in factories who had no conception of personal cleanliness and who had, no doubt, no knowledge of the laws of sanitation. Such men are a detriment to the whole dairy industry. There seems to be a lack of realization of the fact that food was being prepared for human consumption, and I strongly urge the passage of the new licensing bill which will put the dairy industry under closer state supervision, and eliminate the undesirables and those that have no qualifications as to the manufacture of dairy products.

Many valuable bulletins have been issued by this department which have been distributed to parties interested and in such a manner as to bring best results.

The dairy and food commission obtained the valuable services of Professor C. E. Lee, of the University of Wisconsin, as assistant commissioner. Professor Lee is a dairy expert and has the practical as well as the scientific experience as a dairy man. The dairy work of this department will be under the direct charge of C. E. Lee and E. L. Aderhold.

The weights and measures work is under the supervision of F. P. Downing, whose work has proven to be very profitable to the state. The food department and chemical analyses are under the direct charge of Harry Klueter, whose splendid work has been of great benefit to the consuming public. Credit should also be given to every employe in the department. All are loyal and enthusiastic in their work, both in the office and in the field, and join in team work, which is so essential to the successful operation of the department.

# CONVICTIONS

Date	Defendant	Cause of Action	Trial Judge	Fine or Forfeiture
1914				
July 1	Mat Wingers, Peebles	Maintaining unsanitary cheese factory, premises and utensils	D. F. Blewett, Fond du Lac	\$25 and costs.
July 2	G. Haerd, Watertown	Delivering milk to a condensery in an open-seamed can	W. D. Stacy, Watertown	\$25 and costs.
July 8	John Ahlsweide, Algoma	Maintaining unsanitary cheese factory and utensils	H. H. Reynolds, Sturgeon Bay	\$25 and costs.
July 8	J. W. Sherrahn, Algoma	Maintaining an unclean and unsanitary cheese factory	M. L. Reinhardt, Algoma	\$25 and costs.
July 8	John Meadke, Algoma, R. D.	Maintaining unclean and unsanitary cheese factory	M. L. Reinhardt, Algoma	\$25 and costs.
July 9	Herman Maedke, Algoma	Maintaining unsanitary cheese factory and utensils	H. H. Reynolds, Sturgeon Bay	\$25 and costs.
July 9	Arthur Klessig, Sturgeon Bay	Maintaining unsanitary cheese factory premises and utensils	H. H. Reynolds, Sturgeon Bay	\$25 and costs.
July 9	E. F. Messner, Campbellsport	Selling adulterated vanilla and vanillin	D. F. Blewett, Fond du Lac	\$25 and costs.
July 10	Joseph Spahn, Sturgeon Bay	Maintaining an unclean and unsanitary cheese factory	H. H. Reynolds, Sturgeon Bay	\$25 and costs.
July 13	Frank Feuling, Sun Prairie	Having in possession with intent to sell, adulterated milk	J. C. Fehlandt, Madison	\$25 and costs.
July 13	M. Stubbs, Alma Center	Offering for sale unsanitary milk	C. J. Van Schaick, Black River Falls	\$25 and costs.
July 13	Earl Andrews, Alma Center	Offering for sale unsanitary milk and milk kept and transported in dirty, open-seamed cans	C. W. Chafey, Black River Falls	\$25 and costs.
July 13	Wm. Nohelte, Alma Center	Offering for sale unsanitary milk	C. J. Van Schaick, Black River Falls	\$25 and costs.
July 13	John Laney, Alma Center	Selling unsanitary milk	C. J. Van Schaick, Black River Falls	\$25 and costs.
July 14	J. Riland Dunn, Alma Center	Maintaining premises and utensils used in preparing cream for sale in unsanitary condition	C. W. Chafey, Black River Falls	\$25 and costs.
July 15	Wm. Butterfield, Windsor	Offering for sale unsanitary milk, being transported in open-seamed cans	J. C. Fehlandt, Madison	\$25 and costs.
July 15	Frank Bork, Windsor	Offering for sale unsanitary milk, being transported in dirty cans	J. C. Fehlandt, Madison	\$25 and costs.
July 16	Henry Rood, South Wayne	Offering for sale unsanitary milk, transported in rusty cans	Geo. W. Hartsough, South Wayne	\$25 and costs.
July 16	Wm. Kraus, Malone	Maintaining an unsanitary cheese factory	R. C. Fairbank, Fond du Lac	\$25 and costs.
July 16	Joe Willesscheid, New Holstein	Maintaining an unsanitary cheese factory	R. C. Fairbank, Fond du Lac	\$35 and costs.
July 16	Andrew Nett, Calvary	Offering for sale unsanitary milk	D. F. Blewett, Fond du Lac	\$25 and costs.
July 16	Hubert Dorn, New Holstein	Maintaining unsanitary cheese factory and utensils	D. F. Blewett, Fond du Lac	\$25 and costs.
July 16	O. W. Timm, Plymouth	Selling adulterated boiled linseed oil	Michael Sweet, Plymouth	\$25 and costs.
July 16	L. F. McLean & Co., South Byron	Selling adulterated boiled linseed oil	D. F. Blewett, Fond du Lac	\$25 and costs.
July 17	G. and E. Zirk, Denzer	Selling adulterated boiled linseed oil	Adolph Andro, Baraboo	\$25 and costs.
July 17	Edmund Gross, New Holstein	Maintaining unsanitary cheese factory and utensils	E. E. Curtis, New Holstein	\$25 and costs.
July 18	Jaffe & Scholl, White Mounds	Selling adulterated raw linseed oil	Adolph Andro, Baraboo	\$25 and costs.
July 18	Henry Rach, New Holstein	Offering for sale unsanitary milk	E. E. Curtis, New Holstein	\$25 and costs.
July 19	Wm. O. Dassow, Sheboygan Falls	Selling flour in quantity less than represented	P. Ehren, Sheboygan Falls	\$25 and costs.
July 20	Julius Nold, Blackhawk	Selling adulterated boiled linseed oil	H. L. Holsted, Baraboo	\$25 and costs.
July 21	Harry Spaulding, Windsor	Offering for sale adulterated milk	J. C. Fehlandt, Madison	\$25 and costs.

Appealed.

## CONVICTIONS—Continued.

Date	Defendant	Cause of Action	Trial Judge	Fine or Forfeiture
1914				
July 22	L. J. Doherty, Deerbrook	Manufacturing food (cheese), for sale without protecting same from filth, flies and other contamination	F. W. Hogan, Antigo	\$25 and costs.
July 22	E. Ranthum, New Fane	Selling adulterated boiled linseed oil	D. F. Blewett, Fond du Lac	\$25 and costs.
July 22	The Zinke Co., Fond du Lac	Selling adulterated spirits of camphor	D. F. Blewett, Fond du Lac	\$25 and costs.
July 23	Henry Auspach, Jackson	Selling milk transported in unsanitary can	W. P. Rix, West Bend	\$25 and costs.
July 23	N. Jacobs, Belgium	Maintaining cheese factory premises and utensils in filthy, unsanitary condition	W. A. Tholen, Port Washington	\$25 and costs.
July 23	John Kobelt, West Bend	Offering for sale unsanitary milk	W. P. Rix, West Bend	\$100 and costs.
July 24	John P. Becker, Port Washington	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	\$25 and costs.
July 24	D. H. Mcyer, Fredonia	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	\$25 and costs.
July 24	Peter Freiman, Port Washington	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	\$25 and costs.
July 25	Nic. Holbick, Emerald	Handling cream for sale with utensils in unsanitary condition	Otto M. Arnquist, Hudson	\$25 and costs.
July 25	Jos. Moore, Emerald	Handling cream for sale with utensils in unsanitary condition	Otto M. Arnquist, Hudson	\$25 and costs.
July 27	John Behling, Johnson Creek	Delivering milk to a creamery in dirty cans	W. D. Stacy, Watertown	\$25 and costs.
July 27	Max Witte, Watertown	Delivering milk to a creamery containing an unclean foreign substance	W. D. Stacy, Watertown	\$25 and costs. (Entered plea of <i>nolo contendere</i> .)
July 28	D. A. Hetzel, Hetzel	Selling adulterated linseed oil	J. A. Murat, Stevens Point	\$25 and costs.
July 28	H. Rauschwolbe, Millhome	Selling adulterated boiled linseed oil	Albert Schmidt, Manitowoc	\$25 and costs.
July 28	Mark Skeel (Agent J. C. Fletcher & Co.)	Selling adulterated boiled linseed oil	J. A. Murat, Stevens Point	\$25 and costs.
July 28	Waterman Bros., Bancroft	Selling adulterated linseed oil	J. A. Murat, Stevens Point	\$25 and costs.
July 28	Day-Bergwall Co., Milwaukee	Selling vanilla and coumarin colored in imitation of vanilla extract	Geo. E. Page, Milwaukee	\$25 and costs.
July 29	Karl Sanitzke, West Bend	Maintaining cheese factory utensils in unclean, filthy condition	Wm. A. Tholen, Port Washington	Fine suspended.
July 29	W. F. Buscher, Franklin	Selling adulterated boiled linseed oil	John P. Ehren, Sheboygan Falls	\$25 and costs.
July 29	P. J. Thelen, Cedarburg	Maintaining unsanitary cheese factory premises and utensils	Wm. A. Tholen, Port Washington	\$25 and costs.
July 29	Jacob Dickman, Grafton	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	\$25 and costs.
July 29	John Kloehn, Grafton	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	\$25 and costs.
July 29	August Judas, Grafton	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	\$25 and costs.
July 29	Joseph Bohlen, Port Washington	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	\$25 and costs.
July 30	Henry Griebe, Franklin	Selling adulterated boiled linseed oil	John P. Ehren, Sheboygan Falls	\$25 and costs.
July 31	M. Ballbach, Fredonia	Offering for sale milk kept and transported in a rusty can	Wm. A. Tholen, Port Washington	\$25 and costs.
July 31	Harry Lauters, Fredonia	Offering for sale milk kept in rusty, open-seamed can	Wm. A. Tholen, Port Washington	\$25 and costs.
Aug. 4	T. E. Doyle, Lena	Maintaining an unsanitary cheese factory	J. A. Donlevy, Oconto	\$25 and costs.
Aug. 4	Einar A. Halle, Rio	Having in possession, with intent to sell, meat from an animal that died otherwise than by slaughtering	C. L. Dering, Portage	\$25 and costs. (Entered plea of <i>nolo contendere</i> .)

Aug. 4	H. F. Sackett, Fond du Lac.....	Maintaining unsanitary cheese factory premises and utensils.....	R. C. Fairbank, Fond du Lac.....	\$25 and costs.
Aug. 5	Belitz Bros., Cleveland.....	Selling adulterated boiled linseed oil.....	Albert Schmidt, Manitowoc.....	\$25 and costs.
Aug. 5	James Wykhais, Oostburg.....	Selling adulterated boiled linseed oil.....	John Ehren, Sheboygan Falls.....	\$25 and costs.
Aug. 6	C. H. Gibson, Taycheedah.....	Selling adulterated boiled linseed oil.....	R. C. Fairbank, Fond du Lac.....	\$25 and costs.
Aug. 6	F. Thuerwachter, Calumetville.....	Selling adulterated raw linseed oil.....	R. C. Fairbank, Fond du Lac.....	\$25 and costs.
Aug. 7	Wendel Burg, St. Anna.....	Selling adulterated milk.....	John P. Ehren, Sheboygan Falls.....	\$25 and costs.
Aug. 7	John Henfert, Caroline.....	Offering to a cheese factory milk transported and kept in a rusty can.....	H. B. Buth, Shawano.....	\$25 and costs.
Aug. 7	Geo. Lanbustin, Fredonia.....	Offering to a cheese factory milk kept and transported in a rusty can.....	W. A. Tholen, Port Washington.....	\$25 and costs.
Aug. 7	W. McCarthy, Fredonia.....	Maintaining an unsanitary cheese factory.....	W. A. Tholen, Port Washington.....	\$25 and costs.
Aug. 8	Geo. Garvey, Appleton.....	Maintaining an unsanitary cheese factory.....	Thos. Ryan, Appleton.....	\$25 and costs.
Aug. 8	Fred Corbett, Kaukauna.....	Offering for sale unsanitary milk.....	Thos. Ryan, Appleton.....	\$25 and costs.
Aug. 8	Ralph Benning, Fond du Lac.....	Offering for sale unsanitary milk.....	R. C. Fairbank, Fond du Lac.....	\$25 and costs.
Aug. 8	James Mellis, Fond du Lac.....	Maintaining cheese factory premises in unsanitary condition.....	R. C. Fairbank, Fond du Lac.....	\$25 and costs.
Aug. 8	Fred Meier, Monticello.....	Selling adulterated boiled linseed oil.....	Adolph Andro, Baraboo.....	\$25 and costs.
Aug. 8	S. S. Squires, Delton.....	Offering for sale unsanitary milk.....	Adolph Andro, Baraboo.....	\$25 and costs.
Aug. 14	Jos. Kramer, Fond du Lac.....	Having in possession with intent to sell unsanitary cream.....	R. C. Fairbank, Fond du Lac.....	\$25 and costs.
Aug. 14	John Morrow, Oconto.....	Maintaining unsanitary cheese factory premises and utensils.....	J. A. Donlevy, Oconto.....	\$25 and costs.
Aug. 17	Ulrich Bruner, Brooklyn.....	Offering to a cheese factory milk kept and transported in a dirty, open-seamed can.....	W. T. Saucerman, Monroe.....	\$25 and costs.
Aug. 17	W. A. Edge, Platteville.....	Offering to a cheese factory milk kept and transported in an open-seamed can.....	W. C. Burrow, Lancaster.....	\$25 and costs.
Aug. 17	Chas. Schamboro, Platteville.....	Maintaining cheese factory premises in unsanitary condition.....	W. C. Burrow, Lancaster.....	\$25 and costs.
Aug. 17	A. W. Hugh, Platteville.....	Offering milk kept and transported in an open-seamed can.....	W. C. Burrow, Lancaster.....	\$25 and costs.
Aug. 17	Mr. Frank Brunton, Platteville.....	Offering to a cheese factory milk kept and transported in a rusty can.....	W. C. Burrow, Lancaster.....	\$25 and costs.
Aug. 17	Jos. Knapp, Platteville.....	Maintaining cheese factory premises and utensils in unsanitary condition.....	J. L. Mittgen, Beaver Dam.....	\$25 and costs.
Aug. 21	F. Schmucke, Reeseville.....	Having in possession, with intent to sell, unsanitary milk.....	R. C. Fairbank, Fond du Lac.....	\$25 and costs. (Entered plea of <i>nolo contendere</i> .)
Aug. 22	R. A. McCormick, Fond du Lac.....	Selling adulterated milk.....	Thomas Ryan, Appleton.....	\$25 and costs.
Aug. 25	Chas. Hokah, New London.....	Selling adulterated cream.....	S. D. Baird, Neenah.....	\$100 and costs.
Aug. 26	Wm. F. Runge, Hilbert.....	Selling adulterated turpentine.....	John P. Ehren, Sheboygan Falls.....	\$25 and costs.
Aug. 28	F. Martin (Mallman-Martin Co.).....	Maintaining unsanitary cheese factory premises and utensils.....	Wm. Rothman, Chilton.....	\$25 and costs.
Aug. 29	Chris. Holzschuh, Hilbert.....	Using unsanitary utensils in the manufacture of cheese.....	J. P. Hawkins, Mineral Point.....	\$25 and costs.
Sept. 2	George Ayers, Mineral Point.....	Offering for sale unsanitary milk.....	N. J. Monahan, Green Bay.....	\$25 and costs.
Sept. 3	Peter Vanderwettern, Askeaton.....	Offering for sale unsanitary milk.....	N. J. Monahan, Green Bay.....	\$25 and costs.
Sept. 3	Edward Sommers, Askeaton.....	Offering for sale unsanitary milk.....	N. J. Monahan, Green Bay.....	\$25 and costs.
Sept. 3	Chas. Keller, Askeaton.....	Selling adulterated boiled linseed oil.....	Albert Schmidt, Manitowoc.....	\$25 and costs.
Sept. 3	Albert Petska, Rosecrans.....	Selling adulterated boiled linseed oil.....	Albert Schmidt, Manitowoc.....	\$25 and costs.
Sept. 3	Wm. F. Luebke, Rosecrans.....	Maintaining cheese factory in unsanitary condition.....	Washington Mason, Blanchardville.....	\$25 and costs.
Sept. 4	Fred Mosser, Blanchardville.....			

# CONVICTIONS—Continued.

Date	Defendant	Cause of Action	Trial Judge	Fine or Forfeiture
1914				
Sept. 4	W. C. Henningsen, Hubbleton.....	Selling linseed oil compound for paint oil, barrel falsely labeled.....	W. D. Stacy, Watertown.....	\$25 and costs.
Sept. 7	F. A. Lavell, Shell Lake.....	Selling adulterated raw linseed oil.....	George B. Sage, Spooner.....	\$25 and costs.
Sept. 9	Louis Moeller, Rio Creek.....	Selling sausage with excess of cereal.....	Jos. Bohman, Kewaunee.....	\$25 and costs.
Sept. 11	Albert Schwandt, Campbellsport.....	Selling adulterated turpentine.....	R. C. Fairbank, Fond du Lac.....	\$25 and costs.
Sept. 14	F. J. Amborn, Hubbleton.....	Selling soda water containing a decomposed animal substance.....		
Sept. 18	Henry Zellner, Wayside.....	Selling adulterated boiled linseed oil.....	W. D. Stacy, Watertown.....	\$25 and costs.
Sept. 18	F. W. Kriwanek, Denmark.....	Selling adulterated boiled linseed oil as paint oil from barrel falsely labeled.....	N. J. Monahan, Green Bay.....	Fine remitted on payment of costs.
Sept. 19	Walter Broughton, Attica.....	Offering for sale unsanitary milk containing dirt.....	W. T. Saucerman, Monroe.....	\$25 and costs.
Sept. 21	Herbert Westenhaber, Logansville.....	Selling sausage with excess of cereal.....	H. L. Halsted, Baraboo.....	\$25 and costs.
Sept. 21	Wm. Reuschlein, Plain.....	Selling adulterated boiled linseed oil.....	H. L. Halsted, Baraboo.....	\$25 and costs.
Sept. 21	F. W. Zwieg, Sandusky.....	Selling adulterated boiled linseed oil.....	H. L. Halsted, Baraboo.....	\$25 and costs.
Sept. 22	Frank O'Connor, Fond du Lac.....	Maintaining unsanitary cheese factory premises and utensils.....	D. F. Blewett, Fond du Lac.....	\$25 and costs.
Sept. 28	Arthur Shepard, Darlington.....	Maintaining unsanitary cheese factory premises and utensils.....	James Martin, Darlington.....	\$25 and costs.
Sept. 30	Ben Hemmrich, Marshfield.....	Manufacturing cheese for sale under unsanitary conditions.....	John Roberts, Grand Rapids.....	\$25 and costs.
Oct. 3	J. R. Fitzgerald, Ironton.....	Selling tincture of iodine below legal standard.....	H. L. Halsted, Baraboo.....	\$25 and costs.
Oct. 8	Frank Witzeling, Edgar.....	Maintaining cheese factory premises and utensils in unsanitary condition.....	L. Marchetti, Wausau.....	\$25 and costs.
Oct. 10	Gottlieb Reutler, Rubicon.....	Maintaining cheese factory utensils in unsanitary condition.....		
Oct. 13	W. D. Krueger, Sobieski.....	Maintaining an unclean and unsanitary cheese factory.....	Rohr, Watertown.....	\$25 and costs.
Oct. 14	Xavier Cresulazyk, Rose Lawn.....	Maintaining unclean and unsanitary cheese factory.....	Frank Walski, Pulaski.....	\$25 and costs.
Oct. 19	G. H. Ramsey, Lodi.....	Selling adulterated spirits of camphor.....	Frank J. Walski, Pulaski.....	\$25 and costs.
Oct. 19	C. E. Lubcke, Middleton.....	Offering for sale unsanitary milk.....	F. W. Kiefer, Portage.....	\$25 and costs.
Oct. 20	F. Neal, Middleton.....	Offering for sale unsanitary milk.....	J. C. Fehlandt, Madison.....	\$25 and costs.
Oct. 20	Sidney McCumber, Lamartine.....	Selling adulterated raw linseed oil.....	J. C. Fehlandt, Madison.....	\$25 and costs.
Oct. 21	Henry Bryan, Middleton.....	Offering for sale unsanitary milk.....	D. F. Blewett, Fond du Lac.....	\$25 and costs.
Oct. 21	Casper Heindl, Marinette.....	Selling adulterated turpentine.....	J. C. Fehlandt, Madison.....	\$25 and costs.
Oct. 22	Thos. S. Arthur, Cottage Grove.....	Selling unsanitary milk.....	C. C. Daily, Marinette.....	\$25 and costs.
Oct. 22	Alfred Hoag, Ladysmith.....	Delivering adulterated milk.....	J. C. Fehlandt, Madison.....	\$25 and costs.
Oct. 22	Martin Nelson, Cottage Grove.....	Selling unsanitary milk.....	Wickam, Ladysmith.....	\$25 and costs.
Oct. 23	John Kennedy, Cottage Grove.....	Selling unsanitary milk.....	J. C. Fehlandt, Madison.....	\$25 and costs.
Oct. 23	P. Baltes, Middleton.....	Storing for sale food not protected from filth and contamination.....	J. C. Fehlandt, Madison.....	\$25 and costs.
Nov. ....	Ooestrich Bros., New London.....	Selling adulterated turpentine.....	A. W. Millard, New London.....	\$25 and costs.



Nov. 4	W. L. Wilkinson, Ladoga	Selling adulterated raw linseed oil	D. F. Blewett, Fond du Lac	\$25 and costs.
Nov. 6	Peter Fassbender, Hubertus	Maintaining cheese factory apparatus in unsanitary condition	Henry Thoma, Richfield	Fine suspended.
Nov. 7	Pacific Rucci, Cumberland	Furnishing milk and cream produced under unsanitary conditions	W. J. Soderberg, Barron	\$25 and costs.
Nov. 10	F. J. Cunningham, Cottage Grove	Selling unsanitary cream	J. C. Fehlandt, Madison	\$25 and costs. (Pleaded <i>nolo contendere</i> .)
Nov. 10	Geo. Schotthauer, Madison	Offering for sale unsanitary milk	J. C. Fehlandt, Madison	\$25 and costs.
Nov. 11	Wm. Kraetsch, Jackson	Delivering to a cheese factory unwholesome milk	W. P. Rix, West Bend	\$25 and costs.
Nov. 13	D. Oddegard, Madison	Offering for sale unsanitary milk	J. C. Fehlandt, Madison	\$25 and costs.
Nov. 13	Martin Koehler, West Bloomfield	Maintaining cheese factory premises and utensils in unsanitary condition	C. S. Briggs, Wautoma	\$25 and costs.
Nov. 20	Geo. J. Warm, Fond du Lac	Selling tincture of iodine below standard	D. F. Blewett, Fond du Lac	\$25 and costs.
Nov. 24	Walter J. Pronald, Twin Bluffs	Selling adulterated raw linseed oil	W. H. Miller, Richland Center	\$25 and costs.
Nov. 24	A. E. Peckham, Ithaca	Selling adulterated boiled linseed oil	W. H. Miller, Richland Center	\$25 and costs.
Nov. 25	W. W. Wyman, Stratford	Offering for sale print butter in quantity less than represented	F. J. Curtin, Stratford	\$25 and costs.
Nov. 25	Reidle Bros., Yuba	Selling adulterated boiled linseed oil	S. G. Curtis, Richland Center	\$25 and costs.
Nov. 25	H. W. Lathenberry, Hub City	Selling adulterated boiled linseed oil	W. H. Miller, Richland Center	\$25 and costs.
Nov. 25	Settegren Hardware Co., Baraboo	Selling adulterated turpentine	H. L. Halsted, Baraboo	\$25 and costs.
Nov. 25	M. J. Glick, Sylvan	Selling adulterated raw linseed oil	W. H. Miller, Richland Center	\$25 and costs.
Dec. 2	Max Tetzlaff, Watertown	Selling canned cherries containing benzoate of soda	Ferdinand Schmetzler, Watertown	\$25 and costs.
Dec. 15	H. H. Craig, Prairie du Chien	Unsanitary conditions in meat market	C. H. Speck, Prairie du Chien	\$25 and costs.
Dec. 15	Bohenek Bros., Prairie du Chien	Unsanitary conditions in meat market	C. H. Speck, Prairie du Chien	\$25 and costs.
Dec. 17	W. Kleinheinz, Madison	Selling adulterated alcohol	J. C. Fehlandt, Madison	\$25 and costs.
1915				
Jan. 4	F. V. Masilka, Fond du Lac	Selling spirits of camphor containing wood alcohol	R. C. Fairbank, Fond du Lac	\$25 and costs.
Jan. 15	Herman Schwandt, Fairwater	Selling unsanitary cream	R. C. Fairbank, Fond du Lac	\$25 and costs.
Jan. 21	Henry Abendroth, Fairwater	Selling unsanitary cream	H. E. Megow, Princeton	\$25 and costs.
Jan. 21	Frank Larkin, Markesan	Selling unsanitary cream	H. E. Megow, Princeton	\$25 and costs.
Feb. 5	Frederic Born, Sheboygan	Selling adulterated milk	J. N. Giblin, Sheboygan	\$25 and costs.
Feb. 5	Jacob Bayens, Sheboygan	Selling adulterated milk	J. N. Giblin, Sheboygan	\$25 and costs.
Feb. 24	Geo. Rockwell, Sheboygan	Selling adulterated milk	J. N. Giblin, Sheboygan	\$25 and costs.
Mar. 10	Fred Mueller, Brodhead	Selling wood in quantity less than represented	W. T. Saucerman, Monroe	\$25 and costs.
Mar. 13	Jos. Milcharek, Stevens Point	Selling ham in quantity less than represented	G. L. Park, Stevens Point	\$25 and costs.
April 7	Chris. Mortensen, Chetek	Maintaining creamery premises in unsanitary condition	W. J. Soderberg, Barron	\$25 and costs.
April 23	Geo. Wiffich, Rose Lawn	Selling unsanitary cream	M. Wescott, Shawano	\$25 and costs.
May 10	R. F. Kohlman, Fond du Lac	Maintaining unsanitary cheese factory premises and utensils	R. C. Fairbank, Fond du Lac	\$25 and costs.
May 17	L. Anderson, Washburn	Sale of strawberries in non-standard boxes	Geo. A. Calder, Washburn	\$25 and costs.
May 18	Chas. Patt, Van Dyne	Maintaining unsanitary cheese factory premises and utensils	R. C. Fairbank, Fond du Lac	\$50 and costs.
May 18	Henry Zimmerman, Fond du Lac	Maintaining unsanitary milk house	W. J. Justen, Fond du Lac	\$40 and costs.
June 12	Chas. Hartman, Prescott	Offering for sale unsanitary milk	C. Fenton, Ellsworth	\$25 and costs.
June 22	Frank Cline, Norwalk	Maintaining dairy premises and utensils in unsanitary condition	R. A. Richards, Sparta	\$25 and costs.

## DISBURSEMENTS.

FOR YEAR ENDING JUNE 30, 1915.

Aderhold, E. L., asst. commr., sal. and exp.....	\$ 2,872.99
Brannon, W. A., chemist, sal. and exp.....	1,768.72
Beckwith, C., inspector, sal. and exp.....	2,248.43
Boettcher, J. E., inspector, sal. and exp.....	1,615.19
Bornheimer, H. L., inspector, sal. and exp.....	2,230.85
Buzzell, F. M., inspector, sal. and exp.....	2,010.20
Benway, E., inspector, sal.....	123.56
Cannon, J. D., inspector, sal. and exp.....	2,342.25
Cook, S. B., inspector, sal. and exp.....	2,136.73
Downing, Fred P., chief sealer weights and measures, sal. and exp.....	2,260.69
Dufner, S. J., inspector, sal. and exp.....	2,402.33
Eigenberger, Geo., inspector, sal. and exp.....	2,658.95
Emery, J. Q., commissioner, sal.....	1,525.16
Fischer, Richard, consulting director chemical laboratory, sal.....	600.00
Geidel, Carl, assistant chemist, sal.....	1,200.00
Howlett, Irving R., assistant chemist, sal. and exp.....	1,489.70
Hass, B. A., inspector, sal. and exp.....	2,450.62
Klueter, Harry, chemist, sal. and exp.....	2,194.50
Kramer, W. J., inspector, sal. and exp.....	2,206.70
Koss, Harry H., inspector, sal.....	123.56
Larson, H. C., asst. commissioner, sal. and exp.....	1,669.21
Lehnherr, Jacob, inspector, sal. and exp.....	2,304.07
Linzmeier, J. B., inspector, sal. and exp.....	1,491.27
Nerdum, Ruth, stenographer, sal.....	122.50
Norton, Florence, secretary, sal.....	1,500.00
Southard, R. B., inspector, sal. and exp.....	2,414.05
Sterns, Wm. P., inspector, sal. and exp.....	2,510.10
Thomas, Ethel D., stenographer, sal.....	1,133.33
Tschudy, J. J., inspector, sal. and exp.....	1,896.09
Van Duser, James, inspector, sal. and exp.....	2,209.88
Voight, W. A., inspector, sal. and exp.....	2,281.27
Walter, M. Lorraine, stenographer, sal.....	1,150.00
Willmann, Joseph, inspector, sal. and exp.....	1,183.51
Winder, Wm., inspector, sal. and exp.....	2,248.04
Warner, Geo., inspector, sal. and exp.....	2,131.69
Weigle, Geo., commissioner, sal. and exp.....	1,203.46
Cantwell Printing Co., printing.....	113.19
Curtiss, F. W., photographs.....	27.50
Democrat Printing Co., printing.....	1,163.34
Insurance.....	10.26
Printing Board, paper.....	270.90
Streisgath-Petran Engraving Co., illustrations.....	63.52
Supt. Public Property, postage, supplies, etc.....	1,432.98
Supt. Public Property, new apparatus, weights and measures.....	3,092.41
Notary public commission.....	2.00
Total.....	\$70,185.70

## SUMMARY OF ANALYSES, INSPECTIONS AND CONVICTIONS.

ANALYSES AND TESTS:	
Samples of foods, drugs, linseed oils, turpentine, white lead, etc., analyzed by chemists.....	1,483
Samples of milk and cream from creameries, cheese factories, city supplies, condenseries, etc., tested for per cent of fat and specific gravity by dairy and food inspectors.....	4,737
SANITARY INSPECTIONS:	
Groceries, meat markets, etc.....	4,619
Creameries and condenseries.....	748
Cheese factories.....	1,695
Dairies.....	1,356
Sediment tests of milk.....	13,459
WEIGHTS AND MEASURES:	
Total number of weighing and measuring appliances tested by inspectors.....	142,861
Number of appliances tested in the office.....	73,222
CONVICTIONS.....	165

GEORGE J. WEIGLE,

Dairy and Food Commissioner,

Ex officio State Superintendent of Weights and Measures.

## REPORT OF HARRY KLUETER, CHEMIST

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HON. GEO. J. WEIGLE,

*Dairy and Food Commissioner.*

Dear Sir:—I hereby submit a report of the work done for the year ending June 30, 1915. Besides the chemical work of the laboratory, I have had charge of the food and drug inspection work in the field, have done inspection work and have taken care of a large part of the correspondence on food and drug matters. At the beginning of the year we were badly handicapped by the lack of efficient and sufficient help in food work, especially in the field work. Food and drug inspection work calls for specially trained men and a large part of this special training can come only through practical experience. New problems confront us daily in food work, due to new conditions under which foods are manufactured and the new products themselves. During the last half of the year a radical change in food and drug work has been made. The policy of first inspection and reinspection has been adopted. This has, to a considerable extent, increased the work of the food and drug department, but it is hoped that the results will more than pay for the additional burden.

