Biennial report of the Dairy and Food Commissioner of Wisconsin. For the period ending June 30, 1914. 1914

State Dairy and Food Commissioner
Madison, Wisconsin: Democrat Printing Company, State Printer, 1914

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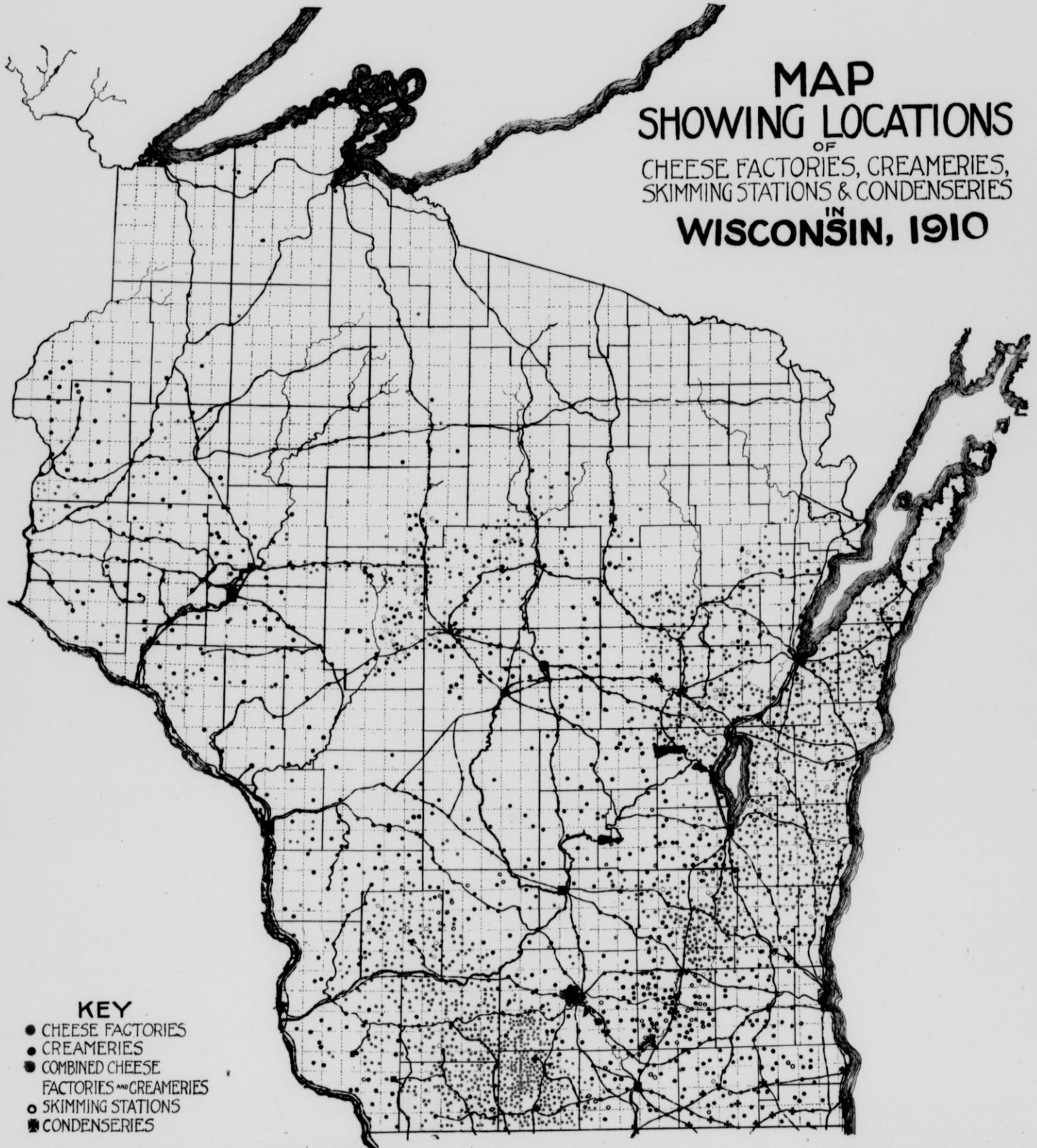

MAP
SHOWING LOCATIONS
OF
CHEESE FACTORIES, CREAMERIES,
SKIMMING STATIONS & CONDENSERIES
IN
WISCONSIN, 1910
KEY
CHEESE FACTORIES
CREAMERIES
COMBINED CHEESE
FACTORIES AND CREAMERIES
SKIMMING STATIONS
CONDENSERIES

BIENNIAL REPORT

OF THE

DAIRY AND FOOD COMMISSIONER

OF WISCONSIN

For the Period Ending June 30, 1914

J. Q. EMERY
Dairy and Food Commissioner
Ex Officio
State Superintendent of Weights and Measures

MADISON, WIS.
DEMOCRAT PRINTING COMPANY, STATE PRINTER
1914

DAIRY AND FOOD COMMISSIONERS OF WISCONSIN.

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.....

ORGANIZATION OF THE COMMISSION.

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

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

E. L. ADERHOLD, Cheese Factory, Dairy and Food Inspector (to July 1, 1913), Assistant Commissioner (from July 1, 1913).

U. S. BAER, Assistant Commissioner (resigned February 28, 1913).

H. C. LARSON, Second Assistant Commissioner.

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. LORAINE WALTER, Stenographer and Confidential Clerk.

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

HENRY SCHUETTE, Assistant Chemist (July 14–September 14, 1913).

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

CARL GEIDEL, M. S., Bacteriological Chemist (appointed July 1, 1913).

F. M. BUZZELL, Chief Food Inspector.

W. F. SCOTT, Food Inspector (resigned February 28, 1914).

GEO. H. EIGENBERGER, Food Inspector (from April 11, 1914).

F. E. CARSWELL (resigned January 31, 1914).

J. D. CANNON.

R. B. SOUTHARD.

J. B. LINZMEYER (resigned May 18, 1914).

FRED MARTY, (resigned August 1, 1912).

JOSEPH WILLIMANN, (appointed September 25, 1912).

JACOB LEHNHERR, (appointed April 23, 1913).

WM. WINDER, (from May 13, 1914).
Cheese Factory, Dairy and Food Inspectors.

JAMES VAN DUSER.

S. J. DUFNER.

P. W. GUSE, (resigned March 8, 1913).

S. B. COOK,
Creamery, Dairy and Food Inspectors.

W. A. VOIGT.

J. E. BOETTCHER.

H. L. BORNHEIMER.

GEO. WARNER.

W. J. KRAMER.

B. A. HASS, (appointed January 1, 1914).

WM. P. STERNS, (appointed November 17, 1913).

CHAUNCEY BECKWITH, (appointed March 9, 1914).

J. J. TSCHUDY, (appointed April 1, 1914).

GEO. H. EIGENBERGER, (appointed January 1, 1914; transferred to work of food inspection, April 11, 1914).
State Sealers of Weights and Measures.

LETTER OF TRANSMITTAL.

His Excellency, FRANCIS E. McGOVERN,

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 biennial period ending June 30, 1914.

J. L. Emery.

Dairy and Food Commissioner,

Ex Officio State Superintendent of Weights and Measures.

LIST OF ILLUSTRATIONS

REPORT OF COMMISSIONER.

This report covers the period from July 1, 1912 to July 1, 1914. Heretofore the law required a biennial report from the dairy and food commissioner for the period ending June 30th in each even-numbered year. When the legislature of 1911 made the dairy and food commissioner *ex officio* state superintendent of weights and measures, it required that the state superintendent of weights and measures make an annual report to the Governor during the second week of January of the work done by his office. The legislature of 1913 amended the law requiring the dairy and food commissioner to make a biennial report so that it required instead that he make an annual report for the year ending June 30th.

In view of this apparent confusion in the terms of the laws relating to the report of the dairy and food commissioner and to the report of the state superintendent of weights and measures, I requested of the attorney-general his interpretation of these requirements, and received from him the following opinion:

"December 5, 1913.

HON. J. Q. EMERY,
Dairy and Food Commissioner,
Madison, Wisconsin.

Dear Sir:—In your favor of December 4th you ask whether under the provisions of section 1410, statutes 1911, as amended by chapter 772, laws 1913, and under the provisions of the printing law, you should make an annual report for the year ending June 30, 1913.

Section 1410, statutes 1898, provided that the dairy and food commissioner shall make a report to the governor 'as soon as practicable after the 30th day of September in each even numbered year.' Section 20.24 of the printing law (chapter 657, laws 1911) provided that 'All reports of state officers, departments, boards, commissions and commissioners shall be made biennially except those required to be made annually. Biennial reports shall cover the two years next preceding the first day of July of each even numbered year * * * ; and annual report shall cover one year next preceding the first day of July of each year. Every such report shall be filed with the governor within sixty days next following the period covered.'

This department has ruled that chapter 657, laws 1911, is a general revision of all the laws of the state relating to state printing and that

the inconsistent provisions of any prior laws were thereby repealed. See opinion to Hon. J. F. Baker dated January 9, 1912, Biennial Report and Opinions of Attorney-General for 1912, page 849. Consequently after the enactment of chapter 657, laws of 1911, you were required to make a biennial report for the two-year period next preceding the first day of July in each even numberd year.

Section 34, chapter 772, laws 1913, amended section 1410 so as to provide that the dairy and food commissioner shall make his report 'as soon as practicable after the 30th day of June in each year.' This law became effective upon its passage and publication August 13, 1913.

In view of this date of its enactment, six weeks after the close of the year which your report should cover if the change be held applicable to that year, and the presumed legislative purpose that a law shall not act retrospectively unless expressly so stated, I am of the opinion that the change from biennial to annual reports was not intended to be effective until after the close of the biennial period ending June 30, 1914. I am, however, of the opinion that no objection could be raised if you should anticipate your strict legal duty and at once begin annual reports and make a report covering the period ending June 30, 1913, 'as soon as practicable after' that date.

You also ask whether the annual report which subsection 5, section 1659, statutes, requires you as 'ex officio state superintendent of weights and measures' to make 'annually during the second week in January' should be made at the time so specified or at the time of making tne annual report required of you as dairy and food commissioner.

Section 1659 was enacted in its present form by chapter 566, laws 1911, prior to the enactment of the printing law. Therefore on the principle already referred to the printing law operated to impliedly repeal that part of section 1659 relating to the time of making the annual report therein provided for and such report should be made as provided by section 20.24 of the printing law, to wit, within sixty days after June 30th in each year. That the city sealers of weights and measures are subject to your supervision (subsection 6, section 1659, stats.) and are required to make an annual report to you not later than the first of December (subsection 5, section 1661, stats.) do not seem to me to be sufficient reasons for holding that the provision of the printing law as to the time of making your annual report is ineffective. Its obvious purpose was to require that the reports of all state officers, boards and commissions should be uniform as to the period covered and the time of making the same. And I do not think that an exception can be implied from the mere fact that certain of the information on which your report is based is required to be given to you at a time different from that when you should make your report.

You also ask whether you should make separate reports as dairy and food commissioner and as superintendent of weights and measures.

This office has held that the office of weights and measures is not an office separate from that of dairy and food commissioner but is simply an extension of the duties of the latter. See Biennial Report and Opinions of Attorney-General for 1912, page 816. Amendments made by section 34, chapter 772, laws 1913, seem to show a legislative assumption that the two officers are not distinct. Further, the printing law makes no provisions for the making, filing or printing of the report of the superintendent of weights and measures apart from those of the dairy and food commissioner. For these reasons and the further one that the 1913 legislature, as already noted, required the report of the dairy and food commissioner to be made annually and changed the time for making the report of the state superintendent of weights and measures from January to June so as to make it correspond with the time for making the report of the dairy and food commissioner, I am of the opinion that the evident legislative purpose was to require only one annual

report, and that such report should cover your work both as dairy and food commissioner and as superintendent of weights and measures.

Very truly yours,
(Signed) W. C. OWEN,
Attorney-General."

The following law amending previous laws and conferring upon the dairy and food commissioner certain new authority was enacted by the legislature of 1913:

"Section 170m. (Chapter 556, laws of 1913) * * * The officer or officers at the head of the several offices, commissions, boards, or bodies * * * shall have authority—subject to the provisions of sections 990—1 to 990—32, inclusive, of the statutes, in cases where the provisions of said sections are intended to apply and subject to the approval of such other officer or body as may be required by law—to appoint such deputies, assistants, clerks, stenographers, and employes, as shall be necessary to properly perform and discharge the duties, functions, and obligations imposed by law upon the respective office, commission, board, or body, to prescribe their duties and designate their respective titles and the persons so appointed shall be paid out of the state treasury such salary or compensation as shall be fixed by the officer or officers making the appointment, and shall be reimbursed for necessary expenses incurred in the discharge of their duties; provided, that the deputies, assistants or other subordinates mentioned in subsections 1 and 2 of this section shall possess the power and authority now conferred, or that may hereafter be conferred upon them by law or by the officer or officers by whom appointed and shall be paid the salary or compensation specified in subsections 1 and 2 of this section.

The powers and duties incident to any office abolished by this section shall continue as at present and shall devolve upon such person as the appointing officer or body shall designate for the performance thereof, and the appointment or designation of any person by any appointing officer or body to any office or posiiton by any title or designation now provided by law, shall be sufficient to confer and impose upon the person so appointed or designated the powers and duties now by law made incident to such office or position, but nothing in this section shall be construed as affecting the tenure of persons in the civil service at the time this section goes into effect. * * *

The general duties of the dairy and food commissioner are set forth in section 1410a of the statutes as amended by chapter 772, laws of 1913.

Further duties are prescribed in section 1636 1 regarding the enforcement of the law relating to the sale of adulterated linseed oil, turpentine, white lead and zinc white, and in section 4601aa regarding the enforcement of the law relating to the misbranding of articles of food.

The duties of the dairy and food commissioner acting as state superintendent of weights and measures are prescribed in sections 1659 and 1662 of the statutes.

General Summary of Activities.

The following is a summary of analyses, inspections, prosecutions, etc., during the biennial period ending June 30, 1914. This summary covers only a portion of the activities of the dairy and food and weights and measures department.

Analyses and tests:		
Samples of foods, linseed oils, turpentine, white lead, etc., analyzed by chemists...	1,428	
Samples of milk and cream from creameries, cheese factories, city supplies, etc., tested by dairy and food inspectors.....	4,336	
Sanitary inspections:		
Groceries, meat markets, etc.....	3,313	
Cheese factories, creameries, cream routes, dairies, etc.	5,436	
Sediment tests of milk.....	19,163	
Milk cans	48,850	
Oleomargarine inspections	1,472	
Weights and Measures:		
Total number of weighing and measuring appliances tested by inspectors.....	167,585	
Total number of weighing and measuring appliances found incorrect.....	40,192	24%
(The above total includes 31,692 tests of cream test scales and weights, moisture scales and weights, and Babcock cream and milk test bottles and milk pipettes, of which number 3,642 or nearly 11.5% were found incorrect.)		
Number of establishments at which packages weighed by dealers for delivery were reweighed by inspectors.....	3,060	
(Many discrepancies were found due to carelessness in weighing or measuring or to using incorrect scales or to including heavy wrapping paper in weight of commodity.)		
Conventions addressed by members of department	111	
Prosecutions:		
Dairy and food department.....	641	
Weights and measures department.....	41	
Convictions—Dairy and food department..	631	98.44%
Weights and measures department	34	82.93%

Among the many other activities, the assistant commissioners have each month, under authority of section 1410d of the statutes, and with the approval of the Governor, acted as judges in the cheese and butter scoring exhibitions conducted at the University of Wisconsin dairy school.

Character and Extent of Food Adulteration.

The following extracts from biennial reports of Dairy and Food Commissioners disclose in a comprehensive way the character and extent of food adulteration in this state, the elimination or reducing to a minimum of which is one of the objects for which the dairy and food department is maintained.

From the report of the first dairy and food commissioner, Honorable H. C. Thom:

"The first article which was given any considerable attention was vinegar. A large number of samples were taken from dealers and manufacturers in various parts of the state. The department soon discovered that nearly every vinegar that had a brown color was sold for pure cider vinegar and labeled as such. The analysis showed that but a very small percentage was cider vinegar as represented by the labels."

"The sole object of the department is to give the buyer exactly what he pays for, thus protecting his pocket book and his health and at the same time place the manufacturers of spurious goods in such a position that they are unable to displace honest goods by misrepresentation."

"We find that adulteration of many of our food products results in cheapening the product of the farm, thus lessening the profits of the husbandman and robbing both consumer and producer. The great evil lies in the practice of selling a cheapened article under a false name at the same price of the pure article, thus defrauding the producer out of the price which he might have received for the genuine product, while at the same time the consumer is made to pay for what he does not ask and what he does not want."

"A cow that skims her milk to less than 3% is liable under the law and holds her owner responsible for damages."

"There is not an article of commerce that requires greater skill in handling in order to secure favorable markets than cheese. No industry has been so perverted. No business exists that has been so basely manipulated, and no article of food has been so degraded by counterfeiters. In no time has the honest manufacturer met with such dishonest competition. Matters have come to such a pass that the genuine article is under the ban of suspicion at home and abroad."

"Factorymen within the confines of the state have hauled skim milk in wagons six miles into Illinois and there added foreign fats to make filled cheese."

"No man can live in a business sense and place his butter in competition with tallow and cotton seed oil so manipulated that it requires an expert chemist to detect the difference between the compound and dairy butter."

"Butter has worked all these years to make for itself a market and a demand. Now that they are established it should not be robbed by an imitation. The attack has but just begun. No corner of the state is too remote for its presence. No table so humble, no dining room so grand, no lumber camp so rough, that oleomargarine, with its mellow name, will not walk upon and into, with a deceitful bow and brazen smile, with the claim that its name is butter."

"Secretary Rusk said in his address to the Ohio state fair: 'More than one-half of the income of the average wage earners of the human race is spent for food. The special sphere of the agricultural department is to enlarge the facilities for providing food. Let it also be the special sphere of the department to see that the food supply be pure and

wholesome. Every product must be sold for what it is. The adulteration of foods is injurious to public morals.'"

"The samples of ground spices examined in the laboratory confirm the results found in other states and prove that in this article of food adulteration is the rule and purity the exception. The high price of the pure spices and the popular demand for a cheap ground article has called forth much skill on the part of the dealer to satisfy the demand."

"A mixture of ground cocoanut shells, buckwheat hulls and a little cayenne pepper for flavoring, passes for pure black pepper. Corn meal, ground olive stones and cayenne pepper pass for white pepper. Corn meal and turmeric and cayenne pass for pure ginger. Wheat flour, turmeric or Martius yellow, and cayenne sell for pure mustard. New adulterations are constantly being discovered and the analyst is constantly called on to identify new adulterants. The adulterations usually found are: 1. The bran and hulls of various seeds, as buckwheat, wheat, mustard and flax seed. 2. Damaged farinaceous substances such as spoilt flour, corn meal, bread, middlings of various kinds. 3. Leguminous seeds as peas, beans, etc. 4. Ground shells of the cocoanut, almond, and peanut. Ground olive stones are largely used. 5. Various coloring matter as turmeric, Martius yellow, charcoal, sienna and red ochre, etc."

"Spices are found containing the following adulterants:

Allspice: adulterants, spent cloves, clove stems, cracker dust, ground shells or charcoal, mineral color, yellow corn.

Cayenne: adulterants, rice flour, salt and ship stuff, yellow corn, turmeric, mineral red.

Cassia: adulterants, ground shells, crackers, turmeric, minerals.

Cinnamon: adulterants, cassia bark, peas, starch, mustard hulls, turmeric, minerals, cracker dust, burnt shells, sugar.

Cloves: adulterants, spent cloves, clove stems, minerals, allspice, roasted hulls, wheat flour, peas.

Ginger: adulterants, cereals, turmeric, mustard hulls, cayenne peas, exhausted ginger.

Mace: adulterants, cereals, buckwheat, wild mace.

Nutmeg: adulterants, starch, wild nutmeg.

Pepper: adulterants, pepper dust, ground crackers, rice, mustard hulls, charcoal, cocoanut shells, cayenne, beans, bran, white and yellow corn, ground olive stones.

Mustard: adulterants, flour, turmeric, Martius yellow, peas, corn meal, gypsum, ginger, salt."

From the report of Honorable H. C. Adams, dairy and food commisioner, 1895–96:

"The manufacturers of filled cheese, extracting by the separator process, all the cream, except a trace, contained in the milk brought to their factories, making that cream into butter and getting from the milk the entire butter value, taking the skim-milk which was left and adding to it for the purpose of replacing the butter fat, neutral oil, costing only one-fourth as much as the fat which it replaced, were enabled to make large profits in the business."

"There is more or less fraud perpetrated in the manufacture and sale of cream of tartar adulterated with corn starch and alum, coffee adulterated with chickory, coffee beans with imitation pellets, made of rye or other flour and artificially colored, baking powders of inferior strength, honey with glucose, buckwheat flour with corn meal and wheat flour, spices with numerous foreign ingredients, jellies with salicylic and other acids, maple sugar with cane sugar and glucose, and lard with cotton seed oil."

"The adulteration of butter consists in the addition of foreign fats, the addition of preservatives, loading with water, and the introduction of large amounts of casein, buttermilk and water by the use of rennet compounds."

From the report of Commissioner Adams for 1897–98:

"The condition of a considerable portion of the milk dairies in the vicinity of the larger cities, and notably of Milwaukee, was such as to prejudice the public health and warrant the state in making official examinations. During the winter of 1898 Mr. Norton J. Field, inspector, inspected 200 dairies in the city and vicinity of Milwaukee. A very considerable percentage of these dairies were found to be in a most filthy condition. Cows were being kept in close, poorly-ventilated, filthy stables, with little light, no regard for order or cleanliness, and fed in some instances exclusively upon distillery slops. Some dairies were found where the cows had little or no exercise, were never cleaned, and were simply walking monuments of filth."

"The most common violations of the pure food law have been in the sale of low wine vinegars for cider vinegar, of glucose syrups for cane syrups, of wheat middlings and low grade wheat flour for buckwheat flour, of lemon and vanilla extracts containing no lemon or vanilla, of artificial jellies for pure fruit jellies, of all manner of adulterated spices for pure spices, of prepared meats containing chemicals injurious to the public health, of 'coffee essence' which does not exist, of cottolene sold for pure lard, of coffee and chicory sold for pure coffee, of imported canned vegetables colored or treated with poisonous chemicals, of alum baking powder sold for cream of tartar and baking powders, and of pure honey adulterated with glucose."

Referring to the time when the first pure food law of Wisconsin was enacted, 1897, that report states:

"With the shelves of jobbers and manufacturers containing large quantities of adulterated goods, and merchants all over the state being stocked with the goods to a greater or less extent, it was deemed inexpedient to undertake a rigid and universal enforcement of the law, until the dealers in food products in the state who were sincere in their desire to comply with it should be informed of its provisions and have a reasonable time in which to adjust their business to the new order of things."

"Strained honey has perhaps been more subject to adulteration than most articles of food. The common adulterant is glucose syrup."

"The syrups on the market are sold largely under fanciful trade names, such as 'Crystal Drips,' and are seldom sold as cane syrup or otherwise. All of the syrups so far examined have been found to contain glucose."

"Since the passage of the U. S. law governing the compounding of flour, additions of corn flour to wheat products without proper labeling have practically ceased. Samples of suspected wheat flour sent for examination have invariably been found to contain excessive amounts of low grade flour approaching middlings. Buckwheat flour has been much adulterated in the past."

"The use of preservatives in all kinds of food products is becoming more and more prevalent. Several brands are on the market for use in chopped meats, oysters and salted fish. Substances used in meats generally consist of sodium sulphite, where it is intended to be used in chopped meats, or of borax and boracic acid where intended for oysters or for use in brines or pickled meats.

Sausage preservatives also contain aniline coloring matter. One sample examined was found to be composed of salt niter, borax and boracic acid and majenta coloring.

Ammonium acid fluoride and the fluo silicates are also sold as meat preservatives.

Compounds containing sodium salicylate and salicylic acid are sold under trade mark names as canning processes."

From the report of Commissioner Adams for 1899–1900:

"The manufacturers of oleomargarine and the dealers continue to evade and defy the law of this state relative to counterfeit butter to the extent of their power. Their policy is the same in every state in the union. Their contempt for public judgment as expressed in law is supreme. They claim to know more about the public interest than state legislatures and more about the constitutionality of laws than courts."

"Horse meat is made into sausage in Milwaukee, but there is no law to prevent it, and its sale is not an offense if not sold under a false or misleading name. The Milwaukee product, however, is made for export."

"Chemical preservation of food products has increased so rapidly and in so many directions of late that no form of adulteration now practiced is so much in need of control.

Milk is preserved with borax, boric acid and formaldehyde; butter and cream cheese with boric acid and borax; sausage, Hamburger steak and chopped meats with borax, boric acid, niter, sodium sulphite and bi-sulphite, and the fluorides; fruit juices, cider and non-alcoholic beverages with salicylic acid; soda water syrups and crushed fruit with salicylic and benzoic acid; beer with salicylic acid, sulphites and fluorides; hams and bacon with borax and boric acid, used both in the brine and in a dry state for packing; oysters, clams and fresh, dry and smoked fish, with boric acid and compounds containing it. Game is dressed with similar preservatives before shipment. Catsups and meat dressings commonly contain salicylic acid; and canned goods, such as corn and tomatoes are similarly dosed with formaldehyde and sulphites. Moreover, in non-alcoholic beverages sugar is frequently substituted by coal-tar products, saccharin and dulcol, substances which have an intense sweetening power but no food value. It would seem that no perishable food product has escaped."

"While the milk at factories, and even in cities, is improving steadily, adulteration of city milk by the addition of preservatives has been rapidly on the increase. As a result, most of the prosecutions in cities for the adulteration of milk have been for this offense.

Agents selling the preservatives argue that 'All of the other milk men use them;' that 'They are perfectly harmless;' that 'They go off as a gas;' 'cannot be detected,' 'act the same as ice,' and worst of all, give circulars purporting to come from mothers advising their use in infants' milk."

From the report of Honorable H. C. Adams, dairy and food commissioner, for the years 1901–02:

"Men cannot be made honest by law, but law can make dishonesty pay a penalty when it steals the livery of honest products to serve a dishonest purpose. In every civilized land, and in a few where civilization is not as radiant as in our own, fierce competition and unbridled greed have undertaken to profit by the adulteration of nearly every article of food used by the human family. As in every other department of human effort, there has been wonderful progress during the last half

century. The clumsy wooden nutmeg of Connecticut, that even a policeman might detect, has given way to artificial eggs which no hen would recognize and to artificial butter that never knew milk. The universal demand for cheap things brings a supply. Wheat flour is adulterated with corn flour; buckwheat with wheat middlings. Vermont maple syrup is made that never saw Vermont, and is made from the sap of trees that grow in the heart of Chicago. Glucose has dethroned cane syrup. Cider vinegar is distilled from grain. A good portion of the strained honey of commerce never produced any strain upon the bees. Milk is robbed of its cream, filled with lard and sent all over the world to ruin the reputation of American cheese. Borax and formaldehyde go into milk to kill babies and weaken invalids. Oysters are practically embalmed with chemicals. Lemon extracts are made without lemon oil and vanilla extracts without vanilla. The hogs of the north compete with the cheap cotton seed oil of the south and mix in the same tub under the banner of lard. Artificial smoke is made for hams out of poisonous drugs. Jellies colored in imitation of the natural fruits and sold as fruit jellies flood the market, although they are almost as destitute of fruit juice as a bar of pig iron. The embalmed beef business has been exaggerated, but we do not need any either for soldiers or civilians. Canned fruit is preserved with antiseptics which delay the digestive processes. Baking powders under misleading names crowd the markets. Spices enriched with pepper hulls and ground cocoanut shells are manufactured and sold by the ton. The close partnership which has existed for so many years between coffee and chickory does a thriving business in many states under the firm name of coffee. Cheapness is secured by these adulterations and false labeling, but the people are defrauded."

"It is not fiction that unhealthful adulterants are used in many food products. Under the labels of 'Freezine,' 'Preservaline,' 'Liquid Sweet,' 'Liquid Smoke,' 'Rosaline,' and other fanciful names, they are manufactured by hundreds of tons, placed in every market in the United States, shipped to foreign countries in immense quantities, and advertised with a skill and effectiveness that compels public attention. One firm in New York, with a branch in Chicago, sent to Australia during the last year 150 tons of preservaline, a large portion of which was used in the butter which that country shipped to England. These mixtures are antiseptics and contain boracic acid, formaldehyde, and sulphide of soda. They are used to preserve milk, cream, butter, oysters, fish, canned goods, and meat. They are of a poisonous character, and their introduction into a food delays or stops the digestive process. France prohibits the use of these preservatives in all domestic wines, except those exported. Germany has the same regulation of the manufacture of beer. England prohibits the use of deleterious antiseptics."

"The force which has been behind most of the pure food legislation of the United States for the last fifteen years has been the farmer. Since he engaged in the battle for honest food products most of our pure food legislation has been enacted. The dairy commissions of the several states have been brought into light because the farmers demanded not only laws but the machinery to enforce them. When the American farmer is roused he keeps everybody busy. He maybe childish sometimes, but nobody accuses him of being weak when he stirs his class to action in a movement that is right. The American farmer can get along without flattery. He ought not to get along without justice. He sometimes nods and sleeps over public questions, but when he goes at it in earnest to take a hand in their settlement, political rings are broken, unwise political bosses go up in the air, golden collars become a rope of sand and popular judgment is crystallized into law."

"This question of the character of the food supply of 75,000,000 of people is not one to be settled by doctrinaires or hair-splitting constitu-

tional lawyers. It will not be settled by all the money and all the brains that are at the command of the manufacturers of counterfeit products. It will not be settled by ridicule, abuse or misrepresentation of the men who till the farms of the nation and produce most of its foods. It will not be settled by court decisions that in effect deny the statement of Judge Harlan, that the Constitution of the United States guarantees to no man the right to perpetrate a fraud. It will not be settled by the pleading of any class for the privilege of plundering somebody. It will not be settled by chemists and experts hired to give opinions. It will not be settled by legislators who do not care for the public good and who do not fear public judgment. It will be settled, as it is being settled, by the voice of the consumers of food products, demanding laws which compel these products, if sold, to be honest and healthful, and by the American farmer claiming the right of way for the honest products of honest labor."

From the report of the chemist in the dairy and food commissioner's report for 1903–4:

"Of the 58 samples of baking powder, 43 were either adulterated or not lawfully labeled."
"Of the 7 samples of honey analyzed, 5 were adulterated."
"Of the 10 samples of beverages analysed, 5 were adulterated."
"Of the 31 samples of buckwheat flour analysed, 25 were adulterated."
"Eleven samples of jellies and preserve were analysed and 8 of them were adulterated."
"Four samples of lard were analysed and all were adulterated."
"Of the 88 samples of lemon extracts analysed, 51 were adulterated."
"Of the 25 samples of maple syrup, 15 were adulterated."
"Of the 39 samples of meat, 23 were adulterated."
"Of the 68 samples of milk and cream analysed, 30 were adulterated."
"Of the 11 samples of spices analysed, all were adulterated."
"Of the 9 samples of vanilla extracts, 7 were adulterated."
"Of the 118 samples of vinegar, 61 were adulterated."

From the report of the dairy and food commissioner for 1905–06:

Referring to a very thorough inspection of the milk supply of the larger Wisconsin cities, the following statements are made:

"Of the 201 samples of milk and cream gathered and tested, not one showed the presence of a chemical preservative. Only 2 samples were found to fall below the legal standard."

"Of 133 samples tested by the Wisconsin curd test, 112 showed curds of a close, firm texture and of clean, agreeable odor, indicating that the milks which yielded these curds were produced under clean and suitable conditions and were suitably cared for. * * * The test showed that 85% of the samples tested were excellent and above reasonable criticism as to cleanliness and suitable care."

"In the 44 Wisconsin cities where an inspection of the city milk supply was made, 596 samples of milk were taken. Of this number only 5 fell below the legal standard of 3% butter fat only 16 fell below the legal standard in solids not fat. About one third of the 596 samples were tested for chemical preservatives and none was found. Of this total number, 477 samples or about 80% gave curds of a character showing that the samples taken were normal milk of excellent character and above criticism as to cleanliness and the care received."

"Most of the adulterated beverages examined were artificial preparations sailing under the names of natural fruit products, artificial coloring, generally with coal-tar dyes, aiding in the deception. In many cases saccharin was employed as a sweetening agent, while salicylic and benzoic acids were found as preservatives."

"Wheat flour, generally of a low grade, remains the most common adulterant of buckwheat flour, although in four samples large quantities of corn flour were found and in a few instances rye flour was present."

"Most of the canned goods analysed were pronounced unlawful because of the presence of artificial coloring matter and of preservatives."

"A sample of canned peas was found to contain considerable amounts of tin and zinc salts, the source of the zinc being doubtless a zinc flux used in soldering, the can not having been washed previous to filling."

"A single can of blueberries examined contained the equivalent of over three grains of metallic tin. In both of these cases the inside surfaces of the cans were strongly corroded, due either to the use of cheap and defective tin plate or to inside soldering or both."

"Of the 52 samples of catsups analysed, only 6 were found to meet the requirements of the law. Almost all of the unlawful samples were artificially colored, generally with coal-tar dyes and preserved with benzoic acid or a salt thereof, while several samples in addition were sweetened with saccharin."

"Of 82 samples of cream examined, one was found to contain gelatin and boric acid, while 33 were below the legal standard of 18% in milk fat content."

"Thirty samples of so-called 'Evaporated Cream' were examined, all of which were simply unsweetened evaporated milk ranging in milk fat content from 7.33% to 9.6%."

"All of the adulterated cream of tartars were found to contain no cream of tartar whatsoever, but to be composed of calcium acid phosphate, calcium sulphate and corn starch."

"Seventeen samples of drugs and medicines were analysed. Of these, 8 samples, all procured from one firm, were found to contain wood alcohol, of these, 4 were purchased, while 4 were taken from the container upon the refusal of the proprietor to sell."

"Of the 73 samples of vanilla extracts and flavors analysed, 64 samples, covering 53 brands, were adulterated. In some cases the preparations were entirely artificial. * * * Four samples were found to contain wood alcohol."

"Eighty-five and one-half per cent of all the jams, jellies and preserves analysed were pronounced unlawful. The great majority of these were artificially colored, contained glucose and were preserved with salicylic or benzoic acids. Some were made from fruit refuse (probably the residue left after expressing the juice), apple pomace, starch paste, and artificially coloring and flavoring; a few contained little or none of the fruit from which they were supposed to be the sole product. A submitted sample of imitation raspberry preserves contained glucose, starch paste, coal-tar dye, benzoic acid, a few raspberry seeds (free from pulp) and a large number of millet seeds."

"Of the 359 samples of chopped meats and sausages analyzed, 130 or 36% were found to contain chemical preservatives, or artificial coloring matter or both. The actual condition of the Wisconsin markets with respect to these foods before the fall of 1905 is perhaps better indicated by the results of a complete inspection of the Madison markets made in August of that year, when 60% of the samples of chopped meat and sausages purchased were found to be adulterated. To the publicity given the prosecutions which resulted, the lower percentages of adulteration found in other cities must doubtless be ascribed. At the present time, on account of the large number of convictions secured all over the

state, very little adulteration of the above character is practiced in this class of foods. The preservatives generally found in sausages were boric acid and borax, while sodium sulphite was the chemical usually added to chopped beef. The use of the latter seems particularly objectionable. Its true preservative action is slight, but it causes the meat to take on and retain a bright red color while at the same time it destroys odors of decay. Its use takes from the purchaser or consumer about the only means he has for judging the wholesomeness of the meat. A sample of chopped meat purchased on the market and found to contain sodium sulphite was kept for three days in the laboratory during hot weather in August. At the end of that time it was still red and odorless and although slightly mushy might still have been accepted as wholesome food by the ordinary purchaser; a bacteriological examination, however, showed that it contained a very large number of putrifactive organisms, and that the meat was in fact in an advanced stage of decomposition."

"Of the 507 milk samples reported below, 190 were pronounced unlawful, being either below the legal standard of 3% in milk fat or below that of 8.5% in solids not fat (these conditions being generally due to skimming or watering or both), while in three instances preservatives were present. This proportion of unlawful samples does not by any means represent the true condition of the Wisconsin milk supply, since almost all the samples analysed were suspected of being adulterated.

Sixty of the adulterated samples were taken by inspectors of the commission from city milk supplies; 115 were samples delivered by patrons at creameries and cheese factories; while 18 were submitted by persons outside the commission. Of samples submitted by inspectors as suspicious, 72% were found unlawful."

"Eleven samples of ground black pepper were found to be adulterated, the common adulterants used being ground and roasted cereals, olive pits, pepper shells, and cocoanut and other nut shells."

"Forty-four samples of maple sugar were analyzed, of which only 5% were passed as lawful. Of the adulterated samples many contained little or no maple sugar, being frequently made from cane sugar with the addition of caramel and maple flavor."

"Of 115 samples of maple syrup analyzed, 71%, covering 58 brands, were found adulterated. Most of these adulterated samples contained little or no maple syrup, being mainly composed of cane sugar syrup, artificial coloring and 'maple flavor'. Several of the syrups had been made from decoctions of maple wood and bark while others had obtained their 'maple flavor' from corn cobs. Still others were mixtures of maple syrup and cane sugar syrup in varying proportions. One sample was also found to contain saccharin. Most of the adulterated maple syrups have either been driven from Wisconsin markets or are at present being sold for what they are; viz., 'Syrups' or as 'Compound Maple and Cane Syrups.' Deception is, however, still frequently practiced by showing maple groves, maple leaves or other misleading devices on the label."

"Besides maple syrup, 48 other syrups and saccharine solutions, including fruit syrups, sorghums, molasses, table syrups and maple syrup substitutes were analyzed, of which 33 were pronounced adulterated or misbranded. Most of the samples sold as rock candy syrup or drips, table syrup, sugar syrup and cane sugar syrup, and so labeled, were found to be compound glucose mixtures containing but little cane syrup. Several samples sold as pure sorghum were found to consist mainly of glucose."

"Of the 250 samples of vinegar analyzed, 198 were declared unlawful. Of these, 27 were below the legal standard in acetic acid or cider vinegar solids or both; 9 samples of white spirit vinegar were sold as white wine vinegar; 85 samples sold as cider vinegar were found to be adulterated."

From the report of the dairy and food commissioner for 1907–08:

"If the working man or any other man wishes to invest his hard-earned dollar in butter, he should be sure to get butter for that dollar; and if he wishes to invest it in oleomargarine, he should be sure to get oleomargarine at oleomargarine prices and not at the price of butter. That is what he can now do in Wisconsin because of her oleomargarine law and its enforcement."

"Of 53 samples of butter analyzed, 36 complied with the Wisconsin standard. Of the 17 unlawful samples 10 were oleomargarine and one was renovated butter sold either as butter or as creamery butter; two contained excessive amounts of moisture; two had some foreign fat incorporated; one contained previously melted butter fat; while one was pronounced unlawful because of its rancidity. * * * One of the samples of butter contained 51% of moisture, a condition made possible by the use of extraneous matter, probably rennet."

"Three samples of candy were analyzed, all of which complied with the standard."

"The laws of Wisconsin prohibit the sale of canned fruits, vegetables, meats, fish and shell fish containing saccharin, formaldehyde, sulphurous acid or sulphites, salicylic acid or salicylates, or any substance, article or ingredient other than sugar, salt, vinegar or spices possessing a preservative character or action or any copper compound or other artificial coloring or any bleaching compound or any article injurious to health.

Of the 25 samples pronounced unlawful, 16 were samples of colored, or bleached and colored, canned cherries sold as 'Maraschino cherries.' Eight were canned peas colored with a copper salt while one was canned asparagus labeled and sold as 'Asparagus Tips,' although containing mostly cut-up stems with but a few tips."

"Of 21 samples of catsup pronounced unlawful, 17 contained artificial coloring matter, 3 contained saccharine and several contained benzoic acid or a benzoate without having that fact declared on the label. At the present time the markets of the state have been practically cleared of catsup containing artificial coloring matter or saccharine, and a number of brands are being put up by different manufacturers without benzoic acid or benzoates or other preservative except salt, sugar, vinegar and spices. * * * Contrary to statements formerly made by manufacturers, catsup of a very pleasing color can be made with the use of fresh, ripe tomatoes without artificial color, while poor, raw materials yield inferior looking products."

"Two hundred samples of cream were analyzed by the chemists of this commission, 98 being samples delivered by inspectors, purchased by them for the greater part from city milk supplies, although a few were samples delivered at creameries by patrons; the other 102 were submitted samples of uncertain origin. Of the inspectors' samples 28 were below legal standard in fat and 5 contained formaldehyde. The large percentage of unlawful samples is accounted for by the fact that inspectors in the field generally make a preliminary test of samples of milk and cream, only submitting suspicious samples to the laboratory for further analysis."

"During the last two years the first systematic attempt was made to determine the quality of drugs as sold by druggists throughout the state. The drugs to which most attention was given were alcohol, ammonia water, hamamelis water (witch-hazel), hydrogen peroxide, white wax, lime water, Fowler's solution, olive oil, sweet spirit of nitre, spirit of camphor, sublimed sulphur, tincture of iodin and laudanum, many of which are manufactured by most druggists and all of which can be readily tested by a competent pharmacist. The results showed de-

plorable conditions for out of 1,496 samples analyzed, 833 were found to be below the standard of the latest, the eighth decennial, revision of the U. S. Pharmacopoeia."

"Six samples of unsweetened evaporated milk were sent in by inspectors during the early part of the period, bearing the false label: 'Evaporated cream.' Since that time manufacturers have been changing the labels on these products so that at the present time all, or nearly all, of these goods are sold under their true names, 'unsweetened evaporated milk.'"

"Of the 206 samples of flavoring extracts analyzed, ten samples, all of them old stock, were found to contain wood alcohol. This shows great improvement over the previous biennial period, during which 63 samples were found so adulterated. Of 104 samples of lemon extracts analyzed during the last two years, 97 were pronounced unlawful, of which 8, representing 6 brands, contained wood alcohol; 28, representing 24 brands, contained no lemon oil; 43, representing 21 brands, were deficient in oil; while 49, representing 30 brands and including some above enumerated, were artificially colored."

"Ninety-seven samples of vanilla extracts and substitutes were analyzed of which 88, representing 65 brands, were pronounced not lawful. Most of these contained little vanilla extract but were made with the addition of tonka extract or of prune juice and vanillin, while still others were entirely artificial, being solutions of vanillin, coumarin and caramel. Of 15 other flavoring extracts, only one was passed as lawful, two containing wood alcohol, while the others were either deficient in strength or artificially colored or both."

"A great improvement is noticeable in the purity of buckwheat flour on the Wisconsin market for while in former years pure buckwheat flour was the exception, most of the samples containing low grade wheat, rye, or corn flour, comparatively few cases of adulteration are now met with in this product."

"Three samples of honey were analyzed, all of which were passed as lawful."

"Eight samples of ice cream were analyzed, all of which were above the legal standard in milk fat, but one contained gelatin and three contained vegetable gums."

"Considerable improvement is noticeable in jellies, jams and preserves. The use of artificial coloring has almost been entirely abandoned, preservatives are rarely employed and greater honesty in labeling is practiced. Accompanying this there has been decided improvement in quality, the sale of the cheapest products, composed of glucose and fruit refuse with perhaps a starch filler, having greatly fallen off since deception due to artificial coloring and false labeling has been stopped."

"Of five samples of maple sugar, one was found to be adulterated, while of 43 samples of maple syrup, 19, or 44.2% were not pure maple syrup. This shows a great improvement over the previous biennial period, when 88.6% of all maple sugars and 71% of all maple syrups analyzed were found adulterated. At present very few adulterated maple sugars or syrups are found on the Wisconsin market."

"Two hundred and eighty-nine samples of meat and meat products were analyzed of which 113 were pronounced unlawful. Of 103 samples of Hamburger steak, 34 or about one out of every three samples were found to contain sulphites. While this shows a considerable improvement over the previous biennial period when 45 of the samples of Hamburger steak analyzed were found to contain this preservative, the actual condition all over the state is doubtless very much better than these figures indicate since almost all of these samples were purchased in places where no previous meat inspection had been made. Of 178 samples of sausage 21 or 11.8% contained chemical preservatives, 19

contained boric acid or a borate and two contained sulphites; whereas 26.5% of the sausages analyzed during the previous two years contained chemical preservatives. Only one sample was artificially colored, compared with 14% so adulterated during the preceding period, while in only three instances had the casings been artificially colored, a practice very common a few years ago."

"Of 80 samples of black and white pepper examined 22 were found adulterated, the most common adulterant being a mixture of ground olive pits with roasted cereals."

From the report of the dairy and food commissioner for 1909–10:

"During the decade terminating with this biennial period, food laws have been enacted and enforced in Wisconsin whereby the cloak of fraud and deception in the sale of a multitude of food products has been removed and the statement of the truth on the label has been compelled.

"The masquerading of oleomargarine in the garb of butter has been stopped and the selling of oleomargarine for what it is and at oleomargarine prices has been compelled as the universal practice.

The sale of glucose, a product made by treating starch with hydrochloric acid, as and for sorghum, pure Louisiana molasses, fancy table syrup, honey, honey drips, etc. has been halted.

The sale as and for maple syrup of a product that never formed any part of a maple tree, a practice once common, is now almost entirely done away.

The fraudulent sale of a product consisting of glucose and the extracted juice of cores and skins of apples, rejected in drying, artificially colored with with coal-tar dyes to resemble genuine fruit products and sold as fruit jellies, jams, and preserves, has been throttled.