During the year, 1483 samples have been collected, analyzed and passed on. We have been called on by the state board of control to make analyses of many samples of the supplies purchased by them for the various institutions. This kind of work is a step in the right direction by the state board of control and every state department purchasing materials should as far as possible avail itself of the information to be gained by chemical analysis. At the same time, the expense of this work should be borne by each department. Some system of accounting should be devised to take care of this matter.

In connection with the report on foods, drugs, white lead, zinc white, and turpentine, it is to be remembered that the samples purchased and submitted by inspectors were either new products, those known to be adulterated, or those which the inspectors had good reason to believe were adulterated or misbranded. Many reliable brands of food products are to be found on the Wisconsin market in bulk and in package form, as well as pure drugs, pure white lead, pure zinc oxide, linseed oils, and the true condition of the Wisconsin market with regard to these products is not represented by the samples reported, as purity rather than adulteration would be the rule if the samples were collected indiscriminately.



## BEVERAGES.

Forty-nine samples of beverages were analyzed. Twenty-seven were found to be free from saccharin and other soluble preservatives, while twenty-one were found to contain benzoic acid or a salt thereof. In one sample there were small flies and parts of flies. Most of the beverages examined were pop or a new form of drink which is to a large extent displacing pop. The new drink is very similar to pop in composition, but is only slightly carbonated or not carbonated at all. It was in this new drink which was a still product, that is, not carbonated, that preservatives were largely found. On an inspection of the plant in which these beverages were being manufactured, it was very apparent why preservatives were necessary. The plant was a make-shift affair, lacking all the requirements for a place in which to manufacture food. More care and additional equipment are necessary in the manufacture of still drinks than where the beverages are carbonated. Cleaner containers and methods of handling are necessary and a method of pasteurization is called for. Here we have another reason why preservatives should be barred from food products. A systematic inspection and study similar to that carried on by the state of Kentucky seems to be called for. Much improvement is to be hoped for in the production and sale of this food product. The use of saccharin seems to be pretty well stamped out after a vigorous campaign against it.

## CANNED GOODS.

Five samples of canned vegetables were collected and submitted by the inspectors. Three of these five were colored with copper sulphate, two were misbranded in that the contents were not stated in terms of weight or measure. The sale of vegetables greened with copper salts is on the decrease, but occasionally sales still take place throughout the state.

During the early part of June an inspection trip of the pea canning factories of the state was made. Much information as to the status of this important industry was gathered on this short trip and much need for systematic inspection and control of the conditions, and especially sanitary regulations, seems necessary.

During the latter part of the last canning season, the department of agriculture at Washington, distributed a bulletin entitled, "Methods Followed in the Commercial Canning of Foods," by A. W. Bitting. Among the many valuable subjects treated is the subject of sanitation. If it were not for the space necessary and the fact that this bulletin is already available to all, it would be advisable to quote the whole article on sanitation. The subject of containers, their care and handling, is pointed out. Every housewife washes all containers for food products in the home, even though these containers come to her capped or closed. Why then should the canner neglect this important and desirable practice?

The importance of the canning industry of the state warrants additional efforts toward the improvement of this industry and its products. The proper grading as to the quality of canned food and the proper labeling

of these products, so that the consumer can to some extent be guided in his purchases of the same seem necessary. Some uniform system of indicating the quality or standard of the goods is only reasonable and just. At present this matter is largely in the hands of the jobber who supplies the retail trade. He informs himself of the quality by inspection at the time of purchase. Then, why should the consumer not be afforded an opportunity for selecting this or that particular grade by having the containers so labeled that this is possible?

The adding of starch to canned corn can be but for one purpose, and that is to conceal inferiority. Canned corn, which contains added starch, does not conform to the standard, and when corn is picked at the proper time and canned, the addition of starch is unnecessary. The product resulting by canning over-ripe corn with the addition of starch is a legitimate food product if branded and sold so that the purchaser is informed of its character. This is true in the case of soaked peas. This practice on the part of manufacturers may force legislation establishing grades of canned goods as well as other products. Products prepared such as corn with starch and soaked peas would undoubtedly fall in the lower class and being properly and plainly labeled, could be purchased at its relative value.

#### DRIED FRUITS.

Twenty-four samples of dried fruits were collected and examined. Nine of the samples were seedless raisins. Seven of the nine were bleached and contained high percentages of sulphur dioxide. Formerly only such dried fruits as were to be washed and soaked as dried apricots, dried peaches, etc., were sulphured. In the soaking and washing of these products, in the process of preparation for the table, a considerable portion of the sulphurous acid and sulphuric acid would be removed. This is not the case with products like figs and raisins. What reason exists for the bleaching of raisins is hard to understand. The amount of sulphur dioxide present is so large as to ruin their flavor and make them unwholesome. The practice of bleaching raisins is inexcusable and should no longer be tolerated.

#### DRUGS.

Six hundred and twenty samples of drugs were collected by the inspectors, sealed and submitted to the laboratory for analysis, and two samples were submitted. The samples consisted of alcohol, Hamamelis water, lime water, spirit of camphor, spirit of nitrous ether, tincture of iodine and miscellaneous drugs.

The standards for these products are the standards laid down in the eighth decennial revision of the United States Pharmacopoeia.

*Alcohol*.—Twenty-six samples of alcohol were analyzed, 8 of which were standard and 18 of which were below standard. One sample was as low as 66.25 per cent by volume of absolute alcohol. The standard for alcohol is that of the eighth decennial revision of the United States Pharmacopoeia, which requires 94.9 per cent by volume of absolute alcohol. There seems to be a disposition on the part of the pharmacists to buy 188

proof alcohol instead of the official strength alcohol. From the results which may not be entirely representative of conditions in the state, it seems there still remains much improvement to be made in the sale of alcohol.

*Spirit of Camphor*:—The 246 samples of spirit of camphor on analysis were found to be as follows: 95 deficient in camphor, 21 deficient in camphor and contain added water, 3 standard or above in camphor, but contain added water, 1 found to contain wood alcohol, 30 were above standard in camphor, and 96 or 39 per cent were found to be in compliance with the standard.

*Lime Water*:—Fifty-seven samples were collected and analyzed, 10 of which were below standard and 47 of which were standard. The improvement in the quality of lime water over former conditions is noticeable.

*Hamamelis Water*:—Thirty-nine samples of Hamamelis water were analyzed. Fourteen were below standard and 25 were standard. The form of adulteration during this period is the deficiency in alcohol. At various times we have found wood alcohol used instead of ethyl or grain alcohol. It is to be hoped that this practice has been corrected.

*Tincture of Iodine*:—Two hundred and thirty-nine samples of tincture of iodine were analyzed. Of these, 42 were above standard in iodine and potassium iodide, 93 were deficient in iodine and potassium iodide, 9 were above standard in iodine and below standard in potassium iodide, 3 were above standard in iodine, 9 were above standard in potassium iodide, 2 were deficient in iodine, and 75 were standard. Six submitted samples were sent in by pharmacists after receiving notice that their preparation was found to differ from the standard. The analysis of these samples, which is representative of the true conditions existing in the preparation and sale of this simple and important drug, shows a condition of which all pharmacists should take notice. It shows that more attention to the manufacture of their products must be given. It shows the necessity of inspection, reinspection and prosecution to safeguard the public in the purchase of drugs.

*Nitrous Ether*:—Seven samples were analyzed, all of which were below standard. Investigation of the sale of this drug shows the necessity of experimental work in the preparation and keeping of it. Some experimental work has been done along these lines. Absolute alcohol was substituted for alcohol in diluting the concentrated product to the strength required by the pharmacopoeia. It was found that the presence of water was one of the chief causes for the rapid deterioration which takes place. However, sufficient work has not been done to enable us at this time to suggest the proper changes. It also seems that changes in the method of prescribing and administering of this drug are called for.

*Miscellaneous Drugs*:—Eight samples were analyzed. A sample of aspirin tablets was found to be twelve per cent short of the stated strength.

A prescription was tested for the quantity of strychnine present and was found to contain the amount prescribed. A cure for rheumatism was found to have had sodium salicylate substituted for salicin.

#### FLAVORS AND FLAVORING EXTRACTS.

*Lemon Extract*.—Seventy-one samples were analyzed, 44 of which were not standard. Ten samples of terpeneless extract were sold for lemon extract, showing, among other things, the lack of knowledge and indifference on the part of the retail dealers. Four samples contained no oil of lemon, and very little citral. Nine contained less than five per cent of lemon oil, the required amount. Four were artificially colored and 33 were misbranded, some of which being short of the stated contents and some bearing no statement of contents at all. The percentage of adulteration and misbranding of this product calls for additional activity in this field.

*Vanilla Extract*.—Thirty-eight samples were analyzed, 22 of which were not in compliance with the standard for vanilla extract or were misbranded. Nineteen compounds, nearly all of which were artificially colored, were sold to the inspector as vanilla extract. This clearly illustrates the deception made possible by the use of artificial color. No doubt many of these sales were made by the clerks who, in some instances, thought the product was vanilla extract because it looked like it. If, however, these products had been colorless, or nearly so, it is safe to say all customers, as well as the people selling the product, would not have been deceived. Vanilla extract is, to a great degree, evaluated on its color. If this were not so, we would occasionally find an extract colored with some color which would not make it in imitation of vanilla. Some of the beautiful shades of red would be used, or blues or greens, and not always a brown, usually caramel. Two samples were below standard and 9 were misbranded.

*Compound Flavors*.—The purpose of compound flavors should be, if it is not, to produce a superior article which sells on its merits for what it is, or the production of an article lower in price designed to take the place of some more expensive article. Here again, the question of the use of artificial color to make an article appear better or of greater value is of importance. It may be reasonable to expect the merchant to be able to understand the significance of the presence of artificial color, but the consumer usually has neither the time nor the opportunity to gain such information.

#### LINSEED OILS.

One hundred and fourteen samples of linseed oil were analyzed, 88 being boiled oils and 26 raw oils. Fifty-four of the boiled oils were found to be adulterated. In 9 of these samples, only small amounts of mineral oil were found. This may have been added in the form of a mineral oil drier. In the balance of these samples, the adulteration is from 20 per cent to 54 per cent. The most common adulterant is a heavy

mineral oil, a machine or engine oil. A study of the table of analysis of linseed oils will be of value to all, but especially to the merchant who wants to escape buying an adulterated product. Fourteen samples of raw linseed oils were found to be badly adulterated. The usual adulterant and the same old adulterators were found.

During March, 1915, the department issued a booklet, "Important Facts Relating to the Sale in Wisconsin of Linseed Oil, Turpentine and Paint Pigments." These booklets were widely distributed to the dealers of these products in the state so that the trade has had an opportunity to inform themselves on these products.

#### DAIRY PRODUCTS.

*Butter:*—Nineteen samples of butter were analyzed, 15 of which were submitted samples. All of the 15 samples were tested for foreign fat and found to be free from it. One sample was badly infected with a mold. A fat determination was made on all samples submitted in such shape that it was possible and where the results would be of value. One sample contained 84.2 per cent of fat and one 83.25 per cent of fat. Three of the four samples purchased by inspectors were found to be below 82.5 per cent and are therefore not standard.

*Cream:*—Five samples of cream from city milk supplies were analyzed, 4 of which were found to be below legal standard and 1 was standard. Fourteen samples were collected by members of the department to check fat determinations made by the Babcock test in creameries and cream buying stations. There is need of much educational work in cream testing in the creameries and other places where the Babcock test or other tests are being made on cream. There is also much work to be done in controlling the use of the Babcock test in buying cream. Many cases of overreading the test have been reported. This is a means of getting new business and is dishonest competition. Forty-seven submitted samples were tested. Most of the samples were submitted for the purpose of checking up a fat determination made by the butter maker and the samples were either submitted by him or by patrons of the factories.

*Milk:*—One hundred and forty-three samples of milk, 50 of which were delivered to creameries and cheese factories, were tested. Forty-seven of the 50 were below standard and in most cases, the usual forms of adulteration, water or skimming, or both, had taken place. Thirty-two herd samples were collected and analyzed in connection with the adulterated samples found. Thirteen samples of city milks, by analysis, were found to be below standard. I believe the time has arrived when a bacteriological standard for city milk should be fixed. The milk supply of a city should to some extent, be looked after by the city. A coöperative plan of city milk inspection and control might be advisable. Better results might be obtained by placing the city milk inspector under the control of the dairy and food commissioner. In this way the local inspector would to some extent be freed from local influences and held directly responsible to a state official. This is a matter for further study.



## MEAT PRODUCTS.

Fourteen samples bought for sausage by inspectors were analyzed. Five were found to contain more than 4 per cent of cereal, 8 were found to contain cereal and 1 contained artificial color. The butchers of the state have been pretty thoroughly warned by the inspectors with respect to the use of cereal. We have found butchers adding cereal by guess instead of weighing their sausage meat and the cereal. We find they pay too little attention to the selling of the product; that is, they sell for sausage a sausage with cereal in violation of the law. While doing the sanitary work in butcher shops, the inspectors have carefully gone over the use of cereal, so that there seems little excuse for a butcher not knowing and obeying the law. Much work has been done in cleaning up and keeping clean the tools and machinery of butcher shops. Meat grinders, choppers and sausage stuffers have been and are being carefully inspected and caused to be cleaned up. The use of chemical preservatives in meats is rare. The inspectors have been on the lookout for them and have found no samples in which they had reason to believe them present.

## OLIVE OIL.

Twenty-four samples were analyzed, 4 of which were found not standard. Three samples were cottonseed oil sold as sweet oil. It seems to have been quite a general practice to sell cottonseed oil for sweet oil. In pharmaceutical literature, the term sweet oil is used as a synonym for olive oil and not for cottonseed oil. Almost all olive oil now sold for food is free from adulteration. Other edible oils are being labeled and and sold for what they are.

## SACCHARIN PRODUCTS.

*Maple Products:*—Fourteen samples of maple sugar, maple syrup and maple butter were analyzed. Five were not standard and 9 passed as standard. Five samples of maple syrup contained an excessive amount of moisture, and for that reason, were not standard. There is a considerable quantity of maple syrup produced in this state sold in bulk to the retail dealers and directly to the consumer which we have not been able to sample and analyze. It is my intention, during the next flow of maple sap, to get in touch with this supply, and by analysis, determine its purity. The maple sugars and maple butter were found to be free from adulteration.

*Miscellaneous Saccharine Products:*—Twelve samples were analyzed, 5 of which contained benzoic acid or sodium benzoate. Most of the samples contained artificial flavor and color, and were an imitation of a fruit syrup. Three, in package form, were misbranded, in that the contents were not stated. Many mixtures of maple and sugar syrup are now on the market properly labeled and sold for what they are.

## VINEGARS.

Forty-two samples were analyzed, 30 of which were submitted by producers mainly. A large part of these samples were below standard in acetic acid, because of incomplete fermentation, or because of the fact that they were made from immature apples which did not contain the normal amount of sugar. Three cider vinegars purchased by inspectors were found to be below the legal requirements, and the analysis indicated that they were reduced products. Two samples of distilled vinegar were not properly labeled and 3 samples of glucose vinegar were sold as vinegar. The term vinegar in Wisconsin means cider vinegar. A large part of the bulk cider vinegar coming into the state has been reduced with water to a 4 or 4½ percentage strength of acetic acid. Much of this is sold to the consumer without a label or without informing him that the product is a reduced product. This makes much additional work for the inspectors and needs constant attention.

## TURPENTINE.

Forty-one samples of turpentine were analyzed, 19 of which were not standard. Three of these 19 samples were sold as second run turpentine and contained 66 to 70 per cent of a mineral oil of the nature of kerosene. What the manufacturers had in mind in using the term "second run," must have been a second dose of the adulterant. All but 2 of the remaining samples contained from 15 per cent to 33 per cent of adulteration, and one of these 2 contained 75 per cent of adulteration. This shows the necessity of vigorous work on the turpentine. Too much stress cannot be placed on this work to rid the market of this badly adulterated product.

## WHITE LEAD.

Thirty-one samples sold as white lead were found to be various brands of white, composed largely of barytes. Most of these were labeled to show the composition of the product, and, in fact, showed the product to be anything but white lead. Nevertheless, the merchants were selling them as pure white lead. This shows a lamentable lack of information or a wilful violation of the law. Much has been done for the dealers in this product, both by letters and by a special pamphlet issued in March, 1915. This pamphlet has had wide distribution and results should be forthcoming.

## MISBRANDING OF FOODS.

Many cases of misbranded foods are handled in the field by the inspectors, it being unnecessary to purchase and submit the samples to the laboratory. In many cases where the food product is purchased by the inspector, because he has reason to believe it is adulterated, we find that the food is misbranded, as well as adulterated. There has been a mistaken idea that the misbranding law relates only to food in package form. This is not true. The first subsection of section 4601aa deals with food, as

defined in section 4600, irrespective of whether it is in package form or not. If this were not so, we would find ourselves helpless in trying to stamp out some of the worst forms of misbranding. It is impossible to report here in numbers the cases of misbranding found, but it can be safely said that much good has come from the enforcement of this law.

#### LETTER OF WARNING.

During the last four months of this period, the beginning of the policy of inspection, warning and reinspection, two hundred and seventeen letters of warning were written as a result of violations of the food and drug laws. Many letters of warning were written concerning unsanitary conditions found in meat markets and stores. A careful follow-up system of reinspection is necessary in connection with this policy to insure success. While the cost of food and drug work can be stated in dollars and cents, the good accomplished is measured largely by benefits to the health of the public.



## SUMMARY ANALYSES

1483 Samples.

	No. of Samples		
BEVERAGES.....			49
Unlawful.....	22		
Free from benzoic acid, salicylic acid and saccharin.....	27		
BUCKWHEAT FLOUR.....			8
CANNED VEGETABLES.....			5
CHERRIES FOR DECORATIVE PURPOSES.....			10
CONDIMENTS.....			9
DAIRY PRODUCTS.....			236
BUTTER.....		19	
Tested for per cent of fat, foreign fat, moisture.....	4		
Submitted samples.....	15		
CREAM.....		66	
From city supplies, not standard.....	4		
From city supplies, standard.....	1		
Tested for per cent of butter fat to determine overreading or under- reading of the Babcock test.....	14		
Submitted samples.....	47		
MILK.....		143	
Delivered to cheese factories, creameries, etc., not standard.....	47		
Delivered to cheese factories, creameries, etc., standard.....	3		
Herd samples.....	32		
City milk, not standard.....	13		
City milk, standard.....	9		
Submitted samples.....	39		
EVAPORATED MILK, CHEESE AND ICE CREAM.....		8	
DRIED FRUITTS.....			24
DRUGS.....			622
HAMAMELIS WATER.....		39	
Not standard, deficient in alcohol.....	14		
Standard.....	25		
ALCOHOL.....		26	
Not standard.....	18		
Standard.....	8		
LIME WATER.....		57	
Not standard.....	10		
Standard.....	47		
SPIRIT OF CAMPHOR.....		246	
Not standard, deficient in camphor.....	95		
Not standard, standard or above in camphor, contains added water.....	3		
Not standard, contains wood alcohol.....	1		
Not standard, deficient in camphor and contains added water.....	21		
Not standard, above standard in camphor.....	30		
Standard.....	96		
SPIRIT OF NITROUS ETHER, not standard.....		7	
TINCTURE OF IODINE.....		239	
Not standard, above standard in iodine and potassium iodide.....	42		
Not standard, deficient in iodine and potassium iodide.....	93		
Not standard, above standard in iodine and below standard in potassium iodide.....	9		
Not standard, above standard in iodine.....	3		
Not standard, deficient in iodine.....	2		
Standard.....	75		
Submitted samples.....	6		
MISCELLANEOUS.....		8	
FLAVORS AND FLAVORING EXTRACTS.....			147
LEMON EXTRACT.....		71	
Not standard.....	44		
Standard.....	13		
Submitted.....	14		

## SUMMARY ANALYSES—Continued

	No. of Samples	
FLAVORS AND FLAVORING EXTRACTS—Continued		
VANILLA EXTRACT.....	22	38
Not standard.....	22	
Standard.....	16	
VANILLA EXTRACT; vanilla and tonka with vanillin and coumarin, submitted samples.....		19
COMPOUND EXTRACTS AND IMITATIONS.....		13
MISCELLANEOUS.....		6
GROUND PEPPER.....		14
Not standard.....	4	
Standard.....	10	
LINSEED OILS.....		114
BOILED.....		88
Not standard.....	54	
Standard.....	11	
Submitted samples.....	23	
RAW.....		26
Not standard.....	14	
Standard.....	6	
Submitted samples.....	6	
MEAT PRODUCTS.....		16
SAUSAGE.....		14
Found to contain more than 4% cereal.....	5	
Found to be sausage with cereal.....	8	
Found to contain artificial color.....	1	
SAUSAGE WITH CEREAL.....		2
MISCELLANEOUS FOODS.....		42
OLIVE OIL.....		24
Not standard.....	4	
Standard.....	20	
SACCHARINE PRODUCTS.....		32
MAPLE PRODUCTS.....		8
Not standard.....	3	
Standard.....	5	
MISCELLANEOUS.....		12
SUBMITTED SAMPLES.....		12
SUBMITTED SAMPLES.....		17
TURPENTINE.....		41
Not standard.....	19	
Standard.....	22	
VINEGARS.....		42
Miscellaneous.....		12
Submitted.....		30
WHITE LEAD, not standard.....		31

## BEVERAGES.

## Unlawful.

Date	Bought for	Labeled	Bought of	Manufacturer or Jobber	Remarks
1914					
April 21	Pop.....	Orange soda .....	F. J. Amborn, Hubbleton.....	F. J. Amborn, Hubbleton.....	All samples tested for saccharin. None found. Contains flies.
1915					
Mar. 26	Pop.....	Soda.....	A. Gage, Trippeville.....	Rock Springs Bottling Works, Black River Falls.....	Benzoic acid present.
May 24	Strawberry.....	Strawberry artificial.....	Kailen & Cohn, Madison.....	White Cross Springs Co., Madison.....	Benzoic acid present.
May 24	Raspberry.....	Raspberry artificial flavor and color.....	A. Jones, Madison.....	White Cross Springs Co., Madison.....	Benzoic acid present.
May 24	Cherry.....	A. Jones, cherry artificial flavor and color.....	A. Jones, Madison.....	White Cross Springs Co., Madison.....	Benzoic acid present.
May 24	Orangeade.....	Orangeade.....	L. Richmond, Madison.....	White Cross Springs Co., Madison.....	Benzoic acid present.
May 24	Orangeade.....	Orangeade.....	Kailen & Cohn, Madison.....	White Cross Springs Co., Madison.....	Benzoic acid present.
May 24	Strawberry.....	Strawberry artificial.....	Kailen & Cohn, Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 24	Orangeade.....	Orangeade, artificial color and flavor.....	Menges Pharmacy, Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 24	Strawberry.....	Strawberry artificial.....	John Colby, Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 24	Raspberry.....	Raspberry artificial.....	John Colby, Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 24	Grape.....	Grape artificial.....	Gugel Bros., Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 24	Cherry.....	Cherry artificial.....	J. F. Emery, Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 24	Orangeade.....	Orangeade artificial.....	J. F. Emery, Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 24	Grape.....	Grape artificial.....	J. F. Emery, Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 24	Raspberry.....	Raspberry artificial.....	J. F. Emery, Madison.....	White Cross Springs Co., Madison.....	Contains benzoic acid.
May 28	Orangeade.....	Orangeade. Contents 12 fluid ounces. 1-10 of 1% benzoate of soda.....	Stoughton Coöperative Co., Stoughton.....	Golden Gate Fruit Co., Alhambra, Cal.....	Contains benzoic acid and a coal-tar dye. Misbranded as to contents. Trace of benzoic acid present.
May 30	Pop.....		White Cross Springs Co., Madison.....	White Cross Springs Co., Madison.....	Contains small amount of benzoic acid.
June 1	Raspberry.....	Raspberry.....	B. F. Stack, Madison.....	Heibel Bottling Co., Madison.....	Contains small amount of benzoic acid.
June 1	Raspberry.....	Raspberry.....	M. Diederich, Madison.....	Heibel Bottling Co., Madison.....	Contains small amount of benzoic acid.
June 1	Raspberry soda.....	Raspberry artificial color and flavor.....	Frank Muetz, Pheasant Branch.....	Heibel Bottling Co., Madison.....	Contains small amount of benzoic acid.
June 1	Raspberry.....	Raspberry.....	Endres & Buser, Madison.....	Heibel Bottling Co., Madison.....	Contains small amount of benzoic acid.

Free from Benzoic Acid, Salicylic Acid and Saccharin.

Date	Purchased for	Purchased of	Manufacturer or Jobber
1914			
Aug. 21	Pop.....	F. J. Amborn, Hubbleton.....	F. J. Amborn, Hubbleton.
Aug. 21	Pop.....	F. J. Amborn, Hubbleton.....	F. J. Amborn, Hubbleton.
1915			
Jan. 18	Pop.....	D. H. Shepherd, Platteville.....	D. H. Shepherd, Platteville.
Mar. 15	Pop.....	F. T. Gundry, Shullsburg.....	Chas. Lee, Shullsburg.
Mar. 16	Pop.....	E. B. McGreane, Darlington.....	Badger State Bottling Works, Darlington.
Mar. 16	Alfalfene.....	B. B. McGreane, Darlington.....	Badger State Bottling Works, Darlington.
Mar. 16	Pop.....	F. C. Hocking, Darlington.....	M. N. Miller, Rockford, Ill.
Mar. 16	Pop.....	R. C. Shotliff, Wilmot.....	F. G. Klein Co., Burlington.
Mar. 30	Soda.....	Alloch & Son, Grand Rapids.....	Grand Rapids Bottling Works, Grand Rapids.
May 13	Pop.....	Thos. Winter, Babcock.....	Grand Rapids Bottling Works, Grand Rapids.
May 14	Pop.....	G. A. Sutherland, Stevens Point.....	Chas. G. Kuhl, Stevens Point.
May 21	Pop.....	L. Richmond, Madison.....	White Cross Springs Co., Madison.
May 24	Grape.....	M. H. O'Neil, Madison.....	White Cross Springs Co., Madison.
May 24	Orangeade.....	M. H. O'Neil, Madison.....	White Cross Springs Co., Madison.
May 24	Grape.....	M. H. O'Neil, Madison.....	White Cross Springs Co., Madison.
May 24	Raspberry.....	M. H. O'Neil, Madison.....	The Heibel Bottling Co., Madison.
May 26	Wild cherry.....	J. G. Hyland, Madison.....	The Heibel Bottling Co., Madison.
May 26	Raspberry.....	J. G. Hyland, Madison.....	The Heibel Bottling Co., Madison.
May 26	Orangeade.....	Geo. Swarz, Madison.....	The Heibel Bottling Co., Madison.
May 26	Wild cherry.....	Geo. Swarz, Madison.....	White Cross Springs Co., Madison.
May 30	Pop (six samples).....	White Cross Springs Co., Madison.....	Middleton Bottling Works, Middleton.
June 1	Raspberry soda.....	Frank Muetz, Pheasant Branch.....	Edgar Bottling Works, Edgar.
June 11	Pop.....	Edgar Bottling Works, Edgar.....	

## BUCKWHEAT FLOUR.

Date	Labeled	Purchased of or Submitted by	Remarks
1914			
Oct. 23	Self-rising buckwheat flour.....	Bur's Grocery, Green Bay.....	Misbranded. A compound sold as buckwheat flour. Tested for foreign starch. None found. Sample is very dark and has the appearance of being old stock.
Nov. 2		*Mrs. E. W. Curtis, Fort Atkinson.....	
Nov. 20	Buckwheat flour: absolutely pure.....	Shurman & Shurman, Fond du Lac.....	Standard.
Nov. 28	Reedsburg Roller Mills, buckwheat flour.....	J. G. Heaton, Reedsburg.....	Standard.
Nov. 30	Pure, fresh buckwheat flour.....	E. E. Parker Co., Madison.....	Standard.
Dec. 30		*Sidney Higgins, Viroqua.....	Standard.
1915			
Jan. 16		*N. E. Adkison, Platteville.....	Standard.
Feb. 24		*Othersall & Sorenson, Antigo.....	Not standard. Contains approximately 10% of a wheat or rye product.

\*Submitted samples.

## CANNED VEGETABLES.

Date	Bought for	Labeled	Bought of	Remarks
1915				
Jan. 26	Imported peas.....	Imported peas.....	Frank Johnson, Lake Geneva.....	Standard.
Jan. 26	French peas.....	Petits' Pois Fins.....	C. O. Gilbert, Lake Geneva.....	Standard.
Jan. 26	Macedoine.....	Macedoine colored with copper sulphate.....	Frank Johnson, Lake Geneva.....	Contains a copper compound. Misbranded in that the quantity of contents is not stated.
Jan. 26	Horicot Verts.....	Horicots Verts colored with sulphate of copper.....	Frank Johnson, Lake Geneva.....	Contains a copper compound. Misbranded in that the quantity of contents is not stated.
May 19	Canned peas.....	Noyens No. 2, colored with sulphate of copper.....	E. N. Wold, Amherst.....	Contains a copper compound.

### CHERRIES FOR DECORATIVE PURPOSES.

Date	Bought for	Labeled	Bought of	Manufacturer or Jobber	Remarks
1914 Sept. 17	Canned cherries.....	Ruby cherries, 1-10 of 1% benzoate of soda. Flavored with benzaldehyde. Artificially colored.....	Bittner & Tetzlaff, Watertown.....	Cleveland Fruit Juice Co., Cleveland, Ohio.....	Not standard. Contains benzoic acid.
1915 Mar. 12	Maraschino cherries.....	Maraschino cherries.....	Carroll Bros., Monroe.....	Franklin MacVeagh & Co., Chicago.....	Misbranded. No statement of contents.
April 28	Cherries.....	Cherries. Artificially colored and flavored.....	L. H. Kolb, Bagley.....	John T. Hancock Co., Dubuque, Iowa .....	Misbranded. No statement of contents.
May 19	Cherries, canned.....	Cherries. Imitation Maraschino flavor. Artificially colored.....	A. E. Surenson, Viroqua.....	Armour & Co., Chicago.....	Not standard. Contains a trace of benzoic acid.
May 19	Cherries, canned.....	Cherries. Artificially colored and flavored.....	A. E. Surenson, Viroqua.....	Reid, Murdock & Co., Chicago.....	Passed.
May 28	Cherries.....	Cherries. Artificially colored and flavored.....	Grahn-Hoffman Co., Stoughton.....	Cincinnati Extract Works, Cincinnati, Ohio.....	Passed.
June 9	Canned cherries.....	Cherries. Artificially colored and flavored.....	Black's Sanitary Grocery, Ft. Atkinson .....	Skelly-Chapman Co., Chicago.....	Passed.
June 9	Cherries, canned.....	Cherries. Artificially colored and flavored.....	Black's Sanitary Grocery, Ft. Atkinson .....	Henry H. Shufeld & Co., Peoria, Ill.....	Passed.
June 9	Cherries, canned.....	Cherries. Artificially colored and flavored.....	Black's Sanitary Grocery, Ft. Atkinson .....	Skelly-Chapman Co., Chicago, Ill.....	Passed.
June 22	Canned cherries.....	Cherries. .001 benzoate of soda.....	Verbeten & Van Handel Co., Kimberly.....	.....	Not standard. Contains benzoic acid.