The fact that drugs below standard were being sold as genuine has been exposed to public scorn, and offenders have been prosecuted and fined.

Saccharin, a coal-tar derivative, and a fraudulent substitute for sugar in beverages and other food products, has been driven from its hiding.

Pure pepper has been given the place on the Wisconsin market formerly occupied with a product adulterated with fifty to eighty per cent of ground olive pits, cocoanut shells, mustard hulls or cereals.

Laws have been enacted and enforced that have squeezed the kerosene oil out of linseed oil and the barites and other adulterants out of white lead and zinc white.

Notwithstanding the opposition of special interests formed into great state and national organizations, food laws making wrong-doing hard and right-doing easy have been enacted and enforced, having as their object the only legitimate purpose of such legislation, namely, the protection of the consuming public against the harmful consequences of the manufacture and sale of adulterated or misbranded articles of food."

From the report of the dairy and food commissioner for 1911–12:

"Food products loaded with poisonous or deleterious chemical preservatives have been almost completely driven from the Wisconsin market.

This means in part that salts of copper, acid, lead and decayed substances have been eliminated from canned goods; that red lead and chromate of lead are no longer ingredients of cayenne pepper; that artificial essences and dyes and chemical preservatives no longer mas-

querade in the garb of jams, jellies and preserves; that aniline dyes and impure essence of almond are not common constituents of ice cream; that caustic lime is no longer used to whiten lard; that chromate of lead, sulphate of lime, Martius yellow, gypsum, and terra alba are no longer deleterious adulterants of mustard, that boric acid, borax, salicylic acid and formaldehyde are no longer milk adulterants; that sodium sulphite, borax and aniline dyes are eliminated from chopped meats and sausages; that salts of copper are no longer constituents of canned peas; that sand and red clay have been expelled from pepper; that poisonous colors and flavors, terra alba, talc, barytes, chrome yellow, arsenic, sulphate of copper, prussic acid, fusel oil and aniline dyes have been driven from candy; that salts of tin, salts of lead, terra alba, sand and gypsum have been driven from sugars; that sulphuric, hydrochloric, and pyroligneous acids are no longer constituents of vinegar; that artificial flavors, coal-tar dyes, chemical preservatives, salicylic acid and hydrofluoric acid and saccharin have been driven from ciders; that saccharin and salicylic acid have been expelled from pops; that poisonous wood alcohol is no longer found in Jamaica ginger, lemon and other extracts and in tinctures; that boric acid and borax are no longer used to embalm fish and oysters. In short, it means that the health of the people of the state of Wisconsin has been greatly conserved."

"The end sought to be accomplished by the efforts of the dairy and food department of the state in the enforcement of the dairy and food laws, has been the protection of the consuming public by eliminating from the Wisconsin markets the adulterations and frauds in food and drug products hereinbefore set forth, with the results that today those conditions are greatly improved. Pure foods and pure drugs of proper strength and truthful labeling, now take the place upon our markets of former adulterated and fraudulent food products. Adulterated or fraudulent food products are now an exception and not the rule as a result of the enactment of the state food laws and their vigorous enforcement by this department. As the adulterations and frauds in food and drug products have been enormous in their extent, so the work of this department in their elimination has also been enormous."

"I forbear to undertake to estimate what has been saved in life and health to the people of Wisconsin. Such a saving cannot be measured in dollars and cents. A study of the reports of the dairy and food department and of the statements quoted in this report of the extent and character of food adulteration, will disclose that in the early history of this struggle, milk, the common food of babes and invalids, was preserved with poisonous chemicals; that chopped meats and sausages, the chief reliance of the laboring class, were doped with borax, sodium sulphite and other substances deleterious to health; that extracts were made with poisonous wood alcohol; that numerous food products were artificially colored with harmful coal-tar dyes; that salicylic acid was used as a preservative in many beverages; that saccharin, a coal-tar product five hundred times as sweet as sugar, was a common adulterant, and that in general there was a riot of artificial coloring and harmful chemical preservatives in very general use in food products. These harmful chemical preservatives and deleterious artificial colors have been almost completely driven from the food products marketed in this state. It must follow that this result has caused an immense saving as to the lives and health of the people of Wisconsin. * * *

Until the year 1909, the work of sanitary inspection by this department was limited under the dairy and food laws of the state to cheese factories, creameries and dairies. While unsanitary conditions in a cheese factory or in a creamery, or in a dairy barn might be corrected by officials of this department, we have no authority to correct like or even more unsanitary conditions in groceries, meat markets and other

places where food for man was manufactured for sale or stored or offered or exposed for sale. But as a result of the public sentiment aroused by the work done by this departmnt along various lines, the legislature of 1909 enacted a law requiring of this department the inspection of groceries, meat markets and other places where food is manufactured for sale and fixed penalties for manufacturing for sale or offering or exposing for sale food unless securely protected from filth, flies, dust or other contamination or other unclean, unhealthful or unsanitary conditions.

The legislature of 1911 added to these provisions both by extension and by making more specific the penalties for violation of law. The results of the work of this department in the enforcement of these statutes is a matter of common knowledge. There has been a general cleaning up in the places herein referred to. Instead of the unsanitary display of foods on the streets and in the places of business, suitable coverings of glass or metal or other material are being provided, and in the main food products are now reasonably well protected in striking contrast with the bad conditions of a few years ago. Still a great work along these lines yet remains to be done. Remembering the possible contamination by the many forms of disease germs which have been demonstrated by science, the importance of strict sanitary inspection and enforcement of sanitary laws can scarcely be over estimated.

To such an extent was the adulteration and misbranding of food carried that it was too near the literal truth that he that asked bread received a stone and he that asked a fish received a serpent. The manufacturers and purveyors of food were the parties responsible for those conditions and the actuating motive was greed. This is a never-to-be-forgotten fact in dealing with this subject. This statement is made with reference to these classes as a whole but is not intended to apply to each individual member of the class, for there is a portion of food manufacturers and purveyors who not only are not to be put in this food adulterating class, but are openly, actively, and strongly opposed to food adulteration and frauds and who by their practices demonstrate that food adulteration and misbranding in any of its forms is wholly unnecessary.

With such conditions prevailing, one of several courses of procedure might be followed:

In the face of the testimony of able and honest chemists who had made analyses of the various food products taken from the market and who reported the conditions which have been set forth, it might be denied that such conditions prevailed and the claim put forth that our manufacturers and purveyors of food were too honorable and too high-minded to engage in such practices,—a sort of reasoning well illustrated by the traditional farmer who after long contemplation of the unique character-

istics of the giraffe, turned away with the remark, "Dang it, they aint no such animal!"

Another attitude that might be assumed under the conditions was, if the purchaser did not know that the articles purchased were adulterated or counterfeit, he was just as well satisfied and happy as though he had obtained what he asked for and paid for. Therefore, why interfere with the business in which the manufacturers and purveyors were greatly prospering? Let business be undisturbed!

The old legal maxim *caveat emptor* could be invoked. Let the purchaser beware! and if he is defrauded in the purchases he has made, let him go into court and there establish the fact that he has suffered injury. Let the laboring man or the laboring woman or the person of moderate means or of even less than moderate means employ a lawyer to conduct his case, employ a chemist to furnish the testimony of the adulteration or deception and by so doing establish in court that he has suffered injury and the extent of that injury, to do which he must contend with able lawyers and able chemists employed by multi-millionaire corporations who are able as a result of the high profits in their business to pay very large compensation. Such course of action would be an exemplification of the biblical proposition, that "unto every one that hath shall be given and he shall have abundance, but from him that hath not shall be taken away even that which he hath."

There was still another course of procedure open to the people of the various states in relation to the traffic in food in intrastate commerce and to the national government in relation to foods in interstate commerce. This course was to make it a punishable offense under the statutes to sell adulterated or misbranded articles of food, and to define by law what constitutes adulteration of food and what constitutes misbranding of food, and to provide at public expense officers to enforce these statutes for the protection of the general public.

This latter course has been adopted by the various states and by the national government. Such a course would seem to be in harmony with the terms of section 9 of Article I of the Constitution of Wisconsin, viz:

"Every person is entitled to a certain remedy in the laws for all injuries he may receive in his person, property or character; he ought to obtain justice freely, and without being obliged to purchase it, completely, and without denial, promptly, and without delay, conformably to the laws."

The great changes in recent years in industrial, commercial and economic affairs and especially in the great powers conferred on corporations by the state, would seem to make it a duty of the state to extend its strong arm of protection to the individual.

It is pertinent to recall that in the enactment of food laws in this country, the national government did not take the initiative. The states of New York, Massachusetts, Pennsylvania and Ohio took the lead and were followed by other states. The first general food law of Wisconsin was enacted in 1897. Not until 1906 did congress surmount the influence of the food and drug adulterating interests and enact a national food law, though at each session for many years previous, pure food bills had been introduced and as often killed. Complexity in the character of food laws is unavoidable on account of the dual character of our form of government. State food laws enacted under the police powers of the state must be limited to intrastate transactions, while the national food law enacted under the interstate commerce powers of congress, is limited to interstate transactions. The state in the exercise of its police power may enact measures for the protection of safety, order and morals, though affecting foreign and interstate commerce, subject to the principle that every measure of state legislation, however legitimate in itself, yields to positive regulation of interstate or foreign commerce by acts of congress inconsistent with such measure or intended fully to cover the same matter. But in *Savage vs. Jones,* 225 U. S., the U. S. Supreme Court has specifically pointed out in unmistakable terms, that as to any matter not covered by the national food law, the states in the exercise of their police power may regulate the same even to the extent of interstate commerce packages sold within the state. It is apparent that an adequate national food law effectively enforced for the protection of the general public becomes a great aid in the enactment and enforcement of state food laws and that to the extent that the national law or its enforcement is lacking in these particulars, it becomes a hindrance to the states.

But it must not be forgotten that when legislative action is sought to correct such evils as have been portrayed, there are opposing forces to be reckoned with. Greed of gain being the impelling motive, the opportunities for the making of such great profits are not to be surrendered without a struggle. For many

years there has been a tremendously wealthy and powerful aggregation of manufacturers and purveyors of foods with which state organizations of a similar character are affiliated, exercising such vigilance on the subject of food legislation that not a bill relating to food matters is introduced into congress or the legislature of any state which is not forthwith reported to those employed to take care of such matters. If the bill is regarded as unfavorable to their interests, every means which wealth and power can secure is employed to defeat such legislation. Unseen and impalpable forces work behind and through legislators as a part of the invisible government so aptly characterized by President Wilson.

The *enforcement* of food laws also encounters in certain lines fierce contests with the same or similar powers.

In general, the provisions of the general food law of Wisconsin and of the national food law are alike. The details of these laws cannot here be discussed. There are, however, some important differences to be noted in considering the present status of food laws, and some important changes applicable to both. Both declare an article of food adulterated or misbranded if "it" has something added to or taken from or mixed with it, etc., but what "*it*", namely, the article of food, is at the outset is the important question under the statutes. And this involves the question of standards. Several hundred specific standards for as many different articles of food are written in the Wisconsin food law. But the national food law is without any such standards, and what constitutes a standard in each case has to be determined in court upon the evidence submitted.

Upon the floor of the United States senate while the national food law was pending, the Honorable John C. Spooner, then United States senator from Wisconsin, made the following statements:

"I am persuaded that the lack of standard provided by law, in connection with the offenses denounced in this bill and punished by the provisions of this bill, is very dangerous to it. * * * No lawyer will challenge the proposition for a moment that there is an utter lack of standard, that there is no standard except as to drugs. Whether an article is adulterated or not is a question of fact to be determined by a jury. There is no standard rendering definite the offense. There is nothing putting a man on notice in advance of a standard to which he must live and toward which and in obedience to which he must shape his business."

This lack of standards in the national law is now being complained of by the United States authorities charged with its enforcement as one of its serious weaknesses, and an effort is being made to have standards provided by act of congress. In the absence of positive regulation in the matter upon the part of congress, the fixing of food standards is left open for regulation by the states.

Under the provisions of the national food law and the regulations established in accordance therewith, manufacturers have placed on the labels: "Guaranteed by ..... under the food and drugs act, June 30, 1906." By the terms and operation of the national food law, when the manufacturer thus guaranteed his article, all intermediary dealers were protected against prosecution for the sale of that article, however extensive the adulteration of the same might be. It is the well nigh unanimous opinion of the food officials of this country, that there is nothing which has been more prolific of deception than this feature of the national law, purchasers generally erroneously believing this guarantee to mean that the article has been examined and approved by government authorities. The present national authorities charged with the enforcement of that law are agitating such a change as will do away with this practice.

One of the specifications of the national food law declaring an article of food to be adulterated is "if it contain any added poisonous or other added deleterious ingredient which *may* render such article injurious to health." The United States supreme court has held in the bleached flour case that the language implies that the national authorities must prove not only that the article contains a deleterious substance, but must prove that the deleterious substance in the particular case is present in sufficiently large quantities to render that particular article injurious to health. This language and the interpretation placed upon it by the United States supreme court is a great weakness in the national law, *if the protection of consumers is the object sought.* I am pleased to state that the Wisconsin food law does not contain that language.

Under both the national food law and the food laws of Wisconsin, when it is charged that an article of food contains substances deleterious to health, the burden is on the national government or on the state, as the case may be, to prove that the article is harmful. An amendment to the national law has been

or is to be introduced requiring that the burden of proof that the article of food is wholesome shall be upon the manufacturer or purveyor. This, if permissible under the constitution, would be a great advance over present conditions and would rest upon the principle that consumers rather than manufacturers or purveyors are entitled to the benefit of a doubt. This view was taken by Judge Anderson of the Indiana United States District Court and by the United States Circuit Court of Appeals in sustaining the constitutionality of the Indiana food law prohibiting the sale in that state of foods containing benzoate of soda.

As originally enacted, neither the national law nor the general food law of Wisconsin contained any provision requiring that the net contents of the container of an article of food in package form be stated on the label, but such an amendment both to the national law and to the Wisconsin general food law has been enacted and became effective the third day of September 1914. Regulations for its enforcement have been promulgated. Upon its face it would seem to be a fair and just law, and yet there are special interests threatening vengeance on those who may dare to enforce it.

Another law of this state of like nature, which makes it a misdemeanor to sell less than the quantity represented, is bitterly denounced by certain special interests as unjust and destructive of their business.

The relation of the states to the national government in regard to foods purchased in one state for shipment into another is difficult and complex, and especially so in regard to the sanitary conditions under which such foods are produced. The officials charged with the enforcement of the national law have recently been calling attention to some of the difficulties involved and the need of coöperative effort. The question of sanitary conditions under which articles of food are produced and sold has in recent years become one of increasing importance, as it is recognized that these conditions are intimately related to public health. The question of proper regulation within the state of the sanitary conditions under which foods are produced, stored, and sold, is not less difficult than important. To secure cleanliness and decency in the conditions under which milk is produced for market or for manufacture into butter or cheese was one of the ends sought by dairy laws early enacted by the legislature of Wisconsin.

In the performance of their duties, inspectors of the dairy and food department found that while dairymen who were selling milk produced under filthy conditions were being prosecuted and fined, equally objectionable conditions existed in places where other foods were produced, stored, and sold. As a result of such experience, a law was enacted making it a misdemeanor to manufacture, store, or sell articles of food under unsanitary conditions. An effort to specify what should be considered as unsanitary conditions failed of passage by the legislature. The dairy and food department was given authority coördinate with local health officials to enforce the provisions of this statute. Although with a very limited force and with very limited authority of law in comparison with the enormous work to be done, revolutionary changes have been wrought in these conditions throughout the state. By this I by no means intend to say that the millennium in this respect has been reached.

Recent legislation has given to the state board of health exclusive jurisdiction over the sanitary conditions of slaughterhouses, hotels, and restaurants, and to the state board of health and the industrial commission exclusive jurisdiction over the sanitary conditions of bakeries and confectioneries and all places where the products of bakery establishments and confectionery establishments are exclusively sold. But this does not apply to the jurisdiction given the dairy and food commissioner under the general food law where it provides that an article of food is to be regarded as adulterated if it is produced, stored, transported, or kept in a condition that tends to render the article contaminated, diseased, or unwholesome.

In all places where the dairy and food department has jurisdiction over sanitary conditions, the various health officers, state and local, have coördinate jurisdiction. These remarks have reference to general state regulations. Each incorporated city, village, and town has authority to establish and enforce all needful sanitary regulations not inconsistent with the laws of the state. As this is quite a different matter from the detection of adulteration of food requiring skillful analyses by chemists, here is a place where home rule has the opportunity to "run and be glorified." I may add that in my judgment here is a place where the legal maxim *caveat emptor* may well find application. Here is a field in which housewives have duties which cannot well be delegated. Here coöperation between housewives and officers

of the law is necessary for the best results. And the same coöperation is necessary to realize the full benefits of the weights and measures laws.

As showing certain phases of present conditions, I have mentioned a few of the defects now recognized as inhering in the national food law, and the present agitation to remedy such defects.

It is not by mere chance or accident that these defects are not now embodied in the Wisconsin food laws, for no sooner had the national food law been enacted than the powerful and wealthy aggregation of food manufacturers to which I have referred, under the specious plea for uniformity, began a most aggressive and persistent movement which has been kept up to this day to force all states to enact laws in exact harmony with the provisions of the national law. From the very outset, the dairy and food commissioner of Wisconsin has vigorously opposed such action. In July, 1907, the year after the national food law was enacted, he delivered an address to the association of state and national food and dairy departments on the subject "The Element of Uniformity in National and State Food Laws." In concluding that address, he said:

"Because the open and secret enemies of vigorous and effective food legislation may have succeeded in introducing some weak, ineffective or untried elements into the national food law, should the states that for years have been enacting and enforcing food laws abandon strong and effective features of their own laws and adopt instead the less vigorous or effective features of the national law because, forsooth, those features of the state law work a 'hardship' on the trade? If the end sought by food legislation is to remove 'hardships' from the trade, then why not repeal all food laws—state and national? The fact is that the friends of pure food laws accepted the present national law upon the theory that half a loaf is better than no loaf.

"I am in favor of such uniform national and state food laws as can be made to comprise the strongest and most vigorous features of present state and national laws, enacted with the purpose and with the effect of protecting the consuming public against adulteration and fraud, *without imposing any hardships on the trade not necessary to the accomplishment of that purpose.* But I am opposed to that uniformity in national and state food laws which comes only to relieve the trade from hardship, by writing into those laws the weakest and least effective features of present laws, and 'such cunning ingenuity' that, while 'bearing a fair countenance,' they carry the element of disaster to the consuming public. If there is a serious desire to enact and enforce effective food laws for the purpose of protecting the consuming public against adulterated or fraudulent foods, let us not hasten to inject into existing state laws any of the weak and defective features of the national law under the clamor of uniformity. Let us wait until it has been shown what features of the national law can be effectively enforced and what protection can be thereby given the con-

suming public. Let us wait until the questionable features in the national law have been judicially determined. When uniformity comes let it be upon a higher and not upon a lower plane of protection to consumers."

Time and events have fully justified the attitude he then assumed and has ever since maintained.

Quite to the contrary of what may be the common notion, neither the legislature of Wisconsin nor congress has ever made provision for an adequate force for doing the work required by law to be done.

I have shown by competent testimony, the conditions calling for the enactment and enforcement of effective food laws for the protection of the public.

I have called attention to the tremendous forces met in the enactment and enforcement of such laws. I have indicated that effective food laws for the protection of the public have not, like the sheet knit at the four corners in Peter's vision, came down to earth from the open heavens with things to eat which God hath cleansed. They have come as the result of a good fight having been fought and they bear the scars of battle.

Grant in his Memoirs says that in his campaign with the army of the Potomac his objective point was at all times Lee's army. So, in the conflict I have referred to, the objective point has been the elimination of conditions hereinbefore portrayed. The result is that these conditions have been well-nigh eliminated and that pure and truthfully labeled foods now prevail on the Wisconsin market.

It has been said that eternal vigilance is the price of liberty. It is just as truthful to say that eternal vigilance is the price of cleanliness and freedom from adulteration and misbranding of foods.

It was owing to such conditions as are recounted in the foregoing that dairy, food and drug laws have been enacted and the dairy and food department established and maintained for the enforcement of the same. The public demand for this work has been voiced in the recommendations of governors for the last three decades.

The law creating the office of dairy and food commissioner was established by the legislature of 1889 under the administration of Governor Hoard and upon the recommendation of Governor Hoard "for the suppression of the fraudulent manufacture

and sale of imitation butter and cheese as well as the sale of adulterated, impure or diluted milk, and the wide-spread and rapidly increasing adulteration of the food of the people."

In his message to the legislature of 1895 Governor Upham stated:

"The high reputation which the Wisconsin cheese product earned, and for a long period maintained in the market, has been injured by the manufacture within the state, and sale, of what is called filled cheese, greatly inferior in quality, but not distinguishable from the better product by ordinary inspection. While not favoring paternalistic legislation, I deem it to be the duty of the legislature to protect by adequate measures this great industry against permanent injury by fraud, and to protect the people against imposition. I recommend, therefore, the enactment of some well-considered law which shall, under appropriate penalty, compel the manufacturers and vendors of such cheese to so brand, mark or color it that it shall no longer be sold for what it is not.

In this connection I commend to your attention the necessity for legislation which shall protect the butter makers of the state from unfair competition with substances manufactured in the similitude of butter, and sold as butter, which are not made from milk or cream. * * *

Those who wish to buy butter and who suppose they are paying for butter, the product of the dairy, are entitled to what they buy and pay for. Those who wish to buy oleomargarine or other substitutes for butter are entitled to what they pay for; but the farmer and other dairymen ought not to be, in the manufacture and sale of the genuine article, brought into competition with any substitute not distinguishable from butter."

The first comprehensive food law in Wisconsin to define adulterated food was enacted in 1897 during the administration of Governor Scofield. In 1899, Governor Scofield in his message to the legislature commended the work of the dairy and food department and said:

"The protection of the people against adulterated and deleterious food is a duty which may well claim serious attention from the state."

In his message to the legislature of 1905 Governor La Follette said:

"The work of the dairy and food commission concerns every citizen of the state. Its function is upon the one hand, to promote our great dairy interests, and upon the other, to protect the consuming public against adulterated dairy and other food products. * * *

Some changes are needed in the food laws for the purpose, in some cases, of removing ambiguity; in others, of making them more workable; in others, of removing doubt as to their constitutionality; and in still others, to give added powers to the commission to protect the public against food adulteration."

In 1907 Governor Davidson in his message to the legislature stated:

"Needed amendments to existing food and dairy laws should be made, necessary new laws enacted and the commission so strengthened that the important duties entrusted to it may be so discharged as to give the largest measure of protection to the public."

And in 1909 in his message to the legislature, Governor Davidson said:

"The object of the dairy and food laws and their enforcement is protection of the public health, and security to the consuming public against fraud and deception in the manufacture and sale of dairy and food products. * * * That there has been effective enforcement of these laws and great progress made in driving adulterated and misbranded food products from the market is common knowledge. Improvement in the quality of dairy products is such that investigation by the United States officials for the year 1907 shows that patrons of Wisconsin creameries received a higher price per pound for butter fat than those of any other state investigated. * * *

Amendments to the dairy and food laws required to correct technical defects which experience has shown to be necessary should receive due consideration."

AVERAGE PRICE RECEIVED FOR BUTTER BY FARMERS ON THE FIRST OF EACH MONTH.

FROM THE YEARBOOK OF THE U. S. DEPARTMENT OF AGRICULTURE FOR 1910

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Illinois.....	28	27	26	25	24	23	22	23	24	25	26	27
Michigan.....	29	28	26	26	26	24	23	23	26	27	28	28
Wisconsin..	**32**	**31**	**29**	**29**	**29**	**27**	**27**	**27**	**28**	**29**	**29**	**30**
Minnesota	31	29	28	27	27	26	25	26	27	28	28	29
Iowa	30	29	28	27	26	24	24	25	26	26	27	27
United States.	28.7	27.9	26.3	25.8	25.5	24.1	23.3	23.8	25.2	26.2	27.1	27.8

FROM THE YEARBOOK OF THE U. S. DEPARTMENT OF AGRICULTURE FOR 1911

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Illinois	27	22	21	22	21	19	20	22	23	23	25	27
Michigan	28	24	22	22	20	19	19	20	22	23	25	28
Wisconsin .	**30**	**27**	**24**	**24**	**22**	**21**	**22**	**23**	**25**	**25**	**28**	**31**
Minnesota.....	29	24	22	23	21	20	20	22	24	24	27	30
Iowa	27	22	21	21	20	19	19	22	23	24	25	28
United States.	27.8	24.1	22.7	22.6	21.4	20.3	20.4	21.7	23.1	23.8	25.2	27.4

FROM THE YEARBOOK OF THE U. S. DEPARTMENT OF AGRICULTURE FOR 1912

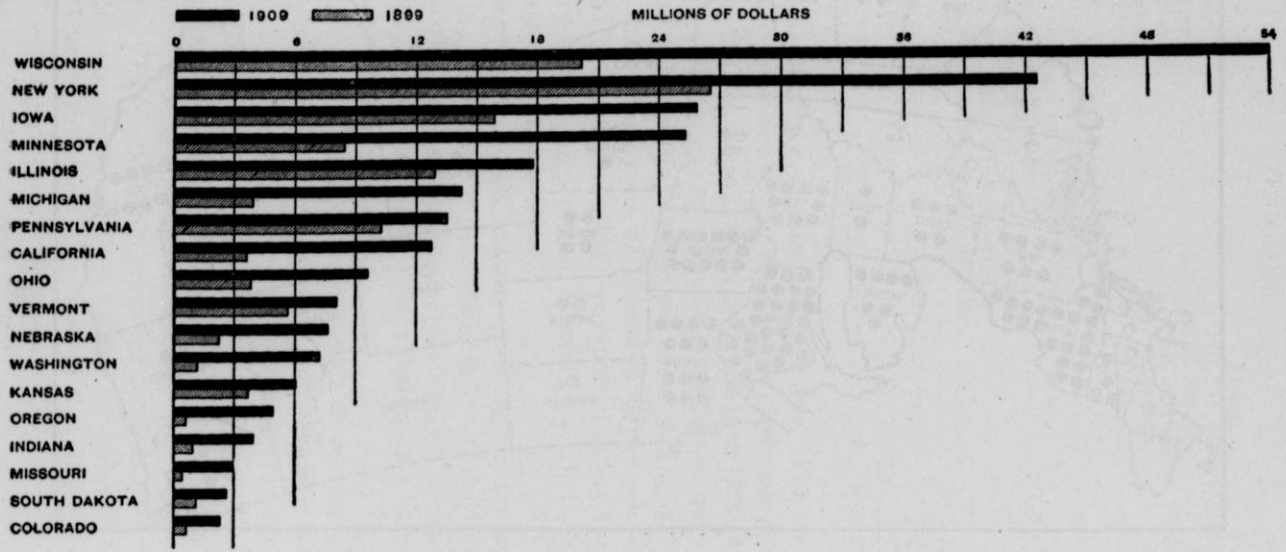
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Illinois.....	27	28	26	25	25	24	24	23	24	26	26	28
Michigan.....	30	31	28	27	27	25	23	23	24	25	27	29
Wisconsin..	**33**	**34**	**28**	**28**	**29**	**26**	**25**	**25**	**26**	**27**	**28**	**31**
Minnesota	31	32	29	27	27	27	24	24	25	26	28	30
Iowa	29	30	27	26	26	25	24	24	24	25	27	29
United States.	28.1	29.0	27.2	26.1	26.0	24.8	23.4	23.7	24.2	25.6	26.9	28.8

FROM THE YEARBOOK OF THE U. S. DEPARTMENT OF AGRICULTURE FOR 1913

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Illinois.....	28	27	27	27	26	25	25	25	26	27	27	29
Michigan	30	29	28	29	28	26	24	25	25	28	28	30
Wisconsin..	**32**	**32**	**32**	**31**	**30**	**27**	**27**	**26**	**27**	**30**	**30**	**31**
Minnesota	31	30	30	30	29	28	25	25	26	28	29	31
Iowa.....	29	28	28	29	28	26	25	25	26	27	28	29
United States.	28.4	27.6	27.5	27.6	27.0	25.5	24.7	24.9	25.9	27.5	28.2	29.2

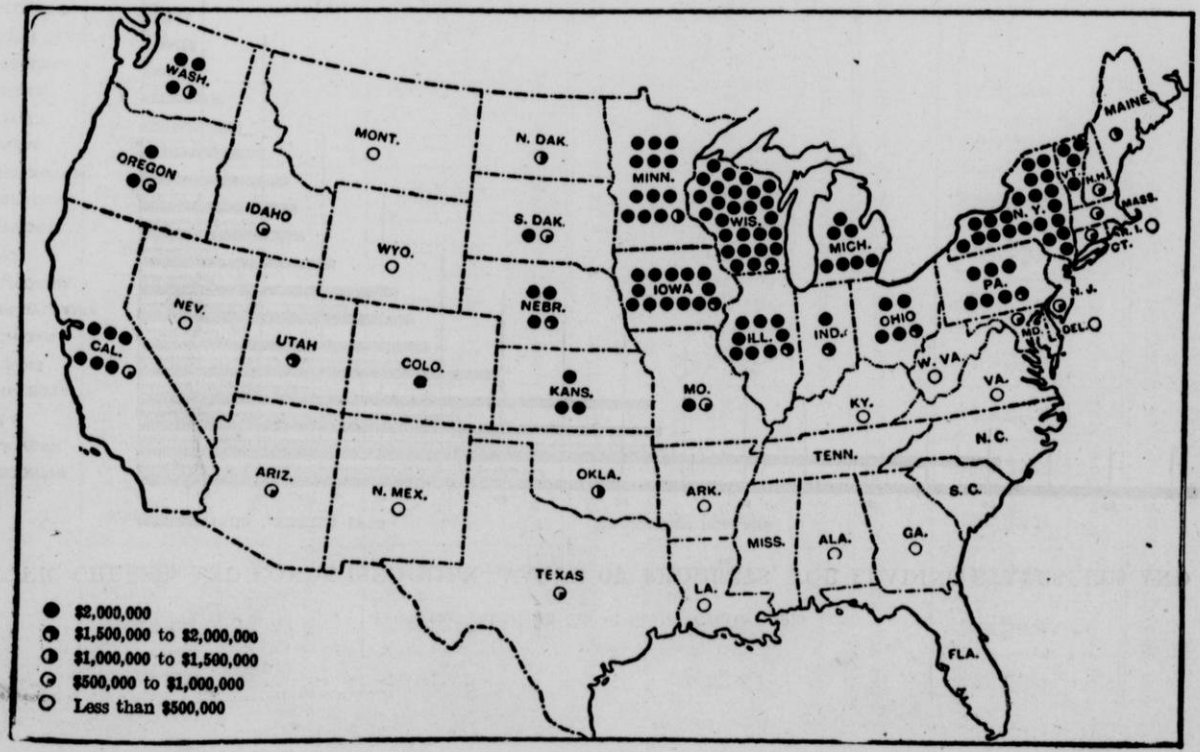
From the Thirteenth United States Census: 1910

BUTTER, CHEESE, AND CONDENSED MILK—VALUE OF PRODUCTS, FOR LEADING STATES: 1909 AND 1899.



From the Thirteenth United States Census: 1910

BUTTER, CHEESE, AND CONDENSED MILK—VALUE OF PRODUCTS, BY STATES: 1909.



ESTIMATED VALUE OF WISCONSIN DAIRY PRODUCTS FOR THE YEAR 1913.

	Pounds	Value
Creamery butter	110,751,073	$31,010,300
Farm-made butter	22,935,469	5,733,867
Factory-made cheese	189,524,029	28,428,600
Farm-made cheese	667,720	101,659
Condensed milk	39,854,029	6,845,706
Milk other than that furnished cheese factories, creameries and condensaries	.....	9,807,000
Estimated market cream including that used for ice cream manufacture	.....	3,500,000
Estimated value of milk and cream shipped to Chicago, St. Paul, Minneapolis, Dubuque, and other points outside of Wisconsin	.....	2,854,500
Skim-milk	.....	9,058,107
Whey	.....	2,738,761
Total		**$100,078,500**

The foregoing figures were obtained as follows: For the number of pounds of creamery butter, the number of pounds reported in the Thirteenth U. S. Census, based upon the year 1909, was increased by one-half the average annual percentage of increase of the years 1905 to 1909 inclusive, and the value of this butter was estimated at the average price of Wisconsin butter sold during the years 1910, 1911, 1912 and 1913, as reported in the Yearbook of the Department of Agriculture, Washington, D. C., and as elsewhere published in this report.

For the number of pounds of farm-made butter, the number reported in the Thirteenth U. S. Census for the year 1909 was decreased by the average annual percentage of decrease for the years 1905 to 1909 inclusive. The value of this butter was estimated at 25 cents per pound.

For the number of pounds of factory-made cheese, the number of pounds reported in the Thirteenth U. S. Census based upon the year 1909 was increased by the average annual percentage of increase for the years 1905 to 1909 inclusive and the value of this cheese was estimated at 15 cents a pound.

For the number of pounds of farm-made cheese, the number reported in the Thirteenth U. S. Census for the year 1909 was decreased by the average annual percentage of decrease for the years 1905 to 1909 inclusive. The value of this cheese was estimated at 15 cents a pound.

The figures for the amount and value of condensed milk were obtained by increasing the amount and value of the same as re-

ported in the biennial report of the dairy and food commissioner for 1911–12 in the ratio which the number of condensaries now in operation bears to the number of condensaries in operation at the time the figures given in that report were obtained from the condensaries.

The amount of milk produced on the farms and not sold to creameries, cheese factories and condensaries was estimated as the amount used for family consumption by the total population of the state. In estimating this amount, the data given by Major Alvord, former chief of the dairy division of the bureau of animal industry, U. S. Department of Agriculture, derived from the census of 1909, have been used. Major Alvord found that the average annual consumption of milk per capita was 290.1 pounds.

The estimate of the value of market cream, including that used for ice cream manufacture, is based upon the observation of members of the dairy and food department and the amount of cream sold in 1909 as reported in the Thirteenth U. S. Census.

The value of milk and cream shipped to Chicago, St. Paul, Minneapolis, Dubuque and other points outside of Wisconsin was estimated from data obtained by representatives of the department in their field work.

In the estimate made of the value of skim milk, the Gurler method, recommended by Professor W. A. Henry, as the most reliable was used and is as follows: The value of skim milk when fed with corn is one-half as much per 100 pounds as shelled corn is per bushel and the value of whey is one-half of skim milk. The lowest Chicago cash price per bushel for No. 2 corn as reported in the Yearbook of the U. S. Department of Agriculture was 64 cents. In determining the amount of skim milk, it is estimated that one pound of butter represents 20 pounds of skim milk. In determining the amount of whey it is estimated that one pound of cheese represents nine pounds of whey.

"What of the Morrow"

In the first biennial report of the dairy and food commissioner of Wisconsin, 1890, the following statement is made under the subject "Cheese":

"Sixty million pounds of cheese is annually made in this state. There is not an article of commerce that requires greater skill in handling in order to secure favorable markets. No industry has been so perverted. No business exists that has been so basely manipulated, and no article of food has been so degraded by counterfeiters. In no

time has the honest manufacturer met with such dishonest competition. Matters have come to such a pass that the genuine article is under the ban of suspicion at home and abroad."

In striking contrast with the foregoing conditions in 1890 are the following statements taken from the biennial report of the dairy and food commissioner for 1911–12:

"In 1909, at the National Dairy Show in Milwaukee, Wisconsin cheese won first, second, and third premiums in all classes exhibited.

In 1910, at the National Dairy Show in Chicago, Wisconsin cheese won first, second, and third premiums in all classes exhibited.

In 1911, at the National Dairy Show in Chicago, Wisconsin American cheese won first and second; Wisconsin Swiss cheese won first, second, and third, and Wisconsin brick cheese won first and second.

In 1911, at the International Dairy Show in Milwaukee, Wisconsin cheese won first, second, and third premiums in all classes exhibited.

In 1911, at the nineteenth annual session of the Wisconsin Cheese Makers' Association at Milwaukee, Wisconsin cheese won first, second, and third premiums in all classes exhibited, six other states competing.

In 1912, at the twentieth annual session of the Wisconsin Cheese Makers' Association at Milwaukee, with five states competing, Wisconsin American cheddar cheese won first, second, and third premiums in all four classes; Wisconsin brick cheese won first, second, and third premiums; Wisconsin Swiss cheese won first, second, and third premiums; and Wisconsin Limburger cheese won first, second, and third premiums."

With 190,000,000 pounds of cheese manufactured in 1913, Wisconsin has reached the pinnacle where confessedly she excels all other states in the quality, quantity, and variety of her cheese products. This climax has not been reached through mere chance. The great improvements shown in the conditions by the report of the dairy and food commissioner for 1911–12, as compared with the conditions as described in 1890, are the result of a number of coöperative forces. Chief among the efforts which have resulted in this magnificent accomplishment has been the persistent striving for the highest excellence.

But what of the morrow? They who do not advance necessarily recede. Will Wisconsin cheese makers, factory owners, and patrons continue to strive for the highest excellence in cheese products, or will they repeat the folly of the filled cheese fraud by various efforts at deception whereby the quality of Wisconsin cheese is lowered and infinite harm or ruin to the industry results?

Some time ago I was invited to dine with one of the well-to-do families of the city of Madison. The head of the family is a professional man. The family comprises eight members. The

cheese that was served was of the highest excellence. Being well acquainted with the family and owing probably to my business as dairy and food commissioner, I made bold to inquire where the cheese was manufactured. I learned that it was Wisconsin cheese and as before stated of prime quality. I commended the cheese in very high terms, whereat my hostess remarked that she observed when she bought this particular make of cheese that her cheese bill was large; whereas when she bought other kinds of cheese that were of poor flavor and of poor quality, her cheese bill was very small and she had to resort to various devices to get the poor cheese consumed. I said to her then that her remark had furnished me with a theme to present in my address at the Wisconsin Cheese Makers' meeting. What is the lesson? It is this. As the quality of cheese improves there is a greatly increased demand for the product. Good cheese is in demand. People want it. But poor cheese, like a bad egg, is not wanted. People will not buy it. They will not eat it. What is true of the Madison family to which I have referred is true of thousands upon thousands of families all over this broad country of ours.

In a public address upon the general theme, "Improving Canadian Agriculture" by that remarkable man, Dr. James W. Robertson, of Canada, occurred the following statement:

"Last year the farms of Canada produced field crops worth $565,000,000. That amount can be doubled in ten years if all farmers will adopt the systems and methods followed on the best 10% of the farms examined last year by the Commission on Conservation."

Applying Dr. Robertson's thought and reasoning on Canadian agriculture to the Wisconsin cheese industry, I assert that the value of the yearly production of Wisconsin cheese can be doubled in ten years if all the cheese makers, managers and patrons will adopt and follow the systems and methods practiced by the best ten per cent of the present Wisconsin cheese factories. Think of the significance of this. The best estimate on Wisconsin factory and farm-made cheese for the year 1913 is 190,000,000 pounds, valued at $28,500,000. If the aggregate value of Wisconsin cheese were to be doubled in a period of ten years, the value of the yearly product would be $57,000,000.

If all the cheese makers of the state would adopt the methods followed by the best ten per cent of the Wisconsin cheese makers, every cheese factory in the state would be scrupulously clean;

the vats, the pipes, every piece of apparatus, the premises and everything connected with the factory would be scrupulously sanitary. Every cheese factory door, window, and intake would be screened as a protection from flies. The best methods of manufacture would be employed every day in the manufacture of cheese; and only fresh, clean, sanitary milk would be received and manufactured into cheese.

If all the owners or managers of Wisconsin cheese factories would adopt the systems and methods followed by the best ten per cent of the owners or managers of Wisconsin cheese factories to-day, our cheese factories would be so constructed or so remodeled that they could be kept clean and sanitary; suitable provisions would be made in every instance for adequate drainage; a pure water supply would be secured; modern apparatus would be provided; every appointment of the factory would be worthy of this great industry of which it forms a part; and the receiving of milk other than that which is fresh, clean and sanitary would not be tolerated.

If all the 85,000 patrons of Wisconsin cheese factories were to adopt and follow the systems and methods of the best ten per cent of the patrons of Wisconsin cheese factories, only fresh and sanitary milk would be offered at those factories. No watered milk would be offered; no skimmed milk would be offered; no milk from diseased cows would be offered. The only milk that would be offered to those factories would be the clean, fresh milk drawn from clean cows, kept in clean, well-lighted barns, cared for by clean men who use only clean utensils, and the night's milk designed for the production of American types of cheese would be quickly cooled to a temperature from 60 to 50 degrees and kept at that temperature until delivered at the factory.

If all the patrons of Wisconsin cheese factories would adopt and follow the systems and methods followed by the best ten per cent of the patrons of Wisconsin cheese factories, there would be kept on these farms cows of a distinctly dairy type that would produce economically the largest volume of excellent milk from the feed consumed; there would be adopted and practiced an intelligent system of rotation of crops as well as care and feeding of the stock; the greatest care would be taken in the selection of seed for use on those farms; the presence of weeds would be reduced to a minimum and an intelligent system of cultivation would prevail.

If all the buyers of Wisconsin cheese would adopt and follow the methods practiced by the best ten per cent of those buyers, the producers of cheese would be paid strictly upon the basis of the quality of the product. The efforts of the cheese makers and of the patrons to produce cheese of the highest quality would receive their just reward. They would receive what their cheese is worth, no more, no less.

The conditions which I have thus described are the conditions which to-day prevail in the best ten per cent of the cheese factories of Wisconsin. The cheese produced under such conditions scores uniformly above 95%. Can it be doubted that if such conditions prevail in every cheese factory of the state, within ten years the value of Wisconsin cheese would be doubled?

In explaining how the Canadian farmers might improve Canadian agriculture to the extent proposed by Dr. Robertson, among other remarks he offered the following:

"I was in Denmark about twenty-six years ago and I learned that the Danes had picked out the best farms all over the kingdom and during many years had given grants to hundreds of young farmers to go and live and work and learn on these farms. The young farmers brought back to their own locality not simply a knowledge of principles on which they could pass an examination, but a working knowledge of the systems and methods practiced. All Denmark was seeded down to the practice of the best farmers. This was worth while. No farmer to-day in Denmark feels he has done his duty if he discovers a better method of raising a crop or feeding a cow until he gets all the others to adopt the same method. This is real coöperation—everyone chipping into the common basket whatever he has gained of knowledge or ability that may serve the locality. What are some of the results in Denmark? From being about the poorest nation in Europe Denmark is now one of the most prosperous in the world of those whose main industry is farming. It has become so in less than my lifetime by these methods I am indicating. What can we not accomplish if we follow similar methods?"

The Wisconsin cheese industry needs to have all Wisconsin seeded down to the practice of the best cheese factories and the best of their patrons; and this is not impossible of accomplishment. I believe that Dr. Robertson's argument for coöperation among the Canadian farmers as a means for accomplishing the end he had in mind is equally applicable to the various factors involved in the production of Wisconsin cheese. I raise the question whether or not the time is not at hand when instead of the extreme segregation of the cheese makers of the state in their association work and the dairymen of the state in their association work and the butter makers of the state in their

association work, there should not be more coöperation, more coming together of these respective interests.

Only a short time ago one of the food inspectors, on complaint of a citizen of the state, got possession of an unwholesome chicken that had been sold in the market. Everything indicated that it was a diseased chicken that had died from other cause than slaughter. All the members of a certain family except one had been made violently sick by the eating of a chicken that had been obtained from the same party. The one member of the family that was not taken sick had not partaken of the chicken. On investigation, we learned that the dealer from whom the chicken had been purchased had himself purchased it from a person whose business for a good many years had been the getting of chickens from various sources from all over a large territory and selling them for profit. He was questioned by the district attorney of the county and representatives of the dairy and food department. He resented the inquiries made of him, declaring that he could not be expected to take the time to see that each chicken he sold was all right. The district attorney told him that the law of the state as well as the law of honest dealing made it his duty to know that the articles he sold as human food were wholesome and otherwise lawful. He further told him that he thought a fine of $25 would have a tendency to impress upon him the necessity for him to know that what he sold for human food was wholesome and otherwise lawful. The fine was imposed and the lesson imparted.

This is but one of many similar incidents which the state dairy and food department encounters. Every cheese manufacturer and every patron of a cheese factory will promptly condemn such practice. But how about the patron of a cheese factory who will offer to a factory milk which is unclean and unsanitary; milk drawn from filthy cows kept in filthy barns; milk containing appreciable quantities of genuine stable and barnyard filth; and when his right to furnish such filthy milk for manufacture into cheese is questioned, resents such challenge as interference with his inalienable right to impose such vile stuff upon his fellow citizens?

How about the cheese manufacturer who will carelessly and heedlessly receive such milk and manufacture it into cheese? In what respect is either of these parties different from the man who sold the vile, unwholesome chicken?

The high standard which the Wisconsin cheese industry has reached indicates that the best cheese factory patrons spurn the offering of filthy milk to the factory and the best cheese makers and factory owners spurn the manufacture of such milk into cheese. But so long as there is one patron of a cheese factory or one cheese maker or cheese factory owner whose system and practice are not equal to the best, there still remains work to be done.

"Mark Ye Well Her Bulwarks".

Upon what do the nations of the earth depend in the construction of their battle ships for their own defense or for the mastery of the sea? Do they depend upon poor, rotten, or otherwise faulty or inferior material? Do they depend upon poor or indifferent wormankship? What consummate folly such a course of procedure or such reliance would be!

Soon after war was declared by the United States against Spain it was announced in the newspapers that the Spanish war fleet had set sail for American waters. Then disturbing questions arose in the minds of the people. Would the Spanish fleet be able to overcome all the resistance that could be offered by our own fleet and coast defenses, steam along our coast line and destroy our cities and dictate terms of peace? All depended upon the strength of the respective fleets, the material out of which they had been constructed, the skill in workmanship and the skill of the men who manned the vessels. This was a time when the entire nation stood almost breathless in suspense.

When the supreme test came it was found that the Spanish fleet was rotten, faulty, inferior, and that the superior material and workmanship and skill of our own navy quickly sent the rotten Spanish hulks to the bottom of the sea at Manila and on the coast of Cuba.

Precisely the same principles are applicable in the commercial warfare in the creamery butter market.

The word "Mark" is here used in the sense of *giving heed to.* The pronoun "her" is here intended to apply to the Wisconsin creamery butter industry. As here used the "bulwark" means that which gives security or defense. Hence, it means a protection, a shield, a fortification. The term implies warfare. In the sense in which it is here used it implies commercial warfare.

The commercial warfare here implied is more of the nature of ancient than of modern warfare. In ancient times wars were waged as a means of gaining wealth. The conquering host took as the "spoils of war" not only the estates of the conquered,—the lands, the flocks, and the herds, the gold and the silver,—but they made captives of the conquered. The conquerers became the taskmasters of the conquered.

The commercial warfare waged against the creamery butter industry is for the purpose of gaining as the spoils of war the butter market. And this warfare is real. It is no mimic affair.

No one will for a moment question the statement that one of the powerful forces now carrying on a gigantic warfare against the creamery butter industry in the market is oleomargarine. Its army is always under marching orders and never halts. It is well trained. Its soldiers shoot to kill. They build the strongest barricades that the most skillful and cunning ingenuity can devise and money construct. They send their scouts and spies into the camps of the butter industry clothed in the garb of the butter industry. They employ generals of the greatest skill, subtlety, and strategy to select the battlefields and set their forces in battle array. Their movements are at all times most skillfully screened. So perfect is the organization that the forces can be mobilized on a moment's notice.

At the present time there is a bill pending in congress which under the plausible pretext of seeking to lower the high cost of living seeks to change the name of oleomargarine,—a name long associated with deception,—to the name margarin, thus aiding the product to mask its identity and former history and give it a new name to conjure with; seeks to repeal the present national law that gives to any state into which oleomargarine is shipped, power to regulate its sale the same as though it had been manufactured in that state; seeks to provide for its sale in specially prescribed original packages, thus bringing its sale in such packages under the national jurisdiction and excluding the states from the power to regulate such sales; and seeks to permit a counterfeit article to masquerade in the garb of genuine butter. With skillful generalship this charge of the oleomargarine forces, adopting the practice in all great battles, closely follows the cannonading which has been brought to bear for the past several years by the press, by circulars and by various civic, social and

industrial organizations against the reputation and acquired market rights of creamery butter.

What bulwarks has the creamery butter industry established as her defense, as a strong fortification, against the assaults of these gigantic forces? Is it a strong bulwark against such attacks that creamery butter is in whole or in part manufactured from impure or tainted or dirty or stale or overripe cream, in unclean or unsanitary factories, by means of careless or unskilled workmen; or manufactured from any cream short of the cleanest and purest and freshest and by means of the most careful, skillful and reliable workmanship? If every pound of butter seeking a market were manufactured from clean, fresh, sanitary cream in clean, sanitary creameries by skillful and reliable butter makers, does anyone doubt that such a condition of affairs would constitute the strongest bulwark against the attacks of the oleomargarine host? Does any one believe that such butter could be despoiled of its market by oleomargarine? While not claiming it to be the only defense, I firmly believe it to be the strongest defense. The establishment of this defense, this bulwark, is not a work alone for congress or for the legislature, but for the people engaged in the creamery butter industry. Choice creamery butter produced by means of skilled and reliable workmanship from pure, fresh, clean, sanitary cream is a product so delicious, so responding to the taste and desire of the consumer, that there will always be a demand for such an article at the highest prices. The forces of oleomargarine can never prevail against the demand for such an article.

On the contrary, creamery butter made under unclean and unsanitary conditions, from old, stale, tainted, unclean and bad-flavored cream, created a strong aversion in the consumer. He dislikes the article and seeks some other. This is destructive of the market. It seems to me difficult to exaggerate this phase of the question. Such butter not only constitutes a defense in the commercial strife in the market, but is itself a weakening and demoralizing force.

In the fierce competition of the market, the well-recognized law of supply and demand is to be reckoned with. What is demand? A desire for anything on the part of people who have the money to pay for it creates demand. Has the creamery butter industry as a whole sufficiently recognized the necessity of

producing butter of such choice quality as to cause it to be desired because of its excellence? J. H. Hale, the peach king of America, upon the occasion of his honorary recognition by the University of Wisconsin, made the following statement: "To be successful in demanding high prices, an association of producers must establish a high standard for their products and must sell them exactly as represented." I know of no one better qualified to speak from preëminently successful experience on this subject than Mr. Hale.

Since the new tariff act which reduced the tariff on butter has gone into effect, foreign invaders of the creamery butter market of this country have already appeared in our market in battle array. These invaders have come from New Zealand, from Australia, from Siberia, and from the renowned butter-producing country, Denmark. What is to be the result of this invasion? It is now too early to foretell with certainty. From what I have learned in the dairy press and in conversation with those who have personal knowledge of the characteristics of these foreign invaders, there seems little ground to fear that the best grade of American creamery butter can be dispossessed of its market by them, but the concensus of opinion seems to be clear and positive that to the extent that these foreign butters are superior to our own make, the latter will be forced to improve its quality or surrender its market. Will anyone deny that under such conditions the creamery butter industry should mark well her bulwarks, give heed to her defenses? In the presence of such militant forces striving for the market, will it prove a safe bulwark for those creameries which are producing inferior grades of butter to say "I know the butter produced by this creamery is of an inferior grade, but that is because the cream produced by the patrons is old, very sour, unsanitary, and of bad flavor, but if we do not take this stuff some neighboring creamery or centralizer will."

Does that constitute a safe defense against the powerful contenders for the market? When the purchasing and consuming public repudiates these inferior grades of butter, whether produced by centralizers, coöperative or individual creameries, because the butter is displeasing and objectionable, and purchases instead the newcomers' or the old counterfeit of butter, does the reply that the patrons of our creameries do not furnish sufficient-

ly clean, fresh, sanitary cream to produce high grade butter furnish a safe bulwark?

Time was when market conditions were such that there was only a slight difference between the price paid for extras and that paid for the lower grades; but if we are to credit those who are in a position to know and if we are to credit our own observing and reasoning powers, those times have passed; and when the market reports show such a great difference between extras and lower grades, it is not difficult to believe that those times have indeed passed. The dairy press has been sounding the alarm and urging the creamery butter industry to establish safe bulwarks. Wise and fortunate indeed are the creameries and their patrons that in the past have been marking well their bulwarks; that have insisted on having such raw material and have so manufactured it as to produce butter justly classed as "extra."

Not only are they safe against competition but are indeed likely to secure an increased price for their product. Well may they feel that verily they have come to the Kingdom for such a time as this when there is discrimination in the market as to the quality of butter. Though such creameries are built in the woods, the butter buyers will make a beaten path to their, doors to purchase their butter and at the highest prices.

There are other insidious enemies of the creamery butter industry within her own ranks which I have not specifically named as such. Among those enemies are the producers of old, stale, unclean, and unsanitary cream, and those who accept and manufacture such stuff into so-called butter and those who handle cream in unclean and unsanitary creameries with unclean and unsanitary utensils. They seem now rushing on to their own destruction. They have not been marking well their bulwarks.

This is a time for plain speaking. It is no time for condoning the follies of those who by the practice of follies or what is worse have brought too large a portion of the industry into such a defenseless condition that the speedy establishment of safe bulwarks is an imperative need.

There are other needed bulwarks to which every creamery should take heed. Not only should the cream that is to be made into butter be of the right quality, but that cream should be accurately weighed and tested and a correct record kept of the same. This requires accurate and sensitive scales and correctly

graduated glassware of the correct type and skill in the use of these appliances. Losses and leaks of every kind should be watched, noted, and checked. The very best skill should be employed in the making of the butter. Right temperatures should be maintained. Accurate, reliable and intelligible reports should be made to the patrons. The entire business should be so conducted as to gain and hold the confidence of the patrons and of the purchasers and consumers of the manufactured product. The man who overloads his butter with water or with starch and water, or with milk powder, certainly cannot be said to be giving due heed to the bulwarks of the industry.

Former State Superintendent Graham once told me of an incident that occurred in the city of Oshkosh. Charles Felker was the city superintendent of schools. One of the regulations was that penmanship should be taught throughout the year. When winter came certain teachers came to Superintendent Felker and said they were troubled with having the ink freeze and asked what they should do. His reply in each case was "Teach penmanship," and to all their other questions as to how they were to overcome the troubles which arose due to teaching penmanship in the winter, his one answer to each and all was "Teach penmanship."

At a time when the resumption of specie payment was the subject of much discussion and political agitation in this country, Horace Greeley made the laconic and much quoted remark: "The way to resume specie payment is to resume."

So, the way to establish bulwarks for the creamery butter industry is to establish bulwarks.

The management of any creamery can obtain just as good cream and manufacture just as good butter as it wants to. It determines for itself the quality of the cream it will accept and the quality of the butter it will produce.

When a young man, I taught school at Grand Rapids. At that time there was a pretty active Methodist minister there who held his Sunday school at half past nine. There were some who when he urged them to attend the Sunday school replied that it was held too early in the morning. To such people he would tell the following incident: There were two neighbors, A and B. A was very fond of hunting. He urged his neighbor B to go hunting with him. Neighbor B replied that he did not have time. To

this neighbor A responded: "If you liked to go hunting as well as I do you would find time." The application the minister made was that if a person really wanted to go to Sunday school, the time of holding the Sunday school would not prevent.

The creamery management that is sufficiently eager to secure raw material from which the best quality of butter can be manufactured will secure such material. In this as in other matters, where there is a will there is a way. The creamery management that wants to give heed to its bulwarks will give heed to its bulwarks.

The act of the creamery management in accepting unfit raw material is no less reprehensible than that of the patron who furnishes it. So long as there is a market for such material, just so long will such material be furnished. The creamery is the unit that determines the standard of the cream it will accept to manufacture into butter. If each creamery waits until every other creamery rejects unfit raw material, how long will it be before all unfit raw material is rejected?

At a meeting addressed by Mr. Larson, one of my assistants, of officers and patrons of a creamery, they were brought to a realization of their perilous condition owing to the poor quality of cream furnished and the consequent poor quality of the butter manufactured. He advised the creamery management to fix as the standard for the cream to be received such cream only as would produce high class butter; and he advised the patrons in their own interest to reform their practice and meet the needs of the creamery in the production of high quality butter. When he was through the manager spoke. He stated that he was going home to improve the quality of cream which he furnished; that they had just elected him manager for the eighth year and that he then and there gave notice that regulations would be adopted and enforced that only such cream would be received as would produce high class butter; that however much such a course of action might reduce the output, the output would be of the highest quality. Others spoke and all in approval of the stand taken by the manager. They had begun to establish their bulwarks. What is especially needed to-day by that part of the creamery industry which is producing butter below the grade of extras is an awakening from lethargy and indifference, from the "Attitude of the Folded Hands," to a realization of impending danger.

CLEAN STABLES.

The following discussion is copied from pages 47–50 of the 34th annual report of the Wisconsin Dairymen's Association, showing former Governor Hoard's concept of the condition at that time as to the cleanliness of the "ordinary Wisconsin stable". It also shows what was being done by the dairy and food department to improve the unclean conditions depicted by former Governor Hoard.

Ex-Gov. Hoard: "It is impossible for any man to make clean milk in the ordinary Wisconsin stable. Impossible. In the ordinary average farm stable it is impossible to make clean milk, the cows plastered with manure, their sides and flanks, the milk specked with it every time when they are milked, and I do not think the average Wisconsin farmer really has an idea of what 'clean' means. I have talked with hundreds of such men; they will say, 'Why, my stable is clean.' 'Clean, how?' 'Why, I cleaned it this morning.' And I say, 'Are your cows clean?' 'Why, yes, as clean as Johnson's or Chris Olsen's,' mentioning all the time the fact that a neighbor had just as dirty cows as theirs, consequently they were clean. A man came into my stable one morning, looked at the cows, and stood a moment and said: 'How often do you wash these cows?' I said, 'They never were washed.' 'How often do you brush them?' 'They are not brushed.' 'But,' he said, 'they are clean.' 'I know it.' 'Why, I do not see any manure stains on the white flanks of any of these cows, how do they keep so?' 'Well,' I said, 'it is the form and fashion of the stable; the cows are obliged to be clean, and then we try to keep them clean, and then the stable is ventilated.' And he said, 'I noticed I could not smell any odor of stable in here.'

Commissioner Emery: "This subject of clean milk for the creameries and cheese factories and the village and city milk supplies of this state, in my judgment is the paramount issue to-day. And how to get this matter before the men who are producing this milk is an important topic. It is one I have given a great deal of consideration to and have had some practical experience in relation to it during the past year. I want to mention just one of the number of things we have been doing, and that we shall resume in the spring with a great deal of vigor, that we are now carrying on in the villages and cities of the state. For instance, in Milwaukee, and up in Green Bay, the entire forces are at work taking samples of milk. In Milwaukee they have 200 samples of yesterday and about 250 to-day, making about 450 in all, and these they are taking for the butter fat, testing them for that, to ascertain the fact whether they have been watered or skimmed. These are very important matters. Well, will you think of it a moment, the comparative harmfulness of some clean water in the milk, compared with cow dung! Now, there is another test that we are making. We have four men, two sets of men, going into the dairies of the villages and cities of the state that are taking these samples of the milk; they have been doing this in factories so far as they could, they are now testing for the butter fat content for watering or skimming, and then they are applying the Wisconsin curd test to determine whether that milk has been produced under clean and sanitary

conditions. Now, the Wisconsin curd test reveals this fact, and while we may not bring these patrons in the cities and villages to see these grades, we are trying to do it and we will resume our work in the creameries and cheese factories in the spring and shall pursue them with a great deal of vigor and energy. Take these samples of milks and apply this curd test. Now, where the milk is clean, the kind of milk that Gov. Hoard is producing, it produces a curd in about six to eight hours; it is clean and velvety; we cut it open and smell it and it has an attractive odor, agreeable, you feel as if you want to eat some of it, there is no mistaking it. We follow this up in scores of barns and up to the present time we have made no mistakes in our judgment as to the condition in which the milk was produced. Then there is another kind of curd that is produced that has gas holes, pinholes, the gas holes look like the little holes in dough which is kneaded, and produced by the same reasons, it is the gas expanding that produces these little round openings. Now, that gas is produced by the gas forming bacteria that thrive in filth, and where the milk is produced under those filthy conditions, and where it is not properly cooled and cared for; or if it is kept too long. Sometimes it happens that it is kept over until the milk gets into this condition, then we get these curds. Now, if we cannot produce the best quality of butter or cheese from such milk, is it suitable for children and invalids?

What we are going to do and continue to do is to bring these patrons, as far as we can, face to face with these curds. We are going to make these curds in all these cheese factories and creameries as far as we can, and we will ask the patrons to come in and see the milk that they are offering, and the curds that are produced from it, and to see those that are produced from their neighbors' milk and see the difference. You may tell a man that his milk is not good, he is angry, and he says, 'I have got as good milk as anybody, and if this cheese factory does not want my milk, I will go to somebody else.' Now, when he sees that curd and sees what his milk has produced, right beside his neighbor's that has a clean, firm, velvety curd, that has an odor that he can recognize as agreeable, and in every way right, and then takes the milk from his own herd and then gets his nose to it, it is so vile he turns away in disgust, then he will be convinced that his milk is not so good; and that is what we are trying to bring hundreds of thousands of patrons up against during the next year.

This question of the production of clean milk is the most important question that confronts us in this state today. If the cow is not clean, how can the milk be clean? We have got to study conditions for getting these cows clean, but first we have got to convince them that their milk is not clean, before we can arouse men to activity."

Realizing that for the production of a clean and safe article of market milk or of cheese or butter or condensed milk, clean, well-lighted stables and clean cows are indispensable, an unceasing, vigorous campaigning has been waged by the dairy and food commission against the uncleanliness and darkness of the "ordinary Wisconsin stable" of which the following is a pen picture: A building containing not a single window and consequently without light; ceiling festooned with dusty cobwebs; the only floor is the earth with no covering, not cleanable and containing sags in which liquid manure stands continually; or, a saturated, leaky plank floor, hiding a big mass of filth underneath, or lit-

erally floating in liquid manure which spurts up as one walks across; accumulations of manure over the floor and in the stalls, the latter so arranged that cows are compelled to lie in the filth, thick coats of which they carry all the winter; no provision for ventilation, hence the air is so charged with impurities and strong odors as to be stifling; cows compelled to breathe this air and milk on its way from the udder to the pail travels through this vile air which adheres to the streams of milk and is carried beneath the surface of the milk in the pail and rises in minute bubbles. The milker sits between two cows with filth beneath him, behind him, in front of him and above him, and manipulates a filthy surface above an uncovered milk pail.

This unrelenting campaign has been carried on against unclean stables by each assistant and by each dairy inspector by means of individual inspection of stables, by addressing meetings of patrons of cheese factories and creameries and dairy meetings, and also by approximately 1000 addresses at farmers' institutes and dairy conventions and by prosecutions in the most flagrant cases. To such an extent has this awakening been carried on that large establishments for manufacturing and installing sanitary appliances in dairy barns have sprung into existence in recent years and are now carrying on a very extensive business in installing such appliances.

Resulting from all this thousands of barns may now be seen all over the state in which clean milk can be produced and is being produced, barns of which the following is truthfully descriptive: On two or more sides of the barn a sufficient number of large windows to admit light; ceiling and walls whitewashed; a good floor of cement or other suitable material containing gutters; stalls so constructed that they furnish clean beds for the cows; manure all removed from the barn at least once daily; suitable ventilators carry out the impure air replacing it with fresh air; cows sleek and clean; no disagreeable odors; barn has a pleasing, healthful appearance, in every way suitable not only for shelter but for a food factory as the dairy barn of to-day may properly be designated.

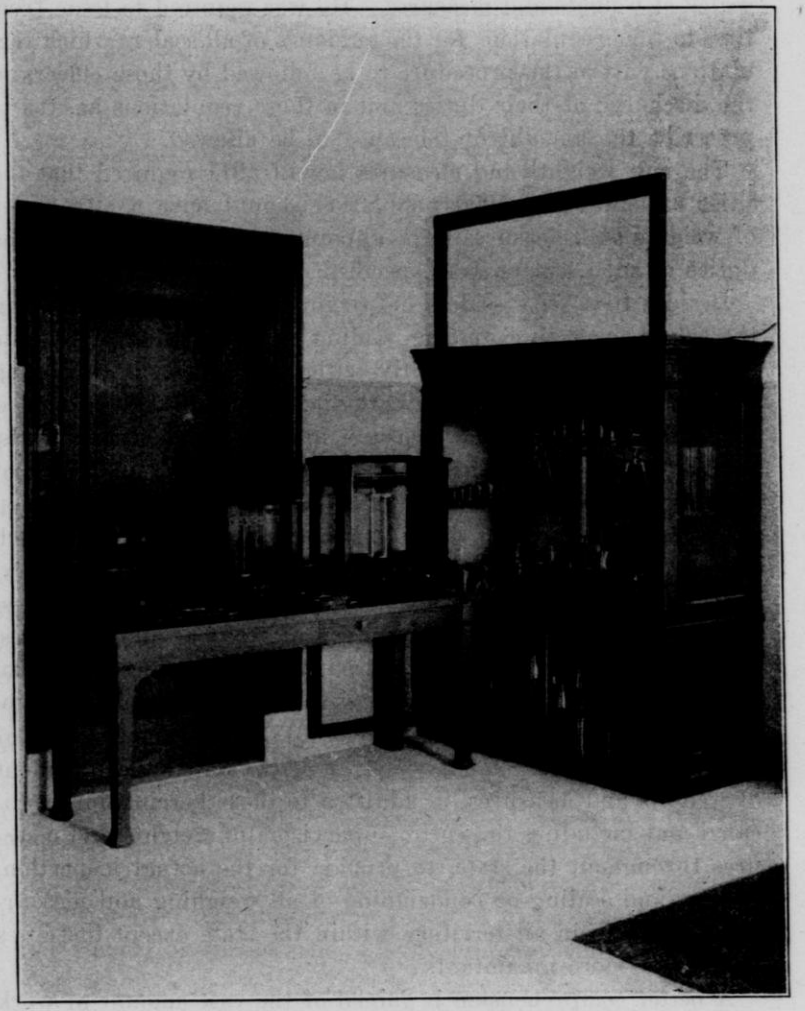
WEIGHTS AND MEASURES.

In 1911 the message of Governor McGovern to the legislature contained the following:

"Investigations recently conducted in a number of the larger cities of the state show that nearly half the scales used in weighing ordinary merchandise were wrong, in practically every instance giving short weight, while of the measures tested over one-fifth were condemned for like reason. The trouble with the present law is that responsibility for its enforcement is divided among a great many public officials and its administration is so hampered by defective provisions that little or nothing can be accomplished under it. For example, it contains the provision that, in order to justify conviction, the state must show that the person prosecuted *intended* to commit a fraud. Of course, this cannot be satisfactorily shown in one case in a hundred of underweighing or short measuring. An effective weights and measures law is needed, which, when impartially enforced will save the people many millions of dollars each year now lost in short weights and measures. Such frauds are especially to be condemned as the injury thereby perpetrated naturally falls most heavily on poor people who buy frequently in small quantities, precisely the class of persons who can least afford to be swindled in this way."

Pursuant to the recommendation of Governor McGovern to the legislature of 1911, that legislature made radical changes in the weights and measures law of Wisconsin.

It made the dairy and food commissioner *ex officio* state superintendent of weights and measures and placed upon him as state superintendent of weights and measures numerous duties and responsibilities. Among these he was required to have the custody of the state standards adopted by section 1658 of the statutes and to correct the standards of the several cities as often as once in five years. He was required to have general supervision of the weights and measures and weighing and measuring devices of the state and in use in the state and upon the request of any citizen to test or calibrate weights, measures, weighing or measuring devices, and the apparatus used as standards in the state. He was required by himself or by his inspectors at least once annually to test all scales, weights, and measures used in checking the receipt or disbursement of supplies in every institution under the jurisdiction of the state board of control. He was required himself or by his inspectors at least once in two years to visit the various cities of the state to inspect the work of the local sealers and in the performance of such duties he or



Corner in office of weights and measures, balances and state standards.

his inspectors by his direction might inspect the weights, measures, balances or any weighing or measuring appliance of any person, firm, or corporation with the same powers as the local sealer of weights and measures. He was required to issue from time to time regulations for the guidance of all sealers which regulations govern the procedure to be followed by those officers in the discharge of their duties and in those regulations he was to prescribe the amount of tolerance to be allowed.

The new weights and measures law of 1911 required that the cities of more than 5000 population should have a city sealer of weights and measures to be appointed by the mayor, and the duties of such sealers were specified.

Besides these city sealers of weights and measures for doing the actual inspecting, testing, sealing or condemning of weights and measures in their respective cities, and otherwise enforcing the weights and measures law, the legislature of 1911 provided for sealers of weights and measures in the state at large; that is, for the territory outside of these cities, the chief inspector of weights and measures appointed under subsection 1 of section 1659 and such assistant dairy and food commissioners and such cheese factory, dairy and food inspectors, and such creamery, dairy and food inspectors, as might from time to time be so designated by the state superintendent of weights and measures, should act *ex officio* as sealers of weights and measures with like authority, powers and duties as prescribed for city sealers in subsections 2 to 4, inclusive, of section 1661. It became the duty of the dairy and food commissioner, *ex officio* state superintendent of weights and measures, in addition to those hereinbefore indicated and including the entire supervision of weights and measures throughout the state, to provide for the actual inspection, testing, and sealing or condemning of all weighing and measuring appliances in all territory within the state except the cities of 5000 or more inhabitants.

A better comprehension is gained of the vast amount of work thus laid upon the dairy and food department by the legislature of 1911, when it is stated that the population of the state, exclusive of that in cities of more than 5000 inhabitants, in which territory the state department is required to do all the work of inspecting, testing, sealing, etc., in addition to the general supervision of the cities indicated, is one and two-thirds times the population of the cities of 5000 or more inhabitants. That is to say,

by the weights and measures law of 1911, not taking into consideration the added burdens due to the greater distances to be traveled by the state sealers of weights and measures than by the city sealers, and basing the amount of work on the ratio of population, the legislature of Wisconsin laid upon the dairy and food department one and two thirds times the amount of work which it provided should be done by the sealers of weights and measures in thirty-six cities, each of which cities was required to have at least one sealer.

At the time the weights and measures work was put upon the dairy and food department, Wisconsin had a total of 3048 cheese factories, creameries and condensaries. Illinois had 306; Iowa, 503; Michigan, 531; Minnesota, 927. This shows that the dairy inspection in Wisconsin at that time covered 781 more cheese factories, creameries and condensaries than were covered by the dairy and food departments of all these four bordering states,—Illinois, Iowa, Michigan and Minnesota. That there were 150,000 dairies in the state that sold dairy products of some kind is a conservative estimate.

When it is recalled that the law requires the dairy and food commissioner personally or by his assistants or inspectors to inspect any milk, butter, cheese, lard, syrup, coffee, tea, or other article of food, drink, condiment, or drug which he may suspect or have reason to believe impure, unhealthful, misbranded, adulterated, counterfeit, or in anyway unlawful, offered for sale, where produced or in any of the thousands of groceries, general stores, meat markets, drug stores, and places where beverages of various kinds are sold, it becomes apparent that the task required of the dairy and food department was Herculean.

By the terms of the statute, the creamery or cheese factory, dairy and food inspectors were required to be expert creamery buter makers or cheese makers, skilled in the technical work of cheese factories or creameries, competent judges of creamery or cheese factory products, and versed in modern scientific and practical dairy husbandry. A description of the technical work of these inspectors, having been given in the biennial report for 1911-12, will not be repeated here. A somewhat cumbersome equipment is required for dairy, creamery, and cheese factory inspection. For the work of the dairy and food commission at the time the weights and measures work was added the law had

provided 23 persons, including the dairy and food commissioner. For the additional work, due to the new weights and measures law, this number was increased by only seven by the legislature of 1911.

The new weights and measures law making the dairy and food commissioner *ex officio* state superintendent of weights and measures became effective July 7, 1911. Outside of a few of the larger cities of the state, no one was familiar with weights and measures work. Practically nothing had been done in the state in the testing and sealing of weights and measures except in two or three cities.

The problem was akin to blazing a path through an unexplored forest or piloting a ship over an uncharted sea. The law itself possessed many ambiguities and complexities. We had to learn what was to be done, how to do it, and what appliances were required and how to use them. The field work was to be done by dairy and food inspectors already in the dairy and food department and by new ones to be selected, all without previous knowledge or experience in this line of work. Not the least among the difficulties was the adjusting of the weights and measures department to the dairy and food department without either temporarily or permanently lessening the efficiency of the latter. Under such conditions it is obvious that the plans at first adopted must be of a tentative character to be changed as experience should disclose the need.

The law made it a duty of sealers of weights and measures to inspect, test, try, and ascertain if they are correct all weights, scales, beams, measures of every kind, instruments or mechanical devices for measurement, and tools, appliances or accessories connected with any or all such instruments or measurements employed in determining the size, quantity, extent, area, or measurement of commodities, things, produce, articles for distribution or consumption, offered or submitted for sale, hire or award; and made it a misdemeanor to use any weighing or measuring device to be used in the buying or selling of any commodity or thing which had not been sealed by a sealer of weights and measures within one year.

State sealers must be conversant with the great variety of scales and weights, of measures and measuring devices, used in factory, mill, and store, and they must be field trained by the

chief inspector of weights and measures or by inspectors who have been trained by him before being thus assigned to the performance of the responsibility and technical duties prescribed by law. Many patents have been taken out by manufacturers within the past twenty years on types of scales among which may

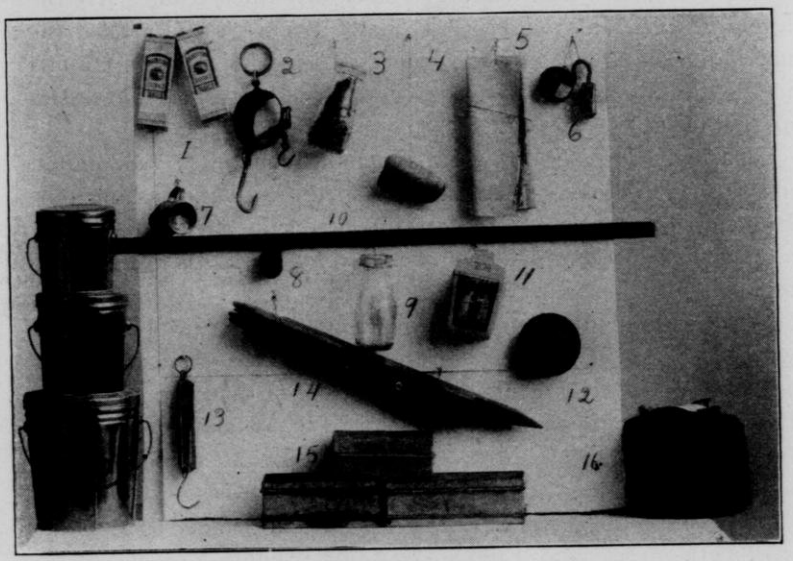


FIGURE 23.

(1) The two cartons are exactly the same size, but one contains a ten-cent and the other a fifteen-cent size bottle of lemon extract. (2) The "rag peddler's joy." Four different weights can be obtained on this scale, no one of which is correct. (3) This milk bottle contains over 400 confiscated prescription weights. (4) A stone hung in the cylinder of an oil pump displaced nearly one-half point of oil. (5) The heavy tinfoil and manila wrapping on a two pound print of Limburger cheese that had been weighed in with the cheese. By this trade custom the customer pays for tinfoil and manila paper at the retail price of the cheese. (6) Inaccurate home-made poise and weights taken from a farmer's scale. (7) Copper measure with the bottom hammered up, making the measure 7% short. (8) Cloth tape one inch short. (9) A milk bottle holding one-third quart. Milk bottles of this capacity are forbidden by law to prevent their being sold as pints for which they could readily be mistaken. (10) A yard stick with one end sawed off. (11) Paper ice cream bucket 15% short. (12) A poor job of repair work by an incompetent scale repairer. (13) Spring balance with a sliding front that can be manipulated by a rag peddler to his advantage. (14) Wooden back pieces or spreaders weighing four ounces each and weighed with the meat. (15) Ice cream molds nearly 10% short. (16) This is a ball of binder twine 20% short of the guaranteed length. The lard pails to the left weigh but three, five and ten pounds gross weight. The pails weigh respectively seven, eleven and sixteen ounces.

be enumerated a great variety of computing scales used by grocers and at meat markets; of automatic scales used in weighing flour, grain and coal; of dial attachments to platform scales for rapid weighing in condensaries and in freight and express offices. These scales are a complicated series of levers, springs, spindles, racks and pinions, pendulums, dashpots, bearings and

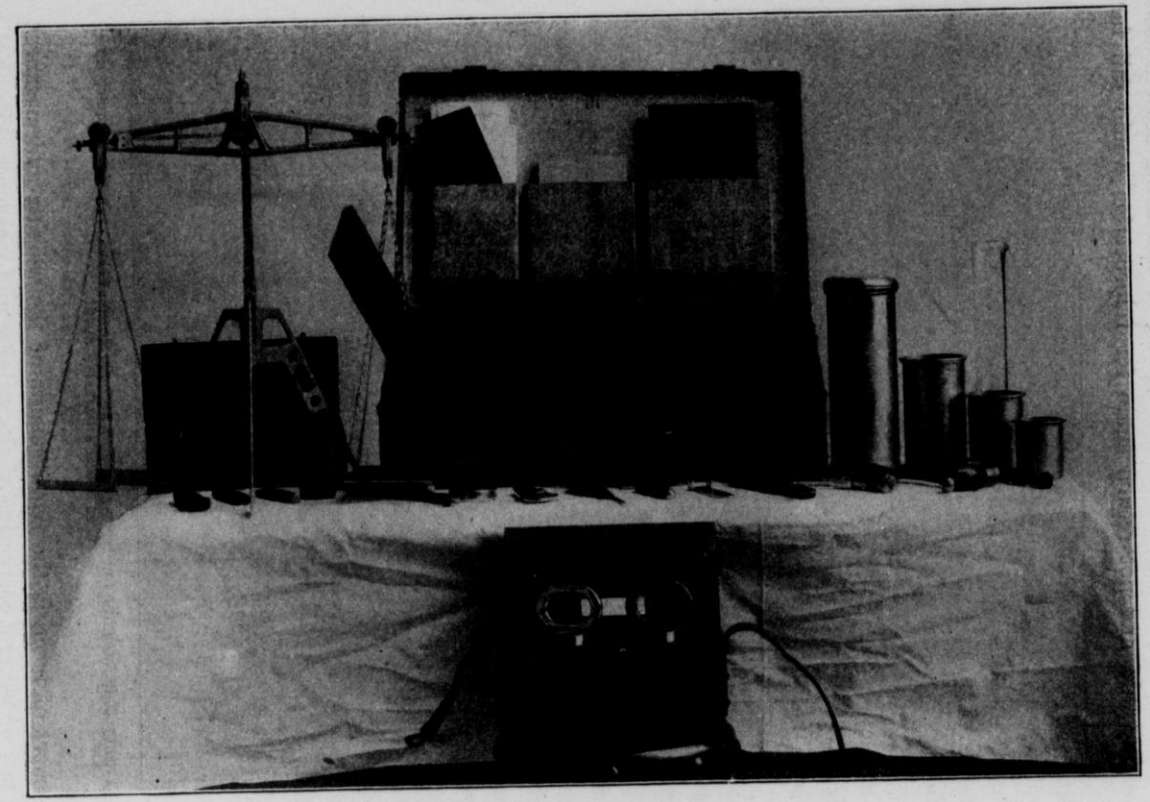
pivots, a defect in any one of which or in any part of which will cause an error in weighing. To be able to locate errors, the sealer must be familiar with scale construction. The sealer must also have a knowledge of the durability, tensile strength and hardness of materials used in scale construction. Are the bearings made of cast iron, tempered steel, or chilled iron? Are the levers of sufficient weight or properly trussed to withstand the maximum load placed on the scale? The sealer must be trained in these matters before being assigned to the responsible duties of this office.

Measuring devices are now replacing the quart and gallon measure for kerosene and gasoline, syrups and lubricating oils. Properly to inspect and ascertain defects in such pumps and measuring tanks requires technical knowledge and training. The testing of the delicate balances and weights in jewelry stores, creameries, and drug stores requires men skilled in the use of weights that record milligrams and grains in the place of pounds and tons. The testing of glass graduates in drug stores and of Babcock milk and cream test bottles used in creameries and cheese factories requires skill in the use of minims and cubic centimeters in place of the gill and the gallon. The sealer of weights and measures, to perform his duties efficiently must be familiar with both metric and English units of weights and measures; with the mathematical principles in ratio, with the laws of physics underlying levers and springs; have some knowledge of mechanics and a knowledge of the technical requirements of weights and measures laws.

For what is known as light inspection work, the inspector must have a portable outfit, weighing about 60 pounds, and for the so-called heavy weight inspection, that is, for testing wagon scales or other large platform scales, he must have an outfit of at least 1000 pounds, consisting of twenty 50-pound weights. Pictures of these outfits appear elsewhere in this report.

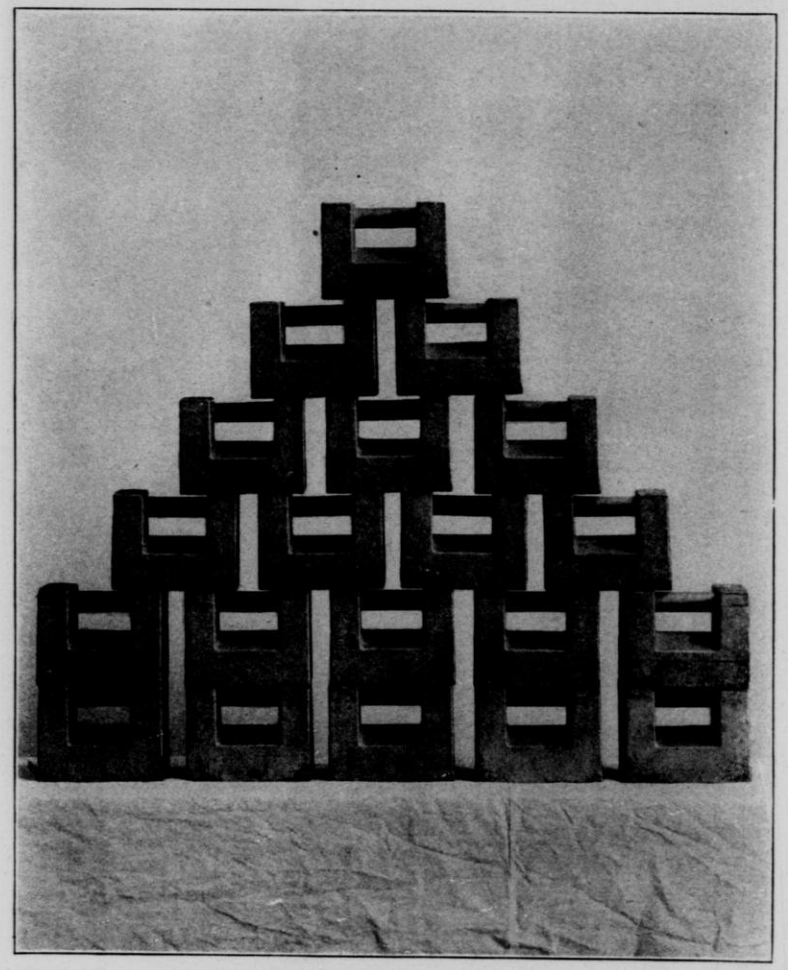
Weights and measures evils exist in not less than five forms:

1. Faulty scales, weights and measures to determine quantity.
2. Faulty use of correct scales, weights and measures.
3. Commodities put up in packages with no indication of the quantity of the contents.
4. Packages falsely marked as to contents.
5. Short measure of commodities not in package form.



Sealer's portable outfit for light inspection, weight 60 lbs.

Merely to make first inspections and tests and to seal the appliances found correct and condemn outright or condemn for repairs the various kinds of weighing or measuring devices used in trade, and not return again for reinspection would fall far



Twenty 50-lb. weights for testing wagon and platform scales, a necessary part of each sealer's portable outfit.

short of meeting the requirements of the weights and measures law or being a corrective of the weights and measures evils. Follow-up or reinspection work is required to see whether the use of condemned apparatus has been discontinued; to see whether apparatus condemned for needed repairs has been properly ad-

justed, and, in case it has been so adjusted, to seal the same; to see whether correct apparatus is correctly used; to see whether commodities are being sold in quantity less than represented; and to see if there are any violations of the law and to cause violators of the law to be prosecuted.

First and foremost, in whatever work was undertaken accuracy and efficiency were fundamentally important. In view of the vast field to which the jurisdiction of the department had been extended and the multitude of technical complexities involved some division of labor was required. It was deemed wiser and safer at the outset to instruct and train a few sealers to efficiency in a portion of the work gradually broadening the scope and increasing their number as added training and experience fitted them to assume new and greater responsibilities, than to push into the field a full force of inexperienced inspectors.

The first of January, 1914, found each inspector who was acting *ex officio* in the capacity of sealer of weights and measures, doing all kinds of weights and measures work from the testing of prescription balances of the apothecary to the testing of large wagon scales and other large scales in the territory assigned him.

The plan in view is to have state sealers of weights and measures inspect and report on the sanitary conditions of the establishments whose sanitary conditions come within the jurisdiction of this department and which are visited by them, the follow-up sanitary work to be done chiefly by the food inspectors and the assistants; and have the inspecting and testing of weights and measures in use in creameries, cheese factories, condensaries, etc., done by the creamery and cheese factory inspectors. Owing to uncertainties as to the jurisdiction of this department in sanitary inspection in consequence of legislation in 1913 and to the fact that time is required for training creamery and cheese factory inspectors to do weights and measures work and to procure equipment for the same, the putting of this plan into operation has been delayed.

The weights and measures law of 1911 sought to carry into effect the principle set forth in the terms of section 9 of the constitution of the state of Wisconsin, viz:

"Every person is entitled to a certain remedy in the laws, for all injuries or wrongs which he may receive in his person, property, or character; he ought to obtain justice freely, and without being obliged to purchase it, completely and without denial, promptly and without delay, conformably to the laws."

It had been shown by an investigation carried out by the United States bureau of standards, Washington, D. C., in the years 1909–10 in thirty-three states, that the percentages of erroneous scales varied from 35 up to 60 and the opinion was expressed that 80 per cent of these that were incorrect were against the consumer.

The bill as originally introduced in the legislature provided for the appointment by the governor of a state superintendent of weights and measures, separate from and independent of any other office, who should merely have supervision of weights and measures throughout the state; it further provided for county sealers of weights and measures who should do the enormous work of actual testing and sealing or condemning of the various weighing and measuring appliances in their respective counties. After numerous and long-continued hearings in the committees this bill failed to be recommended for passage. Instead, the present law was reported which provided that the dairy and food commissioner be *ex officio* state superintendent of weights and measures; that cities of five thousand or more population should have a city sealer of weights and measures to be appointed by the mayor, and as hereinbefore stated, that all of the remaining vast amount of work of testing and sealing throughout the state be done by the state department of weights and measures. The argument which seemed to prevail, as I am informed, was that this work would be done more efficiently by the state department and that by this means the respective counties would be saved the expense of maintaining county sealers of weights and measures. The expense thus saved to the counties was to be put upon the state.

That there has been great reform wrought in weights and measures and in weighing and measuring throughout the state, although the law contains defects, is a matter of common knowledge.

The sealers inform me that in a great majority of cases their work is approved and commended by dealers who realize that the work of the sealers is promotive of fair dealing. Comparatively few of the dealers show resentment or disapproval. That disapproval must be prompted by personal rather than public interest must be apparent.

Total Number of Tests.

The total number of tests of weighing and measuring appliances of all kinds made by the state department of weights and measures and by 42 city sealers, and deputy city sealers, July 1, 1912 to July 1, 1914, was 460,949.

Of this number 92,140, or very nearly 20%, were found incorrect and were either condemned outright, condemned for repairs or adjusted.

Three hundred eighty-nine thousand, eight hundred seventy-six were sealed, this figure including those adjusted which were thereupon sealed.

Of the total number inspected 167,585 inspections were made by the state department. Of this number 40,192, or very nearly 24%, were found incorrect and were either condemned outright, condemned for repairs or adjusted, and 139,545 were sealed, those adjusted having been thereupon sealed.

In compliance with law, the scales, weights, and measures used in checking the receipt or disbursement of supplies in every institution under the jurisdiction of the state board of control have been tested. The following tabulation shows the number and condition of the scales in those institutions:

Inspections in State Institutions, 1914.

	Sealed.	Adjusted.*	Condemned for repairs.	Condemned.	Total.
State Hospital for the Insane	77	10	4	19	100
Northern Hospital for the Insane	27	.....	.....	.....	27
School for the Deaf	15	1	6	.....	21
School for the Blind	26	3	.....	.....	26
Industrial School for Boys	38	8	2	1	41
State Prison	76	.....	1	2	79
State School for Dependent Children	33	10	.....	.....	33
Wisconsin Home for Feeble-Minded	76	7	.....	2	78
Wisconsin State Reformatory	9	.....	2	8	19
Wisconsin State Tuberculosis Sanatorium	49	9	1	2	52
Total	426	48	16	34	476

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

Faulty Apparatus; Faulty Use of Apparatus.

Since the dairy and food commissioner was made *ex officio* state superintendent of weights and measures, faulty weights and measures and faulty use of correct weights and measures have been found as hereinafter enumerated, calling for corrections:

Linear Measures:

1. Yard sticks bent, warped and worn.
2. Advertising yard sticks long or short by as much as one half inch.
3. Counter tack heads over one eighth inch.
4. Cloth tapes, inaccurately divided, some stretched, some shrunken, as a whole or only in part. In spite of the fact that it would be economy for all users of tapes to use steel tapes or wire tapes, they still use cheap cloth tapes, often to their own detriment.

Liquid Measures:

1. Liquid measures bent and dented.
2. Liquid measures with bottom cupped upward, the curvature of the bottom having been reversed.
3. Liquid measures with a hole in the side or bottom.
4. Fibre ware or earthenware measures broken at the top or cracked.
5. Measures made short.
6. Use of liquid measures to measure dry commodities.
7. Nursing bottles and pressed glass graduates falsely graduated.

Measuring Pumps:

1. Oil pumps are frequently used to fill a bottle or can without regard to measure.
2. Stops loose or improperly set.
3. Valves leaky.
4. Gasoline pumps, particularly when not frequently used giving short measure, due to dry or worn valves.
5. Pumps for heavy oils operated too rapidly.
6. Pumps used for a different kind of oil than that for which they were constructed.

Dry Measures:

1. Bottomless measures.
2. Wooden measures cut down so as to reduce the depth.
3. False bottom, tilting bottom, raised bottom or removable bottom, to decrease the depth.
4. The bottom reduced in diameter and the sides relapped.
5. Metal measures, bent, broken or dented.
6. Measures of inaccurate capacity.