## CONDIMENTS.

Date	Kind	Labeled	Bought of	Manufacturer or Jobber	Remarks
1914					
Aug. 17	Catsup.....	Pure catsup.....	M. Schulgen, Lodi.....	Fred C. Edler, Chicago.....	Misbranded, in that quantity of contents is not stated.
Dec. 22	Tomato paste.....	Tomato paste. 1-10 of 1% benzoate of soda.....	Pontazos Bros., Milwaukee.....	King Cereal & Mfg. Co., Chicago.....	Tested for benzoate of soda. None found.
Dec. 22	Tomato paste.....	Tomato paste. 1-10 of 1% benzoate of soda.....	E. Kalyvos, Milwaukee.....	King Cereal & Mfg. Co., Chicago.....	Tested for benzoate of soda. None found.
Dec. 23	Tomato paste.....	Tomato paste. 1-10 of 1% benzoate of soda.....	Geo. Paulos & Co., Milwaukee.....	King Cereal & Mfg. Co., Chicago.....	Tested for benzoate of soda. None found.
Dec. 24	Tomato catsup.....	Tomato catsup. Guaranteed pure.....	J. Hirschberg, Milwaukee.....	E. R. Pahl & Co., Milwaukee.....	Passed.
1915					
Mar. 22	Tomato catsup.....	Pure tomato catsup.....	L. M. Burt, Brooklyn.....	Amboy Products Co., Amboy, Ill.....	Passed.
Mar. 25	Catsup.....	Catsup, Bentel's.....	P. T. Andrew, La Farge.....		High in bacteria. Contains 48,000,000 bacteria per cubic centimeter.
May 24	Tomato catsup.....	Best quality catsup, prepared from sound, ripe tomatoes.....	H. R. McDonald, Marshfield.....	Bentel Pickling & Canning Co., Bay City, Mich.....	High in molds and bacteria. Contains 42,000,000 bacteria per cubic centimeter.
June 1	Onion salad.....	Onion salad.....	John Youngblood, Pheasant Branch.....	Keystone Relish Co., Chicago.....	Passed.

## DAIRY PRODUCTS.

## Butter Tested for Per Cent of Fat, Foreign Fat, Moisture.

Date	Purchased of	Manufacturer or Jobber	Remarks
1914			
July 15	C. B. Benson, Edgewater.....	Rhineland Creamery & Produce Co., Rhineland.....	Tested for foreign fat. None found
Sept. 24	W. J. Neu, Three Lakes.....		Moisture 16.12%.
1915			
June 16	W. A. Cooper, Berlin.....	Geo. Blumenstein, Berlin.....	Moisture 13.55%; fat 81.57%. Below standard in fat.
June 16	Geo. Blumenstein, Berlin.....	Geo. Blumenstein, Berlin.....	Moisture 15.18%; fat 80.1%. Below standard in fat.

## Butter. Submitted Samples.

Date	Submitted by	Remarks
1914		
Aug. 26	Nic. Bruehl, Sherwood.....	Tested for foreign fat. None found.
Oct. 26	Mrs. S. Compton, New Lisbon.....	Tested for foreign fat. None found.
Nov. 14	Mrs. Henry Henrickson, Adams.....	Tested for foreign fat. None found.
Nov. 19	Mrs. Louis Kahlenberg, Madison.....	Odor strong, almost rancid.
Dec. 12	W. W. Sowle, Medford.....	Tested for foreign fat. None found.
Dec. 14	Mrs. John Pawelski, Eau Claire.....	Tested for foreign fat. None found.
Dec. 23	H. C. Larson, Madison.....	Contains 84.2% fat. No foreign fat found.
Dec. 30	Cohen Bros., Spring Green.....	Contains 83.25% fat. No foreign fat found.
1915		
Feb. 3	The Nash Grocery Co., Grand Rapids.....	Found to be infected with a mold.
Feb. 4	F. A. Maas, Shiocton.....	Tested for foreign fat. None found.
Feb. 16	O. Iverson, Oshkosh.....	Tested for foreign fat. None found.
Mar. 2	A. J. Kull, Ashland.....	Tested for foreign fat. None found.
Mar. 10	Health Department of the city of Racine.....	Moisture 14.83%. No foreign fat found.
Mar. 22	Schuette Bros. Co., Manitowoc.....	Tested for foreign fat. None found.
April 10	A. H. Craig, Mukwonago.....	Tested for foreign fat. None found.



**DAIRY PRODUCTS—Continued.**  
**Cream from City Supplies. Not Standard.**

Date	Bought of	Per Cent Milk Fat
1915		
Feb. 26	Herman Fenner, Sheboygan Falls.....	13.00
Mar. 10	G. Hoppe, Port Washington.....	15.0
April 21	Rockwood & Son, Eau Claire.....	15.25
May 20	F. C. Lang, Rice Lake.....	17.00

**Cream from City Supply. Standard.**

Date	Bought of	Per Cent Milk Fat
1914		
Nov. 16	Kennedy Dairy Co., Madison.....	32.0

**Cream Samples Tested for Per Cent of Butter Fat to Determine Overreading or Underreading of Babcock Test.**

During the period covered by this report, fourteen samples of cream were collected by members of the commission with the view of determining whether or not overreading or underreading of the Babcock test was being practiced by the purchasers of cream who were paying for the same on the basis of the butter fat contained therein as determined by the Babcock test. The percentage of fat in these samples was determined in the laboratory.

# Cream. Submitted Samples.

Date	Submitted by	Per Cent Milk Fat	Remarks
1914		37.1	Tested for preservatives and gelatine. None found.
July 3	J. J. Wilke, Fall Creek.....	26.0	
July 9	F. M. Buzzell, Chippewa Falls.....	25.0	Sample No. 1. Sample No. 2.
Aug. 19	G. H. Reetz, Fall Creek.....	57.0	
Aug. 26	Ewald Bros., Mayville.....	60.0	
Sept. 17	C. M. Corcoran, Beloit.....	23.75	
Sept. 17	C. M. Corcoran, Beloit.....	26.5	
Oct. 20	Robt. Long, Westboro.....	32.0	
Oct. 26	Robt. Long, Westboro.....	35.0	
Nov. 15	A. A. Eisenman, De Pere.....	20.3	
Nov. 20	H. B. Russell, Butternut.....	15.0	
Nov. 21	Much & Mallery, Berlin.....	41.0	
Dec. 9	R. L. Adams, Doxman.....	43.0	Sample "No. 12."
Dec. 12	Sanitary Creamery Co., Boscobel.....	20.0	Sample "No. 13."
Dec. 12	Sanitary Creamery Co., Boscobel.....	25.50	Sample "No. 1."
Dec. 15	H. C. Larson, Madison.....	25.0	Sample "No. 2."
Dec. 15	H. C. Larson, Madison.....	27.0	Sample "No. 3."
Dec. 15	H. C. Larson, Madison.....	27.5	Sample "No. 4."
Dec. 15	O. A. Stolen, Junction City.....	33.1	
Dec. 22	Eastman Butter & Electric Co., Eastman.....		
1915		37.5	
Jan. 2	Sanitary Creamery Co., Boscobel.....	34.0	Tested for preservatives. None found.
Jan. 14	Sanitary Creamery Co., Boscobel.....	23.0	
Jan. 16	Robt. Long, Westboro.....	32.0	
Feb. 8	Mineral Point Creamery Co., Mineral Point.....	25.0	
Feb. 8	A. F. Schultz, Phlox.....	15.4	
Mar. 1	Charley Wolfram, Reeseville.....	29.5	
Mar. 9	Badger Cooperative Creamery Co., Elroy.....	33.6	
Mar. 17	O. A. Stolen, Junction City.....	38.25	
Mar. 30	J. Schaefer, Reeseville.....	29.0	
Mar. 31	Sarah Dodge, Doylestown.....	26.5	
April 2	Frank Ertle, Oak Center.....	27.3	
April 3	Badger Cooperative Creamery Co., Elroy.....	27.3	
April 19	Fred Waddell, Cottage Grove.....	37.1	
April 19	Fred Waddell, Cottage Grove.....	26.9	
April 21	F. Erte, Oak Center.....	31.0	
April 21	Burnie Knutson, Taylor.....	20.2	
May 3	W. E. Hutchins, Mattoon.....		
May 15	R. Else & Son, Janesville.....		

**DAIRY PRODUCTS—Continued.**  
**Cream. Submitted Samples—Continued.**

Date	Submitted by	Per Cent Milk Fat	Remarks
1915			
May 22	John Bushmaker, Junction.....	33.4	
May 31	Frank Zinc, Doylestown.....	24.0	
June 2	D. W. Cartwright, Minong.....	26.5	
June 15	W. G. Roepke, Durand Creamery Co., Durand.....	27.75	Sample "No. 9." Sample "No. 10."
June 15	W. G. Roepke, Durand Creamery Co., Durand.....	21.8	
June 16	W. Procknow, New London.....	32.5	
June 18	J. E. Minton, Mellen.....	29.0	
June 28	N. C. Crowley, Baraboo.....	22.50	
June 29	Chas. Ream, Omro.....	23.0	

**Milk. Not Standard. Delivered to Cheese Factories, Creameries, Condenseries, or City Milk Dealers.**

Date	Sold or Delivered by	Sold or Delivered to	Sp. G. 15.5°	Per Cent Milk Fat	Per Cent Total Solids	Per Cent Solids Not Fat	I. R. of Whey (20° C.)	Remarks
1914								
July 1	Harry Spaulding, Windsor.....	Token Creek Cheese Factory.....	1.0311	2.7	10.75	8.05		
July ....	Frank Feuling, Windsor.....	Token Creek Cheese Factory ..	1.0342	2.55	11.70	9.15		Skimmed; not standard.
July 16	C. Lucas, Spring Green.....	Sunrise Cheese Factory.....	1.0280	2.95	10.34	7.39	37.0	Watered; not standard.
July 17	H. S. Agin, Granton.....	York Cheese Factory.....	1.0313	2.9	11.15	8.25		
July 21	John Henfert, Caroline.....	Caroline Cheese Factory.....	1.0259	2.8	9.63	6.83	36.2	Heavily watered.
July 28	Chas. Hohab, New London.....	O. G. Guelson, Milk Dealer .....	1.0243	2.75	9.30	6.55	35.15	Heavily watered.
Aug. 13	J. Kearns, Mineral Point.....	Defiance Factory.....	1.0304	3.55	11.93	8.38	39.35	Slightly below standard in solids not fat as given by cows.
Aug. 13	W. T. Godfrey, Mineral Point.....	Defiance Factory.....	1.0287	2.9	10.46	7.56	37.7	Watered.
Aug. 14	Mrs. A. Drager, Brillion.....	Kasson Cheese Factory.....	1.0272	3.30	10.91	7.61	38.55	Watered.
Aug. 14	Chas. Fritsch, Brillion.....	Kasson Cheese Factory.....	1.0279	2.95	10.53	7.58	37.5	Watered.
Aug. 14	Mrs. Aug. Koerth, Brillion.....	Kasson Cheese Factory.....	1.0252	3.35	10.33	6.98	36.0	Watered.
Oct. 6	Robt. Henry, Cazenovia.....	Hawkins Creek Cheese Factory.....	1.0273	2.65	10.08	7.43	37.3	Watered.
Oct. 21	Robt. Fraser, Evansville.....	Magnolia Skimming Station.....	1.0279	3.65	11.13	7.48	38.5	Watered.
Oct. 21	John Gorey, Evansville.....	Magnolia Skimming Station.....	1.0275	4.40	12.21	7.81	38.75	Watered.
Oct. 28	Geo. Schwab, Seymour.....	Diedrich Cheese Factory.....	1.0270	4.1	11.60	7.50	37.9	Watered.
Dec. 9	Robt. Westphal, Knowles.....	Dell Rock Cheese Factory.....	1.0242	3.0	9.41	6.41	36.0	Watered.
Dec. 30	Thos. Doolan, Wayside.....	Denmark Condensary.....	1.0134	1.65	5.33	3.35	26.1	Watered.
Dec. 30	John Lee, Wayside.....	Denmark Condensary.....	1.0191	2.65	7.96	4.78	30.4	Watered.
Dec. 31	Thos. Doolan, Wayside.....	Denmark Condensary.....	1.0133	1.5	5.13	3.33	25.2	Watered.

Jan. 21	Jac. Bayens, Sheboygan.....	Union Dairy Co.....	1.0262	2.85	9.85	7.00	36.0	Watered.
Jan. 22	Fred Born, Sheboygan.....	Ulrich Siegel Milk Plant.....	1.0312	2.75	11.06	8.31	39.3	
Jan. 27	A. Hodan, Friendship.....	E. E. Smith's Dairy.....	1.0284	3.55	11.12	7.57	37.2	Watered.
Jan. 27	A. Hodan, Friendship.....	E. E. Smith's Dairy.....	1.0250	2.8	9.38	6.58	34.0	Watered.
Feb. 5	Geo. Rockwell, Sheboygan.....	Herman Bros. Milk Depot.....	1.0273	3.00	10.31	7.31	37.0	Watered.
Feb. 9	Robt. Ziebel, Allenton.....	Badger State Cheese Factory.....	1.0312	3.2	11.43	8.23	40.3	Below standard in solids; not fat.
Feb. 9	Robt. Denger, Hartford.....	Badger State Cheese Factory.....	1.0276	3.8	11.50	7.70	37.8	Watered.
Feb. 19	D. J. Morris, Genesee.....	Spring Brook Creamery.....	1.0238	2.8	9.17	6.37	35.1	Watered.
Feb. 26	Steve Peters, Plymouth.....	Valley Cheese Factory.....	1.0248	2.3	8.57	6.27	34.8	Watered.
Mar. 10	G. Hoppe, Port Washington.....	City supply.....	1.0309	2.7	10.99	8.29	40.2	Below standard in fat and solids; not fat.
Mar. 11	Mrs. John Bauer, Plain.....	Plain Cheese Factory.....	1.0286	2.85	10.38	7.53	38.0	Below standard in fat and solids; not fat.
Mar. 11	Fred Schoenmann, Plain.....	Plain Cheese Factory.....	1.0328	2.4	10.64	8.24	40.9	Below standard in fat and solids; not fat.
Mar. 19	Mrs. Marie Hanrahan, Kewaunee.....	L. J. Blahnik Cheese Factory.....	1.0337	2.4	11.46	9.06	41.7	Skimmed.
April 6	McFarland Bros., Watertown.....	Watertown city supply.....	1.0305	3.0	11.00	8.00	39.9	Below standard in solids; not fat.
April 6	Watertown Creamery Co., Watertown.....	Watertown city supply.....	1.0331	2.4	10.79	8.39	40.6	
April 9	M. Knowles, Lima.....	Whitewater Condensary.....	1.0345	0.7	9.30	8.90	41.1	Skimmed.
April 17	Retzlaff Bros., Hilbert.....	Lindow Cheese Factory.....	1.0282	3.5	11.19	7.69	38.0	Watered.
May 4	Oscar Peterson, Viola.....	Viola city supply.....	1.0339	2.9	11.63	8.73		
May 7	F. Hopplin, Fall River.....	Hard Stone Cheese Factory.....	1.0325	2.2	10.20	8.0	42.0	
May 7	August Kruschke, Fall River.....	Hard Stone Cheese Factory.....	1.0338	2.3	11.12	8.82		
May 18	W. J. Haima, Cambria.....	Randolph Center Cheese Factory.....	1.0358	1.7	10.84	9.14		Skimmed.
June 4	Leon Lange, Columbus.....	Fountain Prairie Cheese Factory.....	1.0309	2.8	11.07	8.27		
June 4	H. T. Roberts, Columbus.....	Fountain Prairie Cheese Factory.....	1.0325	2.9	11.69	8.79		
June 16	Andrew Frank, Fox Lake.....	Trenton Cheese Factory.....	1.0327	2.4	11.04	8.64		Skimmed.
June 29	Aaron Dennis, Darlington.....	Fayette Cheese Factory.....	1.0333	2.95	11.40	8.45		Skimmed.
June 29	Dan. McIlloin, Blanchardville.....	Fayette Cheese Factory.....	1.0329	2.6	11.10	8.50		Skimmed.
June 29	Chris. Severson, Darlington.....	Fayette Cheese Factory.....	1.0329	3.0	11.71	8.71		Skimmed.
June 29	Geo. Duff, Darlington.....	Fayette Cheese Factory.....	1.0336	2.80	11.41	8.61		Skimmed.

### Milk Delivered at Cheese Factories or Creameries. Standard.

Date	Sold or Delivered by	Delivered to
1914		
July 8	J. Schadran, Hartford.....	Schadron Cheese Factory, Hartford.
July 15	Mrs. M. Finger, Sun Prairie.....	Golden Rod Cheese Factory, Sun Prairie.
1915		
Mar. 20	Anton Gallenberger, Kewaunee.....	Blahnik Cheese Factory, Kewaunee.

## DAIRY PRODUCTS—Continued.

Herd Samples Collected by Inspectors in Connection with Samples Taken at Cheese Factories, Creameries, and City Milk Supplies, Sent to Laboratory for Analysis.

Date	From Herd of	Sp. G. 15.5°	Per Cent Milk Fat	Per Cent Total Solids	Per Cent Solids Not Fat	I. R. of Whey at 20° C.	Remarks
1914							
July 2	Art. Milke, Johnson Creek.....	1.0285	4.1	12.13	8.03	38.4	Morning's milk.
July 2	Art. Milke, Johnson Creek.....	1.0293	3.25	11.11	7.86	38.8	Night's milk.
July 7	Frank Feuling, Sun Prairie.....	1.0322	3.75	12.50	8.75		Night's milk.
July 8	Frank Feuling, Sun Prairie.....	1.0312	4.3	13.13	8.83		Morning's milk.
July 8	Harry Spalding, Windsor.....	1.0286	4.35	12.31	7.96		Night's milk.
July 9	Harry Spalding, Windsor.....	1.0281	4.15	12.06	7.91		Morning's milk.
July 17	H. S. Agin, Granton.....	1.0301	4.13	12.30	8.17		
July 21	John Henfert, Caroline.....	1.0335	3.18	11.79	8.61	41.0	
July 21	C. Lucas, Spring Green.....	1.0292	4.0	11.83	7.83	39.8	
July 28	Chas. Hohah, New London.....	1.0320	3.95	12.58	8.63	41.6	
Aug. 13	J. Kearns, Mineral Point.....	1.0318	3.5	12.18	8.68	39.4	Night's milk.
Aug. 14	W. T. Godfrey, Mineral Point.....	1.0309	3.10	11.59	8.49	39.8	Night's milk.
Aug. 14	Mrs. Aug. Koerth, Brillion.....	1.0314	3.8	12.51	8.71	40.25	
Oct. 14	Robt. Henry, Cazenovia.....	1.0309	5.15	13.84	8.69	42.3	
Oct. 28	Geo. Schwab, Seymour.....	1.0300	4.1	12.60	8.50		
Dec. 10	Robt. Westphal, Knowles.....	1.0308	4.35	12.76	8.41	41.0	
Dec. 11	Robt. Westphal, Knowles.....	1.0310	4.20	12.53	8.33	41.3	
Dec. 30	Wm. Miller, Reedsburg.....	1.0315	2.65	10.88	8.23	40.8	
1915							
Jan. 4	John Lee, Wayside.....	1.0303	4.95	13.23	8.28	39.35	Night's milk.
Jan. 21	Jacob Bayens, Sheboygan.....	1.0313	3.4	11.82	8.42	39.8	
Jan. 26	Fred Born, Sheboygan.....	1.0340	4.6	13.67	9.07	42.0	
Feb. 2	Gus. Maigatter, Kewaunee.....	1.0330	4.4	13.26	8.86		Night's milk.
Feb. 5	Geo. Rockwell, Sheboygan.....	1.0307	3.7	11.97	8.27	40.0	
Feb. 12	Robt. Derge, Hartford.....	1.0322	4.8	13.73	8.93	41.8	
Feb. 12	Robt. Derge, Hartford.....	1.0327	4.8	13.81	9.01	41.6	
Feb. 19	D. J. Morris, Genesee.....	1.0306	5.4	13.73	8.33	40.8	Night's milk.
Mar. 19	Anton Gallenberger, Kewaunee.....	1.0312	3.7	12.30	8.60	40.8	
Mar. 19	Mrs. Marie Hanrahan, Kewaunee.....	1.0337	3.8	12.63	8.83	41.5	
Mar. 19	M. J. Hawes, Whitewater.....	1.0326	4.65	13.65	9.00	42.0	Mixed sample.
April 19	Melvin Knowles, Lima.....	1.0317	3.95	12.45	8.50		Night's milk.
April 19	Retzlaff Bros., Hilbert.....	1.0308	3.75	12.05	8.30	40.0	
April 20	Melvin Knowles, Lima.....	1.0308	4.40	12.61	8.21		Morning's milk.



## City Milk. Not Standard.

Date	Sold by	City	Sp. G. 15.5°	Per Cent Milk Fat	Per Cent Total Solids	Per Cent Solids Not Fat	I. R. of Whey at 30° C.	Remarks
1914								
Nov. 17	Capitol Hotel, Madison.....	Madison.....	1.0367	0.4	9.68	9.28	41.3	Skimmed.
Dec. 2	Chas. Fries, Richland Center.....	Richland Center.....	1.0308	2.85	11.12	8.27	39.3	
Nov. 30	Thos. Costello, Richland Center.....	Richland Center.....	1.0372	1.80	11.46	9.66		Skimmed.
Dec. 24	Wm. Miller, Reedsburg.....	Reedsburg.....	1.0312	2.47	10.72	8.25	40.10	
1915								
Jan. 30	G. Maigatter, Kewaunee.....	Kewaunee.....	1.0340	2.8	12.20	9.40		Skimmed.
Feb. 2	Wm. Miller, Reedsburg.....	Reedsburg.....	1.0300	3.1	11.35	8.25		
Feb. 11	Henry Rahmlow, Two Rivers.....	Two Rivers.....	1.0341	2.5	11.31	9.81		Skimmed.
Feb. 19	Gus. Maigatter, Kewaunee.....	Kewaunee.....	1.0333	3.2	12.12	8.92	42.3	Skimmed.
Feb. 24	Tom Anderson, Janesville.....	Janesville.....	1.0279	3.00	10.16	7.16	37.5	Watered.
Feb. 25	Henry Staab, Waukesha.....	Waukesha.....	1.0308	3.2	11.44	8.24	40.3	
Mar. 23	Chas. Roepke, Wauwatosa.....	Wauwatosa.....	1.0275	3.9	11.35	7.45	38.25	Watered.
Mar. 24	F. Tancher, Cudahy.....	Cudahy.....	1.0276	3.5	10.98	7.48	38.0	Watered.
May 21	Anton Zastro, Portage.....	Portage.....	1.0343	2.7	11.89	9.19		Skimmed.

## City Milk. Standard.

Date	Sold by	City	Sp. G.	Per Cent Milk Fat	Per Cent Total Solids	Per Cent Solids Not Fat	I. R. of Whey at 20° C.	Remarks
1914								
Nov. 16	Kennedy Dairy Co., Madison.....	Madison.....		3.85	12.95	9.10		Tested for boric acid; none found.
Nov. 17	Park Hotel, Madison.....	Madison.....	1.0308					
Nov. 30	N. L. James, Richland Center.....	Richland Center.....	1.0338	4.8				
Dec. 1	*John Bann, Richland Center.....	Richland Center.....	1.0329	4.8				
Dec. 1	*Stephen Foley, Richland Center.....	Richland Center.....	1.0331	5.3				
Dec. 1	*Thos. Costello, Richland Center.....	Richland Center.....	1.0334	5.0				
Dec. 1	*John Johnson, Richland Center.....	Richland Center.....	1.0336	5.3				
Dec. 1	*John Johnson, Richland Center.....	Richland Center.....	1.0331	5.0				
Dec. 1	*John Johnson, Richland Center.....	Richland Center.....	1.0333	4.85				

\*Sample taken as milk was delivered at Thos. Costello Dairy, Richland Center.



**DAIRY PRODUCTS—Continued.**  
**Submitted Milks. Tested for Percentage of Fat.**

Date	Submitted by	Per Cent Milk Fat	Remarks
1914			
July 3	J. J. Wilke, Fall Creek.....	0.09	Submitted as skimmed milk.
July 3	J. J. Wilke, Fall Creek.....	3.55	
July 14	Erich Schramm, North Freedom.....	5.7	Night's milk.
July 14	Erich Schramm, North Freedom.....	6.2	Morning's milk.
Aug. 26	Carl Frehner, Beloit (8 samples).....	3.7	Marked "John Haverdahl."
Aug. 26	Carl Frehner, Beloit (8 samples).....	4.0	Marked "M. Michelson."
Aug. 26	Carl Frehner, Beloit (8 samples).....	3.7	Marked "John Ommodt."
Aug. 26	Carl Frehner, Beloit (8 samples).....	4.2	Marked "A. Severson."
Aug. 26	Carl Frehner, Beloit (8 samples).....	3.9	Marked "N. Fossum."
Aug. 26	Carl Frehner, Beloit (8 samples).....	4.2	Marked "Carl Berns."
Aug. 26	Carl Frehner, Beloit (8 samples).....	4.0	Marked "M. Renley."
Aug. 26	Carl Frehner, Beloit (8 samples).....	3.4	Marked "N. Hogan."
Sept. 7	F. O. Uehling, Brodhead.....	4.2	
Dec. 4	O. A. Stolen, Junction City.....	3.25	
Dec. 4	A. A. Eisenman, De Pere.....	4.3	
1915			
Jan. 6	Miss F. Disch, Monroe.....	4.1	
Mar. 2	Melvin Uhl, New Holstein.....	3.25	
Mar. 3	Miss Disch, Monroe.....	3.7	
Mar. 29	Jas. Larsen, Clinton.....	3.7	
April 26	Helvetia Milk Condensing Co., New Glarus.....	2.8	
April 27	Henry Engelbert, Luxembourg.....	3.10	
May 17	Leroy Landon, Muscoda (12 samples).....	3.70	Marked "Chester Robinson."
May 17	Leroy Landon, Muscoda (12 samples).....	3.25	Marked "Myron Antisdale."
May 17	Leroy Landon, Muscoda (12 samples).....	3.50	Marked "Clay Porter."
May 17	Leroy Landon, Muscoda (12 samples).....	3.70	Marked "Fred Edgerly."
May 17	Leroy Landon, Muscoda (12 samples).....	3.50	Marked "Frank Kever."
May 17	Leroy Landon, Muscoda (12 samples).....	3.60	Marked "Fred Schneider."
May 17	Leroy Landon, Muscoda (12 samples).....	3.65	Marked "D. Ewers."
May 17	Leroy Landon, Muscoda (12 samples).....	3.55	Marked "Pete Heins."
May 17	Leroy Landon, Muscoda (12 samples).....	3.95	Marked "Tom Cook."
May 17	Leroy Landon, Muscoda (12 samples).....	3.45	Marked "Will Johnson."
May 17	Leroy Landon, Muscoda (12 samples).....	4.30	Marked "Harry Miller."
May 17	Leroy Landon, Muscoda (12 samples).....	3.85	Marked "Earl Antisdale."
May 20	J. C. Dodge, Windsor.....	3.2	
June 17	Fred Kramer, Kennan.....	3.3	
June 18	J. Lutchchand, Unity.....	3.4	Marked "No. 4."
June 18	L. Lutchchand, Unity.....	3.8	Marked "No. 2."
June 18	Carl Dorn, Merton, R. D. Hartland.....	4.0	
June 27	J. A. Tuttle, Oconto.....	3.25	

Evaporated Milk, Cheese and Ice Cream.

Date	Bought for	Bought of	Remarks
1914			
Oct. 6	Evaporated milk .....	B. L. Appleby, Twin Bluffs .....	Standard.
Nov. 30	Evaporated milk .....	E. E. Parker Co., Madison .....	Standard.
1915			
Feb. 25	Cheese .....	Louis Riesch, St. Lawrence .....	Standard.
May 4	Ice Cream .....	T. J. Gallo, Ladysmith .....	Standard.
May 4	Ice Cream .....	M. W. Mallinson, Ladysmith .....	Below standard in fat.
May 12	Evaporated milk .....	Roberts & Alexander, Elroy .....	Standard.
May 18	Goat Cheese .....	Coon Valley Mercantile Co., Coon Valley .....	Tested for preservatives. None found.
May 21	Skim cheese .....	Otto J. Hagen, Westby .....	A potted cheese made of skimmed milk.

# **DRIED FRUITS.** **Tested for Sulphur Dioxide.**

Date	Bought for	Labeled	Bought of	Remarks
1914				
Dec. 8	Seeded raisins.....	Seeded raisins.....	Geo. Elser, Beaver Dam.....	Standard.
Dec. 8	Evaporated apples.....	Evaporated apples bleached with sulphur.....	S. H. Collingsworth, Beaver Dam.....	Test for sulphur dioxide negative.
Dec. 22	Raisins.....	Cleaned, Thompson seedless, sulphur bleached.....	Rigas & Thomas, Milwaukee.....	Sulphur dioxide, 0.1208%.
1915				
Mar. 9	Bleached raisins.....	Fancy bleached Thompson's seeded raisins.....	A. W. Buck & Son, Dayton.....	Sulphur dioxide, 0.0475%.
Mar. 11	Seedless raisins.....	Cleaned seedless raisins.....	F. J. Bowen, Brodhead.....	Test for sulphur dioxide negative.
Mar. 12	Seedless bleached raisins.....	Thompson's seedless raisins, bleached with sulphur.....	C. L. Chambers, Monroe.....	Sulphur dioxide, 0.1046%.
Mar. 12	Bleached raisins.....	Bleached raisins.....	Young & Co., Monroe.....	Sulphur dioxide, 0.0350%.
Mar. 12	Evaporated apples.....	Apples bleached with sulphur.....	Carroll Bros., Monroe.....	Test for sulphur dioxide negative. Insects and worms present.
Mar. 12	Evaporated apples.....	Evaporated apples bleached with sulphur.....	Carroll Bros., Monroe.....	Test for sulphur dioxide negative.
Mar. 22	Bleached raisins.....	Bleached raisins.....	Economy Grocery Dept., Evansville.....	Sulphur dioxide, 0.094%.
Mar. 25	Bleached raisins.....	Evaporated apples, sulphur treated.....	Baltz & Son, Ontario.....	Sulphur dioxide, 0.1861%.
Mar. 25	Evaporated apples.....	Evaporated apples, sulphured.....	Baltz & Son, Ontario.....	Test for sulphur dioxide negative. Dirt and worms present. Adulterated.
Mar. 25	Evaporated apples.....	Evaporated apples.....	C. D. Miller, La Farge.....	Sulphur dioxide, 0.0012%.
April 20	Evaporated apples.....	Evaporated apples, sulphured.....	D. L. O'Connell, Montello.....	Sulphur dioxide, 0.0049%.
April 20	Evaporated apples.....	Evaporated apples, sulphur process.....	R. R. Wegenke, Neshkoro.....	Sulphur dioxide, 0.0038%.
April 28	Evaporated apples.....	Evaporated apples.....	Phil. C. Grimm, Cassville.....	Test for sulphur dioxide negative.
May 4	Evaporated apples.....	Evaporated apples, sulphur process.....	A. W. Baker, Laola.....	Test for sulphur dioxide negative.
May 5	Evaporated apples.....	Evaporated apples.....	Fink Bros., Orihula.....	Misbranded in that the quantity of contents is not stated. Test for sulphur dioxide negative.
May 6	Seedless raisins.....	Evaporated apples.....	B. W. Colby, Loyal.....	Sulphur dioxide, 0.031%.
May 6	Evaporated apples.....	Evaporated apples.....	A. L. Trufant, Wautoma.....	Misbranded in that the quantity of contents is not stated. Test for sulphur dioxide negative.
May 6	Dried apples.....	Evaporated apples bleached with sulphur dioxide.....	B. W. Colby, Loyal.....	Test for sulphur dioxide negative.
May 7	Evaporated apples.....	Evaporated apples, sulphured.....	J. H. Manthey, Princeton.....	Test for sulphur dioxide negative.
May 7	Evaporated apples.....	Evaporated apples, evaporated by sulphur process.....	C. J. Krueger, Princeton.....	Test for sulphur dioxide negative.
June 9	Evaporated apples.....	Evaporated apples, evaporated by sulphur process.....	E. A. Emmrich, Mosinee.....	Sulphur dioxide, 0.002%.