Weights:

1. Weights, old, rusty or worn.
2. Weights that have been drilled or partly sawed or chipped off to decrease their weight.
3. Lead-filled, zinc, or brass-cased weights that have come apart and the bottom or part of the filling lost.
4. Knob weights with knob broken off or replaced by another.

5. Hollow weights with loose filling, part of the filling having been removed.
6. Weights with lead plugs, the plugs removed or scraped.
7. Cheap cast weights which even when new have never been adjusted.

Equal Arm Scales or Balances:

1. Scales out of balance, heavy on the scoop side, the plea being that down weight is given.
2. Scales that balanced with no load but not when equal weights were placed on both pans.
3. Scales that balanced when equal weights were placed in center of each pan, but not when one of the weights was shifted forward or backward or to the right or left.
4. Scale is insensitive due to worn or broken parts or poor construction.
5. Scale placed in an inclined position.
6. An outside obstruction, paper bag, box, etc., rubbing against one of the pans.
7. Metal articles, such as lead, iron rings, hooks, etc., or potatoes or other articles placed under the scoop or on the cross under the scoop.
8. Folded paper bags put under scoop side or heavy paper in the scoop.
9. The poise light, thus registering more than is really on the scoop.
10. Equal arm scales with separate scoop and a loose counterweight or ring, the omission of which causes a serious error.

Unequal Arm Counter Balances:

1. Scales not in balance when poises were all on zero and pan empty.
2. Scales which balanced without scoop or pan, this being used however when commodity is weighed.
3. Scales having objects (wood, old iron, paper, etc.) attached to beam which were weighed with each parcel of commodity sold.
4. Counter poise hanger, counter poise weights, weights or sliding poise lighter or heavier than correct value.
5. Scales having beams graduated irregularly.
6. Scales having poise or beam worn so that when poise was placed back as far as possible it would not be on zero or beam.
7. Scales having easily accessible adjustable screws by which balance might be easily and quickly changed.
8. Did not weigh properly on all parts of pan.
9. Had separate scoop and counter weight, the omission of which latter caused serious error.
10. Great friction in bearings or movable parts.

Platform Scales:

1. Scale did not balance when platform was empty and poise on zero.
2. Scale weighed incorrectly for weights on platform.
3. Check rods too loose or too tight.
4. Counterpoise weights light, heavy, or of wrong leverage.
5. Sliding poise wrong due to weight or wearing of the same at index.
6. Platform binding on the frame.
7. Scale did not weigh same on different parts of the platform.
8. Balance ball would not balance scale when empty.

9. Dirt on scale or in pit, viz.: straw, mud, etc., on any of the movable parts of the scale inside or outside.
10. Bearings broken.
11. Scale too sluggish.
12. Bearings dull.
13. Bending of parts of scale or levers; giving of foundation when full load was placed on platform.
14. Beam worn, or unevenly notched or divided.
15. Scale insufficiently sensitive.
16. Scale with magnet placed near counterpoise of beam so as to draw down beam.

Spring Balances:

1. Scales on which the hand or index marker did not point to zero when hook or pan is empty.
2. Scales of the straight front type on which the graduated face was not riveted to frame and could be raised or lowered while weighing was being done.
3. Scales on which pointer interfered with face which caused pointer to stop before indicating full value or weight.
4. Scales of the straight front type on which top bolt or ring holding spring had been loosened and could be raised or lowered at will of operator.
5. Scales which carried extra hook attached to spring on which objects could be swung such as bills, etc.
6. Scales having two hooks of different weights which could be attached to spring or scales having two hooks which registered different weights on graduated face according as object was placed on one or the other. These are used by junk dealers.
7. Balances having easily accessible adjusting screws by which position of pointer might be quickly and easily changed.
8. Hanging scales on which the bar to which the pan or hook was attached worked hard in its slot or caught at certain points.
9. Scales with no dampering device, oscillating so freely and so long that there was a tendency to read the pointer before it came to rest.
10. Objects attached to the hook, pan frame, beam or under the beam.
11. Scales with graduations so closely spaced that an accurate reading was impossible.
12. Scales of large capacity and consequently each division representing a considerable weight used to weigh small quantities such as a 100-pound or 50-pound spring scale used in the sale of commodities when generally not over one to five pounds are weighed in retailing meat, groceries, etc.
13. The spring weakened or drawn up too tight.
14. Scales ostensibly showing weight on the customers' side but not so doing because no index line was provided.
15. Scales where the dealers' and customers' sides did not correspond.

Computing Scales:

1. The computing part of the scale, namely, the divisions or figures, falsely placed so that the correct value might not be indicated when a certain weight was placed on the scale, or inversely, when a certain number of cents worth of a commodity at a certain price per pound was to be weighed, the wrong quantity of the commodity was delivered although the money value indicated might be the required one.

2. Scales on which index mark or pointer was so far removed from the divisions or figures, that the reading obtained depended upon the position of the observer.
3. Division so closely placed that accurate reading was difficult.
4. The ounce and pound values on the customers' side not corresponding with the dealers' side or the index mark or line omitted from either side.

The following is a summary of tests made by city sealers from Dec. 1, 1912 to June 30, 1914.

City	Sealed	Adjusted*	Condemned for repairs	Condemned	Total
Antigo	1,619	159	106	518	2,243
Appleton	22,700	187	810	2,611	26,121
Ashland	2,084	318	675	681	3,440
Baraboo*	914	.....	.....	10	924
Beloit	3,025	45	61	184	3,270
Chippewa Falls	1,068	36	7	204	1,279
Eau Claire	2,525	98	215	261	3,001
Fond du Lac	3,175	55	38	158	3,371
Grand Rapids	1,530	251	59	253	1,842
Green Bay	8,523	1,057	515	938	9,976
Janesville	3,015	279	35	93	3,143
Kenosha	2,647	123	80	126	2,853
La Crosse	3,124	23	58	385	3,567
Marinette*	808	14	7	48	863
Madison	9,252	208	94	629	9,975
Marshfield	1,088	62	42	52	1,182
Menomonie	829	41	.....	12	832
Menasha	751	73	124	41	916
Merrill	1,394	71	.....	65	1,459
Milwaukee*	95,975	1,410	3,490	3,370	102,835
Neenah	1,000	23	25	93	1,118
Oshkosh	6,403	560	233	8,557	15,193
Portage	1,332	5	4	43	1,379
Racine	6,511	354	96	1,080	7,687
Rhinelander	966	25	26	47	1,039
Sheboygan	2,433	251	685	332	3,450
South Milwaukee*	457	17	35	92	584
Stevens Point	6,012	147	92	2,448	8,552
Superior	6,484	453	168	567	7,219
Watertown	3,639	232	280	269	4,188
Waukesha	893	5	17	59	969
Wausau	5,146	.....	40	311	5,497
West Allis	708	28	44	95	847
Totals	208,021	6,610	8,161	24,632	240,814

Adjusted*—The appliances adjusted have been sealed and in figuring totals are included in sealed column.
Baraboo*—From Dec. 1, 1912 to Dec. 1, 1913.
Marinette*—From Dec. 1, 1913 to June 30, 1914.
Milwaukee*—Omitting tests in December, 1913.
South Milwaukee*—From Sept. 1, 1913 to June 30, 1914.

The following is a summary of prosecutions and convictions by city sealers, for violations of state law and local ordinances relating to weights and measures from December 1, 1912 to July 1, 1914.

City.	City Sealer.	Number of prosecutions.	Number of convictions.
Ashland	A. J. Kull	7	6
Appleton	Geo. D. Gilman	1	1
Baraboo	F. A. Philbrick	2	2
Beloit	W. M. Van Lone	3	2
Eau Claire	Jos. F. Weizenegger	1	1
Fond du Lac	Jos. L. Weber	4	4
Green Bay	John M. Kelliher	5	5
Kenosha	Felix C. Mayer	2	1
La Crosse	E. H. Derr	5	5
Madison	H. L. Thompson	3	3
Marinette	C. W. Skowlund	1	1
Merrill	R. W. Barrett	1	1
Milwaukee	F. C. Janssen	88	74
Oshkosh	W. R. Meyer	4	4
Portage	Wm. Netzo	2	1
Racine	D. E. Fitzgerald	5	5
Rhinelander	H. J. Danfield	3	3
Sheboygan	August Lutze	4	3
Stevens Point	E. H. Flentie	23	19
Superior	N. G. Penfound	3	0
Watertown	Edward Gnatzig	2	2
Waukesha	John J. Staub	1	1
Wausau	J. H. Pomeroy	3	2
West Allis	Wm. R. Baumann	4	4
		177	150

Babcock Glassware.

The following bill was introduced into the legislature of 1913 and passed the assembly, but was adversely reported by the senate committee on state affairs, and in consequence failed to be concurred in by the senate. It is possible this would have relieved the state department of weights and measures of a very large volume of work by placing the responsibility for a large per cent of that work upon the manufacturers of the appliances designated where such responsibility justly belongs. In the interests of efficiency and economy in administration that or a similar bill should be enacted into law:

"Section 1666c. All bottles and pipettes used in measuring milk or milk products for making determination of the per cent of fat in said milk or milk products shall have clearly blown or otherwise permanently marked in the side of the bottle or pipette the word "Sealed," and in the side of the pipette or the side or bottom of the bottle the name, initials, or trade mark of the manufacturer and his designating number, which designating number shall be different for each manufacturer and may be used in identifying bottles. The designating number shall be furnished by the state superintendent of weights and measures upon application by the manufacturer and upon the filing by

the manufacturer of a bond in the sum of one thousand dollars with sureties to be approved by the attorney-general, conditioned upon conformance with the requirements of this section. A record of the bonds furnished, the designating number, and to whom furnished, shall be kept in the office of the state superintendent of weights and measures.

Any manufacturer who sells Babcock milk, cream or butter-test bottles or milk-pipettes, to be used in this state, that do not comply with the provisions of this section shall suffer the penalty of five hundred dollars to be recovered by the attorney-general in an action against the offender's bondsmen, to be brought in the name of the people of the state. Any dealer who uses, for the purpose of determining the per cent of milk fat in milk or milk products, any bottles or pipettes purchased after this law takes effect that do not comply with the provisions of this section relating thereto, shall be deemed guilty of using false or insufficient measure.

The state superintendent of weights and measures shall prescribe specifications with which the glassware mentioned in this section shall comply. The unit of graduation for all Babcock glassware shall be the true cubic centimeter or the weight of one gram of distilled water at four degrees Centigrade.

Sealers of weights and measures are not required to seal Babcock milk, cream or butter test bottles or milk pipettes marked as in this section provided, but they shall from time to time make tests of individual bottles used by the various firms in the territory over which they have jurisdiction in order to ascertain whether the above provisions are being complied with and they shall report immediately to the state superintendent of weights and measures violations found."

Detailed statements of the work done during the biennial period are given in the report of Mr. F. P. Downing, chief inspector of weights and measures.

Extracts from Dairy and Food Inspectors' Reports

The following are extracts from inspectors' reports, mentioning some of the conditions as found in their field work:

"When making inspections at cheese factories and creameries I have been at the factory early and have where practicable made inspection of the milk and cream cans, and where milk is delivered have used the sediment test as a means of showing the patrons the condition of their milk as to cleanliness, and I will say that the average farmer when he can see the amount of sediment from one pint of milk drawn from unclean cows in unclean surroundings is willing and ready to make needed improvements as to ways of milking and also for having cleaner and more sanitary conditions at time of milking.

During the last two years I have received many requests from factory managers and factory operators to make inspections of milk and cans at their factories as they were not able to make a good product from the milk delivered. In some instances I have been at the factory all day and helped make the cheese and get the maker on the right system of handling the milk.

In making inspections of dairy barns I find there is a general desire among the farmers to have good modern barns or to improve the old ones with cement floors and gutters and plenty of light. More especially is this true in the newer dairy sections of the northern part of the state."

"I have made it a point to be at the creamery or cheese factory in the morning to see the cans as the farmers deliver their milk and cream. In the case of milk I have made sediment tests, showing the farmers the amount of foreign substances in one pint of milk, and explaining the necessity of cleaner milking and handling of milk. I have also inspected the cans as to rust, open seams, and uncleanliness. If cream were being delivered I would inspect the cans and point out the necessity for delivering better cream.

In one instance where I visited a dairy farm, I arrived early in the morning and found the owner and hired man at the barn cleaning out the barn which had one of the old wood floors and when we walked on them the ooze would come up above the planks. The milk was standing in the middle of the barn behind two rows of cows, twenty in number. The cows were all covered with filth. After I had made a thorough inspection of the barn I followed the man to the house where he did the separating. I filled two bottles with milk and in doing so had to use my lead pencil to get the manure and filth through the necks of the bottles.

Old wood creameries are fast being replaced by modern brick or concrete which are much more sanitary. Dairy farmers are building new barns with ample light and ventilation and concrete floors."

"The conditions of creameries in my territory during the last biennial period have improved very much. Several old buildings have been replaced with modern buildings and equipment which are a credit to the industry. Many of the old buildings have been remodeled and repaired by the addition of concrete floors, modern intakes and test rooms which are much more sanitary and greatly facilitate the everyday work. Nearly all creameries are now using modern ripeners instead of open vats for handling cream and drainage systems have been improved until at the present time there are but few creameries in my territory that are not provided with effective drainage systems. The cans and utensils used by dairymen in handling their products are usually in good condition. The practice of using dirty, rusty, open-seamed cans has been almost entirely eliminated.

In a previous report to the department I have spoken of the great loss sustained by dairymen in producing cream that contains a low percentage of butter fat. I have investigated this matter quite thoroughly and have the following facts to present:

Taking the statistics from many creameries scattered over my territory and without selecting special cases but using all reports wherever obtained. In creameries where patrons deliver their own cream nothing has been charged for hauling."

Creamery No. 1 for the year 1913:

Creamery received 1,024,036 pounds of cream containing 218,684 pounds of butter fat. Had this cream tested 30% fat there would have been 729,000 pounds of cream which would have left 295,000 pounds more skim-milk on the farm. At 30c per hundred this skim-milk was worth $885. The farmers paid 30c a hundred for hauling the cream to the factory, which of course was another loss of $885. The extra cost of handling this 'excess baggage' at the creamery in fuel, labor, wear on machinery, and other incidentals, I have estimated at $200. As this 295,000 pounds of milk became buttermilk at the creamery and estimating that the loss of fat in buttermilk is only .2%, we have a loss of 590 pounds of fat in the buttermilk which at 30c a pound is a loss of $177. Then assuming that the quality of this fat in the heavy cream would have been improved to the extent of ½c per pound, we have a saving of $1,090. The aggregate of the foregoing items is $3,237 which the patrons of this creamery could have saved by skimming the cream to test 30% fat instead of about 22% fat."

After thus describing the conditions of eleven other creameries this inspector summed up as follows:

"The total loss to these twelve creameries is $55,557.50. The average loss per creamery is $4,629.78. My investigation leads me to the conclusion that at least 60% of the creameries in the state of Wisconsin are receiving thin cream, and using the above figures for an estimate we have 600 creameries losing approximately $4,500 each because of low test cream, or a total loss to the creameries and their patrons of over two and one half million dollars each year. I am convinced that the question of low test cream is of sufficient importance to merit the attention of persons who are working for the advancement of the dairy industry."

"There has been a marked improvement in my territory by the installation of sanitary piping for the handling of milk and whey where skimmed, due in great measure to the follow-up letters of the second assistant commissioner. These letters have been wonderfully helpful in remedying sanitary conditions of dairies. For example, on one cream route where inspections were made I found four places that were plainly violations of law. A letter from the department followed each inspection and upon second inspection I found two new separator houses built and the other two separators removed to clean places and kept in sanitary condition.

Thousands of test bottles complying with the law have taken the place of the old bottles, and new cream balances have taken the place of the old ones that in some instances required as much as seven drops of cream to move the pointer one space."

"The conditions surrounding cheese factories are in a general way improving rapidly. Just a few days ago I inspected a factory in ..... county and you would be surprised to see how fine and clean the factory was being kept, not a trace of dirt could be found in the factory. The operator of this factory I consider has chosen the right occupation, but I cannot say this of all of the places I visit for I find some which are just the opposite. I know that the general conditions of the cheese factories as I find them in my travels are about 25% better than they were two years ago.

"Creameries in my territory are not very plentiful, but with the exception of a few they are kept in the finest condition. Almost all of them are coöperative and most of them are receiving cream not over two or three days old.

"Dairy barns in parts of some of my counties are of the best, but in most places the farmers are very slow in making improvements. In a great many cases to look at the barn from the outside one would imagine that everything was in good shape, but after making inspection of the inside one's opinion would change entirely. The cows are seen standing in filth and partly covered with the same, tied to a high manger with a rope or chain. And then the farmers will say that they bed them well with straw and they won't keep clean. They blame the poor cows when those cows probably have not seen a particle of straw bedding during the entire winter.

"The sediment test is opening the eyes of some of these careless dairymen when they see the amount of dirt filtered from a pint of milk they have delivered, and when compared with the sediment test of a clean sample they really come to life and a few of them will go back home with the intention of making some improvement."

"From September 26, 1912 to June 30, 1914, I inspected 613 cheese factories, approximately 4,000 milk cans, made 1,388 sediment tests, 294 dairy inspections, 19 creamery inspections, inspected 6 condensaries, the milk supplies of 25 villages and cities, tested 292 samples of

milk, took 17 herd samples, made 230 sanitary inspections of groceries, meat markets, etc., brought 73 prosecutions which resulted in 72 convictions, addressed 4 dairy conventions and 2 institutes, and judged cheese and butter at 4 county fairs."

"Two butchers and four farmers were convicted of selling unwholesome meat, to wit, meat of animals diseased at time of slaughter, and one butcher for selling poultry which died otherwise than by slaughter."

"During the two and one-half months I have been engaged in food inspection work I have made 432 food, drug, and oil inspections, 266 sanitary inspections, purchased and submitted to the state chemist 375 samples of foods, drugs, oils, etc., finished inspection in 81 cities or villages and have brought 12 prosecutions which resulted in 11 convictions."

"During the 14 months, ending June 30, 1914, I made 263 cheese factory inspections, 24 creamery inspections, 44 city milk inspections, inspected 5,000 milk cans, made 1,100 sediment tests, tested 278 samples of milk and cream, took 52 herd samples, made 88 dairy inspections, 50 inspections of meat markets and groceries, brought 53 prosecutions resulting in 53 convictions."

Extracts from Reports of Sealers of Weights and Measures

"In these days of high prices a small inaccuracy in a scale or measure results in a serious loss on the one hand or an illegitimate gain on the other. Dealers and purchasers alike are beginning to realize this and are expressing a desire to have their scales or measures tested oftener than it has been possible for the sealers to do in the past.

As the law requires that all weights and measures and weighing and measuring apparatus used in buying or selling commodities must be sealed, it is necessary that the sealer visit all grocery, dry goods, confectionery, jewelry and drug stores, millinery establishments, meat markets, saloons, garages, hardware and implement stores, warehouses, elevators, and mills, depots, stockyards, slaughterhouses, creameries, cheese factories, etc. It can readily be seen that nearly all business establishments depend upon their scales and measures or weighing and measuring devices to determine the weight, extent or quantity of practically everything they buy or sell."

"I have to report that the general conditions have improved and are improving. A number of sources of losses have been stopped by replacing incorrect with correct weighing and measuring devices used in many instances without the knowledge of the user thereof. There are a few cases where it has been plainly shown that scales or weighing or measuring devices have been deliberately tampered with. For example, liquid measures with tops sawed off or hammered up bottom or made short when new purposely, which made them from six to eight per cent short; gasoline or kerosene pumps or measures, through leaky valves or having been tampered with made to measure nine or ten per cent short; dirty or caked linseed oil measures 12% short; scales used exclusively for weighing coal, 40 pounds fast on a ton; stock scales used for buying stock up to 25 and 40 pounds slow or light on 1,000 pounds, in several instances poise filled with extra lead or other material and in one particular case there was a shortage of 20 pounds on a 200 pound beam, always in the buyer's favor; scale used in cheese factory 2 pounds fast on 100 pounds and in this case the loss figured 45 pounds a month to the proprietor; weights light from constant use or loss of adjusting lead or heavy by extra fillings. In one case a certain buyer's loss figured up to over 1,000 pounds as the result of a single weight found light upon testing.

In regard to try-puts, 15% of the number of articles reweighed were found under weight. I found cereals in package form 7.5% short; seeds of various kinds, 9% short; seeds and other dry commodities sold by liquid measures as high as 18% short; onions, 20% short; green apples, 18% short; potatoes in large sacks, 5% short, and at retail, 16% short, and in one particular instance, 38% short; milk delivered to creameries in cans that were 21.4% short and cream in cans that were 8.33% short. In a number of cases I have traced the shortages to carelessness of the men in charge, but this is not always true as I have found instances where the parties concerned intended to give short weight or measure as was plainly shown."

"Following are a few illustrations of actual conditions which have come to my notice during my period of service:

A certain stockyard scale which was located in as good a farming community as there is in the state and which was used very extensively in buying and selling stock, showed only 485 pounds for 700 pounds and nothing less than 200 pounds would change the position of the beam.

At a meat market a platform scale had been condemned for repairs on account of being 3 pounds out of the way and working very sluggishly, due to dull bearings and a cracked center link. The proprietor undoubtedly, figuring on getting the scale repaired as cheaply as possible and not realizing that it required an expert to do this work, sharpened the bearings and replaced the cracked center link himself instead of forwarding the scale to a regular scale repair shop as he had been advised to do. The result was that when the scale was reinspected the error was 9½ pounds instead of 3 pounds. The proprietor lost confidence in getting the scale repaired, set it aside and purchased a new one.

A certain cheese factory had been having trouble with the firm that bought its cheese, the firm deducting for large shortages on weight right along. The manager finally became provoked, wrote to the weights and measures department and requested them to test their scales thinking that possibly they might be at fault. I went out there and found the scale to be very good, accurate in every respect with the exception of being a trifle sluggish due to dirty bearings. After cleaning up the bearings the scale worked well. Next, the weights were examined and practically the whole trouble was revealed by the testing of two weights one of which was giving a shortage of 10 ounces on every 5 pounds while the other was giving 12 ounces over weight on every 10 pounds. Both weights were adjusted in ten minutes time and the cause of trouble was settled.

While inspecting the scales at another cheese factory where all the scales proved to be in perfect condition, the cheese maker stated that he had experienced considerable trouble on account of a claim made by one of his patrons that his scale was wrong. The patron had been weighing his milk at home and always found a considerable shortage at the factory. The agitation had become so intense that a number of other patrons who did not happen to have any scales of their own had questioned the honesty of the cheese maker. I decided to test that patron's scale and found the leverage of the scale was wrong, causing an error of almost 2 pounds on every hundred pounds and of course in his favor. Besides this the scale had no check rods thereby causing it to bind occasionally. It had soft, dull and rough cast iron bearings instead of hard, sharp and smooth steel bearings causing the scale to work sluggishly, depending on how and where the weight was placed on the platform. Upon seeing the scale tested and realizing the error, the patron was anxious to have it condemned and stated he would surely have to apologize to the cheese maker for his unjust criticism of him.

In another instance the proprietor of a large grocery store whose scales I had just finished testing, stated that a certain customer of his had complained at numerous times charging him with cheating at least 10% on weight which he knew to be a fact for the reason that he had reweighed his goods at home. Asking him if he was absolutely certain that his scale was correct, the customer replied that he was. The grocer said 'I do not know what kind of a scale this party has, but if my scale is right then his scale must be wrong and I will ask you to test his scale.' I did so. It was a 24 pound capacity hanging spring scale of the type that peddlers used to use, a ring on top and a hook at the bottom. I hung my 5 pound standard weight on it and it showed exactly 4¼ pounds. The 10% shortage was accounted for and the scale was of course condemned whereupon the grocer and customer settled all former short weight disputes."

"In one of the extreme cases an incorrect wagon scale was given 1,600 pounds of coal for a ton. This was the only wagon scale in the village. About 450 tons of coal were sold over this scale per year, making a shortage of 90 tons per year.

In another case an incorrect counter scale was weighing 3 ounces short on every sale. Figuring 100 sales per day and 300 days per year that the scale was used and averaging the sales at 16c a pound, there was a shortage to the purchasers of $900 per year. But often scales are found to weigh against the merchant as well as in his favor. Merchants are now buying better grades of scales than they did before they were inspected and are also giving their scales better care."

"During the biennial period ending June 30, 1914, I inspected 857 counter scales of which 14% were wrong, 817 computing scales of which 38% were wrong, 422 spring scales of which 40% were wrong, 41 suspension scales of which 26% were wrong, 18 hopper scales of which 33% were wrong, 228 wagon scales of which 57% were wrong, 777 portable platform scales of which 40% were wrong, 51 cream test scales of which 64% were wrong, 10 moisture tests scales of which 30% were wrong, 11 jewelers' and prescription balances of which 27% were wrong, 7 slot machines of which 14% were wrong, 172 dry measures of which 80% were wrong, 3,610 liquid measures of which 10% were wrong, 3,418 counter linear measures of which 38% were wrong, 498 automatic measuring pumps of which 54% were wrong, 7,344 weights of which 17% were wrong, 276 jewelers' and prescription weights of which 18% were wrong, and 47 glass graduates of which 38% were wrong."

"During the biennial period ending June 30, 1914, I inspected 7,008 scales, weights, automatic pumps, liquid measures, linear measures, and dry measures of various kinds in different cities, of which number I sealed 5,678, and made 20,588 office tests, including Babcock milk and cream test bottles, cream scales, pipettes, city standards, state standards and miscellaneous articles sent to the office to be inspected, making a total of 27,596 inspections."

"During the four months ending June 30, 1914, I inspected and tested 5,774 weighing and measuring appliances of various kinds, finding 27% to 35% of the same incorrect."

"During the biennial period ending June 30, 1914, I have made weights and measures inspections at 1,577 establishments, tested 13,391 weights and measures appliances, and made 175 try-outs. Since May 13, 1914, I have inspected 50 cheese factories, 4 creameries, and made 223 inspections of patrons' cans."

Misbranding of Foods in Package Form.

Section 4601aa of the statutes of Wisconsin, effective September 3, 1914, which relates to the misbranding of articles of food, and that portion of section 4600 which defines food, are given below.

The dairy and food commissioner is authorized to enforce all the provisions of these sections.

"Foods; false branding of weight, measure, count or contents; prosecution. Section 4601*aa*. Any person, who by himself, or by his servant or agent, or as the servant or agent of another, shall manufacture or solicit or take orders for delivery, or sell, exchange, deliver or have in possession with intent to sell, exchange or expose, or offer for sale or exchange any article of food within the meaning of section 4600 of the statutes which is misbranded within the meaning of this section shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than twenty-five dollars nor more than one hundred dollars, or by imprisonment in the county jail not less than ten days nor more than sixty days.

The term "misbranded", as used herein, shall apply:

(1) To articles of food, or articles which enter into the composition of food, which, or the package or label of which shall bear any statement, design or device regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular;

(2) To articles of food in package form which do not bear plainly and conspicuously marked on the outside thereof the name and address of the manufacturer, packer or dealer;

(3) To articles of food in package form if the actual quantity of the contents be not plainly and conspicuously marked on the outside of the package in terms of weight, measure or numerical count; reasonable variations, however, shall be permitted from the stated weight, measure or numerical count, and the dairy and food commissioner shall establish tolerances for the same by rules and regulations; and

(4) To articles of food in package form if the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package.

The term "label," as used in this section and in section 4601, or in any other section of the statutes, relating to the adulteration or misbranding of food, unless otherwise specifically described and provided therein, shall apply to any printed, pictorial, or other matter upon or attached to any package of a food product or any container thereof.

The term "package," as applied to articles of food shall mean a closed receptacle of any kind in which an article of food is kept in stock and which with its contents is sold to the public.

The dairy and food commissioner, by himself, or by his assistants, chemists, inspectors and agents, is hereby authorized to enforce the provisions of this section and for this purpose all the powers conferred upon the said commissioner, his assistants, chemists, inspectors and agents, by sections 1410a, 1410b, 1410d, or by any other provision of the statutes are hereby conferred upon said dairy and food commissioner, his assistants, chemists, inspectors and agents, so far as the same may be applicable.

The provisions of subdivisions (3) and (4) of this section shall not apply to foods in package form when dispensed for consumption on the premises, or when the numerical count of the enclosed units is

less than six, or when the net weight of the contents of the package is less than three ounces avoirdupois; or in case of liquids when the contents of the package are less than one fluid ounce; or to fruits and vegetables when such fruits and vegetables are sold by the standard barrel, standard crate, standard box or basket or other standard receptacle as provided in section 1668 of the statutes."

"Section 4600. * * * The term "food", as used herein shall include all articles used for food or drink or condiment by man, whether simple, mixed or compound, and all articles used or intended for use as ingredients in the composition thereof or in the preparation thereof."

The labeling of milk bottles is regulated by a specific law, viz: section 1666a of the statutes. Hence, the foregoing law does not apply to that subject.

It is provided in subsection 3 of section 4601aa that reasonable variations shall be permitted from the standard weight, measure or numerical count, and the dairy and food commissioner shall establish tolerances by rules and regulations. The following tolerances or allowable variations from the quantity of the contents marked on the package are hereby established in conformity with the terms of subsection 3 of section 4601aa of the statutes, and conform with the national regulations on the same subject:

Tolerances.

(1) Discrepancies due exclusively to errors in weighing, measuring, or counting which occur in packing conducted in compliance with good commercial practice.

(2) Discrepancies due exclusively to differences in the capacity of bottles and similar containers resulting solely from unavoidable difficulties in manufacturing such bottles or containers so as to be of uniform capacity: Provided, That no greater tolerance shall be allowed in cases of bottles or similar containers which, because of their design, cannot be made of approximate uniform capacity than is allowed in case of bottles or similar containers which can be manufactured so as to be of approximate uniform capacity.

(3) Discrepancies in weight or measure, due exclusively to differences in atmospheric conditions in various places, and which unavoidably result from the ordinary and customary exposure of the packages to evaporation or to the absorption of water.

Discrepancies under classes (1) and (2) of this paragraph shall be as often above as below the marked quantity. The rea-

sonableness of discrepancies under class (3) of this paragraph will be determined on the facts in each case.

(4) If the quantity of the contents is stated in terms of minimum weight, minimum measure or minimum count, for example, "minimum weight 16 oz.," "minimum volume 1 gallon," or "not less than 4 oz.," the statement must approximate the actual quantity *and there shall be no tolerance below the stated minimum.*

Exemptions.

The law exempts from the operation of this statute foods in package form when dispensed for consumption on the premises, or when the numerical count of the enclosed units is less than six, or when the net weight of the contents of the package is less than three ounces avoirdupois; or in case of liquids when the contents of the package is less than one fluid ounce; or to fruit and vegetables when sold by the standard barrel, standard crate, standard box or basket or other standard receptacle as provided in section 1668 of the Wisconsin statutes.

CONVICTIONS

Under Dairy and Food Laws.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1912				
July 2	David Engelhardt, Browntown...	Selling unwholesome, tainted meat.....	W. T. Saucerman, Monroe.....	$10 and costs.
July 6	Frank Zell, Mosinee.....	Delivering unsanitary milk to a cheese factory.	L. Marchetti, Wausau.....	$25 and costs.
July 10	John Strack, Cascade.....	Offering unsanitary milk to a cheese factory.	D. Mahlsted, Plymouth.....	$25 and costs.
July 10	Iver Christensen, Suamico.....	Delivering unsanitary milk.....	W. J. Monahan, Green Bay.....	Costs. Fine suspended.
July 11	Joseph Evans, Eau Claire.....	Selling pop containing saccharin.....	Henry McBain, Eau Claire.....	$50 and costs.
July 13	Moses Mortell, Jr., Green Bay...	Delivering unsanitary milk to a creamery	N. J. Monahan, Green Bay.....	$25 and costs.
July 15	J. T. Scantelton, Cataract.....	Selling adulterated boiled linseed oil.....	Ole Jackson, Sparta.....	$25 and costs.
July 17	Albert Zweifel, Oshkosh.....	Offering unsanitary milk at a cheese factory.	A. H. Goss, Oshkosh.....	$25 and costs.
July 19	John McCullough, Fond du Lac..	Offering unsanitary milk at a cheese factory.	D. F. Blewett, Fond du Lac.....	$25 and costs.
July 19	Karl Nimmer, Oshkosh.....	Offering unsanitary milk at a cheese factory.	A. H. Goss, Oshkosh.....	$25 and costs.
July 27	Timothy Maher, Fond du Lac....	Offering unsanitary milk at a cheese factory.	D. F. Blewett, Fond du Lac.....	$25 and costs.
July 29	James Kraynick, Denmark.....	Delivering adulterated milk.....	N. J. Monahan, Green Bay.....	Costs. Fine suspended. Pleaded nolo contendere.
July 29	Thomas Gaffney, Denmark.....	Delivering adulterated milk.....	N. J. Monahan,Green Bay.....	Costs. Fine suspended. Pleaded nolo contendere.
July 30	Oscar Ernst, Oshkosh.....	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh.....	$25 and costs. Pleaded nolo contendere.
July 30	Nicholas Pfeil, Oshkosh.....	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh.....	$25 and costs. Pleaded nolo contendere.
July 31	G. H. Oldenburg, Egg Harbor...	Maintaining creamery premises in unsanitary condition	H. H. Reynolds, Sturgeon Bay...	$25 and costs.
Aug. 1	I. A. Smith, Montello (Montello B. & S. Cry. Co.).	Maintaining an unclean creamery.....	L. N. Stevens, Montello.....	$25 and costs.
Aug. 1	Wm. Pattee and G. Schwanke Endeavor	Storing, selling, etc., meat not protected from filth, flies, dust, etc.	L. N. Stevens, Montello.....	$25 and costs.
Aug. 2	J. W. Serrahn, Algoma.....	Maintaining cheese factory premises and utensils in unsanitary condition	Edward Trudell, Kewaunee.....	$25 and costs.
Aug. 2	Frank Havel, Algoma.....	Maintaining cheese factory premises and utensils in unsanitary condition.	Edward Trudell, Kewaunee.....	$25 and costs.

Aug. 2	Ray Counihan, Green Bay.....	Maintaining creamery utensils in unsanitary condition	N. J. Monahan, Green Bay.....	$25 and costs.
Aug. 2	Edward Barclay, Green Bay.....	Maintaining creamery premises and utensils in insanitary condition	N. J. Monahan, Green Bay.....	$25 and costs.
Aug. 3	F. O. Yates, Unity.....	Operating insanitary cheese and butter factory.	L. Marchetti, Wausau.....	$25 and costs.
Aug. 5	Gerhard Leischow, Forestville....	Maintaining cheese factory utensils in insanitary condition	H. H. Reynolds, Sturgeon Bay..	$25 and costs.
Aug. 6	Desire Debois, Luxembourg.....	Maintaining creamery utensils in insanitary condition	Louis Liebl, Luxembourg.....	$25 and costs.
Aug. 9	A. J. Muehlenbein, Boyd.....	Preparing for sale foods under unhealthful and insanitary conditions	E. H. Coleman, Chippewa Falls...	$25 and costs.
Aug. 14	Chris. Volkman, Eau Claire.....	Manufacturing and shipping pop containing saccharin	Henry McBain, Eau Claire.....	$50 and costs.
Aug. 17	Eugene Gilbert, Rio.....	Selling unsanitary milk.....	F. Kiefer, Portage.....	$25 and costs.
Aug. 19	Wm. N. White, Waterloo (agent of Badger Medicine Co., Waterloo, Wis.)	Selling adulterated lemon extract, containing artificial color and below standard.	W. D. Stacy, Watertown.....	$25 and costs.
Aug. 19	Adam Heibel, Neillsville.....	Maintaining premises and utensils used in the manufacture of cheese in unclean and unsanitary condition	R. F. Kountz, Neillsville.....	$25 and costs.
Aug. 20	Fred Feutz, Hartford.....	Manufacturing for sale cheese from unsanitary milk	Timothy Foley, Hartford.....	$25 and costs.
Aug. 20	Albert Boyd, Hartford.....	Selling unclean and unsanitary milk.....	Timothy Foley, Hartford.....	$25 and costs.
Aug. 23	Fred Prahl, Marion.....	Selling milk below legal standard.....	Daniel Coughlin, Marion.....	$25 and costs.
Aug. 27	Oscar Lutz, Colby.....	Manufacturing cheese for sale under unclean and unsanitary conditions	L. Marchetti, Wausau.....	$25 and costs.
Aug. 30	Frank Nusslock, Stevens Point...	Delivering unsanitary cream to a creamery in rusty, unclean can	B. Brown, Grand Rapids.....	$25 and costs.
Sept. 2	John Schaefer, Fond du Lac.....	Offering for sale unsanitary cream.....	R. C. Fairbank, Fond du Lac....	$25 and costs.
Sept. 2	S. H. Jewett, Milton Junction....	Selling adulterated lemon extract, containing artificial color and below standard	J. H. Coon, Milton.....	$25 and costs.
Sept. 6	Peter McCullum, Peebles.....	Selling unsanitary milk.....	R. C. Fairbank, Fond du Lac....	$25 and costs.
Sept. 14	George Skarvoones, Superior.....	Preparing for sale and selling foods under unsanitary conditions	J. B. French, Superior.....	$25 and costs.
Sept. 17	Wenzel Miller, Oshkosh.....	Preparing meat for sale under unsanitary conditions.	A. H. Goss, Oshkosh.....	$25 and costs.
Sept. 19	John Jacoby, Random Lake.....	Maintaining unsanitary cheese factory and utensils.	D. Mahlsted, Plymouth.....	$25 and costs.
Sept. 21	Henry Kortsehl, Grafton.....	Offering for sale unsanitary milk.....	Wm. Tholen, Port Washington..	$25 and costs.
Sept. 24	Walter Christensen, Kievenville..	Making false determination by Babcock test.	John P. Fehlandt, Madison.....	$25 and costs.
Sept. 27	August Fuhrman, Readfield.....	Offering for sale unsanitary milk.....	Nels Jensen, Neenah.....	$25 and costs.
Sept. 27	Michael Braun, Calvary.....	Selling unsanitary milk.....	D. F. Blewett, Fond du Lac.....	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.	
1912					
Sept. 27	J. J. Lamb, Fond du Lac.....	Offering for sale unsanitary milk.....	D. F. Blewett, Fond du Lac.....	$25 and costs.	
Sept. 28	Andrew Schmidbauer, Calvary...	Offering for sale unsanitary milk.....	D. F. Blewett, Fond du Lac.....	$25 and costs.	
Sept. 30	J. J. Birkhauser, Calvary.....	Offering for sale unsanitary milk.....	R. C. Fairbank, Fond du Lac.....	$25 and costs.	
Oct. 1	Fred Bly, Calvary.....	Offering for sale unsanitary milk.....	R. C. Fairbank, Fond du Lac.....	$25 and costs.	
Oct. 1	Nicholas Krebsbach, Calvary.....	Manufacturing for sale cheese from unsanitary milk	R. C. Fairbank, Fond du Lac.....	$25 and costs.	
Oct. 2	Chas. Springer, Bangor.....	Delivering unsanitary milk to a creamery	John Brindley, La Crosse.....	$25 and costs.	
Oct. 3	W. G. Utz, Oshkosh.....	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh.....	$25 and costs.	Appealed.
Oct. 3	J. F. Borsack, Oshkosh.....	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh.....	$25 and costs.	Appealed.
Oct. 5	Adolph Welke, Coloma.....	Delivering unsanitary milk to a creamery..	C. F. Youngman, Wautoma.....	$25 and costs.	
Oct. 7	Louis Drews, Readfield.....	Furnishing adulterated milk to a cheese factory.	S. D. Baird, Neenah.....	$25 and costs.	
Oct. 7	Otto Volkman, Jackson.....	Offering for sale unsanitary milk.....	Henry Rolfs, West Bend.....	$25 and costs.	
Oct. 8	Adam Uelmen, Kewaskum.....	Offering for sale unsanitary milk.....	D. F. Blewett, Fond du Lac.....	$25 and costs.	
Oct. 8	John Klinkhammer, St. Cloud...	Offering for sale unsanitary milk.....	R. C. Fairbank, Fond du Lac....	$25 and costs.	
Oct. 14	Harley Ohler, Loyd.....	Furnishing adulterated milk to a cheese factory.	W. H. Miller, Richland Center....	$25 and costs.	
Oct. 15	D. Condos, Janesville.....	Selling adulterated canned cherries, containing artificial color.	C. L. Fifield, Janesville.....	$25 and costs.	
Oct. 30	Dan Freix, Luxembourg.....	Maintaining creamery and utensils in unsanitary condition.	J. L. Miller, Luxembourg.....	$25 and costs.	
Oct. 30	John A. Mack, St. Croix Falls..	Selling boiled linseed oil adulterated with mineral oil.	Henry E. Johnson, Frederic.....	$25 and costs.	
Oct. 30	J. A. McKearn, Beloit.....	Selling adulterated milk.....	J. B. Clark, Beloit.....	$25 and costs.	
Nov. 7	G. Williams, Kingston.....	Selling boiled linseed oil adulterated with mineral oil.	H. E. Megow, Princeton.....	.....	
Nov. 11	Matthew Ekholm (Superior Bottling Works), Superior.	Selling pop containing saccharin.....	F. S. Parker, Superior.....	$25 and costs.	
Nov. 11	J. A. Krause (Mgr. Great Northern Bottling Works), Superior.	Selling pop containing saccharin.....	F. S. Parker, Superior.....	$25 and costs.	
Nov. 11	Charles Nemen, Darlington.....	Offering for sale adulterated milk.....	J. F. McGinley, Darlington.....	$25 and costs.	
Nov. 13	Edward Kliest, Marshfield.....	Maintaining creamery premises and utensils in unsanitary condition.	B. Brown, Grand Rapids.....	$25 and costs.	
Nov. 15	Edw. Babcock, Milton.....	Selling adulterated vanilla extract, artificially colored and flavored.	J. H. Coon, Milton.....	$25 and costs.	

Nov. 15	Charles Behling, Watertown.....	Offering for sale adulterated milk.....	W. D. Stacy, Watertown.....	$25 and costs.
Nov. 22	Oscar Weeden, Sheboygan.....	Maintaining unsanitary creamery.....	W. M. Root, Sheboygan.....	$25 and costs.
Nov. 25	Chas. Hynek, Bloom City.....	Furnishing adulterated milk to a cheese factory.	S. G. Curtis, Richland Center.....	$25 and costs.
Nov. 26	Jacob Bayens, Sheboygan.....	Using unsanitary utensils in the handling of milk.	W. M. Root, Sheboygan.....	$25 and costs.
Nov. 26	Wm. Suyder, Bloom City.....	Furnishing adulterated milk to a cheese factory.	S. G. Curtis, Richland Center.....	$25 and costs.
Nov. 27	Herman Levitz, Pound.....	Maintaining an unclean and unsanitary cheese factory.	James Brown, Klondike.....	$25 and costs.
Dec. 4	Levi Lake, Omro.....	Selling unsanitary milk and cream.....	C. H. Slocum, Omro.....	$25 and costs.
Dec. 4	Albert Pingel, Manitowoc.....	Maintaining cheese factory and utensils in unsanitary condition.	A. H. Schmidt, Manitowoc.....	$25 and costs.
Dec. 4	Philip Weigel, Marshfield.....	Maintainig cheese factory premises and utensils in unclean and unsanitary condition.	B. Brown, Grand Rapids.....	$25 and costs.
Dec. 5	Mrs. R. J. Miller, Oshkosh.....	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh.....	$25 and costs. Appealed.
Dec. 5	G. Ulrich, Oshkosh.....	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh.....	$25 and costs. Appealed.
Dec. 5	Charles Tufe, Oshkosh.....	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh.....	$25 and costs. Appealed.
Dec. 5	J. Wickert, Oshkosh.....	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh.....	$25 and costs. Appealed.
Dec. 6	Max Heigl, Wausau.....	Preparing for sale meat under unclean and unsanitary conditions.	L. Marchetti, Wausau.....	$25 and costs. Pleaded nolo contendere.
Dec. 10	Gustav Hager, Denmark.....	Selling unsanitary milk.....	N. J. Monahan, Green Bay.....	Costs. Fine suspended.
Dec. 12	Elizabeth Dent, Oshkosh.....	Serving oleomargarine as butter at hotel without so notifying guest.	A. H. Goss, Oshkosh.....	Costs. Fine suspended.
Dec. 20	G. S. Seyfort, Oconto.....	Maintaining an unclean and unsanitary cheese factory.	J. A. Dunlevy, Oconto.....	$25 and costs.
Dec. 30	S. George, Oshkosh.....	Maintaining an unclean and unsanitary restaurant.	A. H. Goss, Oshkosh.....	$50 and costs.
Dec. 30	Albert Karow, Neenah.....	Selling unsanitary milk.....	Nels Jensen, Neenah.....	$25 and costs.
1913				
Jan. 3	Paul LaLonde and G. L. Wallace, Eau Claire.	Selling contaminated, filthy poultry.....	....	$25 and costs.
Jan. 16	Gustav Horst, Hayton.....	Furnishing unsanitary milk to a milk condensing company.	Wm. Rothman, Chilton.....	$25 and costs.
Jan. 20	Newton Marsh, Whitewater.....	Selling adulterated milk.....	C. H. Williams, Whitewater.....	$25 and costs.
Jan. 20	Henry Ruchti, Fennimore.....	Selling milk containing a filthy and foreign substance.	C. W. Burrows, Lancaster.....	$25 and costs.
Jan. 20	F. L. Solzgaber, Boscobel.....	Selling adulterated cream.....	C. W. Burrows, Lancaster.....	$25 and costs.
Jan. 20	John J. Mainz, Chilton.....	Selling unsanitary milk.....	Wm. Rothman, Chilton.....	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
Feb. 10	E. Bolger, Janesville	Offering for sale unsanitary milk, kept and transferred in dirty and open-seamed cans.	Chas. Fifield, Janesville	Sentence suspended upon payment of costs.
Feb. 19	R. C. Steuber, Merrimack	Selling linseed oil containing mineral oil.	H. L. Halsted, Baraboo	$25 and costs.
Feb. 19	Wm. Moeser, Larson	Furnishing unsanitary milk to a cheese factory.	S. D. Baird, Neenah	$25 and costs.
Feb. 20	Jos. Albreco, Cumberland	Selling the flesh of a diseased animal	W. J. Soderberg, Barron	$10 and costs.
Feb. 25	John Skelley, Madison	Selling adulterated milk	J. C. Fehlandt, Madison	$25 and costs.
Feb. 27	Martin Darin, Iron Belt	Storing and selling food without protecting same from filth, dirt and other contamination.	G. Thomas, Hurley	$25 and costs.
Mar. 15	Otto Doschadis, Waterloo	Selling cream produced under unsanitary conditions.	John Fehlandt, Madison	$25 and costs.
Mar. 15	Wm. Berkhoulz, Nashotah	Selling unsanitary cream produced under unsanitary conditions.	Anthony C. Derse, Oconomowoc	$25 and costs.
Mar. 21	W. Barotsch, Waterloo	Selling unsanitary cream produced under unsanitary conditions.	John Fehlandt, Madison	$25 and costs.
Mar. 22	Morris West, Fond du Lac	Maintaining creamery premises and utensils in unsanitary condition.	D. F. Blewett, Fond du Lac	$25 and costs.
Mar. 22	Archie Allen, Amherst	Delivering to a creamery unsanitary cream, produced under unsanitary conditions.	G. L. Parks, Stevens Point	$25 and costs.
Mar. 25	George Blumenstein, Berlin	Maintaining creamery utensils in unsanitary condition.	Fred Engelbracht, Berlin	$25 and costs.
Mar. 26	Victor Kasabosky, Berlin	Offering for sale unsanitary milk	Fred Engelbracht, Berlin	$25 and costs.
Mar. 26	Fred Gustke, Berlin	Furnishing unsanitary milk to a condensary.	Fred Engelbracht, Berlin	$25 and costs.
Mar. 26	E. R. Thomas, Berlin	Furnishing unsanitary milk to a condensary.	Fred Engelbracht, Berlin	$25 and costs.
Mar. 26	W. G. Utz, Oshkosh	Selling as and for sausage a product containing cereal.	F. Beglinger, Oshkosh	Appealed from verdict of lower court rendered Oct. 3, 1912. Finding of lower court sustained.
Mar. 27	Chas. Tufe, Oshkosh	Selling as and for sausage a product containing cereal.	F. Beglinger, Oshkosh	Appealed from verdict of lower court, Dec. 5, 1912. Pleaded nolo contendere. Finding of lower court sustained.

Mar. 27	G. Ulrich, Oshkosh	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh	Appealed from verdict of lower court, Dec. 5, 1912. Pleaded nolo contendere. Finding of lower court sustained.
Mar. 27	J. F. Borsack, Oshkosh	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh	Appealed from verdict of lower court, Dec. 5, 1912. Pleaded nolo contendere. Finding of lower court sustained.
Mar. 27	J. Wickert, Oshkosh	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh	Appealed from verdict of lower court, Dec. 5, 1912. Pleaded nolo contendere. Finding of lower court sustained.
Mar. 27	Mrs. R. J. Miller, Oshkosh	Selling as and for sausage a product containing cereal.	A. H. Goss, Oshkosh	Appealed from verdict of lower court, Dec. 5, 1912. Pleaded nolo contendere. Finding of lower court sustained.
Mar. 29	S. C. Stanchfield, Fond du Lac	Delivering unsanitary cream to a creamery.	D. F. Blewett, Fond du Lac	$25 and costs.
Mar. 31	Ernest Schade, Fond du Lac	Offering for sale unsanitary cream	D. F. Blewett, Fond du Lac	$25 and costs.
April 3	Walter Schuster, Germantown	Selling unsanitary milk	Henry Thoma, Richfield	$25 and costs.
April 4	John Poehlman, Rockfield	Selling unsanitary milk	Henry Thoma, Richfield	$25 and costs.
April 4	Chas. Quade, West Bend	Furnishing to a cheese factory unsanitary milk.	Henry Thoma, Richfield	$25 and costs.
April 4	John Sauer, Allenton	Offering for sale unsanitary milk	Chas. Endlich, Allenton	$25 and costs.
April 4	John Langenecker, Allenton	Offering for sale unsanitary milk	Chas. Endlich, Allenton	$25 and costs.
April 9	Chas. Voss, Vandyne	Offering for sale unsanitary milk	D. F. Blewett, Fond du Lac	$25 and costs.
April 10	Mike Richlin, Darlington	Offering for sale unsanitary milk	J. F. McGinley, Darlington	$25 and costs.
April 10	Chas. Miller, Darlington	Offering for sale unsanitary milk	J. F. McGinley, Darlington	$25 and costs.
April 10	J. P. Dawson, Darlington	Offering for sale unsanitary milk	J. F. McGinley, Darlington	$25 and costs.
April 11	Ferdinand Papiham, Kewaunee	Selling unsanitary milk	Jos. H. Ray, Kewaunee	$25 and costs.
April 11	Fred Reed, Darlington	Offering for sale unsanitary milk	J. F. McGinley, Darlington	$25 and costs.
April 12	Albert Wellnitz, Spencer	Offering unsanitary milk to a cheese factory containing a filthy foreign substance.	L. Marchetti, Wausau	$25 and costs.
April 14	James Dourghty, Monroe	Offering for sale unclean milk	W. T. Saucerman, Monroe	$25 and costs.
April 14	C. W. Kleckna, Monroe	Offering for sale unclean milk	W. T. Saucerman, Monroe	$25 and costs.
April 16	Chas. Clark, Aurorahville	Delivering unsanitary milk to a condensary.	Fred Engelbracht, Berlin	$25 and costs.
April 16	H. F. Heider, West Salem	Furnishing unsanitary cream to a creamery.	John Brindley, La Crosse	$25 and costs.
April 16	Evan Jones, Berlin	Selling unsanitary cream	Thos. Gorman, Berlin	$50 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
April 17	Wm. Schmidt, Juneau.....	Furnishing unsanitary milk to a cheese factory.	M. W. Clifford, Juneau.....	$25 and costs.
April 18	Wm. Seegert, Juneau.....	Offering for sale unsanitary milk.....	M. W. Clifford, Juneau.....	$25 and costs.
April 18	Albert Ehmke, Juneau.....	Selling unsanitary milk.....	M. W. Clifford, Juneau.....	$25 and costs.
April 18	E. H. Lindemer, Juneau.....	Offering for sale unsanitary milk.....	M. W. Clifford, Juneau.....	$25 and costs.
April 18	Max Lueck, Juneau.....	Furnishing and offering for sale unsanitary milk.	M. W. Clifford, Juneau.....	$25 and costs.
April 19	Adrian Bingham, Richland Center	Selling milk containing a filthy and foreign substance.	Wm. Gillingham, Richland Center	$25 and costs.
April 19	John Turnipseed, Richland Center	Selling milk containing a filthy and foreign substance.	Wm. Gillingham, Richland Center	$25 and costs.
April 22	Chas. Morris, Richland Center....	Selling milk containing a filthy and foreign substance.	Wm. Gillingham, Richland Center	$25 and costs.
April 23	Roland Wheaton, Richland Center	Selling milk containing a filthy and foreign substance.	Wm. Gillingham, Richland Center	$25 and costs.
April 23	P. Perkins, Richland Center.....	Selling milk containing a filthy and foreign substance.	Wm. Gillingham, Richland Center	$25 and costs.
April 23	Thomas McNamee, Marshfield....	Maintaining skimming station premises and utensils in unclean and unsanitary condition.	L. Marchetti, Wausau.....	$25 and costs.
April 24	Fred Jahn, Clintonville.....	Selling unclean and unsanitary milk.....	John Alft, Shawano.....	$10 and costs.
April 24	E. A. Emmerich, Mosinee.....	Maintaining cheese factory premises and utensils in unclean and unsanitary condition.	L. Marchetti, Wausau.....	$25 and costs.
April 24	J. S. Clarson, Richland Center..	Selling milk containing a filthy and foreign substance.	W. H. Miller, Richland Center....	$25 and costs.
April 24	Eugene Gillingham, Gillingham...	Selling milk containing a filthy and foreign substance.	W. H. Miller, Richland Center....	$25 and costs.
April 25	Frank Scholl, Richland Center...	Selling milk containing a filthy and foreign substance.	W. H. Miller, Richland Center....	$25 and costs.
April 25	Lucien Wilquet, Luxembourg....	Delivering unsanitary milk to a creamery	John Miller, Luxembourg.....	$25 and costs.
April 25	Frank Vandenhouten, Luxembourg.	Selling unsanitary milk.....	John Miller, Luxembourg.....	$25 and costs.
April 25	Chas. Cravillion, Luxembourg..	Delivering unsanitary milk to a creamery	John Miller, Luxembourg.....	$25 and costs.
April 26	Chas. Lichtenberg, Mayville.....	Offering for sale unsanitary milk.....	E. Sauerherring, Mayville.....	$25 and costs.
April 26	Wm. Sell, Theresa.....	Offering for sale unsanitary milk.....	E. Sauerherring, Mayville.....	$25 and costs.

April 29	Louis Zimmerman, Juneau	Offering for sale unsanitary milk	W. M. Clifford, Juneau	$25 and costs.
April 29	Lee Holtman, Vesper	Maintaining premises and utensils used in handling milk for sale in unclean and unsanitary condition.	B. Brown, Grand Rapids	$25 and costs.
April 30	Chris. Indermuehle, Juneau	Operating a cheese factory under unsanitary conditions.	J. D. Lyons, Beaver Dam	$25 and costs.
April 30	Chris. Indermuehle, Juneau	Offering for sale unsanitary milk	J. D. Lyons, Beaver Dam	$25 and costs.
April 30	F. Sawyer, Beaver Dam	Offering for sale unsanitary milk in an open-seam can.	J. D. Lyons, Beaver Dam	$25 and costs.
April 30	M. Kohl, Beaver Dam	Offering for sale milk in a dirty can	J. D. Lyons, Beaver Dam	$25 and costs.
April 30	Martin Pavey, Beaver Dam	Offering for sale unclean milk in a dirty, open-seam can.	J. D. Lyons, Beaver Dam	$25 and costs.
April 30	Theodore Latzke, Watertown	Offering for sale unsanitary milk	W. D. Stacy, Watertown	$25 and costs.
April 30	Martin Klindt, Maribel	Offering for sale unsanitary milk drawn from filthy cows.	A. H. Schmidt, Manitowoc	$25 and costs.
May 1	F. Maas, Watertown	Offering for sale unsanitary milk	W. D. Stacy, Watertown	$25 and costs.
May 1	August Uttech, Watertown	Offering for sale unsanitary milk	Wm. H. Rohr, Watertown	$25 and costs.
May 1	Henry Hintz, Watertown	Offering for sale unsanitary milk	W. D. Stacy, Watertown	$25 and costs.
May 1	Chas. Buchert, Watertown	Offering for sale unsanitary milk	Wm. H. Rohr, Watertown	$25 and costs.
May 1	Henry Tonn, Jr., Cambria	Offering for sale milk in a dirty can	M. J. Rowlands, Cambria	$25 and costs.
May 1	J. J. Daniel, Cambria	Offering for sale dirty milk	M. J. Rowlands, Cambria	$25 and costs.
May 2	R. Van der Vries, Cambria	Offering for sale unsanitary milk	M. J. Rowlands, Cambria	$25 and costs.
May 2	Robt. Williams, Cambria	Offering for sale unsanitary milk	M. J. Rowlands, Cambria	$25 and costs.
May 2	Ray Alsum, Cambria	Offering for sale unsanitary milk	M. J. Rowlands, Cambria	$25 and costs.
May 2	Ernest Delebrous, Luxembourg	Offering for sale unsanitary milk: milk drawn from filthy cows and delivered in a rusty can.	J. L. Miller, Luxembourg	$25 and costs.
May 2	J. B. Jorriaux, Luxembourg	Offering for sale unsanitary milk: milk transported and delivered in dirty cans.	J. L. Miller, Luxembourg	$25 and costs.
May 2	Hugh Jones, Cambria	Selling adulterated milk	M. J. Rowlands, Cambria	$25 and costs.
May 5	A. W. Steinke, Baraboo	Selling misbranded pop	H. L. Halsted, Baraboo	$25 and costs.
May 5	Oscar Altpeter, Baraboo	Selling misbranded pop	H. L. Halsted, Baraboo	$25 and costs.
May 6	Albert Mueller, Algoma	Delivering unsanitary milk to a cheese factory.	E. A. Klatt, Algoma	Sentence suspended upon payment of costs.
May 6	Christian Ebert, Algoma	Delivering unsanitary milk to a cheese factory.	E. A. Klatt, Algoma	Sentence suspended upon payment of costs.
May 6	Henry Stark, Watertown	Offering for sale unsanitary milk	Wm. H. Rohr, Watertown	$25 and costs.
May 6	Julius Latzke, Watertown	Offering for sale unsanitary milk	W. D. Stacy, Watertown	$25 and costs.
May 7	Fred Laubke, Mayville	Offering for sale unsanitary milk	E. Sauerherring, Mayville	$25 and costs.
May 7	Aug. Villwock, Mayville	Offering for sale unsanitary milk	E. Sauerherring, Mayville	$25 and costs.
May 7	Frank Brummundt, Mayville	Offering for sale unsanitary milk	E. Sauerherring, Mayville	$25 and costs.
May 7	Emil Roll, Mayville	Operating an unsanitary cheese factory; manufacturing unsanitary milk into food; selling dirty milk.	E. Sauerherring, Mayville	$40 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
May 7	Perry Fink, Mayville	Offering for sale unsanitary milk	E. Sauerherring, Mayville	$25 and costs.
May 7	M. Kautin, Mayville	Offering for sale unsanitary milk	E. Sauerherring, Mayville	$25 and costs.
May 7	Paul Wolf, Mayville	Offering for sale unsanitary milk	E. Sauerherring, Mayville	$25 and costs.
May 8	F. H. Joseph, Plainfield	Underreading the Babcock test used in determining the value of cream.	C. S. Briggs, Wautoma	$25 and costs.
May 8	Wm. Riechert, Watertown	Offering for sale unsanitary milk	W. D. Stacy, Watertown	$25 and costs.
May 8	F. Schleicher, Watertown	Offering for sale unsanitary milk	W. D. Stacy, Watertown	$25 and costs.
May 8	Albert Weitzel, Watertown	Offering for sale unsanitary milk	Wm. H. Rohr, Watertown	$25 and costs.
May 8	J. Verg, Watertown	Offering for sale unsanitary milk	Wm. H. Rohr, Watertown	$25 and costs.
May 8	O. Kuenzi, Watertown	Offering for sale unsanitary milk from dirty and open-seam can.	Wm. H. Rohr, Watertown	$25 and costs.
May 8	H. Bethke, Watertown	Offering for sale unsanitary milk containing dirty foreign substance.	Wm. H. Rohr, Watertown	$25 and costs.
May 8	Albert Peters, Rubicon	Selling unsanitary milk	G. E. Sawyer, Horicon	$25 and costs.
May 9	Moritz Beetker, Pewaukee	Maintaining unsanitary dairy premises	Milo Muckleston, Waukesha	$25 and costs.
May 9	Wm. Klemp, Horicon	Selling unsanitary milk	M. W. Clifford, Juneau	$25 and costs.
May 9	Frank Cutler, Rolling Prairie	Offering for sale unsanitary milk transported in a rusty can.	M. W. Clifford, Juneau	$25 and costs.
May 9	Alfred Hanefeld, Juneau	Offering for sale unsanitary milk	M W. Clifford, Juneau	$25 and costs.
May 10	Edward Kesling, Jefferson	Offering for sale unsanitary milk contained in open seamed can.	O. F. Stoppenbach, Jefferson	$25 and costs.
May 10	Emil Burrow, Jefferson	Offering for sale unsanitary milk containing dirty foreign substance.	O. F. Stoppenbach, Jefferson	$25 and costs.
May 10	Herman Gusie, Jefferson	Offering for sale unsanitary milk containing dirty foreign substance.	O. F. Stoppenbach, Jefferson	$25 and costs.
May 10	F. Loebeck, Jefferson	Offering for sale unsanitary milk containing dirty foreign substance.	O. F. Stoppenbach, Jefferson	$25 and costs.
May 10	Ed. Wegner, Jefferson	Offering for sale unsanitary milk	O. F. Stoppenbach, Jefferson	$25 and costs.
May 12	Dan. Laughlin, Dorchester	Delivering unsanitary milk to a cheese factory.	R. F. Kountz, Neillsville	$25 and costs.
May 12	L. Buskirk, Jefferson	Offering for sale unsanitary milk	O. F. Stoppenbach, Jefferson	$25 and costs.
May 12	Geo. Knoepfel, Fort Atkinson	Offering for sale unsanitary milk	O. F. Stoppenbach, Jefferson	$25 and costs.
May 13	Henry Stabb, Waukesha	Selling adulterated milk	Milo Muckleston, Waukesha	$25 and costs.
May 15	Joseph Lieschka, Schleisingerville	Offering for sale unsanitary milk	Timothy Foley, Hartford	$25 and costs.
May 15	John Frey, Hartford	Offering for sale unsanitary milk	Timothy Foley, Hartford	$25 and costs.
May 15	Frank Buss, Johnson Creek	Offering for sale unsanitary milk containing unclean and foreign substance.	W. D. Stacy, Watertown	$25 and costs.

May 15	A. L. Harte, Lowell.....	Offering for sale meat and meat products kept under filthy conditions.	W. D. Stacy, Watertown.....	$25 and costs.
May 15	Aug. Buske, Johnson Creek.....	Offering for sale unsanitary milk: kept and transported in a dirty, open-seam can.	W. D. Stacy, Watertown.....	$25 and costs.
May 15	Frank Berg, Johnson Creek.....	Offering for sale unsanitary milk: containing unclean and foreign substance.	Wm. H. Rohr, Watertown.....	$25 and costs.
May 15	Wm. Sell, Johnson Creek.....	Offering for sale unsanitary milk: containing unclean and foreign substance.	Wm. H. Rohr, Watertown.....	$25 and costs.
May 15	Gust. Zindras, Johnson Creek....	Offering for sale unsanitary milk: containing unclean and foreign substance.	Wm. H. Rohr. Watertown.....	$25 and costs.
May 15	Richard Zindrow, Johnson Creek	Offering for sale unsanitary milk: kept and transported in a dirty, open-seamed can.	W. D. Stacy, Watertown.....	$25 and costs.
May 15	Carl Maass, Johnson Creek.....	Offering for sale unsanitary milk: containing unclean and foreign substance.	W. D. Stacy, Watertown.....	$25 and costs.
May 15	Albert Maass, Johnson Creek.....	Offering for sale unsanitary milk: containing added unclean and foreign substance.	W. D. Stacy, Watertown.....	$25 and costs.
May 15	Carl Schoenck, Junction City...	Delivering unsanitary milk to a creamery	J. A. Murat, Stevens Point.....	$25 and costs.
May 15	Henry Hoffe, Richwood.....	Offering for sale unsanitary milk: transported in unclean cans.	Wm. H. Rohr, Watertown.....	$25 and costs.
May 15	Charles Kube, Richwood.....	Offering for sale unsanitary milk: transported in open-seamed can.	W. D. Stacy, Watertown.....	$25 and costs.
May 16	August Schaff, Hartford.....	Offering for sale unsanitary milk.....	Timothy Foley, Hartford.....	$25 and costs.
May 16	F. Valenta, Watertown.....	Offering for sale unsanitary milk.....	W. D. Stacy, Watertown.....	Costs. Sentence suspended.
May 17	Andrew Karius, West Bend.....	Maintaining dairy premises and utensils in unsanitary condition.	Timothy Foley, Hartford.....	$25 and costs.
May 19	Joseph Paulbicki, Pulaski.....	Selling unclean and unsanitary milk.....	John Alft, Shawano.....	$25 and costs.
May 19	Fred Grahlmann, Johnson Creek	Offering for sale unsanitary milk: containing a dirty, foreign substance.	Wm. H. Rohr, Watertown.....	$25 and costs.
May 19	Rudolph Gehler, Johnson Creek..	Offering for sale unsanitary milk: containing unclean, foreign substance.	W. D. Stacy, Watertown.....	$25 and costs.
May 19	Herman Else, Johnson Creek.....	Offering for sale unsanitary milk: containing unclean, foreign substance.	W. D. Stacy, Watertown.....	$25 and costs.
May 19	A. Voelker, Johnson Creek.....	Offering for sale unsanitary milk: containing unclean, foreign substance.	W. D. Stacy, Watertown.....	$25 and costs.
May 19	H. Mueller, Johnson Creek.....	Offering for sale unsanitary milk: containing unclean, foreign substance.	W. D. Stacy, Watertown.....	$25 and costs.
May 19	Gust Marcks, Johnson Creek.....	Offering for sale unsanitary milk: containing unclean, foreign substance.	Wm. H. Rohr, Watertown.....	$25 and costs.
May 19	J. Haubenschield, Johnson Creek	Offering for sale unsanitary milk: containing unclean, foreign substance.	Wm. H. Rohr, Watertown.....	$25 and costs.
May 20	Edw. Krueger, Clintonville.....	Selling milk below legal standard in solids not fat.	R. G. Gibson, Clintonville.....	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
May 20	W. Onnhauser, Reeseville	Offering for sale unsanitary milk	Emil Klentz, Reeseville	$25 and costs.
May 20	H. F. Schultz, Reeseville	Offering for sale unsanitary milk	Emil Klentz, Reeseville	$25 and costs.
May 20	Henry Willi, Reeseville	Offering for sale unsanitary milk	Emil Klentz, Reeseville	$25 and costs.
May 20	Karl Wiese, Reeseville	Offering for sale unsanitary milk	Emil Klentz, Reeseville	$25 and costs.
May 21	D. Connell, Janesville	Offering for sale unsanitary milk	C. Fifield, Janesville	Costs. Fine suspended.
May 21	David Engelhart, Browntown	Having in possession with intent to sell rotten sausage; using unsanitary utensils.	W. T. Saucermann, Monroe	$30 and costs.
May 21	J. Martin, Janesville	Offering for sale unsanitary milk	C. Fifield, Janesville	Fine suspended.
May 22	Charles Schmidt, Larson	Selling milk below legal standard	Thomas Ryan, Appleton	$25 and costs.
May 22	Joseph Freisch, Watertown	Offering for sale unsanitary milk	Wm. H. Rohr, Watertown	$25 and costs.
May 22	Albert Radtke, Watertown	Offering for sale unsanitary milk	W. D. Stacy, Watertown	$25 and costs.
May 22	P. Monogue, Hebron	Offering for sale unsanitary milk: containing unclean, foreign substance.	O. F. Stoppenbach, Jefferson	$25 and costs.
May 23	Willis Briggs, Muscoda	Selling unsanitary milk: containing filthy, foreign substance.	W. H. Miller, Richland Center	$25 and costs.
May 23	Frank Rohloff, Sullivan	Offering for sale unsanitary milk: containing unclean, foreign substance.	O. F. Stoppenbach, Jefferson	$25 and costs.
May 23	Fred Cramer, Sullivan	Offering for sale unsanitary milk: containing unclean, foreign sugstance.	O. F. Stoppenbach, Jefferson	$25 and costs.
May 23	John Vollmar, Hilbert	Offering for sale unsanitary milk	Wm. Rothman, Chilton	$25 and costs.
May 23	Anton Hauser, Hilbert	Offering for sale upsanitary milk	Wm. Rothman, Chilton	$25 and costs.
May 23	D. J. Williams, Sullivan	Offering for sale unsanitary milk: kept and transported in open-seamed cans.	Chas. A. Buss, Jefferson	$25 and costs.
May 23	Leo Bartz, Sullivan	Offering for sale unsanitary milk: kept and transported in open-seamed cans.	Chas. A. Buss, Jefferson	$25 and costs.
May 23	John Georgan, Sullivan	Offering for sale unsanitary milk: kept and transported in open-seamed cans.	Chas. A. Buss, Jefferson	$25 and costs.
May 23	August Block, Sullivan	Offering for sale unsanitary milk: kept and transported in open-seamed cans.	Chas. A. Buss, Sullivan	$25 and costs.
May 23	A. L. Shafton, Stevens Point	Storing and offering for sale food without protecting same from filth and other contamination.	J. A. Murat, Stevens Point	Costs. Sentence suspended.
May 23	W. Schmitz, Jr., Pewaukee	Offering for sale unsanitary, unclean milk: transported in unsanitary cans.	M. Muckleston, Waukesha	Fine suspended.
May 23	C. Hibbard, Hebron	Offering for sale unsanitary milk: containing unclean substance.	O. F. Stoppenbach, Jefferson	$25 and costs.

May 24	Geo. Richardson, Richland Center	Selling milk to a cheese factory containing a filthy, foreign substance.	S. G. Curtis, Richland Center.....	$25 and costs.
May 24	G. Semrow, Templeton.....	Offering for sale unsanitary, unclean milk	M. Muckleston, Waukesha.....	Fine suspended.
May 26	Emil Klug, Wausau.....	Delivering unsanitary milk to a cheese factory.	L. Marchetti, Wausau.....	$25 and costs.
May 26	F. M. Robinson, Richland Center	Selling milk to a cheese factory containing a filthy and foreign substance.	S. G. Curtis, Richland Center.....	$25 and costs.
May 27	Patrick Coughlin, Watertown....	Offering for sale unsanitary milk.....	Wm. H. Rohr, Watertown.....	$25 and costs.
May 27	Frank Weisse, Abbottsford.....	Delivering unsanitary milk to a creamery	L. Marchetti, Wausau.....	$25 and costs.
May 27	Emil Timm, Oconomowoc.....	Offering and selling unsanitary milk.....	A. G. Derse, Oconomowoc.....	$25 and costs.
May 24	Thomas Reese, Nashotah.....	Offering and selling unclean, unsanitary milk.	A. G. Derse, Oconomowoc.....	$25 and costs.
May 27	S. E. Parmley, Footville.....	Maintaining creamery apparatus in an unclean condition.	C. L. Fifield, Janesville.....	$25 and costs.
May 28	Herman Wilke, Footville.....	Offering for sale unsanitary milk: kept and transported in open-seamed can.	C. L. Fifield, Janesville.....	$25 and costs.
May 27	George Jones, Footville.....	Offering for sale unsanitary milk: kept and transported in dirty open-seamed can.	C. L. Fifield, Janesville.....	$25 and costs.
May 27	Chas. Lawerenz, Footville.....	Offering for sale unsanitary milk: kept and transported in a dirty, open-seamed can.	C. L. Fifield, Janesville.....	$25 and costs.
May 27	Geo. Bloedorn, Footville.....	Offering for sale unsanitary milk: containing unclean, foreign substance.	C. L. Fifield, Janesville.....	$25 and costs.
May 27	Geo. Schumacher, Footville.....	Offering for sale unsanitary milk: containing unclean, foreign substance.	C. L. Fifield, Janesville.....	$25 and costs.
May 28	M. K. Killoy, Twin Bluffs.....	Selling to a condensary milk to which had been added a filthy and foreign substance.	Thomas Jones, Richland Center..	$25 and costs.
May 28	Emil Kube, Watertown.....	Offering for sale unsanitary milk.....	W. D. Stacy, Watertown.....	$25 and costs.
May 28	Jos. Cmejla, Kewaunee.....	Offering for sale unsanitary milk: transported in rusty cans.	E. A. Klatt, Algoma.....	$25 and costs.
May 28	Albert Novotny, Kewaunee.....	Offering for sale unsanitary milk: transported in a rusty can.	E. A. Klatt, Algoma.....	$25 and costs.
May 29	Peter Fiala, Kewaunee.....	Offering for sale unsanitary milk: transported in rusty cans.	E. A. Klatt, Algoma.....	$25 and costs.
May 29	Jos. Hrabik, Kewaunee.....	Offering for sale unsanitary milk: transported in rusty cans.	E. A. Klatt, Algoma.....	$25 and costs.
May 31	Wm. Wolf, Oconomowoc.....	Offering for sale unsanitary milk.....	A. G. Derse, Oconompwoc.....	$25 and costs.
May 31	Albert Umbeham, Richland Center	Selling milk to a cheese factory to which had been added a filthy and foreign substance.	S. G. Curtis, Richland Center.....	$25 and costs.
May 31	John Umbeham, Richland Center	Selling milk to a cheese factory to which had been added a filthy and foreign substance.	S. G. Curtis, Richland Center.....	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
May 31	R. H. Long, Richland Center....	Selling milk to a condensary to which had been added a filthy and foreign substance.	Thomas Jones, Richland Center..	$25 and costs.
June 2	Jake Grim, Arpin.....	Delivering unsanitary milk to a cheese factory.	John Roberts, Grand Rapids.....	$25 and costs.
June 3	W. F. Gruetzmacher, Clintonville	Selling milk below legal standard.....	John Alft, Shawano.....	$25 and costs.
June 3	Walter Schmoll, Black Creek.....	Maintaining an unclean and unsanitary cheese factory.	Thomas Ryan, Appleton.....	$25 and costs.
June 3	J. E. Eerement, Cazenovia.....	Maintaining dairy premises and separator in unclean, filthy and noxious condition.	S. G. Curtis, Richland Center.....	$25 and costs.
June 3	A. Vlasak, Yuba.....	Selling milk to a cheese factory to which had been added a filthy and foreign substance.	S. G. Curtis, Richland Center.....	$25 and costs.
June 3	Felix Razaza, Pulaski.....	Delivering unsanitary milk to a cheese factory.	John Alft, Shawano.....	$25 and costs.
June 3	L. Revers, Pulaski.....	Delivering unsanitary milk to a cheese factory.	John Alft, Shawano.....	$25 and costs.
June 3	A. J. Paynter, Middleton.....	Maintaining dairy utensils in unclean condition.	—— Holt, Middleton.....	$25 and costs.
June 4	Geo Vandervelzen, Ladysmith...	Selling meat of a diseased cow.....	R. S. Reeves, Ladysmith.....	$25 and costs.
June 4	A. A. Bush, Ladysmith.....	Selling meat from a diseased cow.....	R. S. Reeves, Ladysmith.....	$25 and costs.
June 6	Frank Gruenwald, Thiensville.....	Maintaining unsanitary dairy premises....	Wm. A. Tholen, Port Washington	$25 and costs.
June 6	Henry Schram, Thiensville.....	Having in possession with intent to sell unsanitary milk.	Wm. A. Tholen, Port Washington	$25 and costs.
June 6	James O'Brien, Cedarburg.....	Offering for sale unsanitary milk.....	Wm. A. Tholen, Port Washington	$25 and costs.
June 6	H. C. Rintelman, Cedarburg.....	Offering for sale unsanitary milk.....	Wm. A. Tholen, Port Washington	$25 and costs.
June 6	Hugo Hoffman, Thiensville.....	Offering for sale unsanitary milk.....	Wm. A. Tholen, Port Washington	$25 and costs.
June 6	Adolph Clausing, Thiensville.....	Offering for sale unsanitary cream.....	Wm. A. Tholen, Port Washington	$25 and costs.
June 7	Martin Krause, Thiensville.....	Selling unsanitary milk.....	Wm. A. Tholen, Port Washington	$25 and costs.
June 7	Geo. Kopp, Thiensville.....	Maintaining cream separator in unsanitary condition.	Wm. A. Tholen, Port Washington	$25 and costs.
June 7	Andrew W. Nelson, Oconomowoc	Offering for sale unsanitary milk.....	A. G. Derse, Oconomowoc.....	$25 and costs.
June 7	James McMahon, Oconomowoc...	Offering for sale unsanitary milk.....	A. G. Derse, Oconomowoc.....	$25 and costs.
June 9	J. Malipske, Beaver Dam.....	Offering for sale unclean and unsanitary milk.	M. W. Clifford, Juneau.....	$25 and costs.
June 9	G. Bolzions, Burnett.....	Offering for sale unclean and unsanitary milk.	M. W. Clifford, Juneau.....	Fine suspended.

June 9	F. W. Buske, Burnett	Offering for sale unclean and unsanitary milk.	M. W. Clifford, Juneau	Fine suspended.	
June 9	G. Schindel, Burnett	Offering for sale unclean and unsanitary milk.	M. W. Clifford, Juneau	Fine suspended.	
June 10	Michael Paluch, Pulaski	Delivering unsanitary milk to a cheese factory.	John Alft, Shawano	$25 and costs.	
June 10	Daniel Brooks, Chili	Delivering to a cheese factory unsanitary milk.	James O'Neill, Neillsville	$25 and costs.	Pleaded nolo contendere.
June 11	Louis Borchardt, North Milwaukee.	Offering for sale unsanitary milk	Geo. A. Page, Milwaukee	$25 and costs.	
June 12	Henry Donner, Dayton	Maintaining and operating an unsanitary creamery.	Wm. Benkert, Monticello	$25 and costs.	
June 12	E. Fonda, Shopiere	Selling and exposing for sale flesh of a diseased animal.	J. B. Clark, Beloit	$10 and costs.	
June 13	Thomas Rott, Yuba	Offering for sale to a cheese factory milk to which had been added a filthy and foreign substance.	E. Snow, Yuba	$25 and costs.	
June 13	Frank Tydrick, Yuba	Offering for sale to a cheese factory milk to which had been added a filthy and foreign substance.	E. Snow, Yuba	$25 and costs.	
June 13	C. P. Lewis, Yuba	Offering for sale to a cheese factory milk to which had been added a filthy and foreign substance.	E. Snow, Yuba	$25 and costs.	
June 13	Joseph Kaukle, Yuba	Offering for sale to a cheese factory milk to which had been added a filthy and foreign substance.	E. Snow, Yuba	$25 and costs.	
June 14	H. Lamp, Waukesha	Preparing food for sale under unclean conditions.	M. Muckleston, Waukesha	Fine suspended.	
June 13	John Joss, Woodland	Using unclean apparatus in a cheese factory.	Milo Muckleston, Waukesha	Fine suspended.	
June 17	John P. Gengler, North Milwaukee.	Maintaining unsanitary dairy premises and utensils.	Geo. A. Page, Milwaukee	$25 and costs.	
June 17	E. R. Whitcomb, North Milwaukee.	Maintaining unsanitary dairy premises	Geo. A. Page, Milwaukee	$25 and costs.	
June 17	Louis Walter, Watertown	Delivering unsanitary, unclean milk to a cheese factory.	W. Kaul, Hustisford	$25 and costs.	
June 17	Frank Seefeldt, Watertown	Delivering unsanitary, unclean milk to a cheese factory.	W. Kaul, Hustisford	$25 and costs.	
June 17	W. Hackbarth, Watertown	Delivering unsanitary, unclean milk to a cheese factory.	W. Kaul, Hustisford	$25 and costs.	
June 18	Peter J. Pauly, Port Washington	Maintaining unsanitary cheese factory premises and utensils.	Wm. A. Tholen, Port Washington	$50 and costs.	
June 18	Chas. Kennedy, Woodstock	Offering for sale to a cheese factory milk to which had been added a filthy and foreign substance.	W. H. Miller, Richland Center	$25 and costs.	

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
June 18	Michael Geoghegan, Rockbridge..	Keeping and maintaining an unclean, dirty and noxious cheese factory.	W. H. Miller, Richland Center.....	$25 and costs.
June 18	Jess Beaty, Woodstock.....	Offering for sale to a cheese factory milk to which had been added a filthy and foreign substance.	W. H. Miller, Richland Center.....	$25 and costs.
June 18	Frank Rabuck, La Valle.....	Furnishing unsanitary cream to a creamery	Adolph Andrew, Baraboo.....	$25 and costs.
June 18	Jos. Priehl, La Valle.....	Furnishing unsanitary cream to a creamery	Adolph Andrew, Baraboo.....	$25 and costs.
June 18	Geo. Thomas, Hustisford.....	Delivering unclean milk to a cheese factory.	W. Kaul, Hustisford.....	$25 and costs.
June 18	W. Suhr, Hustisford.....	Delivering unclean milk to a cheese factory.	W. Kaul, Hustisford.....	$25 and costs.
June 19	Thomas Joyce, Rockbridge.....	Selling to a cheese factory milk to which had been added a filthy and foreign substance.	W. H. Miller, Richland Center....	$25 and costs.
June 19	James West, Rockbridge.....	Selling milk to a cheese factory to which had been added a filthy and foreign substance.	W. H. Miller, Richland Center....	$25 and costs.
June 19	J. Bartol, Belmont.....	Offering for sale unclean milk.....	James Gibbons, Belmont.....	$25 and costs.
June 20	John Arendt, Fredonia.....	Maintaining unsanitary cheese factory and utensils.	John Fintzen, Fredonia.....	$25 and costs.
June 20	Christ Weiss, Iron Ridge.....	.....	W. M. Clifford, Juneau.....	$25 and costs.
June 20	H. Weidig, Iron Ridge.....	.....	W. M. Clifford, Juneau.....	$25 and costs.
June 20	M. Malcahy, Belmont.....	Offering for sale unclean milk.....	James Gibbons, Belmont.....	$25 and costs.
June 21	J. B. Dunbar, Belmont.....	Maintaining dirty cheese factory and utensils.	James Gibbons, Belmont.....	$25 and costs.
June 23	G. H. Huber, Clinton.....	Offering and exposing for sale meat not protected from filth, flies and other unsanitary conditions.	C. L. Fifield, Janesville.....	$25 and costs.
June 25	E. Indermuehle, Hartford.....	Maintaining unsanitary cheese factory....	H. J. Thoma, Richfield.....	$25 and costs.
June 25	J. Siewert, Richfield.....	Delivering unclean and unsanitary milk to a cheese factory.	H. J. Thoma, Richfield.....	$25 and costs.
June 25	J. Ferris, Richfield.....	Delivering unclean and unsanitary milk to a cheese factory.	H. J. Thoma, Richfield.....	$25 and costs.
June 25	Gottfried and Edward Kuenzi....	Maintaining cheese factory premises in unsanitary condition.	H. J. Thoma, Richfield.....	$25 and costs.
June 27	A. F. Jahnke, Ladysmith.....	Maintaining creamery premises and utensils in unsanitary condition.	D. W. Maloney, Ladysmith.....	$25 and costs.

June 27	Carl Hein, Monticello	Offering for sale unsanitary milk transported in dirty and rusty cans.	Wm. Benkert, Monticello	$25 and costs.
June 28	John Buss, Appleton	Offering for sale unclean and unsanitary milk.	Thomas Ryan, Appleton	$25 and costs.
June 28	Anton Ellingbeck, Appleton	Selling unclean and unsanitary milk	Thomas Ryan, Appleton	$25 and costs.
June 28	J. P. Walsh, Elroy	Selling unsanitary cream to a creamery	H. H. Dunn, Elroy	$25 and costs.
June 28	Thos. Gerety, Elroy	Selling unsanitary cream to a creamery	H. H. Dunn, Elroy	$25 and costs.
June 28	James Henry, Elroy	Selling unsanitary milk to a creamery	H. H. Dunn, Elroy	$25 and costs.
June 30	Harry Eide, Granton	Maintaining premises and utensils used in the handling of dairy products in an unclean and unsanitary condition.	R. F. Kountz, Neillsville	$25 and costs. Pleaded nolo contendere.
June 30	Frank Maloney, Kaukauna	Selling unsanitary milk	N. J. Monahan, Green Bay	Sentence suspended upon payment of costs.
June 30	Wm. Campbell, Kaukauna	Offering for sale unsanitary milk	N. J. Monahan, Green Bay	Sentence suspended upon payment of costs.
June 30	E. A. Stelzman, Ladysmith	Manufacturing for sale Hamburger steak under unclean, unhealthful conditions.	D. W. Maloney, Ladysmith	$25 and costs.
July 2	Henry Jeh, Appleton	Offering for sale unclean and unsanitary milk.	Thomas Ryan, Appleton	$25 and costs.
July 2	Ambrose Heinz, Burlington	Operating a creamery with unclean and unsanitary utensils.	Henry Mallory, Elkhorn	$25 and costs.
July 2	James Keliher, Blue Mounds	Maintaining cheese factory premises in unsanitary condition.	H. McKienze, Black Earth	$25 and costs.
July 2	Adam Hefty, Blue Mounds (Cheesemaker, Keliher Factory)	Maintaining unclean apparatus in cheese factory.	H. McKienze, Black Earth	$25 and costs.
July 2	Fred Booth, Blue Mounds	Delivering milk in dirty, open-seamed cans	H. McKienze, Black Earth	$25 and costs.
July 2	Joseph Wallhem, Appleton	Offering for sale unclean and unsanitary milk.	Thomas Ryan, Appleton	$25 and costs.
July 3	J. Rhyner, Albany	Offering for sale milk transported in dirty cans.	W. T. Saucerman, Monroe	$25 and costs.
July 3	Charles Zuerck, Brodhead	Manufacturing cheese under unsanitary conditions.	W. T. Saucerman, Monroe	$25 and costs.
July 3	E. Brant, Albany	Offering for sale dirty milk, transported in dirty, open-seamed cans.	W. T. Saucerman, Monroe	$25 and costs.
July 7	A. D. Black, Clear Lake	Selling unsanitary cream	J. J. Tuttle, Balsam Lake	$25 and costs.
July 7	Ole Asp, Clear Lake	Maintaining creamery premises in unclean and unsanitary condition.	J. J. Tuttle, Balsam Lake	$25 and costs.
July 8	Daniel Murphy, Shullsburg	Offering for sale unsanitary milk, transported in dirty, open-seamed cans.	A. A. Townsend, Shullsburg	$25 and costs.
July 8	Mrs. H. Morgan, Shullsburg	Offering for sale unsanitary milk	A. A. Townsend, Shullsburg	$25 and costs.
July 9	Clyde Morris, Fitchburg	Offering for sale dirty unsanitary milk	John C. Fehlandt, Madison	$25 and costs.
July 9	Fred Haak, Fitchburg	Offering for sale dirty unsanitary milk	John C. Fehlandt, Madison	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
July 10	Sharp Corner Cheese Co., T. Mortensen, Pres., Mount Horeb	Cheese factory not properly screened.....	J. Kittleson, Mount Horeb.....	$10 and costs.
July 10	The Malone Cheese Co., E. Lewis, Pres., Mount Horeb.	Cheese factory not properly screened.....	J. Kittleson, Mount Horeb.....	$10 and costs.
July 11	Wm. Arneson, Avoca.....	Offering for sale dirty milk.....	Josiah Ward, Avoca.....	$25 and costs.
July 12	J. Nissenbaum, Merrill	Offering for sale vanilla and coumarin colored in imitation of genuine vanilla extract.	M. C. Porter, Merrill.....	$25 and costs.
July 12	W. H. Kubat, Eagle.....	Maintaining unsanitary creamery premises and utensils.	Milo Muckleston, Waukesha.....	$25 and costs.
July 13	Arne Arneson, Avoca.....	Offering for sale dirty milk.....	Josiah Ward, Avoca.....	$25 and costs.
July 15	Edward Wagner, Jacksonport...	Transporting milk in dirty, open-seamed cans.	H. H. Reynolds, Sturgeon Bay....	$25 and costs.
July 15	Jos. Palan, Milladore.....	Delivering unsanitary milk to a cheese factory.	G. L. Parker, Stevens Point.....	$25 and costs.
July 15	John Rush, Darlington.....	Maintaining filthy slaughterhouse premises and utensils.	J. T. O'Neill, Darlington.....	$25 and costs.
July 15	John Markan, Darlington.....	Maintaining filthy slaughterhouse premises and utensils.	J. T. O'Neill, Darlington.....	$25 and costs.
July 15	Geo. Stewart, Darlington.....	Maintaining filthy slaughterhouse.....	J. T. O'Neill, Darlington.....	$25 and costs.
July 16	F. Schey, Marshall.....	Maintaining creamery utensils in unsanitary condition.	J. C. Fehlandt, Madison.....	$25 and costs.
July 16	Felix Flynn, Clyde.....	Offering for sale dirty milk.....	Josiah Ward, Avoca.....	$25 and costs.
July 16	Henry Laufenberg, Avoca.....	Offering for sale dirty milk.....	Josiah Ward, Avoca.....	$25 and costs.
July 17	Otto Voeks, Sturgeon Bay.....	Manufacturing for sale cheese from unsanitary milk.	H. H. Reynolds, Sturgeon Bay....	$25 and costs.
July 17	Ed. Anderson, Sturgeon Bay....	Selling unsanitary milk.....	H. H. Reynolds, Sturgeon Bay....	$25 and costs.
July 19	Christoffer Speich, Albany.....	Maintaining unsanitary cheese factory....	W. T. Saucerman, Monroe.....	$25 and costs.
July 19	Charles Peterson, Irma.....	Selling unsanitary cream in unclean can..	M. C. Porter, Merrill.....	$25 and costs.
July 19	Jacob Rhyner, Albany.....	Offering for sale unsanitary milk.....	W. T. Saucerman, Monroe.....	$25 and costs.
July 21	R. Schleicher, Sturgeon Bay.....	Offering for sale unsanitary milk.....	H. H. Reynolds, Sturgeon Bay....	$25 and costs.
July 21	C. F. Welter, Kaukauna.....	Offering for sale unclean and unsanitary milk	Henry Kriss, Appleton.....	$25 and costs.
July 22	Charles Rossman, Menomonee Falls.	Offering for sale unclean and unsanitary milk.	M. Muckleston, Waukesha.....	$25 and costs.