**DRUGS.****Aqua Hamamelidis (Hamamelis Water), (Witch Hazel).**

Hamamelis water, according to the U. S. Pharmacopoeia, contains the volatile products of hamamelis bark obtained by distillation and should contain in the finished product 14.25 per cent of ethyl alcohol by volume.

**Hamamelis Water, Not Standard: Deficient in Alcohol.**

Date	Purchased of	Manufacturer or Jobber	Per Cent Alcohol by Volume
1914			
July 8	D. A. Hetzel, Hetzel	Van Duzer Extract Co., New York	9.86
July 29	C. W. Rodecker, Waldo		13.9
July 30	Wykhuis Co., Oostburg	Meissner-Bergwall Co., Milwaukee	10.38
Oct. 5	C. E. McCumber, Rosendale	Colonial Chemical Co., New York	10.12
Oct. 6	J. Wheeler, Gotham	Holman, Chicago	8.72
Dec. 30	Gimbel Bros., Milwaukee		12.49
1915			
Jan. 12	Benton Drug Co., Benton		13.24
Jan. 12	Ernest Stadel, Hazel Green	The Cincinnati Chemical Co., Cincinnati	13.71
Feb. 30	Wykhuis Co., Oostburg	Meissner-Bergwall Co., Milwaukee	10.38
May 12	Sidney Dennis, Nekoosa		13.70
May 20	H. D. McCulloch Co., Stevens Point		13.80
May 25	Kestel Bros. Co., Marshfield	Arctic Mfg. Co., Grand Rapids, Mich.	13.68
May 26	A. A. Rock, M. D., Bancroft		10.70
June 4	A. M. Berg, Stanley		13.9

**Hamamelis Water—Standard.**

Date	Purchased or Submitted by
1914	
July 1	J. H. Mahoney, Theresa.
July 2	J. H. Paas, Campbellsport.
July 9	D. A. Hetzel, Hetzel.
July 15	Ed. Gutenkunst, Kiel.
July 22	Wendel Burg, St. Anna.
July 28	W. H. Barrager, Sheboygan Falls.
Aug. 27	*Milwaukee Drug Co., Milwaukee.
Sept. 16	H. L. Kellogg, Oconomowoc.
Sept. 18	J. B. Donovan, Baraboo.
Sept. 29	Dana & Worm Drug Co., Fond du Lac.
Oct. 15	E. C. Garvey, Prairie du Chien.
Oct. 28	M. T. Everson, Readstown.
Nov. 20	Remington Drug Co., Fond du Lac.
Nov. 24	Smith & Clark, Richland Center.
1915	
Jan. 13	H. A. Robinson, Platteville.
Feb. 9	Heimstreet Drug Store, Palmyra.
Feb. 16	W. P. Dunlap, Waukesha.
Mar. 9	C. T. Taft, Belleville.
Mar. 11	West Side Drug Store, Monroe.
Mar. 15	Miller & Son, Juda.
Mar. 18	Metz Pharmacy, Mineral Point.
Mar. 30	Dalton & Leiting, Silver Lake.
June 10	Wiechmann's Pharmacy, Wausau.
June 10	Bert Schwauberg, Wausau.
June 17	Suit's Drug Store, Medford.

\*Submitted sample.

**DRUGS—Continued.****Alcohol. Not Standard.**

According to the latest edition of the U. S. Pharmacopoeia, alcohol contains 94.9% by volume of absolute ethyl alcohol.

Date	Purchased of or Submitted by	Percent Alcohol by Volume
1914		
Aug. 26	*E. A. George, Sheboygan Falls.....	91.6
Sept. 16	Mrs. Mary Baum, Oconomowoc.....	93.44
Nov. 16	*Miss Mary Saxton, Madison.....	73.19
Nov. 18	*H. L. Bornheimer, Madison.....	73.00
Dec. 5	Kleinheinz Pharmacy, Madison.....	73.46
Dec. 9	A. H. Potts, Fox Lake.....	93.67
Dec. 16	Badger Pharmacy, Madison.....	94.05
Dec. 16	Luckey Pharmacy, Madison, Trumpf Hotel.....	93.64
Dec. 16	Sumner & Crampton, Madison.....	93.7
Dec. 16	Winnebago Pharmacy, Madison.....	93.75
Dec. 16	W. M. Atwood, Madison.....	93.8
Dec. 16	Luckey Pharmacy, Madison, E. Johnson St.....	93.77
Dec. 21	Madison Importing Co., Madison.....	85.30
Dec. 30	O. Frank, Cudahy.....	93.33
Dec. 30	Gimbel Bros., Milwaukee.....	94.00
1915		
Jan. 11	Barker Bros. Drug Co., Cuba City.....	93.87
Jan. 12	John Burns, Hazel Green.....	66.25
April 14	W. S. Harvey, Excelsior.....	93.34

\*Submitted sample.

**Alcohol. Standard.**

Date	Purchased of
1914	
Dec. 9	L. E. Marrow, Fox Lake.
Dec. 16	Henry Lewis, Madison.
Dec. 16	Menges Pharmacy, Madison (Wingra Park).
1915	
Jan. 11	F. A. Florine & Co., Cuba City.
Jan. 12	Benton Drug Co., Benton.
Jan. 13	F. O. Elwell, Platteville.
Jan. 13	Youman's Pharmacy, Platteville.
Feb. 2	F. V. Masilko, Fond du Lac.

**Liquor Calcis (Lime Water).**

The official lime water of the U. S. Pharmacopoeia is intended to be a saturated solution of calcium hydroxide and should contain not less than 0.14% of pure calcium hydroxide.



**DRUGS—Continued.**  
**Lime Water. Not Standard.**

Date	Purchased of	Per Cent Calcium Hydroxide
<b>1914</b>		
Aug. 17	Ramsey Drug Co., Lodi	0.07
Sept. 25	L. B. Stuekle, Gillett	0.07
Oct. 15	E. C. Garvey, Prairie du Chien	0.05
Oct. 15	F. Flood, Prairie du Chien	0.02
Oct. 26	Wm. Gaffney, Gays Mills	0.10
Dec. 2	Gamm's Drug Store, Watertown	0.07
Dec. 2	Bittner & Tetzlaff, Watertown	0.05
Dec. 3	E. B. Patton, Waupun	trace
<b>1915</b>		
Jan. 19	Farnham's Drug Store, Fennimore	0.0092
May 12	Sidney Dennis, Nekoosa	0.036

**Lime Water. Standard.**

Date	Purchased of
<b>1914</b>	
July 1	J. H. Mahoney, Theresa.
July 15	Ed. Gutenkunst, Kiel.
July 28	W. H. Barrager, Sheboygan Falls.
Aug. 17	Geo. O. Gordon, Lodi.
Aug. 21	H. J. Setz, Lake Mills.
Sept. 16	Mrs. Mary Baum, Oconomowoc.
Sept. 16	W. G. Race, Oconomowoc.
Sept. 16	H. L. Kellogg, Oconomowoc.
Sept. 18	J. B. Donovan, Baraboo.
Sept. 23	P. H. Sharp, Oconto Falls.
Oct. 16	Geo. Q. Schields, Mazomanie.
Oct. 16	H. Lapple, Mazomanie.
Oct. 29	Jackson & Tuttle, Soldiers Grove.
Oct. 29	A. H. Erickson, Soldiers Grove.
Oct. 30	H. C. McWilliams Co., Boscobel.
Nov. 20	Pfeil's Drug Store, Fond du Lac.
Nov. 20	Huber Bros., Fond du Lac.
Nov. 20	Bechaud's Pharmacy, Fond du Lac.
Nov. 20	F. V. Masilko, Fond du Lac.
Nov. 20	W. R. Plank Drug Co., Fond du Lac.
Nov. 20	Remington Drug Co., Fond du Lac.
Dec. 2	Wm. Gehrke, Watertown.
Dec. 2	E. M. Stapleton, Watertown.
Dec. 2	H. T. Eberle, Watertown.
<b>1915</b>	
May 5	Otto C. Nessa, Osseo.
May 6	P. W. Gullord, Greenwood.
May 7	Griffin's Pharmacy, Owen.
May 20	Hannon-Bach Pharmacy, Stevens Point.
May 20	Alex. Krembs, Jr., Stevens Point.
May 25	L. S. Walker Co., Almond.
May 27	O. R. Briggs, Colby.
June 3	B. E. Taylor, Gilman.
June 4	Quinn Bros., Hannibal.
June 4	A. M. Berg, Stanley.
June 4	Alfred Kristiansen, Stanley.
June 9	Citizens' Drug Store, Mosinee.
June 10	Wichmann's Pharmacy, Wausau, 1703 N. 6th St.
June 10	Wichmann's Pharmacy, Wausau, 110 Scott St.
June 10	Fred A. Schmidt, Wausau.
June 10	Pardee Pharmacy, Wausau.
June 11	F. J. Tomkiewitz, Edgar.
June 17	Frank B. Wing, Abbottsford.
June 17	Suit's Drug Store, Medford.
June 18	Jensen Bros., Withee.
June 22	Levine-Blending Drug Co., St. Croix Falls.
June 23	N. C. Unseth, Grantsburg.
June 24	Olsen & Son, Frederic.



**DRUGS—Continued.****Spiritus Camphorae (Spirit of Camphor).**

The latest edition of the U. S. Pharmacopoeia, as well as the previous edition, requires that 100 ccs. of camphor contain 10 gms. of camphor dissolved in alcohol.

**Spirit of Camphor. Not Standard: Above Standard in Camphor.**

Date	Purchased of	Gms. of Camphor in 100 ccs.
1914		
Aug. 21	H. J. Setz, Lake Mills.....	13.28
Sept. 18	J. B. Donovan, Baraboo.....	12.7
Oct. 15	E. C. Garvey, Prairie du Chien.....	11.66
Oct. 28	M. T. Everson, Readstown.....	14.09
Dec. 8	O'Brien's Pharmacy, Beaver Dam.....	11.36
Dec. 9	A. H. Potts, Fox Lake.....	11.28
1915		
Jan. 19	J. B. Hitchcock, Montfort.....	12.34
Jan. 26	R. B. Arnold, Lake Geneva.....	11.36
Jan. 28	Oregon Drug Co., Oregon.....	11.32
Feb. 8	M. O. Braaten, Whitewater.....	11.28
Feb. 10	S. M. Reinardy, Burlington.....	11.02
Feb. 10	Woelm Drug Co., Elkhorn.....	11.11
Feb. 12	H. C. Rustad, Delavan.....	14.23
Mar. 1	John Graham, Portage.....	11.02
Mar. 10	E. M. Lyons, Brodhead.....	12.26
Mar. 11	C. W. Trickel, Browntown.....	13.67
Mar. 11	Chas. Taylor, Orfordville.....	18.41
Mar. 15	Kane's Pharmacy, Shullsburg.....	11.02
Mar. 16	John Merriott, Gratiot.....	12.43
Mar. 18	Prideaux & Bliss, Mineral Point.....	11.96
Mar. 19	Ney St. John, Dodgeville.....	11.32
Mar. 22	F. M. Crow, Evansville.....	11.15
Mar. 26	R. Richards, Hillsboro.....	13.29
April 28	Ora Hatch, Bloomington.....	12.43
May 19	John W. Beidelman, Amherst.....	13.84
May 20	Alex Krembs, Jr., Stevens Point.....	18.11
May 20	H. R. Jackson, Westby.....	11.45
May 25	L. S. Walker Co., Almond.....	11.28
June 4	Heimstreet's Drug Store, Sullivan.....	11.23
June 10	Roy O. Fischer, Jefferson.....	11.11

**Spirit of Camphor. Not Standard: Deficient in Camphor.**

1914		
July 3	A. C. Buslaff, Waukausta (R. D. Campbellsport).....	2.5
July 15	Ed. Gutenkunst, Kiel.....	8.72
Aug. 17	Geo. A. Gordon, Lodi.....	8.86
Aug. 17	Ramsey Drug Co., Lodi.....	7.02
Sept. 16	W. G. Race, Oconomowoc.....	8.64
Sept. 16	H. T. Kellogg, Oconomowoc.....	9.15
Sept. 29	Dana & Worm Drug Co., Fond du Lac.....	4.38
Sept. 30	Burns Drug Co., Oakfield.....	9.11
Oct. 8	A. C. Hanold, Boaz.....	7.07
Oct. 16	Sabus N. Haas, Lone Rock.....	9.20
Oct. 16	Geo. A. Shields, Mazomanie.....	9.15
Oct. 29	A. H. Erickson, Soldiers Grove.....	9.20
Oct. 29	Wm. Gaffney, Gays Mills.....	6.5
Oct. 30	H. C. McWilliams Co., Boscobel.....	8.77
Nov. 20	W. R. Plank Drug Co., Fond du Lac.....	9.11
Nov. 20	Huber Bros., Fond du Lac.....	8.51
Nov. 20	Pfeil's Drug Store, Fond du Lac.....	9.25
Nov. 20	Remington Drug Co., Fond du Lac.....	9.11
Nov. 27	Smith & Clark, Richland Center.....	4.26
Dec. 2	Owen's Pharmacy, Watertown.....	8.21
Dec. 2	Bittner & Tetzlaff, Watertown.....	8.60
Dec. 3	H. B. McConochie, Waupun.....	9.23
Dec. 3	Dr. J. Turner, Waupun.....	9.07
Dec. 8	C. W. Helbing, Beaver Dam.....	9.06
Dec. 9	L. E. Marrow, Fox Lake.....	9.00

## DRUGS—Continued.

Spirit of Camphor. Not Standard: Deficient in Camphor.  
—Continued.

Date	Purchased of	Gms. of Camphor in 100 ccs.
1915		
Jan. 11	F. A. Florine & Co., Cuba City	9.15
Jan. 12	Benton Drug Co., Benton	9.15
Jan. 13	F. O. Elwell, Platteville	6.09
Jan. 13	H. A. Robinson, Platteville	8.72
Jan. 13	Youman's Pharmacy, Platteville	8.93
Jan. 25	Kuhnmueneh Bros., Wauwatosa	9.06
Jan. 26	W. H. Hammersley, Lake Geneva	6.45
Jan. 27	C. G. Ford, Genoa Junction	8.80
Feb. 9	Heimstreet's Drug Store, Palmyra	8.16
Feb. 10	Flack & Miller, Elkhorn	8.11
Feb. 10	T. A. Clark, Elkhorn	8.67
Feb. 10	Flack & Miller, Burlington	9.23
Feb. 12	Jackson & Jackson, Delavan	9.35
Feb. 12	F. G. Fank, Delavan	4.27
Feb. 15	F. J. Janda, Hartland	9.18
Feb. 16	Trakel's Drug Store, Waukesha	8.97
Feb. 16	D. C. Seltzer, Waukesha	8.51
Feb. 16	E. F. Schmutzler, Pewaukee	8.71
Feb. 25	F. W. Diedrich, Ripon	7.90
Feb. 25	E. J. Burnside, Ripon	7.73
Feb. 25	Alfonso Schissle, West Bend	6.49
Mar. 1	Oscar Klenert, Portage	8.97
Mar. 1	F. A. Rhyme, Portage	5.59
Mar. 3	J. E. Roberts & Co., Cambria	8.20
Mar. 4	The Model Drug Store, North Milwaukee	7.69
Mar. 8	E. W. Van Norman, Monticello	9.01
Mar. 8	R. E. Bartlett, New Glarus	8.46
Mar. 11	West Side Drug Store, Monroe	0.94
Mar. 15	Gratiot's Drug Store, Shullsburg	7.69
Mar. 15	Miller & Son, Juda	8.54
Mar. 16	Haskin & Wilson, Darlington	9.06
Mar. 18	Metz Pharmacy, Mineral Point	9.36
Mar. 22	A. G. Ellis, Brooklyn	6.58
Mar. 24	J. M. Dowling, Barnum	3.11
Mar. 27	J. F. Wiesner, La Farge	9.06
Mar. 25	A. W. Sloggy, Ontario	1.02
April 8	J. A. Seaton, Potosi	4.48
April 13	W. G. Correll, Spring Green	7.35
April 16	Dr. G. H. McCallister, Avoca	9.10
April 19	Montello Pharmacy, Montello	6.83
April 21	Corner Drug Store, Oxford	8.97
April 21	D. Poppe, Adams	8.54
April 27	J. D. Hatch, Lancaster	9.35
May 5	Clark's Drug Store, Wild Rose	6.41
May 5	Engelhart's Drug Store, Red Granite	8.54
May 5	Ralph Arnold, Fairchild	6.83
May 6	H. B. B. Pappe, Wautoma	7.39
May 6	P. W. Gullord, Greenwood	9.01
May 7	Griffin's Pharmacy, Owen	5.89
May 12	Sidney Dennis, Nekoosa	8.33
May 13	R. K. Fowler, Wilton	8.16
May 13	A. G. Weffer Co., Norwalk	7.77
May 13	G. R. Evans, Kendall	7.35
May 18	A. T. Moen, Coon Valley	7.99
May 20	Taylor's Drug Store, Stevens Point	8.54
May 20	Hannon-Bach Pharmacy, Stevens Point	8.33
May 27	O. R. Briggs, Colby	9.31
May 28	Fred Falk, Stoughton	9.01
June 2	O. Bilstad, Cambridge	8.46
June 2	W. A. Perkins, Deerfield	7.05
June 8	Will R. Thorpe, Milton Junction	8.20
June 9	Winterburn Drug Co., Fort Atkinson	9.14
June 11	Johnson Creek Drug Store, Johnson Creek	8.54
June 14	J. K. Stephany, Two Rivers	7.26
June 14	Chas. F. Kirst, Two Rivers	7.47
June 14	O. C. Stockmeyer, Two Rivers	7.56
June 17	Aug. J. E. Benn, Medford	8.46
June 21	F. A. McDonald, East De Pere	8.88
June 23	Nordal C. Unseth, Grantsburg	6.53
June 24	St. Cloud Drug Store, St. Cloud	9.31

**DRUGS—Continued.****Spirit of Camphor. Not Standard: Standard or Above in Camphor; Contains Added Water.**

Date	Purchased of
1914	
Jan. 6	T. F. Kelly, Marshall.
Feb. 24	Regner Pharmacy, West Bend.
June 22	H. I. Wheeler, De Pere.

**Spirit of Camphor. Not Standard: Contains Wood Alcohol.**

Date	Purchased of
1914	
Nov. 20	F. V. Masilko, Fond du Lac.

**Spirit of Camphor. Not Standard: Deficient in Camphor and Contains Added Water.**

Date	Purchased of	Gms. of Camphor in 100 ccs.
1914		
July 8	The Zinke Co., Fond du Lac	3.01
July 29	C. W. Rodecker, Waldo	5.75
Sept. 16	Mrs. Mary Baum, Oconomowoc	8.64
Sept. 25	L. B. Stuckle, Gillett	4.38
Oct. 15	F. Flood, Prairie du Chien	8.77
Dec. 8	F. C. Zimmerman & Son, Beaver Dam	9.07
1915		
Jan. 12	Geo. K. Mills, Havel Green	9.15
Jan. 28	W. H. Barrager, Sheboygan Falls	8.26
Feb. 8	Klug's Pharmacy, Whitewater	8.63
Feb. 10	Burlington Drug Co., Burlington	8.11
Feb. 26	R. O. Schoen, Markesan	6.15
Mar. 3	R. J. Rowland, Cambria	5.34
April 14	W. S. Harvey, Excelsior	8.54
April 21	H. D. Hill, Friendship	5.25
April 28	Hager's Pharmacy, Cassville	7.90
May 4	Borden's Pharmacy, Hancock	2.99
May 5	T. W. Stevens & Co., Wild Rose	6.88
June 9	J. W. Gates, Fort Atkinson	5.21
June 9	Citizens' Drug Store, Mosinee	8.29
June 11	F. J. Tomkiewitz, Edgar	6.83
June 25	Carl Golmgefsky, Stockbridge	8.84

**DRUGS—Continued.**  
**Spirit of Camphor, Standard.**

Date	Purchased of	Date	Purchased of
<b>1914</b>			
July 2	J. H. Paas, Campbellsport.	Mar. 22	Pioneer Drug Store, Evansville.
Sept. 23	P. H. Sharp, Oconto Falls.	Mar. 23	C. F. Mathews & Son, Viola.
Oct. 16	H. Lappley, Mazomanie.	Mar. 30	C. B. Vaughn, Wilmot.
Oct. 29	Jackson & Tuttle, Soldiers Grove.	April 7	Brown's Drug Store, Highland.
Oct. 30	Jas. Meller Drug Co., Boscobel.	April 15	D. F. Potter, Muscoda.
Nov. 20	Public Drug Store, Fond du Lac.	April 15	P. A. Hubanks, Excelsior.
Nov. 20	Bechaud's Pharmacy, Fond du Lac.	April 15	Collins Drug Co., Blue River.
Dec. 2	E. M. Stapleton, Watertown.	April 21	Dr. J. E. Simpson, Endeavor.
Dec. 2	H. T. Eberle, Watertown.	April 27	Jos. T. Bennett, Lancaster.
Dec. 2	Gamm Drug Store, Watertown.	May 6	Hunt & Jarvis, Wautoma.
Dec. 2	Wm. Gehrke, Watertown.	May 6	Henry Horn, Loyal.
Dec. 3	E. B. Patton, Waupun.	May 7	Frank Mueller, Princeton.
Dec. 4	F. B. Wendt, Juneau.	May 7	O. H. Lichtenberg, Princeton.
Dec. 4	L. A. Bossman, Horicon.	May 12	Dix Bros., Elroy.
Dec. 8	J. E. Rogers, Beaver Dam.	May 13	Johnson & Hill Co., Grand Rapids.
Dec. 16	Luekey Pharmacy, Madison.	May 13	J. W. Wightman, Elroy.
Dec. 30	O. Frank, Cudahy.	May 13	Port Edwards Mercantile Co., Port Edwards.
<b>1915</b>			
Jan. 11	Barker Bros. Drug Co., Cuba City.	May 19	O. E. Davis, Viroqua.
Jan. 12	Barker Bros. Drug Co., Cuba City.	May 19	C. F. Dahl, Viroqua.
Jan. 15	J. W. Pryor, Barneveld.	May 19	A. J. Johnson, Viroqua.
Jan. 19	C. J. Niehaus, Fennimore.	May 19	J. W. Boynton & Son, Amherst.
Feb. 2	F. V. Masilko, Fond du Lac.	May 20	H. D. McCulloch Co., Stevens Point.
Feb. 8	H. J. O'Connor, Whitewater.	May 20	O. A. Unseth, Westby.
Feb. 8	Duffin's Drug Store, Whitewater.	May 21	Anderson Drug Store.
Feb. 9	J. J. Large, Eagle.	May 21	Du Mez & Nelson, Cashton.
Feb. 9	Hoeveler Drug Co., Waukesha.	May 26	M. O. Dwyer & Son, Dane.
Feb. 16	F. B. Hoehle, Waukesha.	May 26	A. A. Rock, M. D., Bancroft.
Feb. 16	Geo. A. Jones, Waukesha.	May 28	Edw. B. Duncan, Stoughton.
Feb. 16	W. P. Dunlap, Waukesha.	May 28	O. N. Falk & Son, Stoughton.
Feb. 18	J. Clohisy, Mukwonago.	May 28	Scheldrup Drug Co., Stoughton.
Feb. 25	City Drug Store, Ripon.	June 3	B. E. Taylor, Gilman.
Feb. 26	W. A. Turner, Brandon.	June 4	A. M. Berg, Stanley.
Mar. 2	F. Edna Biglow, Pardeeville.	June 4	A. Green, Dousman.
Mar. 2	T. F. Cunningham, Pardeeville.	June 4	Alfred Kristiansen, Stanley.
Mar. 3	J. Addison Lightner, Randolph.	June 8	W. P. Clarke, Milton.
Mar. 3	J. J. Jones, Randolph.	June 8	Will H. Gates, Milton Junction.
Mar. 10	Will J. Smith, Brodhead.	June 9	H. J. Dexheimer & Co., Fort Atkinson.
Mar. 10	L. E. Creasy, South Wayne.	June 10	Bert Schwanberg, Wausau.
Mar. 11	Truckenbrod's Pharmacy, Monroe.	June 10	Wichmann's Pharmacy, Wausau.
Mar. 11	Clark Drug Co., Monroe.	June 10	Fred A. Schmidt, Wausau.
Mar. 16	J. V. Swift, Darlington.	June 10	Pardee Pharmacy, Wausau.
Mar. 16	Geo. F. Oates, Darlington.	June 10	H. Koerner, Jefferson.
Mar. 18	Ivey's Pharmacy, Mineral Point.	June 17	Frank B. Wing, Abbottsford.
Mar. 19	Roberts & Prideaux, Dodgeville.	June 18	Jensen Bros., Withee.
Mar. 19	Pryor & Williams, Dodgeville.	June 21	E. A. Lange, West De Pere.
Mar. 22	L. Van Wart, Evansville.	June 21	John H. Arent, West De Pere.
Mar. 22	W. G. Groh, Evansville.	June 21	Frank C. Hahn, East De Pere.
		June 22	Levine-Blanding Drug Co., St. Croix Falls.
		June 24	Olsen & Son, Frederic.

**Spiritus Aetheris Nitrosi (Spirit of Nitrous Ether).**

**Spirit of Nitrous Ether. Not Standard.**

Date	Purchased of	Ethyl Nitrate, Per Cent by Weight
<b>1915</b>		
Mar. 24	J. M. Dowling, Barnum.....	2.50
April 20	R. R. Wegurke, Neshkoro.....	none
May 6	P. W. Gullord, Greenwood.....	1.50
May 6	Henry Horn, Loyal.....	1.66
May 13	Port Edwards Mercantile Co., Port Edwards.....	2.0
May 27	O. R. Briggs, Colby.....	1.46
June 17	Frank B. Wing, Abbottsford.....	2.0

**DRUGS—Continued.****Tincture Iodi (Tincture of Iodine).**

Tincture of iodine, according to the latest edition of the U. S. Pharmacopoeia, is a solution of 7 grams of iodine and 5 grams of potassium iodide in sufficient alcohol to make 100 ccs. of the finished product, and when titrated with tenth normal sodium thio-sulphate, shall contain not less than 6.86 grams of iodine per 100 ccs.

**Tincture of Iodine. Not Standard: Deficient in Potassium Iodide.**

Date	Purchased of	Grams of Potassium Iodide in 100 ccs.
1915		
Feb. 8	H. J. O'Connor, Whitewater	4.22
Feb. 9	J. J. Large, Eagle	3.45
Feb. 10	S. M. Reinardy Co., Burlington	3.81
Feb. 16	Trakel's Drug Store, Waukesha	3.55
Mar. 2	T. F. Cunningham, Pardeeville	3.81
Mar. 2	F. Edna Bigelow, Pardeeville	3.954
Mar. 11	C. W. Trickle, Browntown	0.042
Mar. 11	West Side Drug Store, Monroe	3.776
Mar. 24	J. V. Wiesner, La Farge	3.964
April 9	H. F. Schmitt, Livingston	4.10
April 16	Dr. G. H. McCallister, Avoca	3.46
May 5	T. W. Stevens & Co., Wild Rose	1.90
May 13	Port Edwards Mercantile Co., Port Edwards	4.00
May 28	Scheldrup Drug Co., Stoughton	4.25
June 4	Alfred Kristiansen, Stanley	3.72
June 9	H. J. Dexheimer & Co., Fort Atkinson	3.78
June 14	J. K. Stephany, Two Rivers	3.82
June 21	F. A. McDonald, East De Pere	3.72

**Tincture of Iodine. Not Standard: Above Standard in Iodine and Potassium Iodide.**

Date	Purchased of	Grams of Iodine in 100 ccs.	Grams of Potassium Iodide in 100 ccs.
1914			
Aug. 17	Ramsey Drug Co., Lodi	7.62	5.47
Sept. 16	W. G. Race, Oconomowoc	14.02	9.33
Oct. 8	J. B. Higginbotham, Sabin	9.52	7.49
Nov. 20	Pfeil's Drug Store, Fond du Lac	7.61	5.25
Nov. 21	W. R. Plank Drug Co., Fond du Lac	7.52	6.62
Dec. 16	W. M. Atwood, Madison	7.80	5.68
1915			
Feb. 2	Dana & Worm Drug Co., Fond du Lac	9.05	8.80
Feb. 2	F. V. Masilko, Fond du Lac	7.73	5.30
Feb. 24	Alfonso Schisse, West Bend	8.23	5.50
Mar. 1	P. A. Rhyme, Portage	7.78	5.69
Mar. 25	A. W. Sloggy, Ontario	11.01	7.78
April 2	D. Pappe, Adams	10.44	7.142
April 15	D. L. Potter, Musoda	7.98	5.63
May 4	B. T. Hales & Son, Hancock	8.13	5.64
May 5	Clark's Drug Store, Wild Rose	8.43	5.90
May 7	Griffin Pharmacy, Owen	13.75	5.77
May 25	L. S. Walker, Almond	7.71	5.50
May 26	A. A. Rock, M. D., Bancroft	7.27	5.93
May 28	Fred Falk, Stoughton	7.61	6.10
June 2	W. A. Perkins, Deerfield	8.22	7.11
June 4	Quinn Bros., Hannibal	7.94	5.94
June 9	Winterburn Drug Co., Fort Atkinson	9.05	7.56
June 9	Citizens Drug Store, Mosinee	7.47	7.16
June 18	Jensen Bros., Withee	8.07	5.40



DRUGS—Continued.

Tincture of Iodine. Not Standard: Deficient in Iodine and Potassium Iodide.