July 23	Otto Pofany, Albany	Offering for sale milk transported in dirty cans.	W. T. Saucerman, Monroe	$25 and costs.
July 23	Theobold Cheese Factory, Barneveld.	Maintaining cheese factory premises in unsanitary condition.	—— Halverson, Dodgeville	$25 and costs.
July 24	Fred Thur, Fairchild	Maintaining cheese factory premises and utensils in filthy condition.	H. A. Johnson, Black River Falls	$25 and costs.
July 24	John Egge, Viroqua	Delivering unsanitary milk to a cheese factory.	S. A. Pollard, Viroqua	$25 and costs.
July 24	N. E. Possley, De Pere	Maintaining cheese factory premises and utensils in unsanitary condition.	N. J. Monahan, Green Bay	$25 and costs.
July 24	J. J. Kubs, De Pere	Maintaining cheese factory premises and utensils in unsanitary condition.	N. J. Monahan, Green Bay	$25 and costs.
July 24	David Kurt, Markesan	Maintaining unsanitary cheese factory premises.	H. A. Price, Markesan	$25 and costs.
July 26	H. A. Johnson, Coleman	Offering for sale unsanitary milk	John McMahon, Pound	$25 and costs.
July 26	Henry Lanning, Fairwater	Offering for sale unsanitary milk	R. L. Oliver, Waupun	$25 and costs.
July 26	Arthur Patchett, Fairwater	Offering for sale unsanitary milk	R. L. Oliver, Waupun	$25 and costs.
July 29	M. P. Early, New Richmond	Delivering and offering for sale unsanitary milk.	O. M. Arnquist, Hudson	$25 and costs.
July 29	Ed. Early, New Richmond	Delivering and offering for sale unsanitary milk.	O. M. Arnquist, Hudson	$25 and costs.
July 30	J. J. Hassmer, Bloomer	Offering for sale unsanitary cream	F. W. Jenkins, Chippewa Falls	$25 and costs.
July 31	Thos. McCarthy, Highland	Offering for sale milk containing a filthy and foreign substance.		$25 and costs.
Aug. 1	Oscar Weeden, Sheboygan	Selling cream below legal standard	J. M. Giblin, Sheboygan	$25 and costs.
Aug. 1	Wm. Koentopp, Fairwater	Maintaining unsanitary cream separator	L. J. Butts, Waupun	$75 and costs.
Aug. 2	Hiram Hubbard, Ridgeway	Offering for sale milk containing a filthy foreign substance.	W. F. Carter, Dodgeville	$25 and costs.
Aug. 2	John Strick, Burnett Junction	Offering for sale unsanitary milk	L. J. Butts, Waupun	$25 and costs.
Aug. 2	Aug. Luck, Burnett Junction	Offering for sale unsanitary milk	L. J. Butts, Waupun	$25 and costs.
Aug. 2	Wm. Dohlke, Chaseburg	Furnishing unsanitary cream to a creamery.	S. R. Pollard, Viroqua	$25 and costs.
Aug. 5	J. M. Dodmead, Eau Claire	Selling unwholesome meat	Henry McBain, Eau Claire	$25 and costs.
Aug. 5	Herman Helwig, Coon Valley	Furnishing unsanitary cream to a creamery.	S. R. Pollard, Viroqua	$25 and costs.
Aug. 6	D. W. Mountin, Hartford	Offering for sale unsanitary milk	H. J. Thoma, Hartford	$25 and costs.
Aug. 6	James McNamara, Hartford	Offering for sale unsanitary milk	H. J. Thoma, Hartford	$25 and costs.
Aug. 6	Prehn & Steiber, Marathon	Selling linseed oil adulterated with mineral oil.	L. Marchetti, Wausau	$25 and costs.
Aug. 6	Jacob Schneider, Hartford	Manufacturing cheese in factory not protected from flies.	Timothy Foley, Hartford	$25 and costs.
Aug. 7	Geo. Drace, Dodgeville (Cheese maker, Oak Ridge Fcty.)	Maintaining unclean apparatus at cheese factory.	—— Halverson, Dodgeville	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
Aug. 7	Peter H. Reisch, Hubertus.....	Maintaining an unclean and unsanitary cheese factory.	Henry Thoma, Richfield.....	$25 and costs.
Aug. 7	Geo. Hollenstein, Hubertus.....	Offering for sale unclean and unsanitary milk.	Henry Thoma, Richfield.....	$25 and costs.
Aug. 8	A. F. Watke, Fond du Lac.....	Selling adulterated wine vinegar, below standard and artificially colored.	R. C. Fairbank, Fond du Lac.....	$25 and costs.
Aug. 8	T. E. Doyle, Lena.....	Maintaining unclean and unsanitary cheese factory.	A. Donlevy, Oconto.....	Costs.
Aug. 8	A. Wittenberger, Richfield.....	Offering for sale unsanitary milk.....	Henry Thoma, Richfield.....	$25 and costs.
Aug. 8	Henry Wiedmeyer, Richfield.....	Offering for sale unsanitary milk.....	Henry Thoma, Richfield.....	$25 and costs.
Aug. 9	H. L. Sieloff, Eden.....	Maintaining unsanitary cheese factory premises and utensils.	R. C. Fairbank, Fond du Lac.....	$25 and costs.
Aug. 9	John Fishbacher, Monroe.....	Operating unsanitary cheese factory.....	W. T. Saucerman, Monroe.....	$25 and costs.
Aug. 9	Thomas Lloyd, Fond du Lac...	Selling unsanitary milk.....	R. C. Fairbank, Fond du Lac.....	$25 and costs.
Aug. 12	Walter Gierach, Juneau.....	Offering for sale unsanitary milk.....	M. W. Clifford, Juneau.....	$25 and costs.
Aug. 12	J. P. Mooney, Brodhead.....	Offering for sale unsanitary milk, transported in a dirty can.	W. T. Saucerman, Monroe.....	$25 and costs.
Aug. 13	A. Thornton, Brodhead.....	Offering for sale and selling unsanitary milk containing an unclean foreign substance.	W. T. Saucerman, Monroe.....	Notice of appeal given.
Aug. 13	L. A. Schneider, Hilbert.....	Manufacturing for sale cheese in factory not protected from flies.	Wm. Rothman, Chilton.....	$25 and costs.
Aug. 15	Michael Bolman, Marinette.....	Selling adulterated milk.....	C. C. Daily, Marinette.....	$25 and costs.
Aug. 15	John F. Keene, Oshkosh.....	Having in possession with intent to sell unsanitary milk.	A. H. Goss, Oshkosh.....	$25 and costs.
Aug. 16	A. Aufdiemauer, Allenton.....	Manufacturing cheese for sale not protected from flies.	Timothy Foley, Hartford.....	$25 and costs.
Aug. 16	John Schaefer, Fond du Lac.....	Offering for sale unsanitary milk.....	R. C. Fairbank, Fond du Lac.....	$30 and costs.
Aug. 16	Ole Johnson, Junction.....	Delivering unsanitary milk to a creamery in unsanitary can.	G. L. Parks, Stevens Point.....	$25 and costs.
Aug. 18	Willert Burdean, Big Suamico...	Furnishing and delivering unsanitary milk	N. J. Monahan, Green Bay.....	Costs. Pleaded nolo contendere.
Aug. 18	Edward Greenwood, Green Bay..	Offering for sale unsanitary milk, transported in dirty cans.	N. J. Monahan, Green Bay.....	Costs. Pleaded nolo contendere.
Aug. 18	Herman Dahl, Boaz.....	Offering for sale milk containing a filthy foreign substance.	S. G. Curtis, Richland Center.....	$25 and costs.

Aug. 18	Jos. Cowling, Jr., Neenah.....	Selling adulterated milk.....	Nels Jensen, Neenah.....	$30 and costs.
Aug. 19	Jos. Arnold, Brussels.....	Maintaining cheese factory premises and utensils in unsanitary condition.	H. H. Reynolds, Sturgeon Bay..	$25 and costs.
Aug. 19	James Streveler, Rozellville.....	Maintaining utensils used in the handling of milk in filthy and noxious condition.	L. Marchetti, Wausau.....	$5 and costs.
Aug. 20	Floyd Farrell, Big Suamico.....	Offering for sale unsanitary milk, transported in dirty can.	N. J. Monahan, Green Bay.....	$5 and costs.
Aug. 20	Slinde Bros., Monroe.....	Selling linseed oil adulterated with mineral oil.	W. T. Saucerman, Monroe.....	$25 and costs.
Aug. 23	Gustav Strehmel, Brownsville...	Maintaining unsanitary dairy premises and utensils.	M. W. Clifford, Juneau.....	$5 and costs.
Aug. 25	Edward Slicka, Forestville.....	Maintaining cheese factory premises and utensils in an unsanitary condition.	H. H. Reynolds, Sturgeon Bay..	$5 and costs.
Aug. 25	Joseph Petiniot, Green Bay.....	Offering for sale unsanitary milk containing an unclean foreign substance.	N. J. Monahan, Green Bay.....	$25 and costs.
Aug. 25	John Alswede, Forestville.....	Maintaining cheese factory utensils in unsanitary condition.	H. H. Reynolds, Sturgeon Bay....	$25 and costs.
Aug. 26	Wm. Boeder, Oakfield.....	Offering for sale unsanitary milk.....	R. C. Fairbank, Fond du Lac....	$5 and costs.
Aug. 27	Jos. Johnson, Modena.....	Furnishing and delivering unsanitary milk to a creamery.	H. J. Niehaus, Alma.....	$25 and costs.
Aug. 27	F. C. Yates, Auburndale.....	Maintaining cheese factory premises and utensils in unsanitary condition.	Charles Hahn, Marshfield.....	$25 and costs.
Aug. 27	Herman Pavlitzki, Casco.....	Maintaining cheese factory premises and utensils in unsanitary condition.	John M. Carl, Kewaunee.....	$5 and costs.
Aug. 29	Theo. Reynen, Green Bay.....	Offering for sale unsanitary milk transported in dirty can.	N. J. Monahan, Green Bay.....	$5 and costs.
Aug. 29	Peter M. Peterson, Soldiers Grove (Mgr. Star Valley Creamery)	Maintaining creamery premises in unsanitary condition.	C. H. Speck, Prairie du Chien....	$25 and costs.
Aug. 30	Jos. Treml, Denmark.....	Offering for sale food not protected from flies.	N. J. Monahan, Green Bay.....	$25 and costs.
Aug. 30	Eugene Doanst, Luxembourg....	Maintaining cheese factory premises and utensils in unsanitary condition.	N. J. Monahan, Green Bay.....	$25 and costs.
Sept. 2	Earl Schneider, De Pere.....	Maintaining cheese factory premises and utensils in unsanitary condition.	N. J. Monahan, Green Bay.....	$25 and costs.
Sept. 2	Aug. E. Hingist, Kiel.....	Maintaining cheese factory premises and utensils in unsanitary condition and not protecting same from flies.	Adolph Schmidt, Manitowoc.....	Costs.
Sept. 2	J. Neville, Green Bay.....	Offering for sale unsanitary milk, transported in dirty cans.	N. J. Monahan, Green Bay.....	$25 and costs.
Sept. 2	Thomas Laundry, Green Bay....	Offering for sale unsanitary milk, transported in dirty cans.	N. J. Monahan, Green Bay.....	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
Sept. 2	Joseph Brice, Green Bay.....	Offering for sale unsanitary milk, transported in dirty cans.	N. J. Monahan, Green Bay.....	$25 and costs.
Sept. 3	John Holzmeier, Blanchardville.	Operating an unsanitary cheese factory and creamery.	Christoph Vickers, Blanchardville.	$25.
Sept. 3	John Rettler, Hartford.....	Furnishing milk to a cheese factory in dirty cans.	Timothy Foley, Hartford.....	$25 and costs
Sept. 3	L. Uber, Schleisingerville.....	Furnishing milk to a cheese factory in dirty cans.	Timothy Foley, Hartford.....	Fine suspended.
Sept. 5	Charles Koch, Hartford.....	Transporting for sale milk in dirty cans..	Timothy Foley, Hartford.....	$25 and costs.
Sept. 5	Louis Lohr, Hartford.....	Transporting milk for sale in dirty cans..	Timothy Foley, Hartford.....	$25 and costs.
Sept. 5	Wm. Zurn, Hartford.....	Transporting milk for sale in dirty cans..	Timothy Foley, Hartford.....	$25 and costs.
Sept. 8	H. A. Schulze, Clear Lake.....	Selling and exposing for sale foods under unclean, unhealthful and unsanitary conditions.	J. J. Tuttle, Balsam Lake.....	$25 and costs.
Sept. 8	Walter Bean, Neptune.....	Maintaining cheese factory premises and utensils in unclean, filthy and noxious condition.	W. H. Miller, Richland Center.....	$25 and costs.
Sept. 11	John Schaumberg, Mayville.....	Selling milk below standard.....	Ed. Sauerhering, Mayville.....	$25 and costs.
Sept. 12	Chas. Nickols, Eastman..... Butter maker, Eastman B. & E. Co.	Maintaining creamery premises in unsanitary condition, making butter from stale, putrid cream, and unlawfully operating Babcock test.	C. H. Speck, Prairie du Chien....	$25 and costs.
Sept. 18	Wm. Krueger, Lake Geneva.....	Offering for sale unsanitary milk, containing unclean foreign substance.	W. F. Best, Lake Geneva.....	$25 and costs.
Sept. 18	E. J. Hildeman, Lake Geneva...	Maintaining creamery and utensils in unsanitary condition.	W. F. Best, Lake Geneva.....	$25 and costs.
Sept. 19	John Mangold, Lake Geneva...	Offering for sale unsanitary milk, transported in unclean cans and containing added foreign substance.	W. F. Best, Lake Geneva.....	$25 and costs.
Sept. 19	W. B. Moore, Kenosha.....	Maintaining creamery premises and utensils in unsanitary condition.	Geo. Taylor, Kenosha.....	$25 and costs.
Sept. 22	Charles Kurtz, Saukville.....	Offering for sale unsanitary milk.....	Wm. A. Tholen, Port Washington	$25 and costs.
Sept. 22	C. H. Verhaalen, Saukville.....	Offering for sale unsanitary milk.....	Wm. A. Tholen, Port Washington	$25 and costs.
Sept. 22	Fred Paape, Saukville.....	Offering for sale unsanitary milk.....	Wm. A. Tholen, Port Washington	$25 and costs.
Sept. 22	Jos. Vandeboom, Saukville.....	Offering for sale unsanitary milk.....	Wm. A. Tholen, Port Washington	$25 and costs.

Sept. 22	Irvin Simpson, Muscoda	Selling stale, putrid cream to a creamery	C. W. Burrows, Lancaster	$25 and costs.
Sept. 23	John Schinker, Pt. Washington.	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	$25 and costs.
Sept. 23	J. P. Thill, Pt. Washington	Offering for sale unsanitary milk	Wm. A. Tholen, Port Washington	$25 and costs.
Sept. 23	Ernest Parlow, Pt. Washington.	Maintaining unsanitary cheese factory premises and utensils.	Wm. A. Tholen, Port Washington	$25 and costs.
Sept. 23	John Jacque, Pt. Washington..	Transporting milk for sale in dirty, open-seamed cans.	F. W. Kipper, Portage	Costs. Sentence suspended.
Sept. 24	O. A. Klenart, Portage	Selling linseed oil containing mineral oil..	J. C. Fehlandt, Madison	$25 and costs.
Sept. 29	John Rieger, Madison	Selling spoiled meat	D. F. Blewett, Fond du Lac	$25 and costs.
Sept. 29	Andrew Wilberscheid, New Holstein.	Maintaining unsanitary cheese factory premises and utensils.	— Page, Milwaukee	$25 and costs.
Oct. 2	W. D. Halsted, Milwaukee	Selling adulterated white lead	J. J. Tuttle, Balsam Lake	$25 and costs.
Oct. 3	L. L. Lewis, Clayton	Furnishing adulterated milk to a creamery.	Timothy Foley, Hartford	$100 and costs.
Oct. 3	Anton Martin, Allenton	Having in possession with intent to sell adulterated cream.	R. F. Kountz, Neillsville	$25 and costs.
Oct. 4	Arthur Jenks, Loyal	Manufacturing for sale butter not protected from filth, flies, dust and other contamination.	John Elft, Shawano	$25 and costs.
Oct. 7	W. J. Krause, Shawano	Maintaining an unclean and unsanitary cheese factory.	Thos. G. Chapman, Kewaunee	$25 and costs.
Oct. 7	Chas. Vancaster, Kewaunee	Maintaining cheese factory premises and utensils in unsanitary condition.	J. T. O'Neil, Darlington	$25 and costs.
Oct. 8	Edwin Grenisher, Darlington	Maintaining cheese factory premises and utensils in unsanitary condition.	J. J. Tuttle, Balsam Lake	$25 and costs.
Oct. 8	Martin Kasper, Clayton	Selling unsanitary milk to a creamery	J. J. Tuttle, Balsam Lake	$25 and costs.
Oct. 8	Wm. Miller, Turtle Lake	Having in possession with intent to sell unsanitary cream.	H. J. Thoma, Hartford	$50 and costs.
Oct. 9	Richard Beilke, Allenton	Maintaining cheese factory premises and utensils in unsanitary condition.	John Brindley, La Crosse	$25 and costs.
Oct. 9	Jesse Jones, Bangor	Furnishing unsanitary milk to a cheese factory.	John Brindley, La Crosse	$25 and costs.
Oct. 9	Jos. Foellmi, Bangor	Manufacturing an article of food from unsanitary milk.	C. M. Williams, Whitewater	$25 and costs.
Oct. 10	A. H. McClellan, Delavan	Selling meat from a diseased animal	F. S. Parker, Superior	$25 and costs.
Oct. 10	Goldberg Bros., Superior	Preparing food for sale under unclean, unhealthful, and filthy conditions.	Timothy Foley, Hartford	$25 and costs.
Oct. 10	Geo. Heilman, Hartford	Offering for sale unsanitary milk	H. J. Niehaus, Alma	$25 and costs.
Oct. 11	Ernst Schlesselmann, Fountain City.	Maintaining creamery utensils in unsanitary condition.	J. J. Tuttle, Balsam Lake	$25 and costs.
Oct. 11	Mrs. Ole Anderson, Clayton	Furnishing unsanitary milk to a cheese factory.		

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
Oct. 11	C. Fahrenkrug, Mayville.....	Offering to a cheese factory milk to which had been added a filthy foreign substance.	Ed. Sauerhering, Mayville.....	$25 and costs.
Oct. 13	Albert McDonal, Black Riv. Falls	Manufacturing, etc., food, not protected from filth, flies, dust and other contamination.	James O'Neill, Black River Falls..	$35 and costs.
Oct. 14	Orvel Adams, Edmund.....	Operating cheese factory with unclean and unsanitary apparatus.	—— Holverson, Dodgeville.....	$25 and costs.
Oct. 15	J. J. Janet, Luxembourg.....	Maintaining creamery premises and utensils in an unsanitary condition.	John J. Miller, Luxembourg.....	$25 and costs.
Oct. 22	Louis Kohler, Weyerhauser.....	Selling meat from a diseased animal.....	James Wickham, Ladysmith.....	$25 and costs.
Oct. 22	Hugh Branker, Ridgeway.....	Delivering adulterated milk.....	C. A. Carter, Dodgeville.....	$25 and costs.
Oct. 25	Matt. Weber, Hartford.....	Delivering adulterated milk.....	H. Thoma, Hartford.....	$25 and costs.
Oct. 27	Thos. Richards, River Falls.....	Selling unsanitary milk.....	C. Fenton, Ellsworth.....	$25 and costs.
Oct. 31	Henry Lensing, Two Rivers.....	Maintaining cheese factory utensils in unsanitary condition.	A. H. Schmidt, Manitowoc.....	$25 and costs.
Nov. 7	August Broge, South Wayne....	Offering for sale unsanitary adulterated milk.	J. T. O'Neil, Darlington.....	$25 and costs.
Nov. 8	John Bryner, Humbird.....	Having in possession with intent to sell adulterated milk.	W. A. Chapman, Neillsville.....	$25 and costs.
Nov. 10	Henry Follendorf, Pewaukee.....	Operating a creamery with unclean utensils.	Milo Muckleston, Waukesha.....	Fine remitted.
Nov. 10	Jay Britton, Bristol.....	Operating a creamery with unclean utensils.	C. E. Randall, Kenosha.....	$25 and costs.
Nov. 13	Tom Tronson, Amherst.....	Maintaining creamery premises and utensils in unsanitary condition.	J. A. Muratt, Stevens Point.....	$25 and costs.
Nov. 13	John Brandrom, Amherst.....	Maintaining creamery premises and utensils in unsanitary condition.	J. A. Muratt, Stevens Point.....	$25 and costs.
Nov. 13	August Kopher, Jr., Watertown..	Delivering unsanitary milk.....	W. D. Stacy, Watertown.....	$25 and costs.
Nov. 13	Leonard Kraus, Monroe.....	Offering for sale unsanitary, adulterated milk.	W. T. Saucerman, Monroe.....	$25 and costs.
Nov. 13	Peter Henderson, Green Bay.....	Operating milk plant premises and apparatus in unclean condition.	N. J. Monahan, Green Bay.....	$25 and costs.
Nov. 14	R. P. Hennesy, Excelsior.....	Offering for sale milk to which had been added a filthy, unclean substance.	S. G. Curtis, Richland Center.....	$25 and costs.

Nov. 14	Anton Belkan, Belmont	Offering unsanitary milk to a cheese factory.	James Giblin, Belmont	$25 and costs.
Nov. 20	Morritz Faddler, Pt. Washington	Selling adulterated milk	W. A. Tholen, Port Washington	$25 and costs.
Nov. 21	Fred Kraus, Monroe	Offering for sale unsanitary, adulterated milk.	W. T. Saucerman, Monroe	$25 and costs.
Nov. 25	John Anderson, Stoughton	Selling misbranded pop	J. C. Fehlandt, Madison	$25 and costs.
Nov. 26	Marvel Stevens, Woodford	Offering for sale unsanitary milk	J. T. O'Neil, Darlington	$25 and costs.
Dec. 2	Johanna Herzog, Manitowoc	Selling milk in dirty can	A. H. Schmidt, Manitowoc	Fine suspended upon payment of costs.
Dec. 2	John Herzog, Manitowoc	Selling unsanitary milk	A. H. Schmidt, Manitowoc	Fine suspended upon payment of costs.
Dec. 2	Mary Peck, Manitowoc	Selling unsanitary milk in dirty cans	A. H. Schmidt, Manitowoc	Sentence suspended upon payment of costs.
Dec. 6	Edw. Taylor, Kingston	Maintaining premises and utensils used in handling milk and cream in unsanitary condition.	H. E. Megow, Princeton	$25 and costs.
Dec. 8	B. Brill, Green Bay	Selling filthy, contaminated fruit, wormy dried pears.	N. J. Monahan, Green Bay	$25 and costs.
Dec. 9	Anton Blasei, Kewaunee	Selling adulterated milk	John M. Carl, Kewaunee	$25 and costs.
Dec. 10	Mineral Point Creamery Co., Mineral Point	Operating unsanitary creamery, ice cream factory premises and utensils.	J. P. Hawkins, Mineral Point	$25 and costs.
Dec. 13	Ed. Kundert, Monticello	Offering and furnishing to a cheese factory milk below standard.	W. T. Saucerman, Monroe	$25 and costs.
Dec. 15	Jens Christensen, Withee	Delivering unsanitary milk to a creamery	R. F. Kountz, Neillsville	$25 and costs.
Dec. 15	Geo. Larsen, Withee	Delivering unsanitary milk to a creamery	R. F. Kountz, Neillsville	$25 and costs.
Dec. 15	Mrs. L. Krueger, Withee	Delivering unsanitary cream to a creamery	R. F. Kountz, Neillsville	$25 and costs.
Dec. 19	Sagen Bros., Orfordville	Preparing meat for sale, not protected from filth and unclean conditions.	H. L. Maxfield, Janesville	$25 and costs.
Dec. 29	John Collentine, Monroe	Offering for sale adulterated milk, containing dirty, foreign substance	W. T. Saucerman, Monroe	$25 and costs.
1914				
Jan. 3	Edward Horn, Marion	Selling adulterated milk	R. G. Gibson, Clintonville	$25 and costs.
Jan. 3	Seth Allen, Embarrass	Selling adulterated milk	R. G. Gibson, Clintonville	$25 and costs.
Jan. 7	E. Drummey, Monroe	Offering for sale adulterated milk, containing dirt.	W. T. Saucerman, Monroe	$25 and costs.
Jan. 8	Herman Wilke, So. Milwaukee	Selling unsanitary milk	Geo. E. Page, Milwaukee	$25 and costs.
Jan. 9	Mrs. H. Elmer, Monroe	Offering for sale adulterated milk, containing dirt.	W. T. Saucerman, Monroe	$25 and costs.
Jan. 10	Martin Van Veghel, Green Bay	Selling adulterated turpentine	N. J. Monahan, Green Bay	Sentence suspended upon payment of costs.
Jan. 10	Raphael Soquet, Green Bay	Selling adulterated turpentine	N. J. Monahan, Green Bay	Sentence suspended upon payment of costs.
Jan. 12	Lee Legler, Monroe	Offering for sale adulterated milk, containing dirt.	W. T. Saucerman, Monroe	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1914				
Jan. 12	Gilbert Brothers, Eau Claire...	Selling a flavoring compound which was adulterated.	Henry McBain, Eau Claire.....	$25 and costs.
Jan. 15	Ed. Fehl, Sturgeon Bay.....	Offering for sale unsanitary milk.....	H. H. Reynolds, Sturgeon Bay..	$25 and costs.
Jan. 16	David Engelhart, Browntown....	Maintaining meat market in unsanitary condition.	W. T. Saucerman, Monroe.....	$50 and costs.
Jan. 17	Grant Burlingame, Ripon.....	Selling unsanitary cream to creamery.....	R. E. Reed, Ripon.....	$25 and costs.
Jan. 19	Sacia Brothers, Galesville.....	Selling adulterated milk.....	E. Gardner, Galesville.....	$25 and costs.
Jan. 20	Herman Ehlert, Embarrass.....	Selling adulterated milk.....	R. G. Gibson, Clintonville.....	$25 and costs.
Jan. 20	Otto Buth, Embarrass.....	Selling adulterated milk.....	R. G. Gibson, Clintonville.....	$25 and costs.
Jan. 20	Jacob Boma, La Crosse.....	Selling unsanitary milk, transported in dirty, open-seamed can.	John Brindley, La Crosse.....	$25 and costs.
Jan. 21	J. Laufenberg, Avoca.....	Selling milk below standard.....	Josiah Ward, Avoca.....	$25 and costs.
Jan. 24	Jacob Dicks, Marshfield.....	Selling adulterated cream.....	Hugo Wegener, Marshfield.....	$25 and costs.
Jan. 29	Wm. Schoephoerster, Baraboo...	Having in possession with intent to sell unsanitary cream.	Adolph Andro, Baraboo.....	$25 and costs.
Feb. 2	Thos. E. Anderson, Tunnel City.	Furnishing unsanitary cream to a creamery.	C. T. Lamson, Sparta.....	$25 and costs.
Feb. 4	Harry Verthien, Reedsburg.....	Selling adulterated milk.....	Adolph Andro, Baraboo.....	$25 and costs.
Feb. 12	Herman Buchholz, Weyauwega..	Having in possession with intent to sell unsanitary cream.	R. F. Taggart, Weyauwega.....	$25 and costs.
Feb. 12	Blum Bros., Monticello.....	Selling milk below standard.....	W. T. Saucerman, Monroe.....	$25 and costs.
Feb. 14	G. Haselhuhn, Rice Lake.....	Maintaining creamery utensils in filthy, unsanitary condition.	W. J. Soderberg, Barron.....	$25 and costs.
Feb. 19	Thomas Rowlands, Randolph....	Selling unsanitary milk.....	—— Lyons, Beaver Dam.....	$25 and costs.
Feb. 19	Herman Schmidtke, Sawyer.....	Offering for sale unsanitary milk to a cheese factory.	H. H. Reynolds, Sturgeon Bay...	.....
Feb. 20	Mike Croak, Albany.....	Maintaining unsanitary cheese factory premises and utensils.	E. S. Fessenden, Albany.....	$25 and costs.
Feb. 26	Fred Bergener, Shullsburg.....	Maintaining unsanitary meat shop and utensils.	J. H. Martin, Darlington.....	$25 and costs.
Feb. 26	George Nudeck, Neenah.....	Selling adulterated extract of vanilla and vanillin.	A. H. Goss, Oshkosh.....	$25 and costs.
Feb. 28	Ferdinand Kraemer, Marion.....	Selling unsanitary milk.....	R. G. Gibson, Clintonville.....	$25 and costs.
Mar. 2	Constantine Wehinger, South Wayne.	Offering for sale unsanitary milk containing dirt.	Geo. W. Hartsough, S. Wayne....	$25 and costs.
Mar. 7	J. N. Jacoby, Belgium.....	Maintaining unsanitary cheese factory premises and utensils.	Wm. A. Tholen, Port Washington	$25 and costs.

Mar. 12	Jos. Doerge, Stanley	Offering for sale unsanitary cream	R. F. Kountz, Neillsville	$25 and costs.
Mar. 13	Joseph Pahle, West Allis	Selling as sausage a product containing cereal.	G. E. Page, West Allis	Sentence suspended on payment of costs.
Mar. 16	Albert Habeck, Bonduel	Selling unsanitary milk	John Abft, Shawano	$25 and costs.
Mar. 20	Nick Zimmer, Saukville	Selling adulterated milk	Wm. A. Tholen, Port Washington	$25 and costs.
Mar. 30	Frank Leisz, Turtle Lake	Offering unsanitary milk to a cheese factory.	W. W. Quigley, Turtle Lake	$25 and costs.
April 2	Frank Kromrey, Osceola	Having in possession with intent to sell to a cheese factory unsanitary milk.	J. J. Tuttle, Balsam Lake	$25 and costs.
April 4	Joseph Amund, Appleton	Maintaining unsanitary creamery utensils	Thomas Ryan, Appleton	$35 and costs.
April 10	Henry Staab, Waukesha	Selling adulterated milk	Milo Muckleston, Waukesha	$25 and costs.
April 15	M. C. Bowers, Belleville	Offering for sale adulterated milk, containing dirt.	J. H. Schmied, New Glarus	$25 and costs.
April 15	Albert Zweifel, Belleville	Offering for sale adulterated milk, containing dirt.	J. H. Schmied, New Glarus	$25 and costs.
April 16	E. H. Maas, Hingham	Maintaining unsanitary cheese factory premises.	D. Mahlsted, Plymouth	$25 and costs.
April 16	J. N. Jacoby, Belgium	Maintaining cheese factory premises and utensils in unsanitary condition.	Wm. Tholen, Port Washington	$25 and costs.
April 17	Charles Mueller, Fenwood	Delivering adulterated milk to a cheese factory.	L. Marchetti, Wausau	$25 and costs.
April 18	Thomas Marsh, Glenwood City	Maintaining premises and utensils used in producing cream in unsanitary condition.	C. A. Disney, Hudson	$25 and costs.
April 29	J. Kleinhesselink, Cedar Grove	Maintaining unsanitary cheese factory utensils.	W. M. Root, Sheboygan	$25 and costs.
May 7	Henry Zimmerman, Fond du Lac	Maintaining unsanitary dairy premises and utensils.	D. F. Blewett, Fond du Lac	$25 and costs.
May 8	Anton Vogt, Browntown	Delivering and transporting cream in rusty, open-seamed can.	C. W. Barrow, Lancaster	$5 and costs.
May 13	W. Orlebecke, Medford	Selling meat from a diseased animal	M. W. Ryan, Medford	$25 and costs.
May 15	Jenks Christenson, Rubicon	Selling and furnishing adulterated and unsanitary milk.	W. D. Stacy, Watertown	$25 and costs.
May 15	Ed. Rusch, Minnesota Junction	Selling milk transported in rusty, open-seamed can.	W. D. Stacy, Watertown	$25 and costs.
May 15	M. H. Fischer, Gratiot	Offering for sale unsanitary milk transported in rusty cans and containing dirt.	J. H. Martin, Darlington	$25 and costs.
May 20	John Van Zatphen, Stanley	Offering for sale adulterated cream	Fred A. Smith, Chippewa Falls	$25 and costs.
May 20	Geo. Brassina, Chippewa Falls	Selling adulterated cream	Fred A. Smith, Chippewa Falls	$25 and costs.
May 21	John Gierman, Highland	Maintaining unsanitary meat shop and utensils.	Matthias Chabb, Highland	$25 and costs.
May 23	Fry Brothers, Highland	Maintaining unsanitary meat shop and utensils.	Matthias Chabb, Highland	$25 and costs.
May 26	Roling & Thomas, Linden	Maintaining unsanitary utensils in meat shop.	W. M. F. Kramer, Linden	$25 and costs.

CONVICTIONS—Continued.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1914				
May 26	August Yahr, Franklin.....	Selling adulterated boiled linseed oil.....	C. J. Van Schaick, Black River Falls.	$25 and costs.
May 26	Walter Strozyneski, Mosinee.....	Delivering adulterated milk to a cheese factory.	L. Marchetti, Wausau.....	$25 and costs.
May 28	Leo Meyer (The Duvall Co.) Kewaunee.	Selling adulterated boiled linseed oil.....	J. J. Bohman, Kewaunee.....	$25 and costs.
May 29	Fred Nelson, Arpin.....	Selling meat from a diseased animal.....	Hugo Wegener, Marshfield.....	$75 and costs.
May 29	A. Demars, Rice Lake.....	Selling adulterated cream in dirty can....	W. J. Soderberg, Barron.....	$25 and costs.
May 29	H. Storck, Rice Lake.....	Selling unsanitary cream in dirty can.....	W. J. Soderberg, Barron.....	$25 and costs.
June 3	H. Hoff, Mount Horeb.....	Maintaining filthy meat shop.....	Municipal Judge, Madison.....	$25 and costs.
June 3	E. W. Peterson, Florence.....	Selling adulterated turpentine.....	Frank Waring, Florence.....	$25 and costs.
June 3	Ziesler & Kotick, Florence.....	Using unsanitary utensils in meat shop...	Frank Waring, Florence.....	$25 and costs.
June 3	Reinhardt Bros., Brillion.....	Misbranding of linseed oil sold as a compound.	Wm. Rothmann, Chilton.....	$25 and costs.
June 4	W. J. Feind, Jefferson.....	Operating a creamery in unsanitary condition.	C. A. Buss, Jefferson.....	$25 and costs.
June 8	Fred Bratz, Cato.....	Offering for sale unsanitary milk.....	A. H. Schmidt, Manitowoc.....	$25 and costs.
June 8	Mrs. Anna Grimm, Fairchild.....	Selling meat from a diseased animal.....	R. B. Swarthout, Fairchild.....	$10 and costs.
June 8	A. T. Anderson, Mauston.....	Selling adulterated vanilla and tonka extract.	De Las Barrows, Mauston.....	$25 and costs.
June 10	J. A. Pullen, N. Fond du Lac..	Maintaining unsanitary meat market.....	D. F. Blewett, Fond du Lac.....	$25 and costs.
June 10	Lewis Schilling, Chili.....	Selling meat from a diseased animal.....	W. A. Campman, Neillsville.....	$10 and costs.
June 11	Fred Meen, Rhinelander.....	Selling adulterated butter.....	C. F. Smith, Rhinelander.....	$70 and costs.
June 12	Wm. Schwartz, Eau Claire.....	Selling milk from a dirty, rusty and open-seamed can.	Harry McBain, Eau Claire.....	$25 and costs.
June 15	Louis McKinley, Wauzeka.....	Maintaining cream separator in unsanitary, filthy premises.	—— Speck, Prairie du Chien.....	$25 and costs.
June 17	A. H. Herrmann, Wausaukee...	Selling spirits of camphor below standard	F. N. Bernardy, Marinette.....	$25 and costs.
June 17	P. J. Love, Coleman.....	Selling spirits of camphor below standard	F. N. Bernardy, Marinette.....	$25 and costs.
June 18	Chilton Hardware & Furniture Co., Chilton.	Selling adulterated boiled linseed oil.....	Wm. Rothman, Chilton.....	$25 and costs.
June 22	W. M. Peacock, Fennimore.....	Manufacturing into butter unsanitary cream,—cream transported in rusty, open-seamed cans.	—— Barrow	$25 and costs.
June 25	J. Brooks, Watertown.....	Offering for sale milk containing unclean foreign substance.	W. H. Rohr, Watertown.....	$25 and costs.

June 26	T. Y. Parent, New Richmond....	Furnishing unsanitary milk to a cheese factory.	O. M. Arnquist, Hudson.....	$25 and costs.
June 26	Ed. Brooks, Watertown.....	Offering for sale milk transported in open-seamed cans.	W. H. Rohr, Watertown.....	$25 and costs.
June 27	Sam. Grossen, Campbellsport....	Maintaining an unclean and unsanitary cheese factory.	R. C. Fairbank, Fond du Lac.....	$25 and costs.
June 27	George Jackson, Plymouth.....	Maintaining an unclean and unsanitary cheese factory.	D. Mahlsted, Plymouth.....	$25 and costs.
June 27	A. Gutzlaff, Watertown.....	Offering for sale milk transported in open-seamed cans.	W. H. Rohr, Watertown.....	$25 and costs.
June 29	H. Siefeldt, Watertown.....	Offering for sale milk containing unclean foreign substance.	W. D. Stacy, Watertown.....	$25 and costs.
June 29	Jos. F. Meyer, Chilton.....	Selling adulterated witch hazel.....	Wm. Rothman, Chilton.....	$25 and costs.

CONVICTIONS UNDER WEIGHTS AND MEASURES LAWS.

1912 July 6	Henry Peters (Crabb & Peters), De Pere.	Selling berries in non-standard boxes, the same not being marked	N. J. Monahan, Green Bay.....	$25 and costs. Appealed. Lower court sustained by Wisconsin supreme court May 31, 1913.
July 20	Guy Chapman, Beloit.....	Selling currants in non-standard boxes, the same not being marked	J. B. Clark, Beloit.....	$25 and costs.
July 23	Winkler Bros., Merton.....	Selling butter in less than quantity represented	.. .. Dorcy, Oconomowoc.....	$3 and costs.
Oct. 29	Joseph Evans, Bangor.....	Selling apples in quantity less than represented	John Brindley, La Crosse.....	$25 and costs.
Nov. 26	S. S. Brodbeck, State of Missouri	Selling apples in quantity less than represented	C. E. Skinner, Brodhead.....	$25 and costs.
1913 Feb. 21	John Brinkman, Afton.....	Selling apples in quantity less than represented	C. F. Fifield, Janesville.....	$25 and costs.
Mar. 20	L. L. Olds Seed Co., Madison..	Selling potatoes, peas and beans in quantity less than represented	J. C. Fehlandt, Madison.....	$25 and costs.
Mar. 28	John Mulder, La Crosse.....	Selling less than quantity represented...	John Brindley, La Crosse.....	$25 and costs.
Mar. 28	Rudolph Hoefle, La Crosse.....	Selling less than quantity represented...	John Brindley, La Crosse.....	$25 and costs.
Mar. 28	E. W. Schulze, La Crosse.....	Selling less than quantity represented...	John Brindley, La Crosse.....	$25 and costs.
Mar. 28	Chas. Spettle, La Crosse.....	Selling less than quantity represented...	John Brindley, La Crosse.....	$25 and costs.
April 2	H. J. Bjerke, Stoughton.....	Using an unsealed and false measure....	J. C. Fehlandt, Madison.....	$25 and costs.
April 3	Andrew Lorold, La Crosse.....	Selling less than quantity represented....	John Brindley, La Crosse.....	$25 and costs.

CONVICTIONS UNDER WEIGHTS AND MEASURES LAWS— Concluded.

Date.	Defendant.	Cause of Action.	Trial Judge.	Fine or Forfeiture.
1913				
June 9	A. L. Wetlaufer, Adams Center.	Selling butter in quantity less than represented	Allan Galbraith, Friendship.....	$25 and costs.
June 28	W. B. Morse, Wauwatosa.....	Selling corn, oats and wheat in quantity less than represented	G. E. Page, Milwaukee.....	Sentence suspended on payment of costs.
July 30	Joseph Wangel, Superior.....	Selling berries in short measure box.....	F. S. Parker, Superior.....	Fine remitted on payment of costs.
July 30	N. L. Gill, Superior.....	Selling berries in short measure box....	F. S. Parker, Superior.....	Fine remitted on payment of costs.
Aug. 5	John Haney, Superior.....	Selling sugar and ham in quantity less than represented	F. S. Parker, Superior.....	$25 and costs.
Aug. 6	August Dipple, Chippewa Falls..	Selling ham and lard in quantity less than represented	F. W. Jenkins, Chippewa Falls....	$25 and costs.
Aug. 6	F. W. Hanslik, Chippewa Falls.	Selling butter in quantity less than represented	F. W. Jenkins, Chippewa Falls....	$25 and costs.
Sept. 3	John Dietz, Beaver Dam.....	Selling meat in quantity less than represented	J. D. Lyons, Beaver Dam.....	$25 and costs.
Sept. 3	John Jordon, Madison.....	Selling meat in quantity less than represented	J. C. Fehlandt, Madison.....	Costs. Pleaded nolo contendere.
Sept. 9	Paul Findlay, Madison.....	Selling adulterated candy, in that the same was decomposed, filthy and wormy	J. C. Fehlandt, Madison.....	$25 and costs.
Oct. 8	Thomas Produce Co., Green Bay	Selling grapes in non-standard containers	N. J. Monahan, Green Bay.....	Costs. Pleaded nolo contendere.
Oct. 15	Percy Vogel, Mazomanie.....	Selling meat in quantity less than represented	Henry Casson, Madison.....	$25 and costs.
Oct. 31	J. S. Anderson, Kaukauna.....	Selling peaches in non-standard containers	Thos. H. Ryan, Appleton.....	Costs.
Dec. 6	John A. Salzer Seed Co., La Crosse.	Selling seeds in quantity less than represented	John Brindley, La Crosse.....	$25 and costs.
1914				
Jan. 15	N. Stevenson, Wittenberg.....	Selling butter in quantity less than represented	Frank Williams, Wittenberg.....	$25 and costs.
Feb. 2	Elmer Larson, Plymouth.....	Selling meat in quantity less than represented	Wm. Chaplin, Plymouth.....	$25 and costs.
Mar. 3	James H. Griffin, Randolph.....	Selling butter in quantity less than represented	J. D. Lyons, Beaver Dam.....	$25 and costs.
Mar. 21	Farmers Cheese Co., Watertown.	Selling cheese in quantity less than represented	Charles A. Buss, Jefferson.....	$25 and costs.
April 13	E. O. Rich and A. A. Stubfors, Spooner.	Offering and delivering coal in quantity less than represented	A. H. Atchison, Spooner.....	$25 and costs.
April 22	A. P. Anderson, Antigo.....	Selling lard in quantity less than represented and falsely reading prices on computing scale in the sale of ham	Thomas Hogan, Antigo.....	$25 and costs.
June 10	John Hogan, Turtle Lake.....	Selling ice cream in quantity less than represented	W. W. Quigley, Turtle Lake.....	$25 and costs.

DISBURSEMENTS.

Disbursements for Year Ending June 30, 1913.