Date	Purchased of	Grams of Iodine in 100 ccs.	Grams of Potassium Iodide in 100 ccs.
1914			
July 2	J. H. Paas, Campbellsport.....	5.71	0.00
July 2	Stowe Mercantile Co., South Byron.....	3.66	0.00
July 15	Ed. Gutenkunst, Kiel.....	5.5	4.40
July 28	W. H. Barrager, Sheboygan Falls.....	3.99	0.00
July 29	C. W. Rodecker, Waldo.....	1.85	2.20
Aug. 17	Geo. O. Gordon, Lodi.....	5.48	5.57
Sept. 18	J. B. Donovan, Baraboo.....	5.13	3.18
Sept. 25	L. B. Stuelke, Gillett.....	4.43	0.58
Sept. 29	Dana & Worm Drug Co., Fond du Lac.....	3.63	0.81
Sept. 30	Stowe Mercantile Co., South Byron.....	3.43	0.00
Sept. 30	Burns Drug Co., Oakfield.....	4.95	2.62
Oct. 15	E. C. Garvey, Prairie du Chien.....	5.54	3.22
Oct. 16	Sabus N. Haas, Lone Rock.....	5.57	3.83
Oct. 28	M. L. Everson, Readstown.....	5.20	2.42
Oct. 29	Wm. Gaffney, Gays Mills.....	6.14	1.98
Oct. 30	H. C. McWilliams Co., Boscobel.....	5.23	5.28
Nov. 20	Huber Bros., Fond du Lac.....	6.36	4.60
Nov. 20	F. V. Masilko, Fond du Lac.....	6.36	0.02
Nov. 24	Smith & Clark, Richland Center.....	4.63	2.14
Dec. 2	Gamm Drug Store, Watertown.....	6.53	1.59
Dec. 2	Gamm Drug Store, Watertown.....	6.54	1.56
Dec. 2	Bittner & Tetzlaff, Watertown.....	4.83	0.00
Dec. 3	H. B. McConochie, Waupun.....	2.59	0.00
Dec. 3	Dr. J. Turner, Waupun.....	6.15	0.00
Dec. 9	A. H. Potts, Fox Lake.....	5.57	5.32
Dec. 16	Luckey Pharmacy, Madison.....	5.31	4.92
Dec. 16	Badger Pharmacy, Madison.....	6.10	0.00
Dec. 39	O. Frank, Cudahy.....	5.26	
1915			
Jan. 6	L. F. Kelley, Marshall.....	5.15	2.34
Jan. 12	Geo. K. Mills, Hazel Green.....	3.17	0.00
Jan. 13	F. O. Elwell, Platteville.....	5.13	2.41
Jan. 13	Youman's Pharmacy, Platteville.....	6.88	3.51
Jan. 13	H. A. Robinson, Platteville.....	6.23	4.75
Jan. 15	J. W. Pryor, Barneveld.....	4.73	3.54
Jan. 19	Farnham's Drug Store, Fennimore.....	4.72	1.792
Jan. 25	Kuhnmuensch Bros., Wauwatosa.....	3.61	2.64
Jan. 27	C. G. Ford, Genoa Junction.....	4.67	0.00
Feb. 8	Klug's Pharmacy, Whitewater.....	4.02	4.20
Feb. 9	Heimstreet's Drug Store, Palmyra.....	6.02	4.246
Feb. 10	Burlington Drug Co., Burlington.....	4.69	1.742
Feb. 10	Woelm Drug Co., Elkhorn.....	6.11	4.6
Feb. 12	H. C. Rustad, Delavan.....	5.57	4.27
Feb. 12	Jackson & Jackson, Delavan.....	3.26	4.6
Feb. 15	F. J. Zanda, Hartland.....	6.07	4.01
Feb. 16	Hoeveler Drug Co., Waukesha.....	5.91	3.30
Feb. 16	D. C. Seltzer, Waukesha.....	5.80	4.00
Feb. 16	Ed. C. Miller, Kewaskum.....	5.91	1.272
Feb. 24	Regner Pharmacy, West Bend.....	4.46	0.00
Feb. 24	E. J. Burnside, Ripon.....	3.91	1.71
Feb. 25	City Drug Store, Ripon.....	3.26	1.036
Feb. 25	R. O. Schoen, Markesan.....	4.69	3.412
Feb. 26	W. A. Turner, Brandon.....	6.34	0.12
Mar. 3	R. J. Rowland, Cambria.....	3.72	4.148
Mar. 8	R. E. Bartlett, New Glarus.....	4.77	3.22
Mar. 9	C. T. Taft, Belleville.....	6.34	4.954
Mar. 11	Will J. Smith.....	5.04	4.286
Mar. 11	Clark Drug Store, Monroe.....	6.07	2.67
Mar. 16	Haskin & Wilson, Darlington.....	5.29	0.00
Mar. 19	Ney St. John, Dodgeville.....	4.19	4.10
Mar. 22	A. G. Ellis, Brooklyn.....	5.87	0.09
Mar. 22	Pioneer Drug Co., Evansville.....	5.13	2.93
Mar. 22	W. G. Groh, Evansville.....	3.07	2.15
Mar. 23	C. F. Mathews & Son, Viola.....	5.24	2.724
Mar. 26	R. Richards, Hillsboro.....	5.25	2.882
April 13	W. G. Correll, Spring Green.....	5.31	0.00
April 14	E. N. Brown, M. D.....	6.01	4.08
April 14	W. S. Harvey, Excelsior.....	4.84	



**DRUGS—Continued.****Tincture of Iodine. Not Standard: Deficient in Iodine and Potassium Iodide—Continued.**

Date	Purchased of	Grams of Iodine in 100 ccs.	Grams of Potassium Iodide in 100 ccs.
April 15	Collins Drug Co., Blue River.....	6.27	2.83
April 19	Montello Pharmacy.....	4.44	3.72
April 21	U. D. Hill, Friendship.....	2.42	1.548
April 27	J. D. Hatch, Lancaster.....	3.59	2.82
April 28	Hager's Pharmacy, Cassville.....	2.87	1.666
May 4	Borden's Pharmacy, Hancock.....	3.34	0.00
May 5	Engelhardt's Drug Store, Red Granite.....	5.81	3.45
May 6	H. B. B. Poppe, Wautoma.....	4.00	0.00
May 6	Henry Horn, Loyal.....	3.19	trace
May 6	Green Lake Pharmacy, Green Lake.....	4.82	4.80
May 12	Dix Bros., Elroy.....	5.11	4.12
May 13	R. K. Fowler, Wilton.....	5.45	3.13
May 13	J. W. Wightman, Elroy.....	3.80	1.23
May 13	A. G. Wepfer, Norwalk.....	6.25	4.02
May 20	H. R. Jackson, Westby.....	4.80	4.46
May 28	O. N. Falk & Son, Stoughton.....	4.44	2.00
May 28	Edward B. Duncan, Stoughton.....	5.52	0.00
June 2	O. Bilstad, Cambridge.....	5.95	3.92
June 4	Ney, Lusk & Hudson, Polley.....	6.47	4.0
June 8	Will R. Thorpe, Milton Junction.....	5.74	3.10
June 8	Will H. Gates, Milton Junction.....	0.85	0.44
June 9	J. W. Gates, Fort Atkinson.....	6.25	0.00
June 10	Johnson Creek Drug Store, Johnson Creek.....	5.87	0.94
June 21	John H. Arent, W. De Pere.....	5.07	0.00
June 21	E. A. Lange, W. De Pere.....	5.02	2.26
June 22	H. I. Wheeler, De Pere.....	5.50	0.88

**Tincture of Iodine. Not Standard:****Above Standard in Iodine and Below Standard in Potassium Iodide.**

Date	Purchased of	Grams of Iodine in 100 ccs.	Grams of Potassium Iodide in 100 ccs.
1914			
Sept. 16	H. L. Kellogg, Oconomowoc.....	13.03	2.92
Oct. 8	A. C. Hanold, Boaz.....	10.70	0.00
1915			
Feb. 10	Flack & Miller, Burlington.....	7.65	4.68
Feb. 16	F. J. Hoehle, Waukesha.....	7.63	4.666
Feb. 25	F. W. Diedrich, Ripon.....	10.82	0.042
Mar. 11	Chas. Taylor, Orfordville.....	17.49	0.000
Mar. 16	Geo. F. Oates, Darlington.....	7.80	3.742
Mar. 22	T. Van Wart, Evansville.....	7.61	4.67
June 23	Carl Golmefsky, Stockbridge.....	7.58	4.00

**DRUGS—Continued.****Tincture of Iodine. Not Standard:****Above Standard in Iodine.**

Date	Purchased of	Grams of Iodine in 100 ccs.
1914		
Sept. 23	P. H. Sharp, Oconto Falls.....	8.24
Nov. 20	Bechaud's Pharmacy, Fond du Lac.....	7.56
1915		
May 7	Frank Mueller, Princeton.....	8.94

**Tincture of Iodine. Not Standard: Above Standard in Potassium Iodide.**

Date	Purchased of	Grams of Potassium Iodide in 100 ccs.
1914		
Oct. 15	F. Flood, Prairie du Chien.....	6.02
Oct. 30	Jos. Meller Drug Co., Boscobel.....	6.86
Dec. 2	Owen's Pharmacy, Watertown.....	5.79
Dec. 3	E. B. Patton, Waupun.....	7.57
Dec. 8	C. W. Helbing, Beaver Dam.....	6.40
1915		
Jan. 19	C. J. Niehaus, Fennimore.....	6.55
Feb. 10	Flack & Miller, Elkhorn.....	6.00
Mar. 24	J. M. Dowling, Barnum.....	6.40
April 7	Brown's Drug Store, Highland.....	6.86

**Tincture of Iodine. Not Standard: Deficient in Iodine.**

Date	Purchased of	Grams of Iodine in 100 ccs.
1915		
May 19	C. F. Dahl, Viroqua.....	5.65
June 4	Heimstreet's Drug Store, Sullivan.....	5.36

**Tincture of Iodine. Submitted Samples.**

Date	Submitted by	Remarks
1914		
Dec. 15	A. H. Potts, Fox Lake.....	Contains no potassium iodide.
1915		
Feb. 20	L. F. Kelley, Marshall.....	Standard.
Feb. 23	Youman's Pharmacy, Platteville.....	Standard.
Mar. 3	J. W. Pryor, Barneveld.....	Below standard in potassium iodide.
April 16	Hoeverler Drug Co., Waukesha.....	Not standard. Above standard in iodine.
May 13	Jackson & Jackson, Delavan.....	Standard.

**DRUGS—Continued.**  
**Tincture of Iodine. Standard.**

Date	Purchased of	Date	Purchased of
<b>1914</b>			
July 1	J. H. Mahoney, Theresa.	Mar. 11	Truckenbrod's Pharmacy, Monroe.
Aug. 21	H. J. Setz, Lake Mills.	Mar. 15	Kane's Pharmacy, Shullsburg.
Sept. 16	Mrs. Mary Baum, Oconomowoc.	Mar. 15	Miller & Son, Juda.
Oct. 16	Geo. A. Schields, Mazomanie.	Mar. 16	John Marriott, Gratiot.
Oct. 16	H. Lappley, Mazomanie.	Mar. 18	Prideaux & Bliss, Mineral Point.
Oct. 29	Jackson & Tuttle, Soldiers Grove.	Mar. 18	Metz Pharmacy, Mineral Point.
Oct. 29	A. H. Erickson, Soldiers Grove.	Mar. 19	Pryor & Williams, Dodgeville.
Nov. 20	Remington Drug Co., Fond du Lac.	Mar. 19	Roberts & Prideaux, Dodgeville.
Nov. 20	Public Drug Co., Fond du Lac.	Mar. 22	F. M. Crow, Evansville.
Dec. 2	Wm. Gehrke, Watertown.	Mar. 26	City Drug Store, Union Center.
Dec. 2	H. T. Eberle, Watertown.	Mar. 30	C. B. Vaughn, Wilmot.
Dec. 4	Fred B. Wendt, Juneau.	April 4	E. T. Kopan, Byrd's Creek.
Dec. 4	L. A. Bossman, Horicon.	April 21	Dr. J. E. Simpson, Endeavor.
Dec. 8	O'Brien's Pharmacy, Beaver Dam.	April 21	Corner Drug Store, Oxford.
Dec. 8	J. E. Rogers, Beaver Dam.	April 27	Jos. T. Bennett, Lancaster.
Dec. 16	Luckey Pharmacy, Madison.	April 28	Ora Hatch, Bloomington.
Dec. 30	Gimbel Bros., Milwaukee.	May 6	P. W. Gullord, Greenwood.
<b>1915</b>			
Jan. 11	Barker Bros. Drug Co., Cuba City.	May 6	Hunt & Jarvis, Wautoma.
Jan. 11	F. A. Florine & Co., Cuba City.	May 7	O. H. Lichtenberg, Princeton.
Jan. 12	Benton Drug Co., Benton.	May 12	Bishop & Livesey, Wonevoo.
Jan. 26	W. H. Hammersley, Lake Geneva.	May 13	G. R. Evans, Kendall.
Jan. 26	R. B. Arnold, Lake Geneva.	May 13	Wood County Drug Co., Grand Rapids.
Feb. 8	M. O. Braaten, Whitewater.	May 18	A. T. Moen, Coon Valley.
Feb. 8	Duffin's Drug Store, Whitewater.	May 19	O. E. Davis, Viroqua.
Feb. 10	T. A. Clark, Elkhorn.	May 19	A. J. Johnson, Viroqua.
Feb. 12	F. G. Tanck, Delavan.	May 19	John W. Biedlman, Amherst.
Feb. 16	E. F. Schmutzler, Pewaukee.	May 20	O. A. Unseth, Westby.
Feb. 16	Geo. A. Jones, Waukesha.	May 21	DuMez & Nelson, Nelson.
Feb. 16	W. P. Dunlap, Waukesha.	May 21	Anderson's Drug Store, Stevens Point.
Feb. 18	J. Clohisy, Mukwonago.	May 27	O. R. Briggs, Colby.
Mar. 1	Oscar A. Klenert, Portage.	June 3	B. E. Taylor, Gilman.
Mar. 1	John Graham, Portage.	June 4	A. Green, Dousman.
Mar. 3	J. Addison Lightner, Randolph.	June 8	W. P. Clarke, Milton.
Mar. 3	J. E. Roberts & Co., Cambria.	June 10	Roy O. Fischer, Jefferson.
Mar. 3	J. I. Jones, Randolph.	June 10	H. Koerner, Jefferson.
Mar. 4	The Model Drug Store, North Milwaukee.	June 14	Chas. F. Kirst, Two Rivers.
Mar. 8	E. W. Van Norman, Monticello.	June 14	O. C. Stockmeyer, Two Rivers.
		June 21	Frank C. Hahn, East De Pere.

### Drugs—Miscellaneous.

Date	Bought for	Bought of or Submitted by	Remarks
1914			
July 30	Medicine, cure for rheumatism.....	*H. J. Giese, Grand Rapids.....	Tested for salicin, none found. Sodium salicylate present.
Aug. 13	Prescription, to be tested for per cent of strychnine.....	*H. C. Taylor, Madison.....	Strychnine found. Corresponded with that prescribed.
Sept. 16	Aspirin tablets.....	Mrs. Mary Baum, Oconomowoc.....	12% short of claimed strength.
Sept. 25	Tr. ferric chloride.....	L. B. Stuelke, Gillett.....	Not standard.
Oct. 23	Witch hazel extract.....	F. W. Woolworth's 5- and 10-cent store, Green Bay.....	Standard.
Oct. 23	Witch hazel extract.....	Home Stores Co., Green Bay.....	Standard.
Oct. 29	Tr. ferric chloride.....	Wm. Gaffney, Gays Mills.....	Standard.
1915			
May 18	Extract of ginger.....	A. L. Hahnarst, Coon Valley.....	Misbranded, in that quantity of contents was not stated.

\*Submitted samples.

### FLAVORS AND FLAVORING EXTRACTS.

#### Bought for Lemon Extract. Not Standard.

Date	Labeled	Bought of	Manufacturer or Jobber	Remarks
1914				
July 8	Terpeness lemon, 1½ oz.....	The Zinke Co., Fond du Lac.....	The Zinke Co., Fond du Lac.....	A terpeness extract sold as lemon extract. Quantity correctly stated
July 13	Pure extract of lemon.....	B. M. Codman, Janesville.....	B. M. Codman, Janesville.....	Contains no oil of lemon.
July 13	Pure extract of lemon.....	B. M. Codman, Janesville.....	B. M. Codman, Janesville.....	Contains no oil of lemon.
July 18	Terpeness extract of lemon.....	Wachter Bros., Sheboygan Falls.....	Day-Bergwall Co., Milwaukee.....	A terpeness extract sold as lemon extract.
Aug. 7	Lemon extract.....	Enz Bros., Denmark.....	Eberhardt Co., West De Pere.....	Artificially colored with turmeric.
Aug. 18	Lemon extract, guaranteed 1 oz.....	Henry Zander, Cross Plains.....	Boerner-Fry Co., Iowa City, Iowa.....	Misbranded as to quantity. 7 per cent short measure.
Aug. 19	Lemon extract.....	Mrs. Jacob Hauser, East Bristol.....	John A. Tolman Co., Chicago.....	Below standard in lemon oil. Contains a coal tar dye. Misbranded as to quantity, 7 per cent short measure.
Aug. 20	Soluble extract of lemon. 48% alcohol. Terpeness. Artificially colored.....	Aug. H. Albrecht, Lake Mills.....	Badger Medicine Co., Waterloo.....	Not standard. Artificially colored with a coal tar dye. Contains no lemon oil. Misbranded as to alcoholic strength.
Aug. 21	Soluble extract of lemon. 48% alcohol. Terpeness.....	Badger Medicine Co., Waterloo.....	Sharp Dohme Co., Chicago.....	Contains no lemon oil. A terpeness extract of lemon sold as lemon extract.

## FLAVORS AND FLAVORING EXTRACTS—Continued.

## Bought for Lemon Extract. Not Standard—Continued.

Date	Labeled	Bought of	Manufacturer or Jobber	Remarks
Sept. 30	Lemon flavor made from oil of lemon and grain alcohol only.....	W. A. Yantz, Oak Center.....	Sandham Medicine Co., Duluth, Minn.....	Contains no lemon oil and little or no citral. Misbranded. Quantity not stated.
Sept. 31	Lemon extract.....	W. A. Yantz, Oak Center.....	Quaker Extract Co., Chicago.....	Contains no lemon oil and only trace of citral. Misbranded. Quantity not stated.
Dec. 25	Terpeneless lemon and citral. Artificially colored.....	I. M. Shapiro & Co., Milwaukee.....		Half strength terpeneless flavor sold as lemon flavor. Artificially colored with a coal tar dye.
Dec. 30	Essence of lemon.....	Gimbel Bros., Milwaukee.....		Bought for essence of lemon. Artificially colored with turmeric. Misbranded, in that quantity of contents is not stated.
1915				
Jan. 11	Lemon extract.....	Heil & Eustice, Cuba City.....	L. C. Mercantile Co., Chicago.....	Misbranded, in that quantity of contents is not stated.
Jan. 18	Extract of lemon.....	Hale & Son, Platteville.....	Bratton Service Co., Galena, Ill.....	Below standard in oil. Misbranded in that quantity is not stated.
Feb. 16	Lemon extract, turmeric color.....	Thos. C. Moran, Waukesha.....	W. T. Rawleigh Medical Co., Freeport, Ill.....	Colored with turmeric.
Mar. 2	Terpeneless lemon flavor.....	W. R. Drakin, Portage.....	A. C. Allen, Portage.....	Terpeneless extract sold for lemon extract. Misbranded, in that quantity is not stated.
Mar. 12	Pure lemon extract.....	Grinnell & Miller, Monroe.....	Guyer & Calkins Co., Freeport, Ill.....	Misbranded, in that contents are not stated.
Mar. 12	Terpeneless half-strength lemon extract.....	Grinnell & Miller, Monroe.....	Guyer & Calkins Co., Freeport, Ill.....	A half-strength terpeneless lemon extract sold for lemon extract. Misbranded, in that quantity is not stated.
Mar. 19	Pure extract of lemon.....	Stephenson & Pile, Dodgeville.....	Hanson Coffee Co., Chicago.....	Misbranded in that quantity is not stated.
Mar. 19	Lemon extract, double; 1 oz. full measure.....	D. G. Jones, Dodgeville.....	J. P. Dieter Co., Chicago.....	Misbranded. Not a double extract. Short measure.
Mar. 22	Extract of lemon.....	J. O. Eastmen & Son, Evansville.....	Janesville Wholesale Grocery Co., Janesville.....	Misbranded as to quantity. 4% short measure.
Mar. 24	Lemon extract.....	J. M. Dowling, Barnum.....	M. T. Kennedy & Co., McGregor, Iowa.....	Below standard in oil. Misbranded. Quantity not stated.
Mar. 30	Lemon extract.....	A. H. Kruckman, Wilmot.....		Below standard in oil. Artificially colored with a coal tar dye. Misbranded. Quantity not stated.
Mar. 30	Lemon.....	A. H. Kruckman, Wilmot.....	Chapman & Smith Co., Chicago.....	Misbranded as to quantity. 10% short measure.
Mar. 30	Lemon extract.....	A. H. Boethke, Trevor.....	Meissner-Bergwall Co., Milwaukee.....	Misbranded, in that quantity of contents is not stated.
Mar. 31	Pure concentrated extract of lemon.....	Reuhlman & Son, Sharon.....	The Priedes Co., Aurora, Ill.....	Not a concentrated extract. Misbranded, also, in that quantity of contents is not stated.
April 2	Concentrated extract of lemon.....	E. W. Hawley, Madison.....	Willson's Monarch Laboratories, Edgerton.....	Below standard in oil. Misbranded, in that it is not concentrated and that the quantity is not stated.
April 7	Terpeneless lemon extract.....	F. E. Burtin, Linden.....	C. A. Nye Co., Madison.....	A terpeneless extract sold for extract of lemon. Misbranded, in that contents are not stated on label.



April 7	Terpeneless lemon and citral flavoring.....	H. Petrus, Highland.....	R. Barrett, Galena, Ill.....	A terpeneless extract sold for extract of lemon. Misbranded, in that quantity is not stated.
April 8	Artificial lemon extract.....	J. J. Martin, Burton.....		An artificial extract sold for lemon extract. Misbranded, in that quantity is not stated.
April 13	Lemon extract.....	Cohen Bros., Spring Green.....	Grossfeld & Roe Co., Chicago.....	Misbranded, in that quantity is not stated.
April 16	Lemon extract.....	W. M. Seeling, Avoca.....	Knell & Prengel Co., Milwaukee.....	Misbranded, in that quantity of contents is not stated.
April 20	Pure concentrated extract of lemon.....	R. G. Wachholz, Neshkoro.....	Jerman, Pflueger & Kyehmstad Co., Milwaukee.....	Below standard in oil. Misbranded, in that quantity of contents is not stated.
May 5	Lemon extract.....	H. E. Frisbie & Sons, Pine River.....	Dr. Koch's Vegetable Tea Co., Winona, Minn.....	Misbranded, in that quantity of contents is not stated.
May 12	Lemon extract.....	Theo. Johnson, Wood.....	Blanke-Baer Chemical Co., St. Louis.....	Misbranded as to quantity. 12% short measure.
May 12	Lemon extract.....	Theo. Johnson, Wood.....	Blanke-Baer Chemical Co., St. Louis.....	Misbranded, in that quantity of contents is not stated.
May 18	Lemon extract.....	A. L. Hahnarst, Coon Valley.....	Confer Co., Orangeville, Ill.....	Misbranded, in that quantity of contents is not stated.
June 8	Lemon extract.....	Emerson & Mabson, Milton Jct.....	S. H. Jewett, Milton Jct.....	Below standard in oil.
June 9	Lemon extract.....	L. Ott, Ft. Atkinson.....	Northwestern Flavoring Extract Co., Sterling, Ill.....	Misbranded, in that quantity of contents is not stated.
June 21	Lemon extract.....	John Willems, W. De Pere.....	Eberhardt Co., W. De Pere.....	Misbranded, in that quantity of contents is not stated.
June 21	Lemon extract, terpeneless.....	W. E. Hopkins, W. De Pere.....	Puhl-Webb Co., Chicago.....	Contains no oil of lemon. Misbranded, in that quantity of contents is not stated.
June 23	Lemon.....	Hermen Steffen, Sherwood.....	Saxon Ext. Co., Chicago.....	
June 23	Lemon extract.....	T. W. Money, Larsen.....	M. W. Marshall, Fond du Lac.....	Misbranded in that quantity of contents is not stated.



## FLAVORS AND FLAVORING EXTRACTS—Continued.

## Lemon Extract—Standard.

Date	Bought of	Labeled	Manufacturer or Jobber
1914			
July 29	Sheboygan Coffee Co., Sheboygan	Lemon extract	
Aug. 10	Jos. F. Hallada, Pilsen	Pure extract of lemon	Dr. F. Tonnaneck Co., Chicago.
Aug. 19	G. M. Dott & Sons, Sun Prairie	Lemon Extract pure	Merchants' Coffee Co., Louisville, Ky.
Aug. 19	M. Schroud, North Bristol	Lemon extract	Standard Manufacturing Co., Decatur, Ill.
Aug. 19	Meyer & Noltemeyer, North Leeds	Ideal lemon extract, triple	J. G. Flint Co., Milwaukee.
Aug. 29	M. W. Marshall Medicine Co., Fond du Lac	Lemon Extract	
Nov. 20	Shurman & Shurman, Fond du Lac	Flavoring extract of lemon	Arbuckle Bros., Chicago.
Oct. 7	Norman Peckham, Woodstock	Pure extract of lemon	McCannon & Co., Winona, Minn.
Nov. 20	Shurman & Shurman, Fond du Lac	Flavor of pure lemon	Hanson Coffee Co., Chicago.
1915			
Mar. 12	Carroll Bros., Monroe	Lemon extract	
April 28	W. H. Jordan, Glen Haven	Extract lemon	American Extract Co., Davenport, Iowa.
May 12	Roberts & Alexander, Elroy	Lemon extract	Griggs, Cooper & Co., St. Paul.
June 8	Emerson & Mabson	Lemon extract	S. H. Jewett, Milton Junction.

## Lemon Extract. Submitted Samples.

Date	Submitted by	Remarks
1915		
Jan. 13	H. W. Larson, Marshall	Not standard.
Jan. 25	State Board of Control	Standard. Marked "Jewett & Sherman Co."
Jan. 25	State Board of Control	Standard. Marked "Sherman's Extract of Lemon."
Mar. 5	Wm. Hughes, Pardeeville	Not standard. Labeled "Dr. Codman's Pure Extract of Lemon."
Mar. 5	D. D. Williams, Markesan	Standard. Labeled "Dr. Codman's Pure Extract of Lemon."
Mar. 5	D. D. Williams, Markesan	Standard.
Mar. 2	R. Gardener, Markesan	Standard. Labeled "Dr. Codman's Pure Extract of Lemon."
Mar. 10	Becker & Wild, New Glarus	Not standard.
Mar. 16	P. J. Ganshert, Gratiot	Standard.
Mar. 16	J. F. Miller & Son, Juda	Not standard. Sample marked "No. 1."
Mar. 16	J. F. Miller & Son, Juda	Standard. Sample marked "No. 2."
Mar. 16	J. H. Craig, South Wayne	Standard.
Mar. 31	J. A. Hamilton Co., Clinton	Standard.
April 12	J. Napper, Clinton (two samples)	Standard.

# Bought for Vanilla Extract. Not Standard.

Date	Labeled	Bought of	Manufacturer or Jobber	Remarks
1914				
July 3	Vanilla, vanillin, coumarin, compound extract of .....	Paul Firchammer, Kewaskum.....	Furst McNess Co., Freeport, Ill.....	Not vanilla extract.
July 13	Pure extract of vanilla .....	B. M. Codman, Janesville.....	B. M. Codman, Janesville.....	Not standard.
July 13	Pure extract of vanilla .....	B. M. Codman, Janesville.....	B. M. Codman, Janesville.....	Not standard.
July 13	Vanilla flavoring composed of vanilla, vanillin, coumarin and caramel coloring.....	B. M. Codman, Janesville.....	B. M. Codman, Janesville.....	Contains little or no extract of vanilla and is artificially colored with caramel.
July 22	Compound extract of vanilla, vanillin and coumarin.....	Michael Heus, Marytown.....	J. R. Watkins Medical Co., Winona, Minn.....	A compound of vanilla, vanillin and coumarin, artificially colored.
July 22	Compound extract of vanilla, vanillin and coumarin.....	Michael Heus, Marytown.....	W. T. Rawleigh Medical Co., Freeport, Ill.....	Not vanilla extract.
July 30	Vanilla bean, vanillin and coumarin.....	Waugerin-Schwenzen Co., Batavia.....	J. N. Sanders & Son, Milwaukee.....	Not vanilla extract.
Aug. 6	Compound extract of tonka, vanilla.....	J. C. Kusterman, St. Nazianz.....	Yahr & Lange Drug Co., Milwaukee.....	Contains little or no vanilla.
Aug. 20	Extract of vanillin and coumarin. Colored.....	Aug. H. Albrecht, Lake Mills.....	Badger Medicine Co., Waterloo, Wis.....	Contains little or no vanilla. Artificially colored.
Oct. 6	Imitation vanilla flavor artificially colored.....	J. Wheeler, Gotham.....	Chamberlain Medicine Co., Des Moines, Iowa.....	Contains no vanilla.
Oct. 7	Compound extract of vanilla, vanillin and coumarin.....	Norman & Peckham, Woodstock.....	McCannon & Co., Winona, Minn.....	Not vanilla extract.
Dec. 30	Extract of vanilla.....	Gimbel Bros., Milwaukee.....		Misbranded, in that the quantity of contents was not plainly and conspicuously stated.
1915				
Jan. 12	Artificial vanilla flavor, artificially colored.....	W. A. Andrews, Hazel Green.....	J. T. Hancock Co., Dubuque, Iowa.....	Artificially colored in imitation of vanilla extract. Contains little or no vanilla.
Jan. 18	Bobs flavor vanilla, coumarin, vanillin, caramel.....	Hale & Son, Platteville.....	Bratton Service Co., Galena, Ill.....	Artificially colored with caramel in imitation of vanilla extract. Contains little or no vanilla extract. Misbranded, in that quantity of contents is not stated.
Mar. 24	Compound vanilla flavor.....	J. N. Dowling, Barnum.....	M. T. Kennedy & Co., McGregor, Iowa.....	Not vanilla extract. Contains little or no vanilla extract. Misbranded in that quantity of contents is not stated.
Mar. 30		*Mrs. John Hockenbrock, Chippewa Falls.....		Not vanilla extract. Artificially colored with caramel. Contains little or no vanilla.
April 7	Vanilla and vanillin with sugar color.....	H. Petrus, Highland.....	R. Barrett, Galena, Ill.....	Not a vanilla extract. Misbranded, as to quantity, and not labeled to show the true composition.
April 7	Compound extract of vanilline, vanilla, tonka and coumarin.....	F. E. Burton, Linden.....	C. A. Nye Co., Madison.....	Not a vanilla extract. Misbranded, in that quantity of contents is not stated.
May 18	Extract of vanillin essence.....	A. L. Hahnarst, Coon Valley.....	Confer Co., Orangeville, Ill.....	Contains little or no vanilla. Misbranded, in that the quantity of contents is not stated.
May 21	Frank's vanilla flavor composed of vanillin, coumarin, glycerin. 15½ per cent alcohol by volume. Caramel coloring.....	Charles A. Engstrom, Stevens Point.....	Charles A. Engstrom, Stevens Point.....	Not a vanilla flavor. Contains no vanilla.
June 21	Vanilla compound.....	John Willems, West De Pere.....	Eberhardt Co., West De Pere.....	Contains little or no vanilla. Misbranded, in that the quantity of contents is not stated.
June 23	Vanilla flavor. Contains vanilline and coumarin.....	Giswold Merc. Co., Grantsburg, Wis.....	The E. Howard Smith Co., Winona, Minn.....	Contains no vanilla. Misbranded, in that the quantity of contents is not stated.

\*Submitted Samples.