Emery, J. Q., commissioner, sal. and exp	$2,694.69
Baer, U. S., 1st asst. commissioner, sal. and exp	1,290.89
Larson, H. C., 2nd asst. commissioner, sal. and exp	2,227.08
Klueter, Harry, chemist, sal. and exp	1,928.14
Brannon, W. A., assistant chemist, sal. and exp	1,555.81
Fischer, Richard, assistant chemist, sal	600.00
Howlett, I. R., assistant chemist, sal. and exp	1,221.80
Aderhold, E. L., 1st asst. commissioner, sal. and exp	708.41
Buzzell, F. M., chief food inspector, sal. and exp	1,700.11
Carswell, F. E., inspector, sal. and exp	1,740.34
Aderhold, E. L., inspector, sal. and exp	1,429.68
Cannon, J. D., inspector, sal. and exp	1,959.58
Marty, Fred, inspector, sal. and exp	189.37
Willimann, Joseph, inspector, sal. and exp	1,540.53
Lehnherr, Jacob, inspector, sal. and exp	190.90
Southard, R. B., inspector, sal. and exp	1,976.27
Guse, P. W., inspector, sal. and exp	1,480.46
Dufner, S. J., inspector, sal. and exp	1,947.34
Voigt, W. A., inspector, sal. and exp	2,043.81
Van Duser, James, inspector, sal. and exp	1,830.87
Scott, W. F., food inspector, sal. and exp	1,651.45
Cook, S. B., inspector, sal. and exp	1,979.02
Linzmeyer, J. B., inspector, sal. and exp	1,930.92
Boettcher, J. E., inspector, sal. and exp	2,189.48
Winder, Wm., inspector, sal. and exp	2,058.11
Warner, Geo., inspector, sal. and exp	1,794.81
Bornheimer, H. L., inspector, sal. and exp	1,864.79
Kramer, W. J., inspector, sal. and exp	1,837.12
Downing, F. P., chief inspector wgts. and meas., sal. and exp.	2,112.88
Norton, F. Q., secretary, sal	1,200.00
Walter, M. L., stenographer and confidential clerk, sal	900.00
Thomas, E. D., stenographer	1,022.74
Olin, John M., special counsel	2,065.70
American Express Co., express	63.69
Wells, Fargo & Co., express	33.02
Madison Post Office, postage and box rent	342.25
Western Union Telegraph Co., messages	16.29
Wisconsin Telephone Co., messages	72.00
Chicago, Milwaukee & St. Paul Ry. Co., freight	5.19
Chicago & Northwestern Ry. Co., freight	13.32
Democrat Printing Co., printing	457.00
Democrat Printing Co., printing report	1,442.96
Milwaukee Lithographing Co., letterheads	76.74
Streissguth-Petran Engraving Co., cuts	54.15
Lorenz, E. H., supplies	60.00
Haswell Furniture Co., furniture	27.50
Menges Pharmacies, supplies	73.78
Fairbanks, Morse & Co., express on goods returned	.41
Hinrichs Dry Goods Co., supplies	12.82
International Instrument Co., supplies	35.50
Curtis, F. W., photos	43.00
Schwaab Stamp & Seal Co., supplies	7.00
Jarvis, C. W., drayage	13.90
Lorenz Model Co., supplies	48.60
Bishop, J. & Co., supplies	110.08
Creamery Package Manufacturing Co., supplies	12.97
Eimer & Amend, supplies	381.26
Moseley, J. E. & Co., books	27.75
Sargent, E. H. & Co., supplies	115.98
	$56,410.26

DISBURSEMENTS FOR THE YEAR ENDING JUNE 30, 1914

Emery, J. Q.. commissioner, sal. and exp	$2,570.92
Aderhold, E. L., 1st asst. commissioner, sal. and exp	2,897.34
Larson, H. C., 2nd asst. commissioner, sal. and exp	2,572.34
Klueter, Harry, chemist, sal. and exp	2,180.59
Walter, M. Loraine, stenographer and confidential clerk, sal.	1,065.00
Thomas, E. D., stenographer, sal	1,200.00
Fischer, Richard, consulting director of chemical laboratory, sal.	600.00
Geidel, Carl, assistant chemist, sal	1,200.00
Buzzell, F. M., chief food inspector, sal. and exp	2,042.90
Kramer, W. J., inspector, sal. and exp	2,405.91
Carswell, F. E., inspector, sal. and exp	1,205.92
Cannon, J. D., inspector, sal. and exp	2,337.80
Willimann, Joseph, inspector, sal. and exp	2,169.12
Dufner, S. J., inspector, sal. and exp	2,320.82
Voigt, W. A., inspector, sal. and exp	2,437.78
Tschudy, J. J., inspector, sal. and exp	500.63
Norton, F. Q., secretary, sal	1,475.00
Schuette, Henry, assistant chemist, sal. and exp	257.62
Southard, R. B., inspector, sal. and exp	2,372.97
Van Duser, James, inspector, sal. and exp	2,248.35
Scott, W. F., inspector, sal. and exp	1,139.90
Downing, F. P., chief inspector wgts. and meas., sal. and exp.	2,366.06
Linzmeyer, J. B., inspector, sal. and exp	1,961.77
Boettcher, J. E., inspector, sal. and exp	1,806.56
Winder, Wm., inspector, sal. and exp	2,469.88
Cook, S. B., inspector, sal. and exp	2,184.35
Howlett, I. R., assistant chemist, sal. and exp	1,387.68
Sterns, W. F., inspector, sal. and exp	1,432.33
Eigenberger, C. H., inspector, sal. and exp	1,008.42
Hass, B. A., inspector, sal. and exp	1,065.65
Bornheimer, H. L., inspector, sal. and exp	2,475.12
Lehnherr, Jacob, inspector, sal. and exp	2,404.07
Warner, George, inspector, sal. and exp	2,507.59
Brannon, W. A., assistant chemist, sal. and exp	1,421.86
Beckwith, Chauncey, inspector, sal. and exp	647.42
Knauber, J., Lithographing Co., letterheads	23.75
Printing board, paper	341.28
Insurance Commissioner, insurance premiums	9.96
Madison Engraving Co., etchings	1.82
Streissguth-Petran Engraving Co., cuts	18.11
Madison Post Office, box rent	3.00
Democrat Printing Co., printing	1,643.01
Wells, Fargo & Co., express	.45
Postal Telegraph Cable Co., messages	.65
Wisconsin Telephone Co., messages	3.17
Curtiss, F. W., photos, etc	17.50
Superintendent Public Property, transfer postage, supplies, etc.	1,358.01
Superintendent Public Property, transfer (new apparatus)	1,587.02
	$67,347.40

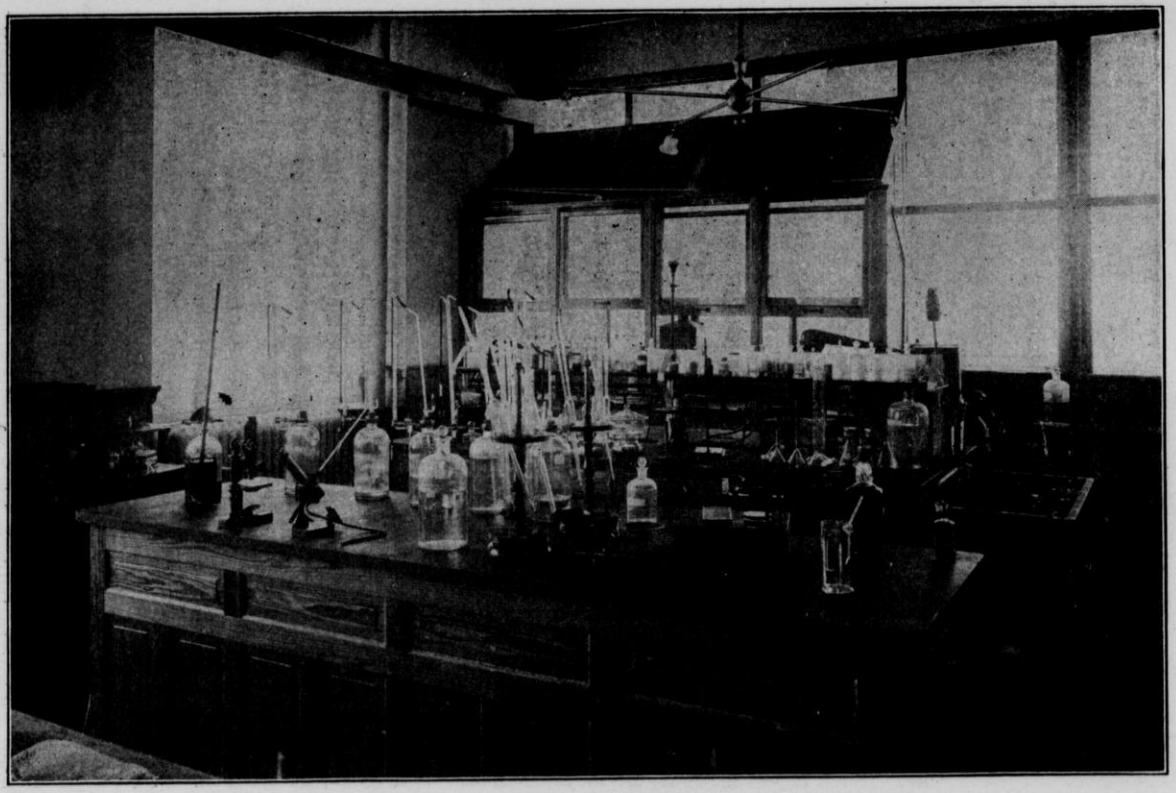
CONCLUSION.

This biennial report is the sixth issued by me, the six covering a period of twelve years of service. During all these years of public service, I have been able truthfully to say, using the language of St. Paul, "This one thing I do." My concept of the function of the department has been that it is to afford protection against the harmful consequences of adulterated and counterfeit dairy and food and drug products to the consuming public and alike to honest producers and dealers. Whatever may be said as to whether or not I have "fought a good fight", certain it is that "I have kept the faith" of those who took the initiative in establishing the office of dairy and food commissioner in 1889. I deem it a great honor to have my name associated with that of the first dairy and food commissioner, Hon. H. C. Thom, and with that of my immediate predecessor, Hon. H. C. Adams, in the administration of the dairy and food laws from the standpoint of protection to the consuming public and alike to honest producers and dealers. I realize that the layman can scarcely believe that food adulteration and conterfeiting could be carried on to the enormous extent that the experience of the dairy and food commissioner has compelled him not only to *believe* but to *know*. The maintenance of the dairy and food and weights and measures department in subservience to the wishes of those who alone are responsible for the manufacture and sale of adulterated and counterfeit foods and drugs, and of those who knowingly profit by false weights and measures, would be the rankest of frauds upon the general public.

I wish to record my most hearty appreciation of the faithful, efficient and loyal support of my co-workers in the administration of this department that affects every man, woman and child in the state, and whose administration has been declared by one of the ablest lawyers of Wisconsin and well acquainted with the various state departments, to be the most difficult of administration of any in the state government. I wish also to record my appreciation of the many expressions of confidence and words of appreciation that have come to me from the public, whom, in keeping with my oath of office, I have served "to the best of my ability."

Following is the report of the chemist, the report of each of the assistant commissioners and the report of the chief inspector of weights and measures, to each of which attention is invited.

J. Q. EMERY,
Dairy and Food Commissioner,
Ex officio State Superintendent of Weights and Measures.



View in Laboratory of Wisconsin Dairy and Food Commission.

REPORT OF HARRY KLUETER, CHEMIST

Honorable J. Q. EMERY,
Dairy and Food Commissioner.

Dear Sir: I hereby submit a report of chemical analyses for the biennial period ending June 30, 1914. During this period 1428 samples of foods, drugs, white lead, zinc white, linseed oil, and turpentine were analyzed. Samples of soaps and soap powders and wool blankets were analyzed for the state board of control to ascertain if these articles conformed to the specifications upon which they were purchased. A number of samples of matches and match pastes were analyzed for the industrial commission to determine whether or not traces of yellow phosphorous were present. This work was asked of us because of a new law regarding the manufacture of matches in this state, the enforcement of which was placed upon the industrial commission. A number of samples of soap powders, soft soap and scouring powders were analyzed for the office of the state superintendent of public property to determine whether or not substances injurious to marbles on which those products were being used were present. Three samples of medicines compounded from physicians' prescriptions were submitted for analysis which were thought to differ from the respective prescriptions. Two were found to have been correctly compounded while in one sodium salicylate was substituted for salicin.

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.

Baking Powders.

Seven samples of baking powder were analyzed, weighed, and the labels on the same examined. Five of that number were found to be labeled in compliance with law and two containing alum were labeled "sodic aluminic sulphate" instead of "alum." There also appeared on the labels of these two samples the statement: "No alum left in food prepared with this product." The words "no alum" were in large capital letters and the words "left in the food" were so small that unless the label were studied the impression would be gained that the product contained no alum. One sample while correctly labeled was sold as a pound of baking powder, and was found to be 3.8% short in weight.

There seems to be a tendency on the part of some manufacturers to disregard that part of the Wisconsin statute which designates as alum any aluminum salt. The use of the term "sodic aluminic sulphate" does not meet the requirements of the law.

Beverages.

Fifty-two samples of beverages were analyzed, 30 of which were free from adulteration and were not misbranded. Twenty-two were adulterated or misbranded, 10 of these containing saccharin, 4 containing benzoic acid, and 12 were so labeled or by the use of artificial color made to appear as fruit products or products composed mainly of fruit juice, while in fact some of these products as for instance those labeled "Orange Cider," contained no orange juice, the only product of the orange present being the water-soluble orange flavor. The proper use of the term cider is restricted to fruit juice products such as products made from apple juice, orange juice, etc.

There are now on the market several brands of sweet apple cider put up in tin containers which are lacquered on the inside and hermetically sealed. These containers are of convenient size and enable one to buy sweet cider free from chemical pre-

servatives. The older methods of handling cider in bulk exposed to the varying conditions in the places where offered for sale made necessary the use of chemical preservatives to hold that product for any length of time in a salable condition. Four of

So-Called Maraschino Cherries. This label would lead one to believe that the article is in fact maraschino cherries. A chemical analysis of a product bearing this label shows, however, that such product is not maraschino cherries. For many years attempts have been made from time to time by dealers to palm off as maraschino cherries a product made in about the following manner: Cherries bleached with sulphur dioxide and preserved in strong solutions of salt are imported as the material to be used. In the course of preparation it is necessary to remove from the same the salt as well as the sulphur dioxide. This can best be accomplished by leaching, that is, washing out in running water these substances. While the salt and sulphur dioxide are being washed out, naturally the soluble fruit acid, fruit flavor, and fruit juice are washed out, so that there is left practically only the cellulose. This cellulose, however, is in the shape of a cherry and lends itself to further treatment as follows. The skeletons of the cherries are placed in baths of coal-tar dye where they are dyed a beautiful deep red. They are still without flavor, so they are next treated with solutions of benzaldehyde to give them what is supposed to be a maraschino cherry flavor. Being thus dyed and flavored they are packed in syrup in bottles to be labeled and sold as maraschino cherries. As the process shows, there is in fact little other than the cellulose that is left of the original cherry.

The genuine maraschino cherry is prepared as follows: The marasca cherry, a small black variety in Europe, is preserved in the fermented juice of the marasca cherry flavored with the bruised pits.

This illustrates how by the use of so-called harmless coal-tar dyes articles of food are colored in such a way as to deceive the public.

the 10 samples containing saccharin were made by the same manufacturer. The use of saccharin, very common in this class of products a few years ago, has decreased materially. Saccharin is not a food and when used for sweetening food products robs

them of the food value which would have been added had sugar been used instead.

Canned Goods.

"Canned fruit is the sound product made by sterilizing clean, sound, properly matured and prepared fresh fruit, by heating, with or without sugar (sucrose) and spices, and keeping in suitable, clean, hermetically sealed containers, and conforms in name to the fruit used in its preparation."

"Canned vegetables are sound, properly matured and prepared fresh vegetables, with or without salt, sterilized by heat, with or without previous cooking in vessels from which they take up no metallic substance, kept in suitable, clean, hermetically sealed containers, are sound and conform in name to the vegetables used in their preparation."

Twenty-nine samples of canned goods were analysed. Two were classed as standard, and 27 as not standard because they differed from the standards quoted above or because they contained artificial coloring matter or a chemical preservative.

Section 4601a makes it a misdemeanor to sell, exchange, or deliver canned fruits, vegetables, meats, fish, or shell fish containing artificial coloring or any bleaching compound or any article the sale of which as an article of food is made a misdemeanor by any statute of this state. Twenty-one of the 27 classed as not standard were so-called canned cherries, 20 of which contained artificial color, two also containing benzoic acid. Two samples of French peas were analysed, one sample being found to be colored with a copper compound and one was misbranded as to the weight of the contents of the can. Several samples of one brand of dried shrimps labeled as containing 10 ounces were weighed and the average net weight of the contents was found to be 4.3 ounces. One sample of tomato bouillon and one sample of tomato conserve were found to contain benzoic acid. One sample of canned corn contained added starch. It is in this class of foods, canned goods, that artificial color is largely used. Artificial color serves the purpose of making certain articles to which it is added appear better or of greater value and in many cases deceives and misleads the purchaser. Attempts have been made by various manufacturers to place these canned cherries on the market without the addition of artificial color but the uncolored product has never become pop-

ular nor its sale extensive, thereby indicating that the people really thought the colored product was superior to the uncolored, when in fact the only difference in the two products is the artificial color.

The use of benzoic acid as a preservative in canned goods has practically ceased.

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 quoted above 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.

Chemical Preservatives.

Four samples of chemical preservatives were analysed. Two samples labeled "Mrs. Price's Canning Compound" were found to be composed essentially of boric acid. A sample labeled "Curing Pickle," a product to be used by butchers, was tested for boric acid and sulphites and found to be free from the same. Analysis of this product shows that it is composed essentially of salt and saltpetre. A submitted sample said to be a preservative for meat was tested for boric acid, sulphites, and ether-soluble preservatives and found to be free from the same. Analysis of this product shows that it is composed essentially of salt and saltpetre.

There seems to be a lack of knowledge on the part of users of preservatives as to just what may be legally used. Section 4601e of the statutes which makes it unlawful to manufacture, sell, etc., any article of food within the meaning of section 4600 of the statutes, which contains formaldehyde, sulphurous acid or sulphites, boric acid or borates, salicylic acid or salicylates, saccharin, dulcin, glucin, beta naphthol, abrastol, asaprol, fluorides, fluoborates, fluosilicates or other fluorine compounds, or

any other preservative injurious to health, provides among other things that nothing contained in that section shall prohibit the use of common salt, saltpetre, wood smoke, sugar, vinegar, and condimental preservatives such as turmeric, mustard, pepper, and other spices. It prohibits the sale of any article of food containing any added substance, article, or ingredient, possessing a preservative character or action other than the articles named in this act unless the presence, name and proportionate amount of said added substance, article, or ingredient shall be plainly disclosed to the purchaser. It is therefore clear that if it is claimed that the preservative to be used is of such a nature that its presence in a food product need not be disclosed on the label, that preservative must be composed of common salt, saltpetre, wood smoke, sugar, vinegar, or some condimental preservative or mixture of these preservatives. With this understanding of the law I can see no reason why butchers should continue to buy at unreasonable prices preservatives composed essentially of common salt, saltpetre, etc.

The two samples of canning powder are composed essentially of boric acid, which is specifically prohibited as a constituent of an article of food, and the term food as defined includes all articles used or intended for use as ingredients in the composition of food or in the preparation thereof.

Dried Fruits.

Five samples of dried fruits were analysed. A sample of dried apples was tested for sulphur dioxide with negative results. Two samples of figs, one of currants, and one sample of raisins contained sulphur dioxide. The bleaching of currants, raisins, and figs seems to be a new departure on the part of the producers of these articles. The two samples of figs were labeled showing that they were California products and bleached with 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.

Drugs.

One hundred and sixteen samples of drugs were analysed consisting of Hamamelis water, lime water, precipitated sulphur, tincture of ferric chloride, tincture of iodine, spirits of camphor, and miscellaneous drugs.

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

Spirits of Camphor: Of the 27 samples of spirits of camphor analysed 7 were below standard, 12 above standard, and 8 were standard. Practically but one third of the samples collected were standard. Of the other two thirds, practically two thirds were above standard, indicating at least that careless methods of manufacture were used, or that inaccurate balances or weights were used. While this may be true also with regard to some of the 7 samples found below standard, no doubt some of those samples were intentionally made below standard.

Precipitated Sulphur: Fourteen samples of precipitated sulphur were analysed. Twelve were below standard and two were standard. Although this product may not be a highly important one, nevertheless there can be no excuse for a pharmacist to have in his possession for sale a drug adulterated from 33% to 50%. This drug is not usually manufactured by the pharmacist himself but is purchased from wholesalers. The test, however, for determining the purity of precipitated sulphur is very simple and is described in the pharmacopoeia under that drug, so that there can be little excuse for any dealer in this state having in his possession adulterated precipitated sulphur.

Lime Water: Twelve samples of lime water were analysed 10 of which were standard, and 2 not standard. This shows a decided improvement. In the first systematic investigation of this drug product many samples were found to be below standard, and in one or two instances it was found that a product containing no calcium hydroxide was sold as lime water.

Hamamelis Water: Thirteen samples of Hamamelis water were analysed. Seven were standard. Six were not standard.

Of the 6 not standard, one contained 24% of wood alcohol. The addition of wood alcohol to Hamamelis water is criminal. A product of this kind containing wood alcohol when used to bathe the eyes might cause irreparable injury. One of the largest, if not the largest, manufacturers of wood alcohol in a publication entitled "The Truth about Wood Alcohol" emphatically denounces the use of wood alcohol in any medicinal preparation.

Tincture of Ferric Chloride: Fourteen samples were analysed. Six were standard. Eight were not standard. In most of the 8 samples not standard the alcoholic content was of a higher percentage than that required by the standard for this product, indicating careless methods in making up the preparation which is done by diluting a solution of ferric chloride with alcohol.

Tincture of Iodine: Twenty-four samples of tincture of iodine were analysed, 11 of which were below standard in iodine and 5 of this number containing less than the required amount of potassium iodide and 4 containing no potassium iodide. Nine were found to be above standard in iodine, 5 containing the required amount of potassium iodide, 2 containing less than the required amount, and 2 containing more than the required amount. One of the 11 samples contained the proper amount of iodine but less than the required amount of potassium iodide. It seems inexcusable that only 3 out of 24 samples of tincture of iodine were found to be standard; in other words that only 12½% of the samples were standard.

Miscellaneous Drugs: Twelve miscellaneous samples of drugs were analysed. Of importance in connection with these samples is the analysis of gum asafetida, three of which were found to be not standard. A chemical analysis of two of the samples would not have been necessary to determine that fact. Small pebbles or pieces of stone formed more than 50% of the product. One sample of sweet oil was analysed and found to be cottonseed oil.

Purchased on the Wisconsin market labeled as above. Product contained no lemon oil and was artificially colored with the coal-tar dye, naphthol yellow S.

"Ideal" for what? Surely not for food purposes as it contained wood alcohol, a rank poison. Falsely branded being of "Triple" strength. Such products have been driven from the Wisconsin market.

Flavors and Flavoring Extracts.

Lemon Extract: Twenty-five samples of lemon extract were analyzed. Eight were standard. Seventeen were either not standard or misbranded or both. Eight of these seventeen samples were below standard in lemon oil or contained no lemon oil at all. Two of the samples sold as lemon flavor, plainly labeled "Imitation of Lemon and Lemon Grass," were found to contain no oil of lemon and only a small amount of citral. One sample sold as terpeneless lemon flavor was branded "Quarter Standard Strength" and while the analysis shows the percentage of citral claimed by that label, I think the consumer is mislead as to the character of the product. As a result of an investigation by one of the assistant commissioners, it was learned that this product was being sold and billed to retailers in a certain part of the state as lemon flavor, and that the price obtained for this product was not in proportion to its standard strength.

Vanilla Extract: Sixty-one samples purchased as vanilla extract were analyzed. Twenty-five of these sixty-one samples were found to be in compliance with the standard for vanilla extract. Thirty-six samples while sold for vanilla extract in almost all cases were labeled showing that they were compounds usually containing little or no vanilla extract. Eighteen of these thirty-six samples were artificially colored by the use of caramel or coal-tar dyes in imitation of the color of genuine vanilla extract. If these products had not been artificially colored, in many cases deception could not have been accomplished. Housewives are acquainted with the color of vanilla extract and the color is an index of the purity and strength of that product to them.

Four samples were found to be short measure. Three samples were labeled as a concentrated product when in fact they fell below the standard for vanilla.

One sample was found to contain coumarin.

Compound Flavors: Thirty-four samples were analyzed. Four were found to be in compliance with law. Twenty-six were

artificially colored in imitation of the color of genuine vanilla extract and were by that means to appear better or of greater value. Three were misbranded as to the percentage of vanilla. One was found to be misbranded as to measure.

Other Flavoring Extracts: Thirty-three samples were analyzed, twenty-two of which were artificial flavors but were not so labeled and sold. Ten of these by the use of artificial color were made to appear better or of greater value than they really were, thus tending to mislead and deceive the consumer.

Gelatin, Gum, and Starch Mixtures.

Five samples of gelatin, gum, and starch mixtures used for dessert or dessert fillers were analysed. A sample of ice cream filler taken at a creamery where ice cream was also being manufactured was found to be composed essentially of corn starch and cane sugar with some gum tragacanth. The purchaser undoubtedly paid gum tragacanth prices. "Jello Ice Cream Powder," another product represented to have wonderful merit in making ice cream, was found to consist essentially of cane sugar, a small amount of gum tragacanth, lemon flavored,, and artificially colored. Two gelatin dessert powders were found to consist essentially of cane sugar. One sample of "Snow Mellow" was composed of equal parts of corn starch and gelatin with a small percentage of albumen. In all of these products corn starch and cane sugar are being sold at many times their market value. To compel a statement of the percentages of corn starch or cane sugar on the label of these goods would seem only fair to the consumer.

Linseed Oils.

One hundred sixty-six samples were analyzed. The majority of the samples were boiled linseed oil and it seems that adulteration is practiced to a greater extent in boiled linseed oil than in the raw.

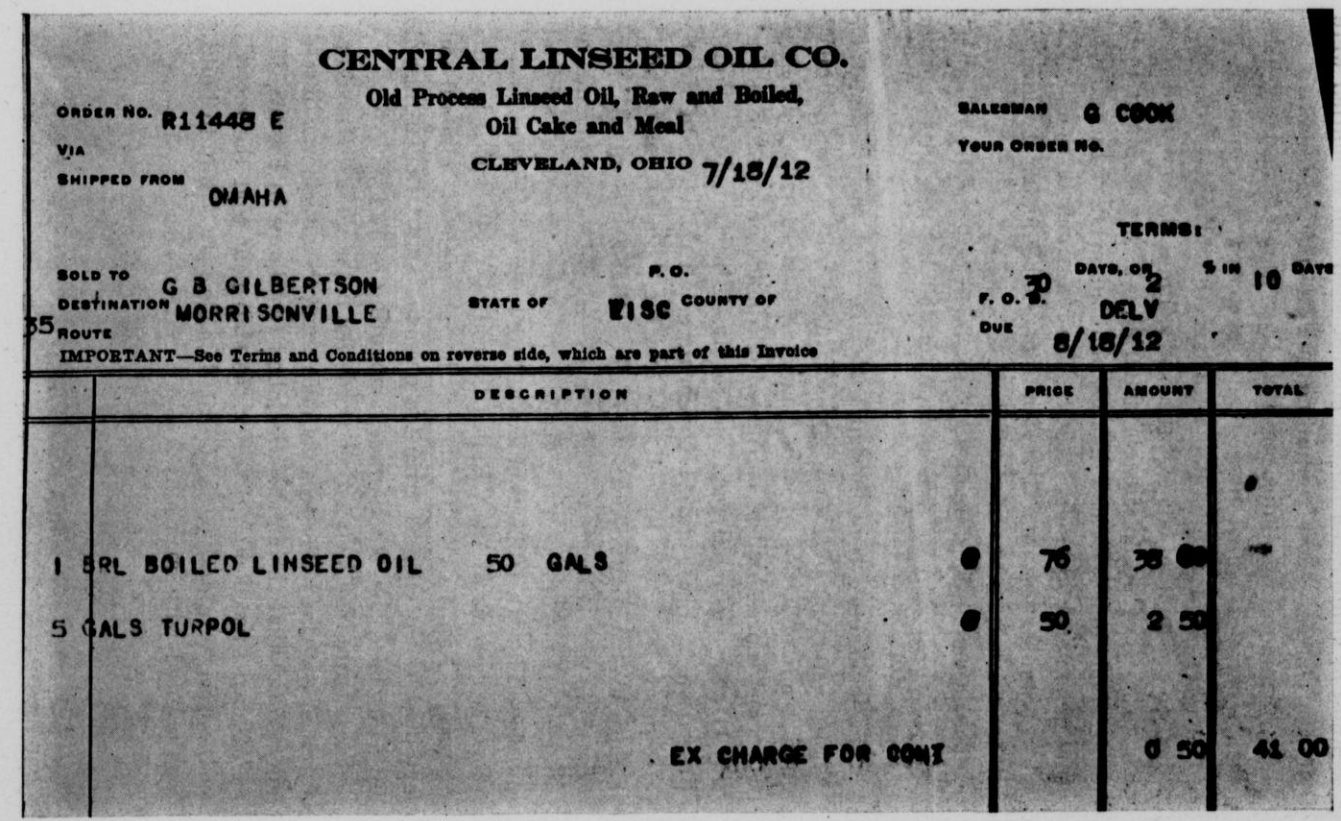
Seventy-nine samples, both boiled and raw, were standard. Forty-nine samples, mostly boiled, were not standard. The

samples of adulterated linseed oils collected and submitted were of two classes,—those containing but one per cent or two per cent of mineral oil, indicating that they were of the bung hole-boiled type of boiled linseed oils, prepared with mineral oil driers, and those adulterated with large quantities,—from 50% to 60%,—of mineral oil. Of these 59 samples, 35 contained from 5% to 55% of unsaponifiable material, which was found to be mineral oil; in a few cases the unsaponifiable material was a mixture of mineral oil and resin oil. The remainder of the 59 samples contained less than 5% of unsaponifiable material which in all cases was found to be mineral oil.

The accompanying illustrations set forth graphically the manner in which a great deal of adulterated linseed oil is gotten onto the Wisconsin market.

The mails have been flooded with letters of the character of Figure I quoting prices on "boiled" and "raw" "linseed oil". As a result of letters of such character, dealers have purchased what was represented to be linseed oil, boiled or raw. See Figure II showing a bill rendered to Mr. Gilbertson for "Boiled linseed oil". See Figure III showing a bill rendered to Mr. S. S. Squires for "Raw linseed oil" and for "Boiled linseed oil." Figure IV—A shows ten grams of the "Boiled linseed oil" purchased by Mr. Gilbertson. Figure IV—B shows the amount of mineral oil obtained by the chemist from ten grams of said oil purchased by Mr. Gilbertson amounting to 38%. Figure IV—C shows ten grams of the "Boiled linseed oil" purchased by Mr. Squires. Figure IV—D shows the amount of mineral oil obtained by the chemist from ten grams of said "Boiled linseed oil" purchased by Mr. Squires, amounting to 40.4%.

See Figure V. *Notice* that the letter bears no *written* signature. *Notice* the letter does not once claim the article was linseed oil. *Notice* that the article was billed (as shown in Figure III) as "Boiled linseed oil." *Notice* the statement that the *records* in the case were *destroyed*. Great damage may result to buildings painted with such oil.



CENTRAL LINSEED OIL CO.

Old Process Linseed Oil, Raw and Boiled,
Oil Cake and Meal

CLEVELAND, OHIO 7/18/12

ORDER NO. R11448 E
VIA
SHIPPED FROM OMAHA

SALESMAN G COOK
YOUR ORDER NO.

TERMS:

SOLD TO G B GILBERTSON
DESTINATION MORRISONVILLE
ROUTE 35

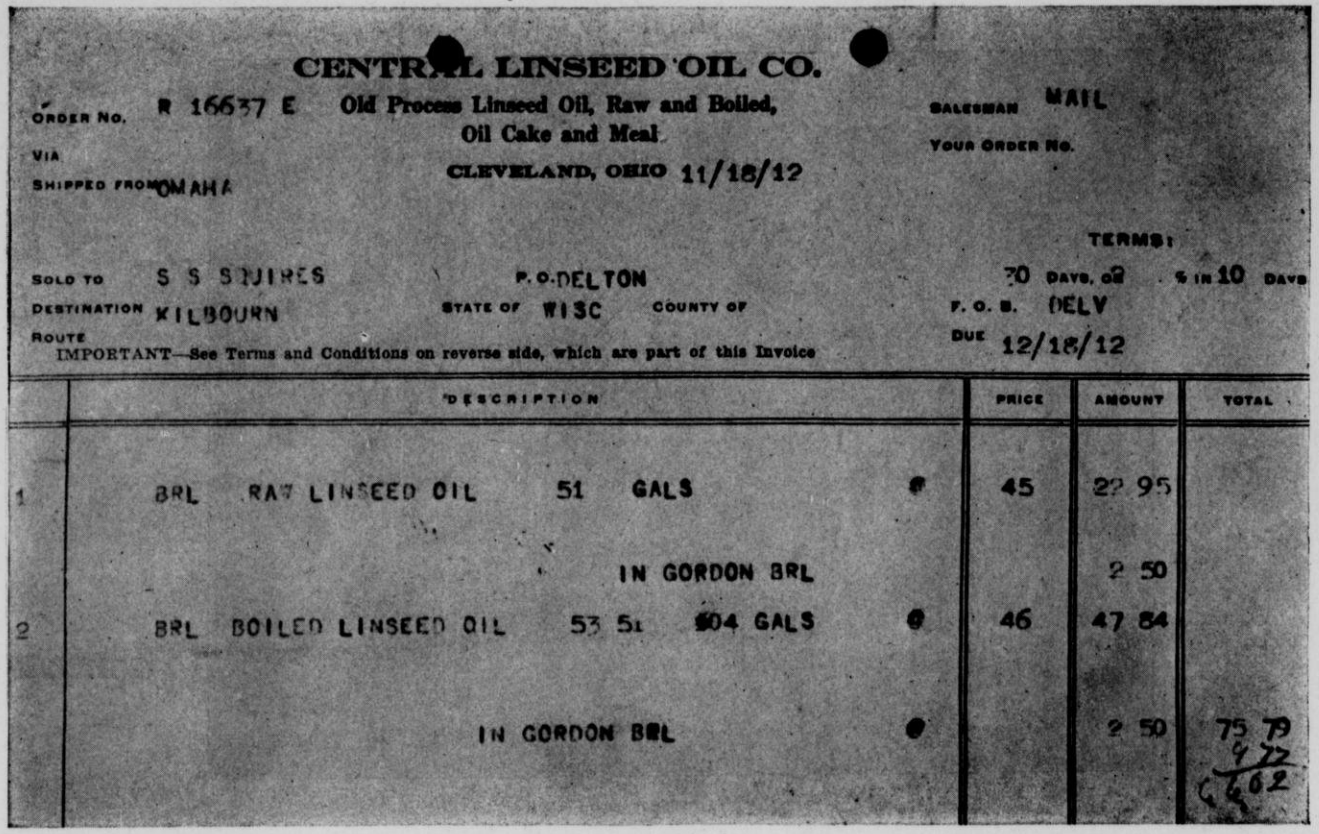
STATE OF WISC COUNTY OF

F. O. B. 30 DAYS, OR 2 % IN 10 DAYS
DUE DELV
8/18/12

IMPORTANT—See Terms and Conditions on reverse side, which are part of this Invoice

	DESCRIPTION	PRICE	AMOUNT	TOTAL
1 BRL BOILED LINSEED OIL	50 GALS	@ 76	38 00	
5 GALS TURPOL		@ 50	2 50	
	EX CHARGE FOR CONT		0 50	41 00

FIG. II.



CENTRAL LINSEED OIL CO.

ORDER NO. R 16637 E — Old Process Linseed Oil, Raw and Boiled, Oil Cake and Meal — SALESMAN MAIL

VIA — YOUR ORDER NO.

SHIPPED FROM OMAHA — CLEVELAND, OHIO 11/18/12

TERMS:

SOLD TO S S SQUIRES — P.O. DELTON — 30 DAYS, 2% IN 10 DAYS

DESTINATION KILBOURN — STATE OF WISC — COUNTY OF — F. O. B. DELV

ROUTE — DUE 12/18/12

IMPORTANT—See Terms and Conditions on reverse side, which are part of this Invoice

	DESCRIPTION	PRICE	AMOUNT	TOTAL
1	BRL RAW LINSEED OIL 51 GALS	45	22 95	
	IN GORDON BRL		2 50	
2	BRL BOILED LINSEED OIL 53 51 104 GALS	46	47 84	
	IN GORDON BRL		2 50	75 79

FIG. III.

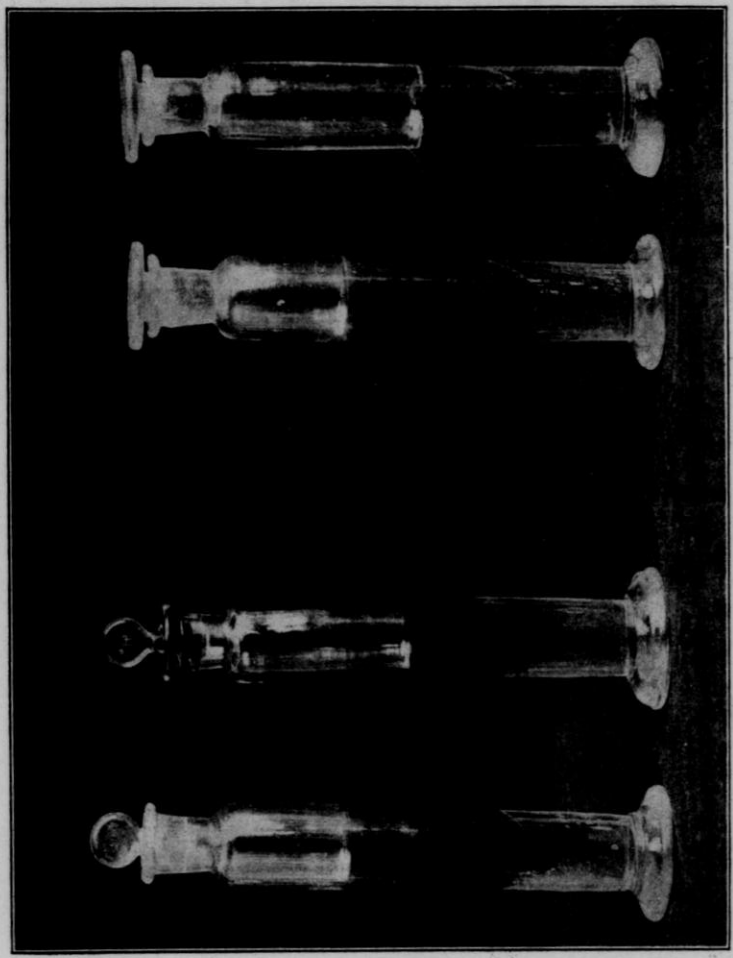


FIG. IV.

CENTRAL LINSEED OIL COMPANY

OLD PROCESS LINSEED OIL
RAW AND BOILED LINSEED OIL
OIL MEAL AND OIL CAKE

WESTERN OFFICE
OMAHA, NEB.

OMAHA, NEB., June 19, 1912.

DEAR SIR:

Since our last quotations Linseed Oil has been steadily raising, with a prospect of a five cent advance for the coming week.

The stock in this country is practically exhausted, and the imported seed is all that we have to depend upon. The raise in Linseed Oil has been made necessary, for the reason that practically all of the domestic seed has been secured, and it has been found necessary to import seed, which is costing considerable money. It will be necessary, on account of the prevailing conditions, for people to invest several weeks in advance, sometimes several months, if they have not already invested, and you can form an idea of what the price of Linseed Oil will be, from the present conditions of the market.

If you wish to pay a price of 90¢ for Linseed Oil, just wait for another 30 days, and you will find prices soaring near the 90¢ figure. The Trust is quoting a price of 83¢ and 84¢ per gallon at the present time in the East. We are quoting you the following prices, FOR IMMEDIATE DELIVERY ONLY, DELIVERED AT YOUR RAILROAD STATION:

BOILED LINSEED OIL.....69¢ per Gal.
RAW LINSEED OIL.....68¢ " "

These prices are in barrel lots, and in smaller quantities we will make the usual charge for containers. Terms, 30 days, or 2 per cent off for cash.

All of our goods are guaranteed to give satisfaction, or they are returnable at our expense.

If you wish to purchase Oil at the above mentioned prices, it will be necessary for you to place your order immediately, otherwise, we will charge you the market price.

Trusting that we may receive your order by return mail, we remain

Yours respectfully,

CENTRAL LINSEED OIL COMPANY.

Since writing this letter Oil has raised 5¢ per Gal. We have only 180 Bbls. that we will sell at the above price.

Central Linseed Oil Co.

Old Process Linseed Oil.

Raw and Boiled Oil Cake and Meal.

Offices: Rose Building.

Cleveland, O. July 16, 1914.

Mr. S. S. Squires,
Delton, Wis.,

Dear Sir--

We are in receipt of your favor of the 10th inst., and contents noted. We also note letter referred to us from Jas. H. Hill, District Attorney, Baraboo, Wis., which we return to you, herewith.

We note that we made shipment to you from our Omaha warehouse on November 18th, 1912. This is so long ago that our records in connection with this shipment have been destroyed, but we know of no possible reason why there should be any difficulty in connection with this shipment. We have no doubt that you have disposed of a considerable quantity of oil and have found that it has given entire satisfaction to your customers, and we cannot understand what grounds there should be for any action on the part of the State Authorities.

We would suggest that you get in communication with the attorney, advise him of all the circumstances, and see if the action cannot be stopped.

Yours truly,

CENTRAL LINSEED OIL CO.

Milk.

Three hundred and seventy-two samples of milk were analyzed in the laboratory, 86 of which were delivered to cheese factories or creameries. Fourteen of the 86 were standard. Seventy-two were not standard because of the usual forms of adulteration, being skimmed or watered or both, or below standard in fat or solids not fat as produced by the herd.

Chemical analyses of 48 samples of city milk were made, 17 of which were standard and 31 below standard. The usual forms of adulteration were found, the samples being either skimmed or watered or both, or below standard in fat or solids not fat as produced by the herds.

Eighty-eight samples of milk intended for city supply were collected in such a manner that bacteriological work could be done upon them. A bacterial count was made on each of these samples. Thirty-seven were also tested with the lactometer and the percentage of fat determined. All of the 37 were above standard.

City Milk Supplies: The subject of city milk supplies is too large to be treated in a report of this character, but as will be seen from the results of the bacterial counts on these 88 samples of milk, something should be done to secure for city milk, standards in addition to those which we now have. From a reprint from Public Health Reports—No. 78, entitled "Report of the Commission on Milk Standards Appointed by the New York Milk Committee," issued in 1912, the following is quoted:

Classification of Milks.

"There is no escape from the conclusion that milk must be graded and sold on grade, just as wheat, corn, cotton, beef, and other products are graded. The milk merchant must judge of the food value and also of the sanitary character of the commodity in which he deals. The high-grade product must get a better price than at present. The low-grade product must bring less. In separating milk into grades and classes the commission has endeavored to make its classification as simple as possible and at the same time to distinguish between milks which are essentially different in sanitary character.

In general two great classes of milk are recognized, namely, raw

milk and pasteurized milk. Under these general classes there are different grades, as indicated in the report of the committee on classification."

"Milk should be graded and classified. The classification should be the same for both large and small cities and towns. Milk should be graded into four classes, as follows:

Class A.—Certified milk or its equivalent.

Class B.—Inspected milk.

Class C.—Pasteurized milk.

Class D.—Milk not suitable for drinking purposes.

Class A. *Certified milk or its equivalent.*—The use of the term certified should be limited to milk produced in conformity with the requirements of the American Association of Certified Milk Commissions.

Milk of an equivalent character should conform to the following requirements: It should be produced at dairies subjected to periodic inspection and the products of which are subject to frequent analyses. The cows producing such milk must be properly fed and watered, free from tuberculosis as shown by the tuberculin test and physical examination by a qualified veterinarian, and from all other communicable diseases, and from diseases and conditions whatsoever likely to deteriorate the milk. They must be housed in clean, properly ventilated stables of sanitary construction and must be kept clean. All persons who come in contact with the milk must exercise scrupulous cleanliness and must not harbor the germs of typhoid fever, tuberculosis, diphtheria, dysentery, scarlet fever, and septic throat infections, or other infectious diseases liable to be conveyed by the milk. Milk must be drawn under all precautions necessary to avoid infection, and be immediately strained and cooled, placed in sterilized bottles, and kept at a temperature not exceeding 50° F. until delivered to the consumer. Pure water, as determined by inspection and chemical and bacteriological examination is to be provided for use throughout the dairy farm and dairy. Milk of this class should contain less than 10,000 bacteria per cubic centimeter, and should not be more than 28 hours old when delivered.

Class B. *Inspected milk.*—This class should consist of clean raw milk from healthy cows as determined by the tuberculin test and physical examination by a qualified veterinarian, and from dairies that score not less than 70 on the Government score card. The cows are to be fed, watered, housed, and milked under good conditions but not necessarily equal to the conditions prescribed for Class A. All persons who come in contact with the milk must exercise scrupulous cleanliness and must not harbor the germs of typhoid fever, tuberculosis, diphtheria, or other infectious diseases liable to be conveyed by milk. This milk is to be delivered in sterilized containers and is

to be kept at a temperature not exceeding 50° F. until it reaches the consumer. It should contain less than 100,000 bacteria per cubic centimeter. Pasteurization of milk of this class is optional. If pasteurized it shall then be designated as 'pasteurized inspected milk.'

Class C. *Pasteurized milk.*—Milk from dairies not able to comply with the requirements specified for Classes A and B should be pasteurized under official supervision before being sold, and should be sold under the designation 'pasteurized milk.' Milk for pasteurization should be kept at a temperature not exceeding 50° F. at all times while in transit from the dairy farm to the pasteurizing plant. After pasteurization it should be placed in sterilized containers (if not pasteurized in such containers) and should be cooled at once to 50° F. and kept below that temperature until delivered to the consumer. No cows in any way unfit for the production of milk for use by man, as determined by physical examination, shall be permitted to remain in any dairy producing milk of Class C. Such milk before pasteurization should contain less than 1,000,000 bacteria per cubic centimeter, and after pasteurization less than 50,000, and it should not contain colon bacilli in one cubic centimeter as determined by cultural methods. Pasteurized milk should be delivered to the consumer within less than 48 hours after pasteurization. The repasteurization of milk should be prohibited.

Class D. *Milk not suitable for drinking purposes.*—Milk containing over 1,000,000 bacteria per cubic centimeter, or from farms scoring less than 40%, may be allowed to be sold for cooking and industrial purposes only after having been pasteurized or heated to a higher temperature. Such milk should be delivered in a distinctive container, and should not be allowed to be sold for drinking purposes."

Five of the samples would fall into Class D; 3 of these 5 samples being evening's milk and the high bacterial counts would indicate a very unsanitary condition in the manner of milking or the care of the milk after milking. In connection with these samples it is of interest that they were collected during the month of February when the temperature registered considerably below zero. Class D is milk not suitable for drinking purposes but which might be allowed to be sold for cooking and industrial purposes after pasteurization.

Twenty-nine of the samples would fall into Class C which is milk suitable for pasteurization.

Forty-nine would fall into Class B as far as the bacterial count is concerned.

Four of the 88 samples contained colon bacilli and therefore were unfit for food purposes irrespective of any classification.

One sample was badly contaminated with white and golden staphlococci.

The time has come when the production of milk for city milk supplies should become a business by itself and not a side issue. The business is of sufficient importance to warrant this demand.