**FLAVORS AND FLAVORING EXTRACTS—Continued.**  
**Vanilla Extract. Standard.**

Date	Bought of	Manufacturer or Jobber
1914		
July 2	J. H. Paas, Campbellsport	
July 28	Wachter Bros., Sheboygan Falls	
July 28	Faas & Wilson, Sheboygan Falls	Day-Bergwall Co., Milwaukee.
July 28	W. H. Barrager, Sheboygan Falls	Arbuckle Bros., Chicago.
July 29	Sheboygan Coffee Co., Sheboygan	
July 29	Sheboygan Coffee Co., Sheboygan	
July 29	C. W. Rodecker, Waldo	
Aug. 19	G. M. Dott & Son, Sun Prairie	
Aug. 21	H. J. Setz, Lake Mills	Merchants' Coffee Co., Louisville, Ky.
Sept. 29	M. W. Marshall Medicine Co., Fond du Lac	
Oct. 5	J. L. Fisher, Woodhull	
Nov. 24	Smith & Clark, Richland Center	McCannon & Co., Winona, Minn.
		Stearns & Co., Detroit, Mich.
1915		
Mar. 12	Carroll Bros., Monroe	
Mar. 12	Grinnell & Miller, Monroe	
April 16	W. M. Seeling, Avoca	Franklin, MacVeagh & Co., Chicago.
May 12	Theo. Johnson, Wood	Knell & Prengel Co., Milwaukee.
		Blanke-Baer Chemical Co., St. Louis.

# **Vanilla Extract; Vanilla and Tonka with Vanillin and Coumarin. Submitted Samples.**

Date	Submitted as	Submitted by	Labeled	Remarks
1914 Oct. 8	Flavoring extract of vanilla and tonka with vanillin and coumarin.....	Clark & Host Co., Milwaukee.....	25% vanilla, 25% tonka, with vanillin and coumarin.....	No adulteration found.
1915 Jan. 13	Vanilla extract.....	H. W. Larson, Marshall.....		Small amount of resins. Sample not large enough to do all work required.
Jan. 25	Vanilla extract.....	State Board of Control.....		Sherman's extract of vanilla. No adulteration found.
Jan. 25	Vanilla extract.....	State Board of Control.....		Jewett & Sherman Co.'s extract of lemon. No adulteration found.
Feb. 11	Vanilla extract.....	Stacey & Koch, Palmyra.....		Manufactured by the Codman Extract Co., Janesville. Not standard.
Feb. 11	Vanilla extract.....	Stacey & Koch, Palmyra.....		Manufactured by the Codman Extract Co., Janesville. Not standard.
Mar. 1	Vanilla extract.....	D. D. Williams, Markesan.....	Dr. Codman's pure extract of vanilla	Not standard.
Mar. 1	Vanilla extract.....	D. D. Williams, Markesan.....	Dr. Codman's pure extract of vanilla	Not standard.
Mar. 1	Vanilla extract.....	R. Gardenier, Markesan.....	Dr. Codman's pure extract of vanilla	Not standard.
Mar. 3	Vanilla extract.....	Wm. Highes, Pardeeville.....		Not standard.
Mar. 10	Vanilla extract.....	Becker & Wild, New Glarus.....		Not standard.
Mar. 16	Vanilla extract.....	J. F. Miller & Son, Juda.....		Not standard.
Mar. 16	Vanilla extract.....	P. J. Ganshert, Gratiot.....		Not standard.
Mar. 16	Vanilla extract.....	J. H. Craig, South Wayne.....		Not standard.
Mar. 31	Vanilla flavoring.....	J. A. Hamilton Co., Clinton.....	Dr. Codman's vanilla flavoring vanilla, vanillin and coumarin.....	Misbranded.
Mar. 31	Vanilla extract.....	J. A. Hamilton Co., Clinton.....		Not standard.
April 12	Vanilla extract.....	H. J. Napper, Clinton.....		Standard.
Mar. 9	Vanilla extract.....	Health Dept. of City of Racine.....		Standard.
June 21	Vanilla extract.....	F. E. Wicke, Fort Atkinson.....		Not standard.

## FLAVORS AND FLAVORING EXTRACTS—Continued.

## Compound Extracts and Imitations.

Date	Labeled	Bought of	Manufacturer or Jobber	Remarks
1914				
July 1	Vanillin compound: Tincture of vanilla..... 31.25% Vanillin..... .17% Coumarin..... .11% Caramel..... 2.0%	J. H. Mahoney, Theresa.....	The Upjohn Co., Kalamazoo, Mich.	Artificially colored with caramel, whereby it is made to appear better, or of greater value.
July 1	Imitation extract of vanilline, vanilla, tonka and coumarin.....	Farmers' Mercantile Co., Allenton..	The Zinke Co., Fond du Lac.....	An imitation. Contains little or no vanilla.
July 2	Extract of vanilla and vanillin.....	E. F. Messner, Campbellsport.....	Imperial Vanilla Co., Chicago.....	Not standard. Contains no vanilla. Artificially colored with coal tar dyes.
July 2	Vanilla and vanillin extract compound.....	Stowe Mercantile Co., So. Byron.....	McCullough Drug Co., Lawrenceburg, Ind.....	Contains little or no vanilla. Colored with caramel whereby inferiority is concealed.
July 8	Imitation extract of vanillin, vanilla, tonka and coumarin.....	The Zinke Co., Fond du Lac.....	The Zinke Company, Fond du Lac..	An imitation artificially colored in imitation of vanilla extract.
Aug. 27	Vanilla. Artificial color and flavor.....	Union Cider Co., Marinette.....	Union Cider Co., Marinette.....	Not an artificial vanilla flavor. Contains coumarin. Is artificially colored with caramel.
Sept. 24	Vanilla substitute.....	Mrs. James Gerhard, Oconto Falls..	Mrs. J. Gerhard, Oconto Falls.....	Artificially colored and flavored in imitation of vanilla extract.
Dec. 23	Vanillin, coumarin flavoring, caramel color.....	I. M. Schapiro & Co., Milwaukee.....	.....	Artificially colored with caramel in imitation of vanilla extract.
Dec. 23	Imitation vanilla flavor, vanillin, coumarin. Colored with caramel.....	I. M. Schapiro & Co., Milwaukee.....	.....	An imitation of vanilla extract artificially colored
1915				
April 7	Imitation vanilla.....	Highland Co-op Co., Highland.....	R. Barrett, Galena.....	An imitation artificially colored and flavored in imitation of vanilla extract.
April 13	Vanilla and tonka extract.....	McNulty Bros., Spring Green.....	Quaker Extract Co., Chicago.....	Not standard. Contains no vanilla. Misbranded. No statement of contents.
May 18	Extract of vanilla and tonka, with vanillin and coumarin.....	A. T. Hahnarst, Coon Valley.....	Confer Co., Orangeville, Ill.....	Misbranded. No statement of contents.
June 8	Extract vanillin.....	G. K. Butts, Milton Jet.....	S. H. Jewett, Milton Jet.....	Misbranded. No statement of contents.



### Miscellaneous Extracts.

Date	Bought for	Labeled	Bought of	Manufacturer or Jobber	Remarks
1914 July 13	Almond extract.....	Pure extract of almond.....	B. M. Codman, Janesville.....	B. M. Codman, Janesville.....	Standard.
1915 May 18	Extract of peppermint.....	Extract of peppermint.....	A. L. Hahnarst, Coon Valley...	Confer Co., Orangeville, Ill.....	Misbranded in that quantity of contents is not stated.
June 8	Extract of peppermint.....	Extract of peppermint.....	E. A. Holmes & Son, Milton....	Standard Mfg. Co., Decatur, Ill.....	Not standard. Below standard in oil of peppermint. Misbranded in that quantity of contents is not stated.
June 8	Essence of peppermint.....	Essence of peppermint.....	S. J. Einerman, Lima Center ....	A. J. Hilbert & Co., Milwaukee	Not standard. Contains only trace of oil of peppermint. Misbranded in that quantity of contents is not stated.
June 8	Essence of peppermint.....	Essence of peppermint.....	S. J. Einerman, Lima Center ....	S. H. Jewett, Milton Jct.....	Misbranded, in that quantity of contents is not stated.
June 9	Essence of peppermint.....	Essence of peppermint.....	L. Ott, Ft. Atkinson.....	Northwestern Flavoring Extract Co., Sterling, Ill.....	Misbranded, in that quantity of contents is not stated.

### GROUND PEPPER.

#### Not Standard.

Date	Purchased for	Purchased of	Manufacturer or Jobber	Brand	Remarks
1915 Jan. 15	Black pepper.....	D. Baumgartner, Barneveld.....	Franklin MacVeagh & Co., Chicago.....	Telmo.....	Contains an excessive amount of crude fiber.
Jan. 15	Pepper.....	Wm. Schuetz, Verona.....	John Hoffman & Sons Co., Milwaukee.....	Juneau.....	Contains an excessive amount of crude fiber.
May 18	Ground pepper.....	A. L. Hahnarst, Coon Valley.....	Confer Co., Orangeville, Ill.....		Contains an excessive amount of crude fiber.
June 9	Black pepper.....	E. A. Emmerich, Mosinee.....			Contains added pepper shells.



**GROUND PEPPER—Continued.****Standard.**

Date	Purchased for	Purchased of	Manufacturer or Jobber	Brand
1915				
Jan. 11	Pepper.....	Renier Drussens, Cuba City.....	Hanley & Kinsella, St. Louis.....	
Jan. 11	Pepper.....	Renier Drussens, Cuba City.....	W. M. Hoyt & Co., Chicago.....	
Jan. 11	Black pepper.....	Heil & Eustice, Cuba City.....	L. C. Mercantile Co., Chicago.....	Climax.
Jan. 11	Pepper.....	Heil & Eustice, Cuba City.....	L. C. Mercantile Co., Chicago.....	Sun-Kissed.
Jan. 12	Ground pepper.....	W. A. Andrews, Hazel Green.....	McFadden Coffee & Spice Co., Dubuque, Iowa.....	
Jan. 12	Black pepper.....	J. E. Allen, Benton.....	Franklin MacVeagh & Co., Chicago.....	Casino.
Jan. 12	Pepper.....	J. E. Allen, Benton.....	McNeil & Higgins Co., Chicago.....	None Such.
Jan. 12	Black pepper.....	J. E. Allen, Benton.....	Durand & Kasper Co., Chicago.....	Probono.
May 18	Ground pepper.....	S. A. Smeger, Viroqua.....	Sprague, Warner & Co., Chicago.....	Winter.
May 18	Black pepper.....	Frank Skibba, Junction City.....	Kickbush Co., Wausau.....	

**LINSEED OILS.****Boiled Linseed Oil. Not Standard.**

Date	Purchased of	Manufacturer or Jobber	*Per Cent Unsaponifiable Matter
1914			
July 2	Wm. Sturm, Ashford.....	Central Linseed Oil Co., Omaha.....	44.26
July 2	L. F. McLean & Co., South Byron.....	D. A. Stuart Co., Chicago.....	19.73
July 3	E. Ranthum, New Fane.....	American Linseed Oil Co., Omaha.....	36.06
July 3	Scannell Bros., Mitchell.....	Archer-Daniells Linseed Co., Yapp Oil Co., Fond du Lac.....	5.28
July 9	J. C. F. Fletcher & Co., Blaine.....	Central Linseed Oil Co., Omaha.....	44.26
July 15	R. F. Maurer, Ada.....	The Glidden Varnish Co., Cleveland.....	3.93
July 15	H. Rauschschwalbe, Millhome.....		45.35
July 15	Henry Griebe, Franklin.....		46.42
July 15	W. F. Buscher, Franklin.....	Holland Linseed Oil Co., Chicago.....	13.80
July 22	C. H. Gibson, Taycheedah.....	Central Linseed Oil Co., Omaha.....	44.08
July 22	John Mahlberg, Jericho.....	Dahlman & Imbusch Co., Milwaukee.....	3.41
July 22	Fred Thuerwachter, Calumetville.....	Central Linseed Oil Co., Omaha.....	3.02
July 22	Wendel Burg, St. Anna.....	National Linseed Oil Co., Cleveland.....	3.04

July 23	Belitz Bros., Cleveland	Great Eastern Oil & Paint Co., Omaha	44.01
July 30	Wykhuis Co., Oostburg	Globe Refining Co., Cleveland	38.30
Aug. 6	Wm. F. Luebke, Rosecrans	Producers' Refining Co., Chicago	15.4
Aug. 6	Albert Petska, Rosecrans	Central Linseed Oil Co., Cleveland	48.06
Aug. 6	Henry Zellner, Wayside	Producers' Refining Co., Chicago	12.97
Aug. 6	Kriwanek Bros. Co., Denmark	Central Linseed Oil Co., Cleveland	24.81
Aug. 10	D. Benecke, Fontenoy	Producers' Refining Co., Chicago	32.26
Aug. 19	G. B. Gilbertson, Keyeser	Duluth-Superior Linseed Works, Minneapolis	38.08
Aug. 21	W. C. Henningsen, Hubbleton	Eastland Linseed Oil Co., Cleveland	37.4
Aug. 21	A. H. Budahn, Hubbleton	Duluth-Superior Linseed Works, Minneapolis	40.30
Sept. 23	J. N. Parkerson, Stiles Junction	Vilas Bros., Chicago	3.31
Sept. 30	W. A. Yantz, Oak Center	Producers' Refining Co., Chicago	42.82
Oct. 6	Wm. Hanold, Gotham	Central Linseed Oil Co., Cleveland	51.65
Oct. 6	A. E. Peckham, Ithaca	Central Linseed Oil Co., Omaha	52.60
Oct. 6	W. A. Shaw, Loyd	Central Linseed Oil Co., Omaha	54.07
Oct. 6	C. F. Zimpel, Ithaca	Central Linseed Oil Co., Omaha	* 2.16
Oct. 7	H. W. Leathenberry, Hub City	Central Linseed Oil Co., Omaha	43.36
Oct. 7	P. J. Shaffer, Bloom City	National Linseed Oil Co., Cleveland	43.21
Oct. 7	Reidle Bros., Yuba	National Linseed Oil Co., Cleveland	35.44
Oct. 8	J. B. Gillingham, Gillingham	National Linseed Oil Co., Cleveland	37.76
Oct. 16	Core & Wells, Lone Rock	National Linseed Oil Co., Cleveland	31.55
Oct. 28	M. Dolan & Co., Rising Sun	Central Linseed Oil Co., Omaha	46.84
Oct. 28	M. Steenburg & Co., Retreat	National Linseed Oil Co., Cleveland	36.43
Oct. 28	C. B. Fortney, Liberty Pole	Atlas Oil Co., Omaha	32.33
1915			
Jan. 13	W. B. Smith, Platteville	Atlantic Refining Co., Cleveland	* 2.46
Jan. 15	W. R. Hinrichs, Verona	Holland Linseed Oil Co., Chicago	4.21
Mar. 17	G. C. Parkinson, Fayette	Holland Linseed Oil Co., Fayette	13.83
Mar. 17	G. C. Parkinson, Fayette	Eastland Linseed Oil Co., Cleveland	6.94
Mar. 30	U. Pfaffenburger, Twin Lakes	Central Linseed Oil Co., Cleveland	39.75
April 14	E. L. Kopan, Byrd's Creek	Central Linseed Oil Co., Cleveland	55.53
April 14	A. S. Anderson, Pineknob	Central Linseed Oil Co., Cleveland	16.13
April 15	Dooley Bros., Blue River	Duluth-Superior Linseed Works, Minneapolis	19.55
April 22	T. P. Colby, Easton	Central Linseed Oil Co., Omaha	38.21
April 22	H. F. Kurth, Easton	National Linseed Oil Co., Cleveland	34.84
May 4	Orlando Matthews, Big Flats	Central Linseed Oil Co., Omaha	37.85
May 19	Hazen & Neprud, Liberty (Readstown, R. D.)	Duluth-Superior Linseed Works, Minneapolis	31.62
May 19	Geo. Bakken, Bud (Viroqua, R. D.)	Duluth-Superior Linseed Works, Minneapolis	28.57
May 19	Rolin Myers, Boaz	Holland Linseed Co., Chicago	45.84
May 26	J. Buhlman, Waunakee	National Linseed Co., Cleveland	7.92
June 3	R. R. Dunning, Farmington (Watertown, R. D.)		42.47
June 3	A. C. Gruennert, Helenville		38.64

\*Unsaponifiable matter is mineral oil or a mixture of mineral oil and rosin oil.

**LINSEED OILS—Continued.**  
**Raw Linseed Oil. Not Standard.**

Date	Purchased of	Manufacturer or Jobber	*Per Cent Unaponifiable Matter
1914			
July 3	E. Ranthum, New Fane.....	Central Linseed Oil Co., Omaha.....	37.04
July 9	D. A. Hetzel, Hetzel.....	Holland Linseed Oil Co., Chicago.....	13.13
July 9	D. A. Hetzel, Hetzel.....		41.49
July 9	Waterman Bros., Bancroft.....	National Linseed Oil Co., Cleveland.....	32.15
July 22	Wendel Burg, St. Anna.....	National Linseed Oil Co., Cleveland.....	31.77
Oct. 5	Will L. Wilkinson, Ladoga.....	Central Linseed Oil Co., Omaha.....	44.34
Oct. 5	M. Cahill, Rogersville.....	Central Linseed Oil Co., Omaha.....	51.26
Oct. 5	Sidney E. McCumber, Lamartine.....	American Linseed Oil Co., Omaha.....	51.19
Oct. 6	Runenschless & Pronold, Twin Bluffs.....		17.05
Oct. 8	J. B. Higginbotham, Sabin.....		45.23
Oct. 8	M. J. Glick, Sylvan.....	Holland Linseed Co., Chicago.....	18.35
1915			
Jan. 27	Lavey & Shotliff, Bristol.....		40.23
April 15	Dooley Bros., Blue River.....		27.51
April 26	E. O. Seiler, Madison.....	Standard Linseed Co., Cleveland.....	29.33

\*Unaponifiable matter is mineral oil or a mixture of mineral oil and rosin oil.

5-D.A.F.

### Raw Linseed Oil. Standard.

Date	Purchased of	Manufacturer or Jobber
1914		
July 9	J. C. F. Fletcher & Co., Blaine.....	Douglas & Co., Chicago.
July 17	H. G. Rode, La Crosse, R. D.....	
Aug. 21	Wm. Blaschka, Waterloo.....	Detroit White Lead Works, Detroit.
Oct. 6	A. E. Peckham, Ithaca.....	
1915		
May 18	Jos. Skibba, Junction City.....	
May 6	J. R. Jones & Son, Wautoma.....	Great Eastern Oil & Paint Co., Omaha.

### Boiled Linseed Oil. Standard.

Date	Purchased of	Manufacturer or Jobber
1914		
July 2	H. H. Lichtenberg, Kekoskee.....	Layton Park Oil & Soap Co., Milwaukee.
Aug. 25	L. M. Holm, Arkdale.....	Hibbard, Spencer & Bartlett Co., Chicago.
Aug. 27	M. & V. Novelty Co., Marinette.....	Chicago White Lead & Oil Co., Chicago.
1915		
Mar. 17	Thos. Knewstubb, Wiota.....	Central Linseed Oil Co., Omaha.
April 24	Ira G. Dunn, Whitecreek.....	Interstate Oil Co., La Crosse.
May 7	Geo. Cool, Spencer.....	The Simmons Hardware Co., Minneapolis.
May 14	Rockstein & Springberg, Babcock.....	Hibbard, Spencer & Bartlett Co., Chicago.
May 26	Wm. H. Witt, Kellner.....	Morley-Murphy Co., Green Bay.
May 27	R. O. Evans, Sherry.....	Wright & Hill, Chicago.
June 2	Klein & Co., Deerfield.....	Spencer Kellogg & Sons, Duluth-Minneapolis.
June 9	E. A. Emmrich, Mosinee.....	

**LINSEED OILS—Continued.**  
**Boiled Linseed Oil. Submitted Samples.**

Date	Submitted by	Remarks
1914		
July 1	Donley Bros., Kenosha	Standard.
July 2	Sam Miller, Madison	Contains an excessive amount of foots.
July 14	O'Neil Oil & Paint Co., Milwaukee	Not standard. Contains .87% of mineral oil.
Aug. 28	Stowe Mercantile Co., South Byron	Adulterated with mineral oil.
Sept. 26	Otto Lenze, Watertown	Not standard. Contains 0.92% mineral oil.
Oct. 26	Henry Zellner, Wayside	Heavily adulterated with a mineral oil.
Nov. 14	Dieter Bros., Richland Center	Standard.
Dec. 9	M. J. Glick, Sylvan	Not standard. Contains 18.64% unsaponifiable matter.
Dec. 9	Pratt Bros., Richland Center	Sample No. 1. Standard.
Dec. 9	Pratt Bros., Richland Center	Sample No. 2. Standard.
Dec. 9	Pratt Bros., Richland Center	Sample No. 3. Heavily adulterated with mineral oil.
Dec. 28	W. E. Zesklebn, Waupaca	Not standard. Contains 29.37% mineral oil.
1915		
Mar. 29	R. J. Gaul, Waukesha	Not standard. Mineral oil 39.9%.
Mar. 29	John Geisler, Steuben	Standard.
April 22	J. Moehn, Stockbridge	Sample No. 1. Standard.
April 22	J. Moehn, Stockbridge	Sample No. 2. Standard.
April 26	U. Pfaffenberger, Twin Lakes	Not standard. Contains 0.36% mineral oil.
April	Geo. Frosch, Wayside	Not standard. Contains 0.71% mineral oil.
May 10	W. H. Morgan, Wilmet	Standard.
May 26	Schlafer Hardware Co., Appleton	No adulteration found.
May 27	Geo. A. Kreutzer Co., Athens	Not standard. Mineral oil 0.57%.
June 2	A. Schiferl, Jefferson	Standard.
June 27	Hans A. Rasmussen, Bear Creek	Adulterated with kerosene.



### Raw Linseed Oil, Submitted Samples. Standard.

Date	Submitted by
1914	
Aug. 28	W. H. Latta, Clinton.
Oct. 10	F. A. Novak, Beloit.
Oct. 14	Dieter Bros., Richland Center.
Dec. 3	Lyman Whittaker, Fond du Lac, R. F. D.
1915	
Mar. 29	John Geisler, Steuben.
April ....	Geo. Frosch, Wayside.

### MEAT PRODUCTS.

#### Bought for Sausage; Found to Contain More than 4% of Cereal.

Date	Bought of	Per Cent of Starch
1914		
Aug. 12	Louis Moeller, Rio Creek.....	9.16
Dec. 8	Wm. Copshall & Son, Beaver Dam.....	4.65
1915		
Feb. 8	Cornell & Bergfeld, Whitewater.....	7.24
Feb. 9	Charles Fose, Whitewater.....	5.19
May 7	A. A. Krueger, Princeton.....	8.57



**MEAT PRODUCTS—Continued.**  
**Bought for Sausage; Found to be Sausage with Cereal.**

Date	Bought of	Per Cent of Starch
1914		
Oct. 28	Ed. Larson, Readstown.....	
Dec. 4	Emrich Hoeft, Juneau.....	2.29
Dec. 4	Ed. Moll, Juneau.....	2.66
Dec. 8	People's Cash Market, Beaver Dam.....	2.88
Dec. 8	Hensler & Hensler, Beaver Dam.....	3.60
		3.20
1915		
Jan. 12	Zubler & Beatty, Benton.....	
Jan. 13	John Brodbeck's Son Co., Platteville.....	2.53
Feb. 10	Geo. W. Groesbeck & Son, Elkhorn.....	2.39
		3.81

**Bought for Sausage; Found to Contain Artificial Color.**

Date	Bought of
1914	
Nov. 30	Geo. A. Kemmer, Madison.

**Bought for Sausage with Cereal.**

Date	Bought of	Per Cent of Starch
1914		
July 23	Henry Eckhardt, Howard's Grove.....	4.72
1915		
Jan. 15	J. Segessenman, Verona.....	2.89

# MISCELLANEOUS FOODS.

Date	Bought for	Labeled	Bought of	Remarks
1914				
July 21	Sugar color.....	Sugar color.....	Badger Cider Co., Stevens Point.....	Caramel.
Dec. 3	Glacé cherries.....	Glacé cherries artificially colored.....	C. A. Rank, Waupun.....	Tested for benzoic acid. None found.
Dec. 3	Lard.....		Zindars Bros., Waupun.....	Standard.
Dec. 8	Pineapple juice.....	Pure Hawaiian pineapple juice.....	Geo. Elser, Beaver Dam.....	Misbranded, in that quantity of contents is not stated.
Dec. 8	Lemon Juice.....	Veeko juice of lemon.....	Geo. Elser, Beaver Dam.....	Standard.
Dec. 22	Egg noodles.....	Egg noodles.....	Rigas & Thomas, Milwaukee.....	Passed.
Dec. 22	Noodles.....	German style noodles. Wide.....	Pantazas Bros., Milwaukee.....	Passed.
Dec. 22	Souplets, with egg.....	Souplets. Contains egg.....	Pantazas Bros., Milwaukee.....	Passed.
Dec. 22	Spaghetti.....	Spaghetti. Contains no egg.....	Pantazas Bros., Milwaukee.....	Passed.
1915				
Jan. 11	Mustard.....	Mustard.....	Renier Dreessens, Cuba City.....	Standard.
Jan. 15	Ground mustard.....	Ground mustard.....	D. Baumgartner, Barneveld.....	Standard.
Jan. 15	Peanut butter.....	Peanut butter.....	Wm. Schuetz, Verona.....	Passed.
Feb. 25	Cheese color.....		Louis Riesch, St. Lawrence.....	Anatto.
Feb. 26	Cocoa.....	Wau-eta cocoa.....	F. C. Kehl, Markesan.....	Passed.
Mar. 3	Cocoa.....	Pure cocoa.....	J. W. Koppelman, Randolph.....	Passed.
Mar. 8	Codfish.....	Absolutely boneless; George's codfish; net weight, 1 pound.....	W. E. Bontly, Monticello.....	Labeled in compliance with law.
Mar. 8	Cocoa.....	Breakfast cocoa.....	The People's Supply Co., Monticello.....	Passed.
Mar. 10	Plum pudding.....	Plum pudding.....	Stair Bros. Co., Brodhead.....	Passed.
Mar. 12	Cocoa.....	Pure cocoa.....	Grinnell & Miller, Monroe.....	Passed.
Mar. 18	Sweet pickles.....	Sweet pickles.....	P. P. McMurrough, Mineral Point.....	Standard.
Mar. 19	Cocoa.....	Breakfast cocoa.....	D. G. Jones, Dodgeville.....	Passed.
Mar. 22	Peanut butter.....	Peanut butter.....	L. M. Burt, Brooklyn.....	Passed.
April 28	Sour pickles.....	Sour pickles. Small amount of alum.....	Phil. C. Grimm, Cassville.....	Misbranded, in that quantity of contents was not stated.
April 28	Sweet pickles.....	Sweet pickles: .002 aluminum sulphate; 1 benzoate of soda; 32 ozs., net.....	L. H. Kolb, Bagley.....	Not standard. Contains benzoic acid.
May 12	Baking powder.....	Pure phosphate baking powder.....	Roberts & Alexander, Elroy.....	Labeled in compliance with law.
May 12	Evaporated horse radish.....	Evaporated horse radish.....	Steffen & Co., Elroy.....	Passed.
May 12	Pudding.....	Flavored pudding rose vanilla.....	H. Kittelson, Elroy.....	Passed.
May 13	Grape juice.....	Catawba grape juice.....	Nash Grocery Co., Grand Rapids.....	Misbranded, in that quantity of contents is not stated.
May 13	Cream of tartar.....	99% pure cream of tartar.....	Norwalk Mercantile Co., Norwalk.....	Not standard.
May 13	Cream of tartar.....	Cream of tartar.....	Port Edwards Merc. Co., Port Edwards.....	Not standard.

## MISCELLANEOUS FOODS—Continued.

Date	Bought for	Labeled	Bought of	Remarks
1915				
May 14	Peanut butter.....	Peanut butter.....	Edward Moe, Clifton.....	Passed.
May 14	Cream-olene.....	Cream-olene.....	James L. Freeman, Hustler.....	A mixture of sugar and gum.
May 19	Nut relish.....	Nut relish.....	Henry Bros., Viroqua.....	Passed.
May 28	Puddine—lemon.....	Flavored puddine, lemon.....	Howe Bros., Stoughton.....	Passed.
May 28	Puddine—chocolate.....	Flavored puddine, chocolate.....	Howe Bros., Stoughton.....	Passed.
May 28	Puddine—cream vanilla.....	Fruit puddine, cream vanilla.....	Howe Bros., Stoughton.....	Passed.
May 28	Puddine—rose vanilla.....	Fruit puddine, rose vanilla.....	Howe Bros., Stoughton.....	Passed.
June 8	Fig marmalade.....	Fig marmalade.....	E. A. Holmes & Son, Milton.....	Passed.
June 9	Our pie preparation.....	Our pie preparation; a mixture, chocolate	Laek & Wisch, Fort Atkinson.....	Misbranded, in that quantity of contents is not stated.
June 12	Raspberry aroma.....	Raspberry aroma.....	Heibel Bottling Co., Madison.....	Tested for benzoic acid. None found.
June 21	Lemon juice.....	Lemon juice.....	W. E. Hopkins, West De Pere.....	Misbranded, in that quantity of contents is not stated.

## OLIVE OIL (SWEET OIL).

Not Standard.

## Cottonseed Oil or Cottonseed Oil Mixtures Dispensed for Sweet Oil.

Date	Purchased of	Manufacturer or Jobber	Remarks
1914			
Dec. 30	O. Frank, Cudahy.....		
1915			
Mar. 16	Haskin & Wilson, Darlington.....	Yahr & Lange Drug Co., Milwaukee.....	Contains a copper compound.
Mar. 30	Adam Karcher, Bassett.....	Household Extract Works, Milwaukee.....	Contains little or no olive oil.
May 13	Wood County Drug Co., Grand Rapids.....		Contains little or no olive oil.

# Standard.

Date	Purchased of or Submitted by	Manufacturer or Jobber
1914		
July 16	*Ross Baker, Madison	Glaser, Crandell Co., Chicago.
July 22	H. P. Glasow, Fond du Lac	S. Rae & Co., Leghorn.
Sept. 16	Walther & Frederickson, Oconomowoc	
1915		
Jan. 11	F. A. Florine & Co., Cuba City	John T. Hancock, Dubuque, Iowa.
Jan. 11	Barker Bros. Drug Co., Cuba City	Morrison, Plummer & Co., Chicago.
Jan. 13	R. B. Woodward, Platteville	Sisson-Seielstad-Hougan Co., La Crosse.
Mar. 15	Miller & Son, Juda	Milwaukee Drug Co., Milwaukee.
Mar. 24	H. A. Miller, Barnum	
April 14	Dr. E. M. Brown, Arena	
May 5	Ralph Arnold, Fairchild	
May 5	Otto Nessa, Osseo	
May 6	Henry Horn, Loyal	
May 19	John W. Beidleman, Amherst	Durand-Kasper Co., Chicago.
May 19	O. A. Nelson, Amherst Junction	
May 20	Taylor's Drug Store, Stevens Point	Sprague, Warner & Co., Chicago.
May 20	Kerstel Bros. Co., Marshfield	L. W. Leithhead Drug Co., Duluth, Minn.
June 4	Ney, Lusk & Hudson, Polley	Steinwender, Stoffregen Coffee Co., St. Louis, Mo.
June 4	C. J. Boekler & Son, Jump River	Old Monk Olive Oil Co., Chicago.
June 9	Saut & Abenddaser, Schofield	
June 9	Rothschild Paper Mills Co., Rothschild	

\*Submitted by.

## SACCHARINE PRODUCTS. Maple Products. Not Standard.

Date	Bought for	Labeled	Bought of	Manufacturer or Jobber	Remarks
1915					
Feb. 18	Maple Syrup	Maple Syrup	J. Mundschau & Son, Mukwonago	Janesville Wholesale Grocery Co., Janesville	Contains an excessive amount of moisture.
Mar. 22	Maple syrup	Pure maple syrup	J. O. Eastman & Son, Evansville	Henry Pink, Bloomington	Contains an excessive amount of moisture
April 28	Maple syrup		Andrew Goetzelman, Bloomington		Contains an excessive amount of moisture.

**SACCHARINE PRODUCTS—Continued.**  
**Maple Products. Standard.**

Date	Bought for	Bought of
1915		
Jan. 18	Maple sugar.....	The Fuelberg Co., Platteville. T. E. Slattery, Elkhorn. Ed Wolf, Hillsboro. Nash Grocery Co., Grand Rapids. E. N. Wold, Amherst.
Feb. 10	Maple butter.....	
Mar. 26	Maple sugar.....	
May 13	Maple sugar.....	
May 19	Maple sugar.....	

**Miscellaneous Saccharine Products.**

Date	Bought for	Labeled	Bought of	Remarks
1914				
Aug. 27	Conc. syrup, grape.....	Conc. syrup, grape, artificial.....	Union Cider Co., Marinette.....	Misbranded, in that quantity of contents is not stated.
Aug. 27	Conc. syrup, wild cherry.....	Conc. syrup, wild cherry.....	Union Cider Co., Marinette.....	Misbranded, in that quantity of contents is not stated.
Aug. 27	Conc. syrup, raspberry.....	Conc. syrup, raspberry.....	Union Cider Co., Marinette.....	Misbranded, in that quantity of contents is not stated.
Dec. 30	Candy.....		Melinden Candy Butcher Shop, Milwaukee.....	No adulteration found.
1915				
Mar. 24	Honeycombed bar.....	Honeycombed bar, chocolate coated.....	H. A. Miller, Barnum.....	No adulteration found.
Apr. 28	Honey.....		L. H. Kalb, Bagley.....	Standard.
May 20	Raspberry flavored syrup.....	Raspberry flavored syrup, artificially colored. 1-10 of 1% benzoate of soda. 1-10 of 1% citric acid.....	Ramsland Bros., Westby.....	Not standard. Contains benzoic acid or salt thereof.
May 28	Raspberry syrup compound.....	Raspberry syrup compound; 1-10 of 1% benzoate of soda.....	J. L. Haakenson, Stoughton.....	Not standard. Contains benzoic acid or salt thereof.
May 28	Orange syrup compound.....	Compound, orange syrup, 1-10 of 1% benzoate of soda.....	J. L. Haakenson, Stoughton.....	Not standard. Contains benzoic acid or salt thereof.
May 28	Fruit nectar.....	Fruit nectar.....	J. L. Haakenson, Stoughton.....	Old goods. Had been in stock for long time. No longer salable.
May 28	Raspberry flavored syrup.....	Raspberry flavored syrup, 1-10 of 1% benzoate of soda.....	Howe Bros., Stoughton.....	Not standard. Contains benzoic acid or salt thereof.
May 28	Cherry syrup, imitation.....	Imitation cherry syrup.....	J. L. Haakenson, Stoughton.....	Not standard. Contains benzoic acid or salt thereof.



# Saccharine Products. Submitted Samples.

Date	Submitted as	Submitted by	Remarks
1914			
Aug. 1	Maple syrup.....	C. S. Lykom, Antigo.....	Contains more than 32% of water. Not standard.
Aug. 28	Candy.....	H. O. Gordon, La Crosse.....	Tested for arsenic. None found.
Sept. 24	Extracted honey.....	Werner P. Meyer, Cedarburg.....	Sample No. 1. No adulteration found.
Sept. 24	Extracted honey.....	Werner P. Meyer, Cedarburg.....	Sample No. 2. No adulteration found.
Sept. 24	Extracted honey.....	Werner P. Meyer, Cedarburg.....	Sample No. 3. No adulteration found.
1915			
Jan. 12	Sugar.....	Wauwatosa.....	Sugar from the bottom of a maple syrup container. Found to be sucrose.
Feb. 4	Extracted honey.....	Thos. Thoen, Hammond.....	No adulteration found.
April 12	Maple syrup.....	J. H. Clark, Unity.....	No adulteration found.
April 20	Maple syrup.....	Theo. Jensen, River Falls.....	No adulteration found.
April 20	Maple syrup.....	L. H. Chafee, Cameron.....	Contains 66% of water. Not standard.
May 5	Maple syrup.....	Dr. J. F. Raub, Monroe.....	No adulteration found.
May 6	Maple syrup.....	Peter MacCourt, Oconto.....	No adulteration found.

## MISCELLANEOUS SUBMITTED SAMPLES.

Date	Sample of	Submitted by	Remarks
1914			
Aug. 28	White paint.....	W. H. Latta, Clinton.....	A mixture of white lead and zinc oxide.
Dec. 16	Fresh pork.....	Mrs. E. Ballion, Eagle.....	Strong offensive odor of boar meat. No preservative present.
1915			
Jan. 23	Lard.....	J. D. Cannon, New London.....	Melting point of crystals indicate the addition of beef tallow.
Jan. 23	Lard.....	J. D. Cannon, New London.....	Melting point of crystals indicate the addition of beef tallow.
Feb. 1	Cheese.....	N. Simon Co., Appleton.....	Standard.
Feb. 11	Banana extract, artificial.....	Stacey & Koch, Palmyra.....	Old stock, not salable.
Feb. 11	Lemon extract.....	Stacey & Koch, Palmyra.....	Not standard.
Feb. 11	Orange extract.....	Stacey & Koch, Palmyra.....	Standard.
Mar. 16	White lead.....	State Board of Control, Madison.....	Standard.
Mar. 20	Brandy.....	Guy Elliott, Oxford.....	Alcohol by volume, 42.24%.
Mar. 33	Port wine.....	Racine Health Dept., Racine.....	Alcohol by volume, 5.20%.
April 9	Cherries in glass.....	Armour & Co., Chicago.....	Contains sulphur dioxide.
April 26	Evaporated milk.....	National Condensed Milk Co., New London.....	Standard in fat.
April 26	Evaporated milk.....	National Condensed Milk Co., New London.....	Standard in fat.
May 5	Grape juice.....	Gould, Wells & Blackburn Co., Madison.....	Contains sulphur dioxide.
May 18	White ribbon beverage.....	M. R. Munson, Prairie du Chien.....	Contains no alcohol.
May 21	White ribbon beverage.....	Ed. Reeder, Orfordville.....	Contains no alcohol.



## TURPENTINE.

**Turpentine and Second Run Turpentine. Not Standard: Adulterated with a Mineral Oil Product of the Nature of Kerosene.**

Date	Purchased of or Submitted by	Manufacturer or Jobber	Specific Gravity at 20° C.	Refraction at 20° C.	Per Cent of Adulteration Shown on Polymerization
1914					
July 2	Albert Schwandt, Campbellsport.....	National Linseed Co., Cleveland.....	0.8625	1.4652	18.0
July 28	Mallman-Martin Co., Sheboygan Falls.....		0.8415	1.4602	26.5
Aug. 8	Wm. F. Luebke, Roscrans.....	Producers' Refining Co., Chicago.....	0.8370	1.4555	28.0
Aug. 27	Heindl Co., Marinette.....	Southern States Turpentine Co., Cleveland.....	0.8470	1.4617	31.0
Sept. 18	*Reinhold & Meyer Mfg. Co. Plymouth (Sample No. 1).....		0.8436	1.4605	24.2
Sept. 18	*Reinhold & Meyer Mfg. Co. Plymouth (Sample No. 2).....		0.8385	1.4592	33.0
Sept. 18	*Heindl & Co., Marinette.....		0.8480	1.4618	28.0
Sept. 18	Settergren Hardware Co., Baraboo.....	D. A. Stuart & Co., Chicago.....	0.8554	1.4659	15.4
Dec. 28	*E. W. Zesklebn, Waupaca.....		0.8440	1.4617	30.6
1915					
Jan. 25	**Wauwatosa Hardware Co., Wauwatosa.....	Standard Linseed Co., Cleveland.....	0.8242	1.4512	66.66
Mar. 8	J. J. Voegli, Monticello.....	Southern States Turpentine Co., Cleveland.....	0.8462	1.4622	25.0
Mar. 30	W. H. Morgan, Wilmot.....	Southern States Turpentine Co., Cleveland.....	0.8582	1.4652	20.0
April 26	**E. O. Seiler, Madison.....	Standard Linseed Co., Cleveland.....	0.8205	1.4516	70.0
April 26	E. O. Seiler, Madison.....	Standard Linseed Co., Cleveland.....	0.8598	1.4678	5.8
May 19	S. Engebretson, Westby, R. D.....		0.7795	1.4314	75.0
June 14	A. Smith, Two Rivers.....	Sanitary Turpentine Co., Chicago.....	0.8573	1.4657	15.0
June 14	**A. Smith, Two Rivers.....	Sanitary Turpentine Co., Chicago.....	0.8193	1.4509	66.66
June 21	Goemans Bros., De Pere.....	Southern States Turpentine Co., Cleveland.....	0.8464	1.4625	23.0
June 25	H. J. Wheeler, De Pere.....	Southern States Turpentine Co., Cleveland.....	0.8457	1.4617	26.0

\*Submitted sample.

\*\*Sold for second run turpentine.

## Turpentine—Standard.

Date	Purchased of or Submitted by	Manufacturer or Jobber
1914		
July 8	The Zinke Co., Fond du Lac.....	The Zinke Co., Fond du Lac.
July 13	Stoelting Bros. Co., Kiel.....	Wadhams Oil Co., Milwaukee.
Aug. 27	M. & V. Novelty Co., Marinette.....	Theo. Lesser, Chicago.
Sept. 11	Oestreich Bros. Hardware Co., New London.....	Wadhams Oil Co., Milwaukee.
Sept. 15	J. B. Donovan, Baraboo.....	Producers' Refining Co., Chicago.
Sept. 30	Stowe Mercantile Co., South Byron.....	Central Commercial Co., Chicago.
Sept. 30	W. W. Morrison, Oakfield.....	James E. Patton Co., Milwaukee.
Oct. 16	Geo. A. Schields, Mazomanie.....	John Lucas & Co., Chicago.
Nov. 7	*Wm. Krueger, Neenah.....	
Nov. 20	Pfeil's Drug Store, Fond du Lac.....	
Nov. 28	*Lauermann Bros. Co., Marinette.....	
Dec. 4	H. H. Wilke, Horicon.....	Wadhams Oil Co., Milwaukee.
Dec. 8	J. F. Wollenburg, Beaver Dam.....	Wadhams Oil Co., Milwaukee.
Dec. 8	John V. Zweck, Beaver Dam.....	Wadhams Oil Co., Milwaukee.
1915		
Jan. 25	Geo. B. Nase, Wauwatosa.....	T. C. Esser, North Ave., Milwaukee.
Jan. 12	P. J. Batham, Benton.....	Jas. H. Rice Co., Chicago.
Jan. 13	J. E. Fawcett Hardware Co., Platteville.....	Wadsworth-Howland Co., Chicago.
Jan. 15	W. R. Hinrichs, Verona.....	H. M. Hooker Co., Chicago.
April 14	E. T. Kopan, Byrd's Creek.....	
May 5	*Gould, Wells & Blackburn, Madison.....	
May 18	John Blenker, Sherry.....	
May 28	Wm. C. Bruegger, Stoughton.....	Atlas Oil Co., Cleveland.

\*Submitted samples.

# VINEGARS. Miscellaneous.

Date	Bought for	Labeled	Bought of	Manufacturer or Jobber	Remarks
1914					
June 4	Cider vinegar.....	Cider vinegar.....	Lemke-Gerlach Tea Co., Marinette.....	Monday-Gerlach Tea Co., Milwaukee.....	Below standard in acetic acid, soluble alkalinity and glycerol.
Aug. 7	Cider vinegar.....	Pure cider vinegar.....	Schmiedlin & Moss, Lodi.....	Steele-Wedeles Co., Chicago.....	Below standard in soluble alkalinity of ash. A reduced vinegar. Not so labeled.
Oct. 17	Cider vinegar.....	Cider vinegar, legal strength.....	B. L. Appleby, Twin Bluffs.....	John Hancock, Dubuque, Iowa.....	Below standard in acetic acid and in soluble alkalinity of ash.
Dec. 8	White distilled vinegar.....	White distilled vinegar, 4½% acetic strength.....	Geo. Elser, Beaver Dam.....	Franklin MacVeagh & Co., Chicago.....	Standard.
Dec. 24	Vinegar.....	Table vinegar.....	J. Hirschberg, Milwaukee.....	Nat. Pickle & Vinegar Co., Milwaukee.....	Distilled vinegar. Not properly labeled.
Dec. 24	Vinegar.....	Table vinegar.....	L. Hirschberg, Milwaukee.....	American Pickle & Vinegar Co., Milwaukee.....	Distilled vinegar sold as vinegar. Not properly labeled.
1915					
Jan. 11	Cider vinegar.....	Pure cider vinegar.....	Heil & Eustice, Cuba City.....	L. C. Mercantile Co., Chicago.....	Not standard.
Jan. 12	Cider vinegar.....	Corn sugar vinegar.....	Ernest Stadel, Hazel Green.....	Jackson Vinegar Co., Dubuque, Ia.....	Not standard. Glucose vinegar sold for cider vinegar.
Jan. 12	Vinegar.....	Corn sugar vinegar.....	W. A. Andrews, Hazel Green.....	Jackson Vinegar Co., Dubuque, Ia.....	Not standard. Glucose vinegar sold for vinegar.
Jan. 12	Vinegar.....	Corn sugar vinegar.....	G. Stadel, Benton.....	Jackson Vinegar Co., Dubuque, Ia.....	Not standard. Glucose vinegar sold as vinegar.
Jan. 12	Vinegar.....	.....	C. G. Trewartha, Hazel Green.....	Jackson Vinegar Co., Dubuque, Ia.....	Not standard. Distilled vinegar sold as vinegar.
Jan. 12	Vinegar.....	Vinegar. Guaranteed pure. Contents 24 ozs.....	C. G. Trewartha, Hazel Green.....	Schroeder-Kleine Grocery Co., Dubuque, Ia.....	Not standard. Quantity of contents correctly stated.

# Submitted Samples.

Date	Submitted by	Gms. of Acetic Acid, per 100 ccs.
1914		2.22
July 15	A. E. Swenson, Viroqua.....	3.98
July 28	R. L. Bohn Co., Lime Ridge.....	2.80
Aug. 8	Mrs. J. C. Plumb, Milton.....	4.15
Aug. 26	Ray O. Littlefield, Plymouth.....	3.43 Sample No. 1.
Aug. 27	W. M. Ellis, Endeavor (4 samples).....	2.68 Sample No. 2.
Aug. 27	W. M. Ellis, Endeavor (4 samples).....	3.91 Sample No. 3.
Aug. 27	W. M. Ellis, Endeavor (4 samples).....	1.67 Sample No. 4.
Aug. 27	W. M. Ellis, Endeavor (4 samples).....	2.66
Sept. 14	Ole Halverson, Dodgeville.....	5.22
Sept. 25	Mrs. J. L. Noble, Ripon.....	2.47 Sample No. 1.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	6.77 Sample No. 2.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	1.71 Sample No. 3.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	1.54 Sample No. 4.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	2.72 Sample No. 5.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	5.21 Sample No. 6.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	5.39 Sample No. 7.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	3.29 Sample No. 8.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	6.80 Sample No. 9.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	3.23 Sample No. 10.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	3.80 Sample No. 11.
Nov. 3	M. D. Beebe, Orfordville (11 samples).....	1.20
Nov. 20	Geo. W. Lees, Sussex.....	
1915		1.80
Mar. 4	Ray O. Littlefield, Plymouth.....	5.22 Sample No. 1.
June 5	L. Simonds, Mukwonago (7 samples).....	5.82 Sample No. 2.
June 5	L. Simonds, Mukwonago (7 samples).....	6.36 Sample No. 3.
June 5	L. Simonds, Mukwonago (7 samples).....	..... Sample lost.
June 5	L. Simonds, Mukwonago (7 samples).....	5.22 Sample No. 5.
June 5	L. Simonds, Mukwonago (7 samples).....	7.11 Sample No. 6.
June 5	L. Simonds, Mukwonago (7 samples).....	1.11 Sample No. 7.
June 5	L. Simonds, Mukwonago (7 samples).....	4.58
June 21	Wm. H. Goelzer, Glenbeulah.....	

**WHITE LEAD.  
Not Standard.**

Date	Purchased of	Manufacturer or Jobber	Labeled
1914			
June 22	J. C. Ronnold, Perry	Bradley & Vrooman Co., Chicago	Crown White.
July 1	Farmers' Mercantile Co., Allenton	Detroit White Lead Works, Detroit	American White.
July 1	Farmers' Mercantile Co., Kohlsville	Ivorold Mixed Paint Co., Newark, N. J.	American White: Oxide of zinc, 10.5% Barium sulphate, 81.3% Lead sulphate, 0.6% Linseed oil, 7.6%.
July 1	M. Stoffel & Co., Allenton	Wm. F. Zummach, Milwaukee	Imperial White: Lead carbonate, 4.56% Zinc oxide, 4.56% Barium sulphate, 82.05% Pure linseed oil (bleached), 8.83%.
July 1	Stragota Bros., St. Kilian	Wadsworth-Howland Co., Chicago	Crystal Springs White: 66.9% barium sulphate. 22.4% sublimed white lead. 7.6% corn oil.
July 1	Geo. Petri, Wayne	Wm. F. Zummach, Milwaukee	Imperial White: Lead carbonate, 4.56% Zinc oxide, 4.56% Barium sulphate, 82.05% Pure linseed oil (bleached), 8.83%.
July 1	Wm. Foerster, Wayne	Wm. F. Zummach, Milwaukee	Imperial White: Lead carbonate, 4.56% Zinc oxide, 4.56% Barium sulphate, 82.05% Pure linseed oil (bleached), 8.83%.
July 1	Husting & Wagner, Theresa	Wm. F. Zummach, Milwaukee	Imperial White: Lead carbonate, 4.56% Zinc oxide, 4.56% Barium sulphate, 82.05% Pure linseed oil (bleached), 8.83%.
July 2	L. F. McLean & Co., South Byron	Lake City White Co., Chicago	Lake City White: 68% zinc oxide. 1% lead sulphate. 5% lithophone. 78% barium sulphate. 5% linseed oil. 4% corn oil. 1% water.



July 2	M. C. Tolzman, Lomira.....	Wm. F. Zummach, Milwaukee.....	Imperial White: Lead carbonate, 4.56%. Zinc oxide, 4.56%. Barium sulphate, 82.05%. Pure linseed oil (bleached), 8.83%.
July 2	Louis Lahner, Le Roy.....	Detroit White Lead Works, Detroit.....	American White.
July 3	Nick Huberty, Dotyville.....	Detroit White Lead Works, Detroit.....	American White.
July 3	Mrs. Chas. Koch, Beechwood.....	Ivorold Mixed Paint Co., Newark, N. J.....	American White: Oxide of zinc, 10.5%. Barium sulphate, 81.3%. Lead sulphate, 0.6%. Linseed oil, 7.6%.
July 10	C. O. Luce, Hancock.....	Lake City White Co., Chicago.....	Lake City White: 6% zinc oxide. 1% lead sulphate. 5% lithophone. 78% barium sulphate. 5% linseed oil. 4% corn oil. 1% water.
July 10	S. C. Runnels, Coloma.....	Lake City White Co., Chicago.....	Lake City White: 6% zinc oxide. 1% lead sulphate. 5% lithophone. 78% barium sulphate. 5% linseed oil. 4% corn oil. 1% water.
July 22	John Langenfeld, Marytown.....	Detroit White Lead Works, Detroit.....	American White.
July 23	P. J. Hertel, Meeme.....	Chicago White Lead & Oil Co., Chicago.....	Lakeside White: Zinc oxide, 22.94%. Barium sulphate, 68.80%. Linseed oil, 8.26%.
July 2	Witte & Fuhlman, Howards Grove.....	Acme White Lead & Color Works, Detroit.....	American White: White lead, 10%. Zinc oxide, 10%. Barium sulphate, 79%. Aluminum silicate, 1%.
July 2	Albert Kohlberg, Howards Grove.....	Acme White Lead & Color Works, Detroit.....	American White: White lead, 9.90%. Barytes, 79.21%. Zinc oxide, 9.90%. Aluminum silicate, 0.99%.
July 23	Wm. H. Toepel, Cleveland.....	Wm. F. Zummach, Milwaukee.....	Imperial White: Lead carbonate, 4.56%. Zinc oxide, 4.56%. Barium sulphate, 82.05%. Pure linseed oil (bleached), 8.83%.

**WHITE LEAD—Continued.  
Not Standard—Continued.**

Date	Purchased of	Manufacturer or Jobber	Labeled
1914			
July 28	Wahlmann-Martin Co., Sheboygan Falls.....	Ivorold Mixed Paint Co., Newark, N. J.....	American White: Zinc oxide, 10.5%. Barium sulphate, 81.3%. Lead sulphate, 0.6%. Linseed oil, 7.6%.
July 30	Wykhuis Co., Oostburg.....	Wm. F. Zummach, Milwaukee.....	Imperial White: Lead carbonate, 4.56%. Zinc oxide, 4.56%. Barium sulphate, 82.05%. Pure linseed oil (bleached), 8.83%.
July 30	M. Hoffmann, Random Lake.....	The Martin-Senour Co., Chicago.....	North American White Stock: Zinc oxide, 20.1%. Sulphate of barium, 71.7%. Linseed oil, 8.2%.
July 30	Nic. Wolf, Silver Creek.....	Wm. F. Zummach, Milwaukee.....	Imperial White: Lead carbonate, 4.56%. Zinc oxide, 4.56%. Barium sulphate, 82.05%. Pure linseed oil (bleached), 8.83%.
Aug. 5	H. Luloff & Sons, St. Nazianz.....	Detroit White Lead Works, Detroit.....	American White.
Aug. 6	E. R. Hill, Valders.....	Clipper Paint & Varnish Co., Chicago.....	Clipper White.
Aug. 12	Fabian Reince, Brussels.....	Vilas Bros., Chicago.....	American White.
Aug. 12	Louis Rubens, Rosiere.....	Vilas Bros., Chicago.....	American White.
Aug. 12	Pierre Virlee Co., Brussels.....	Vilas Bros., Chicago.....	American White.
Sept. 23	John Grosse, Little Suamico.....		Pure White Lead.
1915			
June 17	Lewis Peterson, Dorchester.....		American White: Zinc oxide, 10.5%. Barium sulphate, 81.3%. Lead sulphate, 0.6%. Linseed oil, 7.6%.

Respectfully submitted,

HARRY KLUETER,  
Chemist.

# REPORTS OF ASSISTANT COMMISSIONERS

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## REPORT OF E. L. ADERHOLD Assistant Dairy and Food Commissioner.

HON. GEO. J. WEIGLE,  
*Dairy and Food Commissioner.*

Sir:—I herewith submit my report for the year ending June 30, 1915, as assistant dairy and food commissioner.

### PROGRESS.

During the past year, marked progress has been made in dairy barn conditions, thousands of farmers having remodeled old barns or built new ones, such changes resulting in greatly improved conditions as to light, ventilation, floors, gutters and cleanliness of cows.

### CLEANER MILK.

Owing to the use by dairy inspectors and by some cheese makers of the sediment tester for the past several years, the milk supply in many communities is much cleaner than formerly.

### BETTER FACTORIES.

A new era is dawning as regards factory construction. A few creameries were built recently of a type far outclassing the best of a few years ago. In contrast with the old-time factories, these new ones are provided with storeroom, testing room, bathroom and office. They are substantially constructed, well-lighted, ventilated and easily kept clean.

### THE MILK HOUSE.

Most of the dairy men have failed to provide means for the proper cooling or storing of their milk or cream; consequently, much of this product is, to some extent, impaired in quality. Inasmuch as milk or cream is the chief product of the dairy farm—two crops of which are harvested daily—it seems logical that the best means for properly caring for this crop should be provided,—namely, a milk house with suitable cooling tank and a handy supply of water. For those who can have it, a supply of ice in summer is very useful in cooling milk or cream.

It might be advisable for the Dairy and Food Commission to provide leaflets showing floor plans of milk houses with arrangements, also describing the building and equipment, and setting forth its advantages to dairy men. With such leaflets, an effective campaign for the construction of milk houses could be made by our inspectors.

## FACTORY VENTILATION.

Factory ventilation has never been given the needed attention. Creamery make-rooms are commonly so damp as to be detrimental to the health of employes and injurious to some of the apparatus. Cheese factories are less damp, yet at many of those that operate in winter, the ceilings and parts of the walls in the make-rooms become moldy and black, because of dampness. Rooms containing the holding vats to which whey is elevated by means of steam jets become very damp because of vapors thrown off from the heated whey. It is my opinion that our inspectors might profitably put forth more effort to impress upon factory men the necessity of ventilating their make-rooms.

## MILK TESTING.

The apparatus for testing milk for fat content, adulteration, sediment, slime, taints and abnormal ferments, is still a stranger at hundreds of cheese factories,—particularly among manufacturers of Swiss and brick cheese. This situation implies that the makers in those factories do not understand the use of the Babcock test, sediment test, curd test and lactometer. The instructor for the Swiss cheese section reports that he visited 370 factories this year and found a total of 7 Babcock testers, only 3 of which were in use. In those factories, he found not a single sediment tester. I believe that our inspectors should use every opportunity to urge upon those factory operators and makers the importance of using these tests.

## ABUSES.

Some of the old-time abuses pertaining to the operation of cheese factories are still very much in evidence. The worst of them are foul-smelling open drains, filthy whey tanks and unclean wooden followers used in pressing American cheese. These abuses exist at hundreds of factories.

## THE CREAM SITUATION.

Although a limited number of creamery men have been successful in persuading their patrons to furnish good cream, from which butter of excellent quality is made, still the creamery men as a whole have made no determined effort to improve the quality of the raw material. Consequently, the cream situation, in general, has improved little, if at all.

The majority of cream patrons wash their separators but once daily, and fail properly to cool the cream. Some furnish cream that is a week old, and that is not the limit of age at which cream is being marketed.

The increasing tendency on the part of some creamery operators to deodorize and renovate cream, and to use neutralizing agents, such as lime and soda ash, indicates plainly that the practice of sending to creameries unclean, stale, tainted or sour cream and the manufacture of such cream into butter, is altogether too common.

I know of one creamery whose patrons were each furnished with a copy of our dairy laws several years ago. This year, apparatus for renovating

cream was installed at that creamery. It is evident that numerous cream producers and some creamery operators and butter makers are knowingly violating those sections of our state laws which forbid the sale of unsanitary cream and the manufacture of such cream into any food product for sale. For such offenders, a campaign of prosecution would be wholesome and appears to be necessary.

#### WHEY CREAM.

As to the equipment for producing whey cream, many improvements have been made, particularly in the eastern and northern cheese making sections. In scores of instances, however, very faulty equipment is used, such as rusty holding vats, vats of plank construction with open joints; vats stationed in rooms that cannot be made clean, etc. Unsuitable whey pipes are yet in use at some factories.

It is regrettable that at many factories whey cream is not properly cooled, or not cooled in water at all, but left at a high temperature to ferment rapidly and deteriorate. Quite commonly whey cream has too much age when sent to market. For these reasons, a large per cent of whey cream is of poor quality.

#### HIGH MOISTURE CHEESE.

The typical American cheese in Wisconsin has been of close texture and firm body. On that type, Wisconsin built up her enviable reputation in the markets of the country. In recent years, because several cheese dealers failed to discriminate in the price of cheese according to quality, some manufacturers began making cheese of increased moisture content. By doing that, they were able to sell water at cheese prices and thus gain an advantage over their competitors, the neighboring factory men, who were consequently compelled also to make the softer cheese. Numerous factory men who have been turning out goods of finest quality declared—"We can no longer afford to make good cheese."

The field of selling water for cheese prices is being zealously exploited. Some factories are producing stuff of such high moisture content as to make the texture "mushy." The changes that take place in such product are more nearly akin to rotting than to curing. Factory men claim competition compels them to make the soft cheese and dealers claim the same reason for handling it with practically no discrimination in prices. Inasmuch as we are without a maximum moisture standard for cheese, federal or state, this soft stuff will seriously menace the welfare of our cheese industry unless dealers succeed in checking the increase in its production by discriminating in prices.

#### MEETINGS.

During the year I made addresses at 57 farmers' institutes and dairy conventions, discussing dairy barn sanitation, the production of clean milk and cream and the care of same. At such meetings, dairymen acquire a better understanding of how to make improvements, and sentiment for better methods and equipment is created. Through these



meetings, we come in contact with thousands of milk producers—whom we would not reach otherwise—thereby greatly increasing the representation of our department among dairy men.

I consider this feature of my work the most beneficial of all, and recommend that the work of this department be so planned as to permit of the 2 assistants devoting a considerable part of their time to arranging for and attending such meetings.

Respectfully submitted,

E. L. ADERHOLD,

*Assistant Commissioner.*

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## REPORT OF FRED P. DOWNING

### Chief Inspector of Weights and Measures.

HON. GEO. J. WEIGLE,

*Dairy and Food Commissioner, ex officio State Superintendent of Weights and Measures.*

Sir:—I hereby submit a report of the work done by both the city and state departments of weights and measures for the year ending June 30, 1915. The nature of the work accomplished by the sealers for this year is naturally quite similar to the work done in previous years. The report is largely a tabulation or summary of the appliances tested by the inspectors in the field and in the office.

#### FIELD WORK.

During the past year the work performed by the men in the field has been considerably modified. The eight sealers of weights and measures were assigned the additional duty of making sanitary inspections in the meat markets and grocery stores visited. They were at the same time relieved from the weights and measures work in creameries and cheese factories. The creamery, dairy and food inspectors and the cheese factory, dairy and food inspectors were equipped to do the work of inspecting and sealing the weighing and measuring appliances in the cheese factories, creameries and condenseries in connection with their regular inspection of these establishments. The above method of work has led to less duplication and to a more systematic inspection by the inspectors in the field.

#### OFFICE WORK.

During the past year, there has been an enormous increase in the number of appliances tested in the office. For the two-year period ending June 30, 1914, there were 34,341 office tests made. During the past year, this number has been more than doubled, there being a total of 73,222 appliances tested. Instead of calling inspectors in from the

field to do this line of work, it became necessary to employ the services of two young men, who devoted their entire time to office testing. The greater portion of the inspectional work in the office consisted in the testing of milk and cream test bottles and milk pipettes. This work became so burdensome that relief was sought by asking the legislature to place the manufacturers of Babcock glassware under bond. This was done. Under the terms of the new law, sealers of weights and measures are not required to seal Babcock milk, cream or butter test bottles or milk pipettes, but they shall from time to time make tests of individual bottles used by the various firms in the territory in which they have jurisdiction, in order to ascertain whether the provisions of the law are being complied with. The manufacturer of Babcock milk and cream test bottles and pipettes under the provisions of this law is required to file a bond of \$1,000 in the office of the State Superintendent of Weights and Measures. He is required to furnish the creameries and cheese factories of the state with glassware that is accurate and which complies with the regulations issued by the State Superintendent of Weights and Measures. The law does not go into effect until January 1, 1916.

#### IMPROVEMENT IN FIELD CONDITIONS.

The reports of field inspectors show that there is a decided improvement in field conditions. Merchants are buying better scales and taking better care of them. Inspectors find that many inaccuracies are caused by the accumulation of dirt and other materials in the bearings, dashpot and other parts of the scale. The following table shows clearly that the systematic inspection of weighing and measuring appliances has a tendency to decrease the percentage of inaccuracies. A study of this table will show that there has been a decrease of from  $\frac{1}{2}$  to  $\frac{1}{4}$  in the percentage of inaccurate appliances tested for the year 1915 over the percentage errors for the previous two-year period.

TABLE SHOWING THE NUMBER OF WEIGHING AND MEASURING APPLIANCES TESTED ON FIRST INSPECTION BY THE WISCONSIN WEIGHTS AND MEASURES DEPARTMENT, TOGETHER WITH THE PERCENTAGE DECREASE OF INACCURATE APPLIANCES FOR THE YEAR ENDING JUNE 30, 1915, AS COMPARED WITH THE PREVIOUS TWO-YEAR PERIOD.

	Number tested 1912-14	Number tested 1915	Per cent incorrect 1912-14	Per cent incorrect 1915	Per cent adjusted 1912-14	Per cent adjusted 1915
<b>Scales:</b>						
Counter.....	4,699	3,586	12	13	9	5
Computing.....	3,575	2,739	17	11	20	20
Spring.....	2,755	1,628	45	37	9	4
Portable and dormant.....	7,422	5,328	19	16	14	11
Wagon.....	1,972	1,433	45	33	8	7
<b>Weights.....</b>	61,495	72,685	12	7	9	6
Liquid measures.....	21,808	17,078	21	14		
Automatic pumps.....	2,327	2,009	17	10	27	19
Dry measures.....	719	225	49	20		
Linear measures.....	8,318	5,198	48	10	12	11

## PROPERTIES OF A GOOD SCALE.

Dealers frequently ask inspectors this question: "What scale would you recommend that I purchase?" A sealer of weights and measures cannot recommend any particular make of scale, for were he to do so he would be throwing business to one company to the detriment of its competitors. It is proper, however, for sealers of weights and measures to call attention to the properties that a good scale should possess. Many merchants have little or no knowledge of the underlying principles of scale construction. They are unfamiliar with the subject of leverage, of scale design, scale construction and scale installation. A good scale should possess the five following requisites: accuracy, sensitiveness, durability, constancy, speed.

Accuracy is but a relative term. Scales used by dealers should be commercially accurate. Tolerances or deviations from accuracy are prescribed by the state department for the guidance of sealers. A scale that is sensitive will respond to a small weight. A sluggish scale usually works against the seller. The degree of sensibility should depend upon the value of the commodities to be weighed over the scale. A prescription balance, for example, must be sensitive to  $\frac{1}{2}$  grain, a cream test scale to  $\frac{1}{2}$  grain; whereas, a wagon scale should be sensitive to the smallest graduation on the beam, usually  $2\frac{1}{2}$  or 5 pounds.

Only the best materials should be used in the construction of scales. Bearings and knife edges should be made of hardened and polished steel or of other materials if equal to steel in hardness. Levers should be made sufficiently strong to hold the largest loads that are to be weighed upon the scale without any material deflections.

When spring scales are used, the construction of the scale should be such that the spring cannot be drawn out beyond its limit of elasticity. Dealers must carefully watch the balance of spring scales and particularly on days when there is a sudden change of temperature. The better grade of computing spring scales are now equipped with devices known as compensators, which correct for the error that change of temperature causes in the tension of the spring.

In many stores, weighing must be made with great rapidity at certain rush hours during the day. Where speed is required, the automatic scale is a great time saver. Automatic devices are now even being attached to portable and dormant scales. Single and double pendulum scales are familiar illustrations of this class.

FIRST FIELD INSPECTIONS MADE BY INSPECTORS OF WISCONSIN WEIGHTS AND MEASURES DEPARTMENT, JULY 1, 1914—JUNE 30, 1915.

	Sealed	*Adjusted	Condemned for repairs	Condemned	Total
Scales:					
Counter.....	3,104	208	349	133	3,586
Railroad track.....	44	31	3		47
Hopper.....	135	24	5	4	144
Suspension.....	97	6	18	3	118
Computing.....	2,426	549	305	8	2,739
Wagon.....	952	118	469	12	1,433
Other platform.....	4,465	619	741	122	5,328
Spring.....	1,025	73	297	306	1,628
Slot machine.....	11	3	12	3	26
Beam.....	56	7	15	7	78
Prescription.....	508	24	68	84	660
Jewelers'.....	57	3	16	7	80
Cream.....	309	3	47	79	435
Moisture.....	148	2	22	13	183
Dry measures.....	178			47	225
Linear measures.....	4,656	546	303	239	5,198
Liquid measures.....	14,625	26	122	2,331	17,078
Prescription graduates.....	269			40	309
Milk test bottles.....	1,340			11,920	13,260
Cream test bottles.....	184			6,498	6,682
Pipettes.....	39			285	324
Automatic pumps.....	1,797	383	203	9	2,009
Avordupois weights.....	67,739	4,390	1,961	2,985	72,685
Cream weights.....	1,989	90	153	135	2,277
Prescription weights.....	350	8		54	404
Total.....	106,503	7,113	5,109	25,324	136,936

\*The appliances adjusted have been sealed and in figuring totals are included in the "sealed" column.

FIELD REINSPECTIONS MADE BY INSPECTORS OF WISCONSIN WEIGHTS AND MEASURES DEPARTMENT, JULY 1, 1914—JUNE 30, 1915.

	Sealed	*Adjusted	Condemned for repairs	Condemned	Total
Scales:					
Counter.....	208	10	25	16	249
Hopper.....	20	1	5	1	26
Suspension.....	50	7	56	4	110
Computing.....	230	4	5		235
Wagon.....	240	44	169	23	432
Other platform.....	321	46	144	26	491
Spring.....	71	5	17	19	107
Slot machines.....	9	1	8	1	16
Beam.....			1		10
Prescription.....	16	1			16
Jewelers'.....	2				2
Cream.....	4			1	5
Moisture.....	1			1	2
Dry measures.....	1				1
Linear measures.....	296	65	35	1	332
Liquid measures.....	303	1	6	43	352
Prescription graduates.....	9			3	12
Milk test bottles.....	3			235	238
Cream test bottles.....	19			102	121
Pipettes.....				2	2
Automatic pumps.....	127	27	29	3	159
Avordupois weights.....	2,741	238	141	124	3,006
Prescription weights.....	1				1
Total.....	4,679	450	641	605	5,925

\*The appliances adjusted have been sealed and in figuring totals are included in the "sealed" column.

## TOTAL FIELD INSPECTIONS MADE BY INSPECTORS OF WISCONSIN WEIGHTS AND MEASURES DEPARTMENT, JULY 1, 1914—JUNE 30, 1915.

	Sealed	*Adjusted	Condemned for repairs	Condemned	Total
Scales:					
Counter.....	3,312	218	374	149	3,835
Railroad track.....	44	31	3		47
Hopper.....	155	25	10	5	170
Suspension.....	147	13	74	7	228
Computing.....	2,656	553	310	8	2,974
Wagon.....	1,192	162	638	35	1,865
Other platform.....	4,786	665	885	148	5,819
Spring.....	1,096	78	314	325	1,735
Slot machine.....	18	4	20	4	42
Beam.....	65	7	16	7	88
Prescription.....	524	25	68	84	676
Jewelers'.....	59	3	16	7	82
Cream.....	313	3	47	80	440
Moisture.....	149	2	22	14	185
Dry measures.....	179			47	226
Linear measures.....	4,952	611	338	240	5,530
Liquid measures.....	14,928	27	128	2,374	17,430
Prescription graduates.....	278			43	321
Milk test bottles.....	1,343			12,155	13,498
Cream test bottles.....	203			6,600	6,803
Pipettes.....	39			287	326
Automatic pumps.....	1,924	410	232	12	2,168
Avordupois weights.....	70,480	4,628	2,102	3,109	75,691
Cream weights.....	1,989	90	153	135	2,277
Prescription weights.....	351	8		54	405
Total.....	111,182	7,563	5,750	25,929	142,861

\*The appliances adjusted have been sealed and in figuring totals are included in the "sealed" column

Naturally the major portion of the work of the department, during the first few years of its existence, consisted of inspecting and testing the various weighing and measuring appliances and in adjusting those that were found in error. As the percentage of inaccurate scales decreases, more attention can be given to try-out work, that is, to the reweighing of packages put up by dealers for delivery. During the past year, 1,333 establishments were tried out by inspectors. A study of these try-out reports brings out the fact that dealers are exercising greater care in weighing and measuring.

## NET WEIGHT.

It has fallen to the lot of sealers of weights and measures to assist in the enforcement of that portion of section 4601aa of the statutes, relating to the misbranding of foods, generally known as the net container law. This law requires that all articles of food in package form be plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count. The law has now been in effect nearly a year and manufacturers of food have, in general, been found complying with its provisions. Where violations have been discovered, they can usually be attributed to ignorance of the law. The more pronounced examples of this type are the sale of lard in unmarked containers, of homemade jellies and preserves in unmarked glass receptacles, of honey



in unmarked jars, and of olive oil, in unmarked bottles. The Wisconsin net container law is defective in that the definition of the term "package" is not sufficiently broad to include certain containers which ought to be marked. In this class should be included the pop bottle, which is returned to the factory when empty, and the print of butter or cheese which is wrapped in a loose wrapper.

#### CITY SEALERS.

An inspection of the work performed by the city sealers of weights and measures shows that, in most instances, the work is being satisfactorily performed, and the state law and local ordinances relating to weights and measures are being enforced. In some of the smaller cities of the state, sealers are paid so small a salary that it is impossible to expect the same degree of efficiency from them as from sealers in the larger cities, where better salaries are paid. The fault lies not so much with the sealer as with the system under which he works. There is not enough work in a town of 5,000 inhabitants to keep a sealer engaged all the time. The city cannot afford to pay a large salary, consequently, in a few instances, inefficiency results. In one city of the state, it is reported that the local sealer was given his position as an act of charity. It is needless to say that the work devolving upon this sealer is not properly done. During the past year, there have been 3 resignations of city sealers, 2 of which vacancies have already been filled. The state civil service commission has given an examination to obtain candidates to fill the third vacancy. The cities referred to are Chippewa Falls, West Allis and South Milwaukee.

LIST OF CITY SEALERS OF WEIGHTS AND MEASURES  
OF WISCONSIN.

City	City Sealer
Antigo.....	C. S. Leykom.
Appleton.....	Geo. D. Gilman.
Ashland.....	A. J. Kull.
Baraboo.....	A. J. Gemmill.
Beaver Dam.....	Homer B. Hubbell.
Beloit.....	W. M. Van Lone.
Chippewa Falls.....	Frank Morrison.
Eau Claire.....	Jos. F. Weizenegger.
Fond du Lac.....	Jos. L. Weber.
Grand Rapids.....	Berthold Metzger.
Green Bay.....	John M. Kelliher.
Janesville.....	Walter Helms.
Kenosha.....	Felix C. Mayer.
La Crosse.....	E. H. Derr.
Madison.....	H. L. Thompson.
Manitowoc.....	Henry Mulholland.
Marinette.....	Chas. Skowlund.
Marshfield.....	Ludolph Wollesen.
Menasha.....	Wm. A. Lindemann.
Menomonie.....	Geo. Shafer.
Merrill.....	R. W. Barrett.
Milwaukee.....	Fred C. Janssen.
“.....	Wm. F. Steincl.
“.....	Ernest A. Morgan.
“.....	Albert Leweck.
“.....	Fred Nielsen.
“.....	Stanley Kubiak.
“.....	Chas. F. Kissinger.
“.....	Herman Leweck.
Neenah.....	H. C. Verbeck.
Oconto.....	B. M. Mulvaney.
Oshkosh.....	Walter R. Meyer.
Portage.....	Wm. Netzo.
Racine.....	D. E. Fitzgerald.
Rhineland.....	H. J. Danfield.
Sheboygan.....	August Lutze.
South Milwaukee.....	J. H. Neary.
Stevens Point.....	E. H. Flentie.
Superior.....	N. G. Penfound.
Watertown.....	Edward Gnatzig.
Waukesha.....	John J. Staub.
Wausau.....	J. H. Pomeroy.
West Allis.....	E. J. Rogers.

SUMMARY OF TESTS-MADE BY CITY SEALERS FROM JULY 1, 1914—JUNE 30, 1915.

City	Sealed	*Adjusted	Condemned for repairs	Condemned	Total
Antigo.....	1,076	117		60	1,136
Appleton.....	2,881	345	68	333	3,282
Ashland.....	947	141	85	312	1,344
Baraboo.....	659	327	9	63	731
Beloit.....	1,571	252	9	224	1,804
Eau Claire.....	1,503	68	70	29	1,602
Fond du Lac.....	2,400	39	25	60	2,485
Grand Rapids.....	801	78	11	41	853
Green Bay.....	5,716	389	281	160	6,157
Janesville.....	1,747	41	18	37	1,802
Kenosha.....	2,385	49	76	98	2,559
La Crosse.....	1,732	3	41	296	2,069
Madison.....	4,537	96	40	171	4,748
Manitowoc.....	1,771	247	1	20	1,792
Marinette.....	1,010	52	3	35	1,048
Marshfield.....	1,124	85	6	41	1,171
Menasha.....	424	30	11	4	439
Menomonie.....	540	33	1	34	575
Merrill.....	1,091	53	1	81	1,173
Milwaukee.....	59,945	593	1,174	942	62,061
Neenah.....	628	11		12	640
Oconto.....	186	14	22	64	272
Oshkosh.....	3,971	170	51	217	4,239
Portage.....	1,004	6	1	65	1,070
Racine.....	5,226	307	76	366	5,668
Rhineland.....	897	144	18	62	977
Sheboygan.....	3,329	217	231	413	3,973
Stevens Point.....	1,311	144	18	98	1,427
Superior.....	5,611	354	66	376	6,053
Watertown.....	1,907	86	121	191	2,219
Waukesha.....	47			1	48
Wausau.....	2,329	222	7	114	2,450
Totals.....	120,306	4,713	2,541	5,020	127,867

\*The appliances adjusted have been sealed and in figuring totals are included in the "sealed" column.

## SUMMARY OF ESTABLISHMENTS INSPECTED AND PACKAGES WEIGHED BY CITY SEALERS FROM JULY 1, 1914—JUNE 30, 1915.

City	Establishments Inspected		Packages Weighed	
	Number correct	Number incorrect	Number correct	Number incorrect
Antigo.....	33		429	
Appleton.....	298	93	3,491	458
Ashland.....	146	24	8,419	4,756
Baraboo*				
Beloit.....	215	68	847	151
Eau Claire.....	270	8	270	8
Fond du Lac.....	604	3	3,051	927
Grand Rapids*	600	47	1,731	58
Green Bay.....	69	24	763	181
Janesville.....	30	10		
Kenosha.....	10	73	282	306
La Crosse.....	46		285	1
Madison.....	294	74	550	131
Manitowoc.....	16		23	
Marinette.....	12	7		
Marshfield.....	13	2	13	6
Menasha.....	41			
Menomonie.....	24	3	2,237	103
Merrill.....	10		695	2
Milwaukee*	9,602	504	7,124	682
Neenah*			24,788	285
Oconto.....	33	3	33	3
Oshkosh.....	214	22	339	25
Portage.....	42		881	
Racine.....	410	85	1,072	137
Rhineland.....	44	1	341	4
Sheboygan.....	62	30	745	217
Stevens Point.....	258	58	2,655	170
Superior.....	558	35	2,151	123
Watertown.....	127	14	592	119
Waukesha.....				
Wausau.....	3,198	32	4,278	118
Totals.....	17,279	1,220	68,085	8,971

Baraboo\*—Kept no record.

Grand Rapids\*—Does not include inspection of 16,000 cranberry barrels.

Milwaukee\*—Figures in first two columns include inspection of markets and commission houses.

Neenah\*—Includes number of packages inspected for net weight.

## SUMMARY OF TESTS OF MILK BOTTLES INSPECTED BY CITY SEALERS FROM JULY 1, 1914—JUNE 30, 1915.

City	Number correct	Number incorrect
Antigo.....	1	
Appleton.....	1,642	26
Ashland.....	916	650
Beloit.....	278	20
Grand Rapids.....	575	186
Madison.....		51
Manitowoc.....	75	
Marshfield.....	3	
Menasha.....	149	1
Menomonie.....	510	
Merrill.....	150	
Oconto.....	10	18
Oshkosh.....	75	15,120
Portage.....	3,600	
Racine.....	393	2
Rhineland.....	1,545	
Stevens Point.....	2,030	
Superior.....	6,393	21
Watertown.....		80
Wausau.....	70	264
Total.....	18,415	16,439

## SUMMARY OF PROSECUTIONS AND CONVICTIONS BY CITY SEALERS, FOR VIOLATIONS OF STATE LAW AND LOCAL ORDINANCES RELATING TO WEIGHTS AND MEASURES FROM JULY 1, 1914—JUNE 30, 1915.

City	Number of prosecutions	Number of convictions
Appleton.....	1	1
Ashland.....	4	2
Beloit.....	2	1
Fond du Lac.....	1	1
Grand Rapids.....	1	1
Green Bay.....	1	probation
Kenosha.....	1	1
Marinette.....	1	1
Merrill.....	1	1
Milwaukee.....	40	36
Neenah.....	2	2
Oconto.....	1	
Oshkosh.....	2	2
Racine.....	1	1
Rhineland.....	1	1
Stevens Point.....	4	2
Waukesha.....	1	1
Wausau.....	3	3
Total.....	68	57

## TESTS MADE BY CITY SEALERS OF WEIGHTS AND MEASURES IN DRUG AND JEWELRY STORES FOR THE YEAR ENDING JUNE 30, 1915.

	Scaled	*Adjusted	Condemned for repairs	Con- demned	Total	Per cent condemned and condemned for repairs	Per cent adjusted
Prescription scales.....	199	19	38	19	256	22.3	7.4
Apothecary, metric and troy weights.....	6,638	1,145	106	1,617	8,361	20.6	13.6
Graduates.....	1,531			548	2,079	26.3	
Jewelers' scales.....	51	6	4	6	61	16.4	9.8
Total.....	8,419	1,170	148	2,190	10,757	21.7	10.9

\*The appliances adjusted have been sealed and in figuring totals are included in the "sealed" column.

## BUREAU OF STANDARDS TEST CAR.

At the request of the state department of weights and measures, the Bureau of Standards Test Car No. 1, in charge of Mr. C. A. Briggs, was sent into this state. The state department of weights and measures is not provided with the equipment necessary for testing railroad track scales. Consequently, this most important line of work has been neglected. The Bureau of Standards test car remained in the state three weeks, visited seven cities, viz.: Stevens Point, Wausau, Antigo, Green Bay, Fond du Lac, Milwaukee, Madison, and tested twenty-four track scales. Of this number, only three were found to fall within the tolerance of .2 of 1 per cent when a load of 90,000 pounds was placed on the platform of the scale. Six of the scales were found to show errors in excess of 500 pounds when a load was placed on an individual section of the scale.



The largest error was found on a scale located on the Soo Line at Fond du Lac. This scale was found to be weighing 2,500 pounds heavy. The larger railroads now realize the importance of testing track scales and are equipped with test cars of varying capacities. The smaller roads of the state have no means of knowing whether the railroad track scales are correct. This most important field of work should receive the attention of the legislature and some means should be provided whereby these scales could be tested by the state department. In this connection, I might call attention to the Minnesota law on this subject. In that state, a separate branch of the railroad and warehouse commission has jurisdiction over the testing of track scales. The department now has three test cars in its possession and a master track scale located in Minneapolis. The expenses connected with the work are defrayed by fees.

#### BEER BARRELS.

At the request of the brewers of Wisconsin, for a tolerance on beer kegs, an investigation was made which had for its object the discovery of the reasons for the change in the capacity of these containers. This investigation showed that the driving of the hoops of beer kegs was one of the chief sources of short measure. The addition of an excessive amount of pitch to the inside of the barrel also introduced a change in the capacity of the container. A conflict was found to exist between the revenue regulations and the state law. The state law provided that a barrel of beer should contain  $31\frac{1}{2}$  gallons, whereas, under the internal revenue regulation, the tax was placed on a barrel of 31 gallons. The last session of the legislature amended the state law so that it is now in uniformity with the revenue regulations. The following table gives a summary of the tests of beer barrels made by inspectors of weights and measures, showing the number of kegs tested, the average capacity of the number tested, the number that were found to be 30 gallons or above, and the number that were found to be less than 30 gallons. The results of this investigation show that it would be fair to allow a tolerance of about 3 quarts above and below on the barrel, 2 quarts above and below on the half-barrel, 1 quart above and below on the quarter-barrel, and 1 pint above and below on the eighth-barrel.

SUMMARY OF TESTS ON BEER BARRELS

Brewery	No. of barrels	Average capacity		No. 30 gal. or above	No. less than 30 gal
		Gal.	Pts.		
Milwaukee Brewing Co.....	50	30—	7 1-5	50	
Conrad Schreier Co.....	11	30—	3 1-2	9	2
Miller Brewing Co.....	41	30—	3	30	11
Gutsch Brewing Co.....	8	31—	2	8	
Jung Brewing Co.....	10	30—	2-5	7	3
Blatz Brewing Co.....	100	30—	2 2-3	65	35
Pabst Brewing Co.....	100	30—	7 3-5	92	8
Total.....	320			261	59

Brewery	No. half barrels	Average capacity	No. 15 gal. or above	No. less than 15 gal.
		Gal. Pts.		
Milwaukee Brewing Co.....	150	15- 4 3-5	150	
Conrad Schreier Co.....	10	15- 4 1-2	9	1
Miller Brewing Co.....	60	15- 1-3	40	20
Gutsch Brewing Co.....	30	15- 3 7-8	28	2
Jung Brewing Co.....	25	15- 1-2	18	7
Blatz Brewing Co.....	100	15- 2 2-3	79	21
Pabst Brewing Co.....	99	15- 3 2-5	86	13
Total.....	474		410	64

Brewery	No. of quarter barrels	Average capacity	No. 7 gal. 4 pints or above	No. less than 7 gal. 4 pints
Conrad Schreier Co.....	10	7- 5 1-10	8	2
Gutsch Brewing Co.....	30	7- 5 5-6	27	3
Jung Brewing Co.....	50	7- 4 1-2	43	7
Blatz Brewing Co.....	100	7- 5 1-5	66	34
Pabst Brewing Co.....	104	7- 5 3-5	100	4
Total.....	294		244	50

Brewery	No. of eighth barrels	Average capacity	No. 3 gal. 6 pints or over	No. less than 3 gal. 6 pints
		Gal. Pts.		
Conrad Schreier Co.....	10	3- 7 4-5	10	
Gutsch Brewing Co.....	30	3- 7 1-5	26	4
Jung Brewing Co.....	7	3- 7 1-2	7	
Blatz Brewing Co.....	100	3- 7 3-5	87	13
Pabst Brewing Co.....	101	3- 6 1-4	85	16
Total.....	248		215	33

### EXTRACTS FROM REPORTS OF SEALERS OF WEIGHTS AND MEASURES.

Some dealers have made the statement to sealers of weights and measures that the testing of weighing and measuring appliances by the state is a waste of state money. These statements, as a rule, are made by dealers in whose place of business the scales have been found in good order. These dealers undoubtedly get the impression that similar conditions exist in all stores. The tables given in this report should be sufficient evidence that such is not the case. It is impossible to make any general statement that would show the value of this work in terms of dollars and cents. The following extracts, taken from the reports of sealers of weights and measures, reveal conditions that are almost a daily experience of the men working in the field.

"The sliding poise on a platform scale was found to be a little over 4 ounces too light, causing an error of 20 pounds on 100 pounds in the merchant's favor. This scale was used for retailing grain, potatoes and baled hay. Assuming that the average price was only 1 cent per pound, and that 500 pounds were sold per day, the error would amount to 3,000 pounds per month, or 36,000 pounds per year, and to \$360.00 in the merchant's favor.

"Found a plugged weight used by a potato buyer, causing an error of 39 pounds on a ton, in his favor. This firm bought about 60,000 bushels per year at approximately 22 cents per bushel. If the plugged weight was used one-half of the time, it would defraud the farmers of 1,200 bushels annually, or \$264.00.

"In a meat market, a computing scale was found to defraud the butcher 8 ounces on 2 pounds. The scale was in perfect balance and appeared to be correct. Fortunately, this butcher had been in business for only a short time when the error was discovered, and his losses were, therefore, not very large.

"Coming into a grocery store, and before testing the grocer's scale, my attention was called to a certain large department store almost next door where the grocer had been buying things he happened to be out of at times. He always discovered quite a shortage and said to me: 'I have never mentioned it to them, but I would advise you to check them up.' The whole trouble was found to be in the grocer's scale, which was giving  $4\frac{1}{2}$  ounces overweight on every 10 pounds. The error was caused by using the scale too roughly, whereby the pendulum ball had worked itself loose and changed the leverage of the scale.

"In a large creamery there were two platform scales. One was in good condition and was being used for weighing the milk. The other one was all worn out and was very rusty, and 1 pound more or less would not show on this scale at all. It was being used to weigh cream and also bulk butter in small lots for the patrons of the creamery. Although this last scale should not have been used at all, it is evident that the butter maker used very poor judgment when he used the poorest scale for weighing the most expensive articles."

"At ....., I found the dump wagons used in measuring sand and gravel short about 11 per cent of their represented capacity. One contractor stated that within one year he had over 600 cubic yards delivered, each yard valued at \$1.00. A shortage of 11 per cent in this case amounted to \$66.00.

"The only wagon scale at ....., showed 1,030 pounds for 1,000 pounds in center of scale. Figuring 500 tons of coal weighed over this scale in a year, the shortage on each ton being 60 pounds, at \$7.00 per ton, the gain to the seller would amount to \$105.00. This scale is also used for weighing hay, cattle and various other commodities of a greater value per pound than coal, so it can easily be seen that the false weight given would easily amount to the value of a new scale in a short time.

"At the elevator at ....., I found the weights all plugged with lead, causing underweight of about 40 pounds in each ton. Figuring

525 tons bought over this scale, at a value of  $1\frac{1}{2}$  cents per pound, the short weight would amount to \$315.00 per year.

"A wagon scale used for weighing loads of cabbage was short 25 pounds in 1,000 pounds or 50 pounds per ton. There were at least 6,000 tons of cabbage weighed on this scale each year. The shortage at this rate would be 150 tons. At \$6.00 per ton, the value of the shortage in one year amounted to \$900.00.

"At a grocery store in ....., both computing scales were giving from  $\frac{1}{2}$  ounce to 1 ounce over weight on each weighing. With 250 weighings per day, there would be about  $11\frac{1}{2}$  pounds over weight. At an average price of 10 cents per pound, each day's loss to the proprietor amounted to \$1.15. This loss was caused by dirty scale bearings. After cleaning the scales, both worked correctly. This certainly was an object lesson to the proprietor on the value of periodical scale inspection and was greatly appreciated by him."

"Since November 23 last, I have taken up weights and measures work in connection with sanitary work in creameries and cheese factories. The former has been the means of ridding the cheese factories and creameries of a great number of inaccurate scales, especially cream scales, as a great many in use were of a very poor grade and not sensitive enough for the work."

"Scales are not kept clean. Bearings get dirty and rusty, causing inaccuracies in weighing which almost invariably work against the seller. Foundations under heavy scales are not built solidly enough. Wooden timbers and occasionally discarded railroad ties are used for a foundation. The foundations are sometimes laid in marshy soil and settle. It is absolutely necessary to have the foundations solid and level to get good results and correct weights. Unskilled workmen frequently attempt to repair scales and do more harm than good. Losses and gains through the use of defective appliances during the past year have been reduced considerably.

"I found a double beam stock scale 20 and 25 pounds short, respectively, on the upper and lower 1,000 pound beams. This shortage was due to the adding of lead to the inside of the poise. By using the poise on the beam as much as possible, the loss to the farmers and stockmen in this vicinity was very great. Ninety-nine carloads of stock were weighed over this scale within one year.

"I found another stock scale with broken pivots underneath. This scale showed an error of 50 pounds on 1,000 pounds. One carload of stock weighed over this scale, when reweighed the next day, showed a shortage of 2,250 pounds. This was certainly a great loss to the buyer.

"Found a rather peculiar condition at a cheese storage house. A new automatic computing scale for the weighing of cheese had recently been purchased. As this scale got out of balance, the operator balanced the same by screwing up the pendulum weight until the scale balanced on zero. On examining this scale, I found it weighing fast, due to the wrong method of balancing. Inasmuch as carload lots of cheese were bought over this scale, the shortage and corresponding loss certainly must have been very great."



"The cause of the high percentage of inaccurate scales, weights and measures, as I see it, is largely due to the public demanding a cheap article. Cheap scales are built out of inferior grades of material which will not stand the wear. Wagon and stock scales should be built on stone or concrete foundations with a deep pit, at least 4 feet, provided with drainage. Beam boxes should be provided with lock and kept locked when not in use. Scales used in flour mills for sacking small packages of from 10 to 24 pounds should be graduated to 1 ounce on the beam. I found a number of mills using a 400 pound capacity scale for sacking small packages. This cannot help but result in inaccurate weights.

"I have found a large number of scales out of balance, usually set ahead. This does not necessarily imply that the merchant is dishonest. It is sometimes due to weak counters. When loads of articles are placed on the counter, the weight of the articles bearing down throws the scale out of balance, sometimes as much as 1 or 2 ounces.

"In platform scales, I found broken pivots and levers. Lead that has dropped out of the poise or loose set screws removed from the same sometimes causes a loss or gain of from 1 to 6 pounds on a 200 pound test. Many wagon scales have dull pivots which cause the scale to become sluggish. The settling of the foundations often causes the scale to show a loss or a gain of from 10 to 40 pounds on a 1,000 pound test.

"I have found new measures as much as  $7\frac{1}{2}$  ounces short. One 5 gallon measure which I tested held 17 ounces too much."

"Since the weights and measures law went into effect, the cheese factories and creameries have been installing many new and expensive scales. Managers and proprietors of these places begin to realize that a product selling for 15 cents a pound necessitates a good scale. I am satisfied that some makers lose the price of a small cheese scale on every shipment of cheese they sell."

"A meat market scale was set ahead  $1\frac{1}{2}$  ounces. This market was making 120 sales a day. Figuring meat at 16 cents per pound, this butcher made a gain of \$1.80 per day or \$540 per year. I could give, I dare say, 1,000 or more just such cases as this.

"In one place of business, a measuring pump for gasoline was set so that the seller would gain 60 gallons on every 300 gallons that were sold.

"A beam scale was 10 pounds fast on 100 pounds. The records of this company showed that over 1,000 tons of coal were sold over this scale during the year. Figuring a loss of 10 pounds on 100 pounds, this scale gave away in one year over 100 tons of coal."

Respectfully submitted,  
F. P. DOWNING,  
*Chief Inspector.*





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