Miscellaneous Food Products.

Thirty samples were analyzed. Twelve of these were standard. Nine were not standard.

One sample of sweet pickles was found to contain alum although the package was not so labeled. Alum has a preservative action and must therefore be stated on the label of any food product containing it. It seems just and reasonable that when a food product is prepared with the use of alum that fact should be disclosed to the consumer.

One sample of rice was found to be polished and coated with talc. In the polishing of rice a valuable food constituent is removed and therefore lost and there is added a foreign substance without food value. On packages of rice coated with glucose and talc directions usually appear for removing the coating. These directions are often intermingled with other reading matter and doubtless much of the rice is prepared without the removal of the coating. There is now being sold on the markets of Wisconsin an unpolished rice. This is a superior product and doubtless in time will become very popular.

One sample of dressed poultry and two samples of oysters were analyzed and found to be unfit for food.

One sample of raspberry jam compound was analyzed. Although the name raspberry was used, it appeared from the label that the only fruit juice present was 35% of juice from apple trimmings. The sample was found to contain added phosphoric acid. One sample of fruit preserves in which the fruit juice was mainly that from apple trimmings was analyzed. The sample was found to contain added citric acid. From the appearance of the packages, the labels, etc., it was evident that these goods had been upon the shelves of the retailer for some time. Upon inquiry regarding the sale of cheap glucose jelly,

jam, and preserve mixtures, I was told that this class of products was not popular; that this class was "a sticker."

Miscellaneous Food Products Suspected of Containing Poison.

Nine samples were analyzed, five of which were candy and four cheese. Usually the samples of candy submitted were quite small so that only a limited number of tests could be made. The samples were tested for arsenic and such other poisonous substances as the size of the samples would permit. The samples of cheese were suspected of having caused ptomaine poisoning. Three of the samples gave negative results chemically. From one sample a substance giving the alkaloidal test was separated and solutions injected into guinea pigs caused the death of the animals. The appearance of the samples of cheese usually indicated that they had been manufactured from inferior milk. The samples contained a large number of pin-holes indicating a gassy curd which in turn indicated unclean milk. While the three samples tested gave negative results chemically, that fact does not prove that the cheese did not cause the illness complained of. Ptomaines decompose easily and might have been present at the time the cheese was eaten. It should also be mentioned in this connection that the samples of cheese submitted were usually small.

The presence of ptomaines in cheese may be caused by unsanitary conditions in the manufacture of that product, and analyses of the above character serve to demonstrate the importance of sanitary conditions in the production of food products.

Olive Oil.

Eleven samples were tested, all of which were standard. This indicates an improvement in the quality of this product as found on the Wisconsin market. In previous biennial periods samples were found containing various percentages of cottonseed oil. While the number of samples analysed during the past two years is not large, inspection of this product as generally offered for sale shows that a few well-known brands predominate.

Package Goods.

Forty-one samples of package goods consisting chiefly of breakfast foods, wafers, cookies, and similar products, were collected. The law governing the labeling of package goods with respect to weight, in force at the time these samples were examined, provides that if in package form, and the contents are stated in terms of weight or measure, they are not plainly and correctly stated on the outside of the package, they are misbranded.

Twenty-nine of these samples were full weight and full count; 8 were short weight and 2 were short count. Four of the samples contained no statement of weight or count. Four of the samples were labeled "Weight 4 to 5 oz.," or "Weight 12 to 14 oz." In goods labeled as indicated it is to be noted that the weight was always found to be very near the minimum stated. In one case the actual weight was even below the minimum stated.

Since this work was done the law on this subject has been amended so that a statement of the net weight is required, and, therefore, 14 of the samples instead of 10 would be deemed misbranded under the present law.

Saccharine Products.

Sixty-six samples of various saccharine products were analysed.

Maple Syrup and Maple Syrup Mixtures: Twelve samples of maple syrup and maple syrup mixtures were analysed. Four of the maple syrups were found to contain more than 32% of water and were therefore below the standard for that product. Five samples were found to be standard. Two sugar and maple syrup mixtures were found to be free from adulteration and correctly labeled. One sugar syrup and maple syrup mixture labeled "50% Sugar, 50% Maple" was found to be misbranded in that the proportion of maple was not correctly stated. The four samples of maple syrup not standard were products resulting from the insufficient concentration of the maple sap or in the solution of maple concrete in the manufacture of the syrup more

than the lawful amount of water was added. This character of adulteration is very different from the earlier forms of adulterations in this product where the matter of concentration of the product was not taken into consideration for the reason that the producers of maple syrup could well afford to add generous amounts of brown sugar when these products were allowed to be sold as maple products.

Miscellaneous: Eleven samples of miscellaneous saccharine products were analysed including three samples of sorghum syrup, two of which contained an abnormally high percentage of ash. One sample purchased as powdered sugar was found to be a mixture of 97% of sucrose and 3% of starch. While this product was plainly labelled as powdered sugar with starch, nevertheless it was sold to the inspector as powdered sugar.

Honey: Twenty-four samples of honey were analysed and found to comply with the standard for that product.

Sausage.

Twelve samples of sausage were analysed. Three samples were found to be free from adulteration. Five contained more than 4% of cereal. Two contained less than 4% of cereal but no notice was given to the purchaser that he was buying sausage with cereal and not sausage. Two were labeled "Sausage with cereal" and notice was given at the time of sale that the product contained cereal. In the many samples of sausage which have been collected by inspectors of this department, in no case has a sample appeared at the laboratory which had stamped upon the package: "Notice. This sausage contains cereal." This seems to me to be, next to a verbal notice, the most satisfactory form of giving notice to the consumer that he is not buying sausage but sausage with cereal. In a number of butcher shops in the state a sign is displayed which reads: "Sausage with cereal."

Spices.

Eight samples of spices were analysed and found to be free from adulteration.

Turpentine.

Thirty-eight samples of turpentine were analysed of which 26 were standard and 12 not standard. The adulteration of these products as shown by the analyses is from 6% to 36%. The usual adulterant is kerosene or a similar mineral oil product.

Vinegars.

Forty-eight samples of vinegars were analysed. Seventeen of these were purchased and submitted by inspectors of this department, of which 15 were cider vinegar. Of the 15 cider vinegars 3 were standard. Two of the 17 samples were wine vinegars.

Thirty-one samples were submitted by individuals who were manufacturing cider vinegar on a small scale. The only determination made on these samples was the per cent of acetic acid. In all cases it was pointed out to the submitter either by letter or verbally that as they were the producers of the product they were in a position to know without analysis whether their product was manufactured entirely from the juice of apples, and it was made clear to them that this department would make no tests on such samples other than a determination of the acetic acid present. This determination was made so that the producer might know that his product contained the required amount of acidity or did not contain the required amount of acidity,—a fact which he could not know without this simple test. In many of the submitted samples the per cent of acetic acid was found to be less than one half the amount required by the standard for vinegar. From this fact and the character of the samples it was evident that many of them had been manufactured from green, windfall apples which contained insufficient amount of sugar to produce the acetic acid required by the standard.

All of the samples reported as not standard, with the exception of one which was low in total solids, would pass every requirement of the standard except that which defines vinegar as the product made by the alcoholic and subsequent acetous fermentation of the juice of apples. When the relation of the various determinations that have been made in connection with each of

these samples is considered, it will be seen that a number of the samples are products so skillfully adulterated that the ordinary determinations which have been made upon vinegars in the past are inadequate to show adulteration.

White Lead and Zinc White.

Twenty-three samples of white lead and zinc white were analysed of which 6 were standard and 16 were not standard. In the 16 samples classed as not standard the product in many cases consisted of barium sulphate, the percentage reaching as high as 85. The sample of zinc white was found to be a mixture of zinc white and white lead.

The samples of white lead and zinc white collected by the inspectors and submitted were mainly one-pound and two-pound packages. Although most of the packages were plainly labeled to show that from 60% to 80% of the product was barium sulphate, common barytes, nevertheless, such products were being sold as pure white lead.

Summary Analyses.

1428 Samples.

	No. of samples.		
BAKING POWDERS			7
BEVERAGES			52
Adulturated or misbranded	22		
Free from saccharin and benzoic and salicylic acids	26		
Cider	4		
CANNED GOODS			29
Not standard	27		
Standard	2		
CHEMICAL PRESERVATIVES			4
CONDIMENTS			7
DAIRY PRODUCTS			538
Butter		84	
Tested for per cent of fat or for foreign fat	36		
Served as butter; found to be oleomargarine	7		
Submitted samples	41		
Cream		74	
From city supplies, not standard	14		
From city supplies, standard	7		
Tested to determine overreading or underreading Babcock test	13		
Submitted	40		
Milk		372	
Delivered to cheese factories, creameries, etc., not standard	72		
Delivered to cheese factories, creameries, etc., standard	14		
Herd samples	104		
City supplies, not standard	31		
City supplies, standard	17		
Submitted samples	46		
Bacteriologically examined	88		
Miscellaneous		8	
DRIED FRUITS			5
DRUGS			116
Hamamelis Water		13	
Not standard	6		
Standard	7		
Lime Water		12	
Not standard	2		
Standard	10		
Precipitated Sulphur		14	
Not standard	12		
Standard	2		
Tincture of Ferric Chloride		14	
Not standard	8		
Standard	6		
Tincture of Iodine		24	
Not standard	21		
Standard	3		
Spirits of Camphor		27	
Below standard	7		
Above standard	12		
Standard	8		
Miscelllaneous		12	
FLAVORS AND FLAVORING EXTRACTS			153
Lemon Extract		25	
Not standard	17		
Standard	8		
Vanilla Extract		61	
Not standard	36		
Standard	25		
Compound Flavors		34	
Other Flavoring Extracts		33	

SUMMARY ANALYSES—Continued.

	No. of samples.		
FLOURS AND MEAL			37
BUCKWHEAT FLOUR		25	
FLOUR		9	
MISCELLANEOUS		3	
GELATIN, GUM AND STARCH MIXTURES			5
LARD AND LARD SUBSTITUTES			6
LINSEED OILS			166
Not standard	59		
Standard	79		
Submitted samples	28		
MISCELLANEOUS FOODS			30
Free from adulteration, properly branded, etc	12		
Not standard or misbranded	9		
Suspected of containing poison	9		
OLEOMARGARINE held to be in semblance of yellow butter			8
OLIVE OIL, standard			11
PACKAGE GOODS			59
SACCHARINE PRODUCTS			66
Maple sugar and maple syrup, submitted samples		19	
Maple syrup and maple syrup mixtures		12	
Honey, standard		24	
Miscellaneous		11	
SAUSAGE			12
Found to contain more than 4% of cereal	5		
Found to contain less than 4% of cereal	4		
Free from cereal	3		
SPICES			8
TURPENTINE			38
Not standard	12		
Standard	26		
VINEGARS			48
CIDER VINEGAR		16	
Not standard	12		
Standard	4		
WINE VINEGAR, not standard		2	
Submitted samples		30	
WHITE LEAD AND ZINC WHITE			22
Not standard	16		
Standard	6		

BAKING POWDERS.

Date.	Labeled.	Bought of.	Manufacturer or Jobber.	Remarks.
1913				
Jan. 14	This baking powder is composed of the following ingredients and none other: Soda, Acid Phosphates, Corn Starch, Sodic Aluminic. Sulphate and White of Egg. No alum left in in food prepared with this powder.	S. Seaman, Milwaukee..	Janzen Co., Milwaukee.....	Contains alum. Not labeled in compliance with law
Jan. 14	This baking powder is composed of the following ingredients and none other: Soda, Acid Phosphates, Corn Starch, Sodic aluminic Sulphate and White of Egg. No Alum left in food prepared with this powder	J. Konrad, Milwaukee..	Janzen Co., Milwaukee.....	Contains alum. Not labeled in compliance with law
1914				
June 4	Pure Baking Powder. Quality guaranteed. This baking powder is composed of the following ingredients and none other: Bicarbonate of Soda, Phosphate, Alum and Starch	Lemke-Gerlach Tea Co., Marinette	Lemke-Gerlach Tea Co., Marinette	Sold as a pound package. Found to be 3.8% short. Not labeled in compliance with law
June 5	This baking powder is composed of the following ingredients and none other: Acid phosphate of calcium, bicarbonate of soda, alum and corn starch	Nintzel Bros. Tea Co., Oshkosh	New York Baking Powder Co., New York.	Labeled in compliance with law.
June 8	This baking powder is composed of the following ingredients and none other: Bicarbonate of Soda, Phosphate, Alum and Starch	A. Marachowsky, Mauston	Wabash Baking Powder Co., Wabash, Ind.	Labeled in compliance with law.
1914				
June 19	This baking powder is composed of the following ingredients and none other: Bicarbonate of Soda, Calcium Acid Phosphate, Corn Starch, Alum, and White of Egg	G. H. Weyenberg, Little Chute	Show Man Baking Powder Co., Milwaukee	Labeled in compliance with law.
June 19	This baking powder is composed of the following ingredients and none other: Bicarbonate of Soda, Phosphate, Alum, and Starch	G. H. Weyenberg, Little Chute	C. F. Ware Coffee Co., Dayton, Ohio	Labeled in compliance with law.

BEVERAGES.

Adulterated or Misbranded.

Date.	Bought for.	Labeled.	Bought of.	Manufacturer or Jobber.	Remarks.
1912					
July 5	Pop		Wm. Barthen, Bloomer	Jos. Evans, Eau Claire	Saccharin present
July 5	Pop		Wm. Barthen, Bloomer	Jos. Evans, Eau Claire	Saccharin present
July 5	Pop		Wm. Barthen, Bloomer	Chris. Volkman, Eau Claire	Saccharin present
July 5	Pop		Peter Postel, Bloomer	Jos. Evans, Eau Claire	Saccharin present
July 5	Pop		Peter Postel, Bloomer	Jos. Evans, Eau Claire	Saccharin present
Sept. 11	Pop	Cherry phosphate. Artificial color and flavor	Great Northern Bottling Works, Superior	Great Northern Bottling Works, Superior	Contains artificial color. Not a cherry phosphate. Misbranded
Sept. 11	Pop	Lemon soda	Great Northern Bottling Works, Superior	Great Northern Bottling Works, Superior	Contains saccharin
Sept. 11	Pop	Superior punch	Superior Bottling Works, Superior	Superior Bottling Works, Superior	Contains saccharin and artificial color
Sept. 12	Pop	Orange soda. Artificial color and flavor	Great Northern Bottling Works, Superior	Great Northern Bottling Works, Superior	Contains saccharin and artificial color. Not an orange product
Sept. 26	Grape soda	Grape. Artificial color and flavor	P. Albright, Middleton	Middleton Bottling Works, Middleton	Not a grape product
Sept. 26	Raspberry soda	Raspberry. Artificial color and flavor	P. Albright, Middleton	Middleton Bottling Works, Middleton	Not a raspberry soda
Oct. 25	White pop		Salvator Mineral Springs Co., Green Bay	Salvator Mineral Springs Co., Green Bay	Saccharin present
Oct. 25	Orange cider	Orange cider	Salvator Mineral Springs Co., Green Bay	Salvator Mineral Springs Co., Green Bay	Not made from the juice of oranges. Misbranded. Contains saccharin Artificially colored and flavored in imitation of the genuine color and flavor of orange cider
Oct. 25	Orange cider	Orange cider. Artificial	J. J. Handlen, Green Bay	J. J. Handlen, Green Bay	Artificially colored and flavored in imitation of the genuine color and flavor of orange cider Not made from the juice of oranges

BEVERAGES.—Continued.

Adulterated or Misbranded—Concluded.

Date.	Bought for.	Labeled.	Bought of.	Manufacturer or Jobber.	Remarks.
Oct. 25	Orange cider	Orange cider	Allouez Spring Co., Green Bay..	Allouez Spring Co., Green Bay...	Not a fruit juice or cider. Misbranded
Dec. 13	Apple cider	.....	Boston Grocery House, North La Crosse	.....	Contains benzoic acid
1913 Feb. 20	Superior punch ...	This product contains real grape product unfermented	Superior Bottling Works, Superior	Superior Bottling Works, Superior	Contains benzoic acid and a coal-tar dye, amaranth. Not a fruit juice product
Feb. 2	Submitted as cider	.....	Submitted by A. Swedborg, Prentice	.....	Contains benzoic acid
June 26	Cherry smash	Cherry smash, colored with caramel and Amaranth. Contains 1-10 of 1% benzoate of soda	Stuemke Bros., Merrill.....	Reid, Murdock & Co., Chicago...	Preserved with benzoic acid or a salt thereof and colored with a coal-tar dye
Aug. 20	Strawberry soda..	Strawberry. Artificially colored and flavored	Hinkel & Capelle, Medford.....	Hinkel & Capelle, Medford.....	Artificially colored
Oct. 17	Submitted as port cider	.....	E. Olson, Nelsonville.....	.....	Artificially colored with a coal-tar dye
1914 April 29	Fruit nectar	Fruit nectar, 2 oz. make 2 gal. fruit nectar. Grape artificial flavor and color	Robt. Steinbring, Menomonie.....	Compound Flavor Co., Minneapolis, Minn.	Artificially colored and flavored. Contains no grape

Free from Saccharin and Benzoic and Salicylic Acids.

Date.	Bought for.	Bought of or Submitted by.	Manufacturer or Jobber.
1912			
July 5	Pop	John Hoepler, Bloomer	Jos. Evans, Eau Claire
July 5	Pop	John Hoepler, Bloomer	Jos. Evans, Eau Claire
Sept. 11	Pop	Superior Bottling Works, Superior	Superior Bottling Works, Superior
Sept. 26	White pop	P. Albright, Middleton	Middleton Bottling Co., Middleton
Oct. 25	White pop	J. Ritzer, Kewaunee	Kewaunee Bottling Co., Kewaunee
Oct. 25	White pop	J. J. Handlen, Green Bay	J. J. Handlen, Green Bay
Oct. 25	White pop	Allouez Spring Co., Green Bay	Allouez Spring Co., Green Bay
1913			
Feb. 25	Pop	Hurley Bottling Works, Hurley	Hurley Bottling Works, Hurley
Mar. 14	White pop	The Star Bottling Works, Hubbleton	Star Bottling Works, Hubbleton
April 13	Pop	*Nicholas Thiesen, Kaukauna	
1914			
May 8	Pop	Mrs. A. E. Silver, Ashland	Ashland Bottling Works, Ashland
May 8	Pop	Medford Bottling Works, Medford	Medford Bottling Works, Medford
May 13	Pop	Algoma Bottling Works, Algoma	Algoma Bottling Works, Algoma
May 27	Pop	Chippewa Spring Co., Chippewa Falls	Chippewa Spring Co., Chippewa Falls
May 27	Pop	Ole Shervey, Chippewa Falls	G. E. Kleis, Chippewa Falls
June 16	Pop	Samuel Klein, Waupaca	Crystal Spring Bottling Co., Waupaca
June 17	Lemon soda	Payne Bottling Works, Marinette	Payne Bottling Works, Marinette
June 17	Cremo pop	Payne Bottling Works, Marinette	Payne Bottling Works, Marinette
June 19	Pop	Star Bottling Works, Kaukauna	Star Bottling Works, Kaukauna
June 19	Pop	Star Bottling Works, Kaukauna	Star Bottling Works, Kaukauna
June 19	Pop (3 samples)	Fox River Bottling Works, Kaukauna	Fox River Bottling Works, Kaukauna
June 19	Pop (3 samples)	Twin City Bottling Works, Menasha	Twin City Bottling Works, Menasha

* Submitted sample

Cider—Standard.

Date.	Bought of.	Manufacturer or Jobber.
1912		
Dec. 18	J. Hyland, Madison	Sprague, Warner & Co., Chicago
1913		
July 18	Worden Bros., Oxford	Webster Canning Co., Webster, N. Y.
Nov. 10	Harry Olson, Eau Claire	Frommes Chemical Co., La Crosse
Dec. 12	J. F. Brown, Prescott	Richert Bottling Works, Red Wing, Minn.

CANNED GOODS.

Not Standard.

Date.	Bought for.	Labeled.	Brand.	Bought of.	Manufacturer or Jobber.	Remarks.
1912						
Aug. 20	Canned cherries...	Fancy cherries.....	.....	Burr Bros., Beloit.....	Cincinnati Extract Works, Cincinnati, Ohio.	Contains sulphur dioxide, a bleaching compound.
Aug. 20	Canned cherries...	Bigarreaux Cherries.....	True Fruit.....	D. Condos, Janesville..	J. Hungerford Smith Co., Rochester, N. Y.	Contains artificial color and benzoic acid.
Sept. 6	French peas	French Peas. Colored with Sulphate of Copper	Barton	McLaggan Merc. Co., Solon Springs.	Gowan-Peyton-Congdon Co., Duluth, Minn.	Contains a copper compound.
1913						
Jan. 29	Tomato bouillon..	Tomato Bouillon Contains one-tenth of one per cent benzoate of soda	.....	Chippewa Candy Kitchen, Chippewa Falls.	Liquid Carbonic Co., Minneapolis, Minn.	Benzoate of soda 0.0928%.
Feb. 6	Dried shrimps.....	Dried Shrimps, 10 oz...	Home	A. C. McDonald, Ashland	Griggs, Cooper & Co., St. Paul, Minn.	Misbranded as to weight. Average net weight of five cans 4.3 oz.
Feb. 18	French peas.....	Fine Peas Uncolored Contents 15 oz.	Couteaux.....	B. L. Horr, Rhinelander	Ried, Murdock & Co., Chicago.	Not artificially colored. Net weight of contents not correctly stated.
Feb. 20	Tomato conserve.	Tomato Conserve. Contains 15 oz. Net Wt. Contains 1-10 of 1% Benzoate Soda, 15% Salt	Kossa	Kontogianis & Kolokithas, Superior.	American Conserve Co., New York, N. Y.	Misbranded as to weight. Contains artificial color and benzoic acid or a salt thereof.
Mar. 19	Canned cherries...	Rosebud Cherries, artificially colored and flavored. Liquid measure 6 oz.	Rosebud	P. E. Ibach, Alma.	Rheinstrom Bros., Cincinnati, Ohio.	Contains a bleaching compound,—suphur dioxide,—and artificial color.
July 26	Canned cherries...	Bigarreaux Cherries. 5 oz. Cherries and Syrup. Alcohol approximately 1½%. Artificially colored with Certified Color. Contains Sulphur Dioxide	True Fruit.....	Bostwick's, Eau Claire.	J. Hungerford Smith Co., Rochester, N. Y.	Contains a bleaching compound, — sulphurous acid,—and artificial color,—a coal-tar dye.

Aug. 1	Maraschino cherries	Maraschino Cherries. Contains 27 Liquid Oz.	.....	Leflys Departm't Store, Milwaukee.	Rheinstrom Bros. & Sons Co., Cincinnati.	Misbranded. Not Maraschino cherries. Contains a bleaching compound,—sulphurous acid,—and artificial color,—a coal-tar dye.
Aug. 14	Canned cherries...	Contents 6 ounces. Colored and Flavored.	National	C. W. Batman, Ellsworth.	B. O. Bowers Co., New York.	Contains a bleaching compound,—sulphurous acid—and artificial color,—a coal-tar dye.
1913 Nov. 5	Canned cherries...	Maraschino cherries. Artificially colored. 1-10 of 1% Benzoate of Soda.	.....	Tom Balistine, Kenosha..	A. Breslauer, Milwaukee	Misbranded. Not Maraschino cherries. Contains a bleaching compound,—sulphurous acid,—and artificial color,—a coal-tar dye.
Nov. 20	Cherries	Armour's Cherries. Imitation Maraschino Flavor. 6 oz. net.	Top Notch	Victor Pfeil, Oshkosh...	Armour & Co.....	Contains artificial color, —a coal-tar dye.
Nov. 20	Cherries	Preserved Cherries. Artificially Colored and Flavored. 8 oz.	Bordeaux	Evans Bros., Oshkosh..	M. Wolff & Sons, Chicago.	Contains a bleaching compound,—sulphurous acid,—and artificial color,—a coal-tar dye.
Nov. 20	Cherries	Cherries Artificially Colored and Flavored. 6 Fluid oz.	Imperial	Evans Bros., Oshkosh..	R. N. Delapenda & Co., New York.	Contains a bleaching compound, sulphurous acid, and artificial color,—a coal-tar dye.
1914 Jan. 15	Canned corn.....	Fancy Maine Corn, not over 1¼% Corn-starch added.	Califo	F. Peterson, Menasha...	The Coast Products Co., St. Louis, Kansas City and San Francisco.	Misbranded. Not fancy corn; contains starch, added to make the product appear of greater value.
Jan. 15	Canned cherries...	Artificially Colored and Artificially Flavored. Net 4 Oz. Contains .002% of Benzoate of Soda.	Califo	F. Peterson, Menasha...	The Coast Products Co., St. Louis, Kansas City, and San Francisco.	Contains a bleaching compound,—sulphurous acid,—and artificial color,—a coal-tar dye.

CANNED GOODS—Continued.

Not Standard—Continued.

Date.	Bought for.	Labeled.	Brand.	Bought of.	Manufacturer or Jobber.	Remarks.
1914						
Jan. 30	Canned cherries...	Pure Food Products Artificially Colored and Flavored. Liquid capacity of bottle 2¾ oz.	.....	Independent 5- and 10-cent store, Eau Claire.	The Bettman-Johnson Co., Cincinnati, O.	Contains a bleaching compound,—sulphurous acid,—and artificial color,—a coal-tar dye.
Jan. 30	Canned cherries...	Bigarreaux Cherries, Alcohol approximately 1½%. This bottle contains 5 oz. av. cherries and syrup. Artificially colored with certified color. Contains sulphur dioxide. True maraschino flavor.	True Fruit	Bostwick's, Eau Claire.	J. Hungerford Smith Co., Rochester, N. Y.	Contains artificial color, —a coal-tar dye.
Feb. 6	Canned cherries...	Armour's Cherries, Imitation Maraschino Flavor. Red, Artificially Colored.	Top Notch	(Sample submitted by) J. Q. Emery, Madison	Armour Company, U. S. A.	Contains artificial color, —a coal-tar dye.
April 27	Armour's cherries	Armour's Cherries, Imitation Maraschino Flavor. Red, Artificially Colored.	Top Notch	Jenkins Drug Store, Kilbourn.	Armour & Co., Chicago	Contains artificial color, —a coal-tar dye.
April 29	Canned cherries...	Cherries Artificially Colored and Flavored.	Durkasko	W. F. Eberhardt, Camp Douglas.	Durand & Kasper Co., Chicago.	Contains artificial color, —a coal-tar dye.
April 29	Canned cherries...	Whole Fruit Cherries in Imitation Maraschino. Prepared with 1-10 of 1% of Benzoate of Soda. Artificial Color and Imitation Flavor	.....	Roy McMillan, Mauston	Liquid Carbonic Co., Chicago, Milwaukee.	Contains artificial color, —cochineal,—and benzoic acid or a salt thereof.
April 29	Canned cherries...	Cherries Artificially Colored. Imitation Maraschino Flavor.	Club House	F. K. Saikley, Mauston	Franklin MacVeagh & Co., Chicago.	Contains artificial color, —a coal-tar dye.

May 13	Canned cherries...	Victor Cherries Artificially Colored and Flavored. 6 oz.	Victor	Brey Leischow & Co., Algoma.	Rheinstrom Bros., Cincinnati.	Contains artificial color, —cochineal.
1914 May 13	Canned cherries...	Armour's Cherries, Imitation Maraschino Flavor. Red, Artificially Colored.	Top Notch	Brey Leischow & Co., Algoma.	John Hoffman & Sons., Milwaukee.	Contains artificial color, —a coal-tar dye.
May 20	Canned cherries...	Victor Cherries, Artificially Colored and Flavored	.....	A. S. Casterton, Laona	Rheinstrom Bros., Cincinnati.	Contains artificial color, —a coal-tar dye.

Standard.

Date.	Bought for.	Labeled.	Brand.	Bought of.	Manufacturer or Jobber.	Remarks.
1913 Dec. 18	French canned peas	Product of France. Net weight, including water, 14 oz.	Honor	Johnson & Appleman, Spooner.	Gowan-Peyton-Congdon, Duluth.	
1914 May 19	Canned strawberries	Fruit Preserves, Strawberries, 16 oz. net.	Top Notch	Zeisler & Kotick, Florence.	Armour & Co., Chicago	

CHEMICAL PRESERVATIVES.

Date.	Bought for or Submitted as.	Bought of or Submitted by.	Manufacturer or Jobber.	Remarks.
1913 Mar. 1	Preservative for meat.....	*Johnson & Jermstad, Superior....	.....	Tested for boric acid, sulphites and ether soluble preservatives. None found.
Sept. 1	Canning compound	*Mrs. A. Rote, Monroe.....	Price Compound Co., Minneapolis, Minn.	Composed essentially of boric acid.
1914 June 9	Curing pickle	M. C. Nowack, Watertown.....	Rose Casings and Supply Co., Milwaukee.	Tested for boric acid and sulphites. None found.
June 22	Canning compound	Koch Bros., Mt. Vernon.....	Price Compound Co., Minneapolis, Minn.	Composed essentially of boric acid.

* Submitted sample.

CONDIMENTS.

Date.	Kind.	Bought of or Submitted by.	Manufacturer or Jobber.	Brand.	Remarks.
1913					
Jan. 31	Prepared horse-radish	*C. A. Thorkelson, Racine.....	.....	.....	No adulteration found.
1914					
April 27	Tomato catsup.....	J. O. Bauer, Kilbourn.....	Gibbs Preserving Co., Baltimore, Md.	Bull Head	Free from artificial color, preservatives and saccharin. Number of bacteria, molds, yeasts and spores normal.
May 7	Tomato catsup.....	Maertz & Freund, Reedsville..	The Williams Brothers Co., Detroit, Mich.	.....	Free from artificial color, preservatives and saccharin. Number of bacteria, yeasts and spores too high.
June 4	Catsup	Lemke-Gerlach Tea Co., Marinette.	Monday-Gerlach Tea Co., Milwaukee.	Mongerco	Free from artificial color, preservatives, and saccharin. Number of bacteria present too high.
June 4	Prepared mustard.....	Lemke-Gerlach Tea Co., Marinette.	Monday-Gerlach Tea Co., Milwaukee.	Mongerco	Standard.
June 5	Prepared mustard.....	Nintzel Bros. Tea Co., Oshkosh.	.....	.....	Not standard. Prepared with mustard bran: contains an excessive amount of crude fiber and starch.
June 16	Prepared mustard.....	Grand Union Tea Co., Marinette.	Grand Union Tea Co., Brooklyn, N. Y.	.....	Standard.

*Submitted sample.

DAIRY PRODUCTS.

Butter—Tested for Per Cent of Fat or for Foreign Fat.

Date.	Bought of.	Manufacturer or Jobber.	Per cent fat.	Remarks.
1912				
Nov. 8	Thayer's Dairy Dining Room, 94 Wisconsin St., Milwaukee.	.....	.....	No foreign fat found.
Nov. 13	H. D. McCulloch Co., Stevens Point.....	Anton Eiden, Stevens Point.....	85.2	.....
Nov. 13	H. D. McCulloch Co., Stevens Point.....	Custer Creamery Co., Custer.....	82.05	.....
Nov. 21	Hotel Racine, Racine.....	.....	.....	No foreign fat found.
Dec. 28	Monroe Provision Co., Monroe.....	Armour & Co., Chicago.....	.....	No foreign fat found.
1913				
Jan. 2	Anton Brindle, Phillips.....	.....	.....	No foreign fat found.
Jan. 2	Anton Brindle, Phillips.....	.....	.....	No foreign fat found.
Mar. 4	F. Charboneau, Elderon.....	.....	.....	Found to contain foreign fat.
Mar. 5	W. H. Pepper, Oshkosh.....	Swift & Co., Chicago.....	.....	No foreign fat found.
Mar. 5	Nottleman Bros., Oshkosh.....	Nottleman Bros., Oshkosh.....	.....	No foreign fat found.
Mar. 25	T. M. Hughes, Elderon.....	E. C. Johnson, Elderon.....	.....	No foreign fat found.
Mar. 25	T. M. Hughes, Elderon.....	.....	.....	Found to contain foreign fat.
Mar. 25	F. Charboneau, Elderon.....	.....	.....	No foreign fat found.
Mar. 28	A. Schuttenberg, Holt.....	A. Schuttenberg, Holt.....	.....	No foreign fat found.
Nov. 3	W. E. Blumenstein Co., Berlin.....	W. E. Blumenstein Co., Berlin.....	81.5	Below standard in butter fat. Tested for starch; none found.
Nov. 3	W. E. Blumenstein Co., Berlin.....	W. E. Blumenstein Co., Berlin.....	78.6	Below standard in butter fat. Tested for starch; none found.
Nov. 4	Sullivan Condensed Milk Co., Sullivan..	Sullivan Condensed Milk Co., Sullivan.....	83.2	Tested for starch. None found.
1914				
Jan. 8	F. O. Pierce & Co., Medford.....	Miller Cry. Co., Medford.....	79.8	Below standard in butter fat.
Jan. 8	R. H. Musselman, Medford.....	Miller Cry. Co., Medford.....	80.0	Below standard in butter fat.
Jan. 20	H. A. Dierfield & Son, Whitewater.....	.....	.....	No foreign fat found.
Feb. 17	Walworth Hotel, Whitewater.....	.....	.....	No foreign fat found.
Feb. 18	Walter C. Miller Cry. Co., Medford.....	Walter C. Miller Cry. Co., Medford.....	81.66	Below standard in butter fat.
Feb. 18	Medford Coöperative Co., Medford.....	Walter C. Miller Cry. Co., Medford.....	80.83	Below standard in butter fat.
Feb. 18	Medford Coöperative Co., Medford.....	Walter C. Miller Cry. Co., Medford.....	81.41	Below standard in butter fat.
April 7	B. Dalton, Pewaukee.....	.....	.....	No foreign fat found.

DAIRY PRODUCTS—Continued.

Butter—Tested for Per Cent of Fat or for Foreign Fat—Continued.

Date.	Bought of.	Manufacturer or Jobber.	Per cent fat.	Remarks.
1914.				
April 7	W. J. Winkler, Merton	.....	.....	No foreign fat found.
April 20	Goodman Store, Goodman	Rhinelander Cry. & Produce Co., Rhinelander	78.7	Below standard in butter fat.
April 21	Connor Lumber & Land Co., Laona	Rhinelander Cry. & Produce Co., Rhinelander	76.02	Below standard in butter fat.
April 27	C. A. Dufour, Kilbourn Park Hotel	.....	.....	No foreign fat found.
May 11	Goodman Store, Goodman	Rhinelander Cry. & Produce Co., Rhinelander	79.10	Below standard in butter fat.
May 12	Connor Lumber & Land Co., Laona	Rhinelander Cry. & Produce Co., Rhinelander	79.45	Below standard in butter fat.
May 13	Foster Mueller Lumber Co., Hiles	Rhinelander Cry. & Produce Co., Rhinelander	73.87	Below standard in butter fat.
May 13	Jas. Morgan & Sons, Eagle River	Rhinelander Cry. & Produce Co., Rhinelander	83.26	.....
May 14	D. A. Kahn, Woodruff	Rhinelander Cry. & Produce Co., Rhinelander	74.12	Below standard in butter fat.
May 14	Bolger Bros., Minocqua	Rhinelander Cry. & Produce Co., Rhinelander	84.0	.....
June 8	Mrs. C. W. Porter, Westboro	Westboro Cry. Co., Westboro	79.36	Below standard in fat.

Served as Butter. Found to be Oleomargarine.

Date.	Bought of.
1912	
Nov. 14	Mrs. Elizageth Dent, Oshkosh, Proprietor of Dent House.
1913	
Dec. 15	Jacob Keyes, Mineral Point, Wisconsin House.
Dec. 15	J. Rasmusen, Mineral Point, Badger Hotel.
Dec. 15	W. M. Terrell, Mineral Point, City Hotel.
Dec. 17	W. M. Terrell, Mineral Point, City Hotel.
Dec. 17	Jacob Keyes, Mineral Point, Wisconsin House.
Dec. 17	J. Rasmusen, Mineral Point, Badger Hotel.

Butter—Submitted Samples.

Date.	Submitted by.	Remarks.
1912		
Sept. 23	E. Benedict, Sparta	Tested for foreign fat. None found.
Sept. 30	H. E. Griffin, Mount Horeb	Contained 15.4% of moisture.
Oct. 11	G. A. Schultz, Adell	Tested for foreign fat. None found.
Nov. 23	C. F. Stone, Lake Nebagamon	Tested for foreign fat. None found.
Dec. 12	H. E. Griffin, Mount Horeb	Contained 14.84% of moisture.
Dec. 28	Mrs. Edward Ruegger, Monroe	Tested for foreign fat. None found.
Dec. 28	F. Allen, Burlington	Found to be oleomargarine.
1913		
Jan. 8	J. Q. Emery, Madison	Tested for foreign fat. None found.
Jan. 15	Miss Mary Crane, Madison	Tested for foreign fat. None found.
Jan. 16	W. Lowry, Waukesha	Tested for foreign fat. None found.
Feb. 6	Geo. F. Lewis, Omro	Tested for foreign fat. None found.
Feb. 24	E. L. Luther, Rhinelander	Tested for foreign fat. None found. Not renovated butter.
Mar. 5	W. H. Pepper, Oshkosh	Tested for foreign fat. None found.
Mar. 5	Wm. Crosby, Oshkosh	Tested for foreign fat. None found.
Mar. 7	G. A. Kemkel, Madison	Tested for foreign fat. None found.
Mar. 18	John Sullivan, Chippewa Falls	Tested for foreign fat. None found.
Mar. 28	George Pankhurst, Orfordville	Tested for foreign fat. None found. Not renovated butter.
April 25	Wm. Schwardt, Twin Lakes	Tested for foreign fat. None found.
May 1	Fred Arndruster, Friendship	Tested for foreign fat. None found.
May 14	Anderson & Co., Mountain	Tested for foreign fat. None found.
June 19	J. W. Willimann, Monroe	Tested for foreign fat. None found.
Nov. 4	Chas. Steffen, Health Department, Milwaukee	Contains 83.1% fat; moisture 12.1%. Tested for starch. None found. Standard.
Nov. 4	Chas. Steffen, Health Department, Milwaukee	Contains 72.20% fat; moisture 20%. Tested for starch. Starch present. Below standard in butter fat.
Nov. 17	E. L. Luther, Rhinelander	Tested for foreign fat. None found.
Nov. 26	Mrs. Ed. Mullon, Waukesha	Tested for foreign fat. None found.
1914		
Jan. 3	Mrs. Schmitz, Madison	Tested for foreign fat. None found.
Jan. 4	A. Knight, Eleva	Tested for foreign fat. None found.
Jan. 20	Witthun & Smith, Fox Lake	Tested for foreign fat and starch. None found. An abnormal butter produced from the milk of one cow.

DAIRY PRODUCTS—Continued.

Butter—Submitted Samples—Continued.

Date.	Submitted by.	Remarks.
1914		
Jan. 26	O. A. Morgan, Oakfield	Tested for foreign fat. None found.
Feb. 18	Jacob Lehnherr, Monroe	Tested for foreign fat. None found. An abnormal butter produced from the milk of one cow.
Feb. 21	H. Henderson, Elkhorn	Tested for foreign fat. None found.
Mar. 17	O. J. Groth, Cedarburg	Three samples tested for foreign fat. None found.
Mar. 17	F. C. Zemlika, Merrill	Tested for foreign fat. None found.
April 6	Mrs. Deitz, Monroe	Tested for foreign fat. None found.
April 13	Roll Dehne, Burnett	Tested for foreign fat. None found.
April 13	Mrs. H. C. Reed, Rice Lake	Tested for foreign fat. None found.
May 5	F. C. Hauert, Black Creek	Tested for foreign fat. None found.
June 15	O. F. Duenow, Janesville	Tested for foreign fat. None found.
June 17	Shipke & Dorn, Madison	Tested for foreign fat. None found.

Cream from City Supplies. Not Standard.

Date.	Bought of.	City.	Per cent fat.
1912			
Aug. 12	Wm. M. Brady Co.	Madison	16.75
Sept. 24	Badger Creamery Co.	Madison	16.00
Nov. 14	H. J. Coenen	De Pere	16.50
Nov. 29	Jacob Dick	Marshfield	14.50
Dec. 14	F. L. Salzgaber	Boscobel	16.00
Dec. 14	F. L. Salzgaber	Boscobel	17.00
1913			
Feb. 2	Vyrtus Sisters	Hudson	16.00
June 24	O. Weedman	Sheboygan	15.00
Dec. 27	Peter J. Schulte	Colby	16.78
1914			
Feb. 24	Peter Peterson	Grand Rapids	17.00
Feb. 24	—— Peterson	Grand Rapids	16.00
Feb. 26	O. B. Dresden	Neillsville	16.00
Feb. 26	O. B. Dresden	Neillsville	16.00
April 22	John Van Zatphen	Stanley	15.60

Cream from City Supplies. Standard.

Date.	Bought of.	Per cent fat.	Remarks.
1912			
Sept. 19	Fred Steiler, Stevens Point	30.0	Tested for gelatin and gums. None found.
Oct. 14	C. J. McCoy, Madison	21.0	
Oct. 14	F. B. McDermott, Madison	19.75	
1913			
Feb. 23	Lyman & Woods, Madison	22.0	
Oct. 6	Charles I. Brigham, Blue Mounds	.....	Tested for preservatives. None found.
Nov. 19	John Hetz, Mazomanie	18.3	
1914			
Mar. 10	F. P. Smith, Neillsville	28.4	

Creams Tested for Per Cent of Butter Fat to Determine Overreading or Underreading of Babcock Test.

During this biennial period, thirteen 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. In some instances prosecutions followed.

DAIRY PRODUCTS—Continued.

Submitted Creams Tested for Percentage of Fat.

Date.	Submitted by.	Per cent fat.	
1912			
Aug. 28	Chas. Randacker, Stoughton	30.50	
Sept. 5	G. H. Sayre, Jefferson	22.25	
Sept. 11	Felix C. Mayer, Kenosha	10.25	
Sept. 11	Felix C. Mayer, Kenosha	11.50	
Sept. 11	Felix C. Mayer, Kenosha	11.38	
Sept. 11	Felix C. Mayer, Kenosha	10.00	
Sept. 11	Felix C. Mayer, Kenosha	10.80	
Sept. 26	H. E. Griffin, Mount Horeb	34.00	
Oct. 1	A. F. Schultz, Phlox	42.00	"No. 24"
Oct. 1	A. F. Schultz, Phlox	29.00	"No. 42"
Oct. 1	A. F. Schultz, Phlox	29.00	"No. 46"
Oct. 1	A. F. Schultz, Phlox	34.00	"No. 63"
Nov. 11	M. E. Brunner, Fort Atkinson	.....	
Nov. 20	F. A. Chandler, Cuba City	35.00	
Dec. 12	H. E. Griffin, Mount Horeb	26.14	
Dec. 16	C. Winkie, Jr., Columbus	28.50	
Dec. 30	Spink Bros., Platteville	35.25	
1913			
Feb. 12	*C. A. Zillisch, Madison	.....	
Feb. 20	Spink Bros., Platteville	33.50	
Mar. 10	Herman Dewitz, Fall Creek	36.50	
Mar. 12	Gust. Tvesme, Deerfield	25.00	
April 3	Hoard's Creameries, Fort Atkinson	50.00	
April 25	R. L. Adams, Dousman	29.00	
May 22	H. E. Griffin, Mount Horeb	61.50	
May 29	Arthur Miller, Westfield	33.00	
June 11	H. E. Griffin, Mount Horeb	57.50	"No. 1"
June 11	H. E. Griffin, Mount Horeb	58.95	"No. 2"
June 11	H. E. Griffin, Mount Horeb	60.75	"No. 3"
June 11	H. E. Griffin, Mount Horeb	60.00	"No. 10"
June 21	F. A. Sinkula, Clifford	60.00	"No. 9"
July 18	Henry Schempf Co., Fort Atkinson	27.70	
Sept. 17	The Parker-Hildebrand Co., Boscobel	32.2	
		22.25	

Oct. 27	John C. Schumann, Watertown	21.8
Oct. 29	Arthur Baker, Jefferson	26.2
Nov. 14	A. T. Swedborg, Prentice	38.75
1914		
Jan. 2	Spink Bros., Platteville	35.0
Jan. 5	F. Dabareiner, Jefferson	26.2
Feb. 24	The Buss Creamery, Ironwood	31.8
April 30	J. W. Moore, Gays Mills	31.7

* Viscogen found to be present.

Milk Delivered to Cheese Factories or Creameries, Below Standard.

Date.	Sold or Delivered by.	Delivered to.	Sp. G.	Per cent milk fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey.	Remarks.
1912								
July 22	John Bandsma, Randolph	Randolph Center Cheese Factory	1.0275	3.50	11.00	7.50	39.3	See herd sample.
Aug. 5	Fred Prahl, Marion	Maple Grove Cheese Factory.	1.0289	3.5	11.21	7.71	38.9	Watered.
Sept. 6	George Drought, Loyd	Loyd cheese factory	1.0291	3.4	11.31	7.91	38.4	Below standard in solids not fat.
Sept. 6	Harley Ohler, Loyd	Loyd cheese factory	1.0277	3.85	11.39	7.54	37.4	Watered.
Sept. 6	Henry Miller, Loyd	Loyd cheese factory	1.0289	3.6	11.60	8.00	38.3	Below standard in solids not fat.
Sept. 6	Arthur Drought, Loyd	Loyd cheese factory	1.0303	4.0	12.18	8.18	40.0	Below standard in solids not fat.
Sept. 6	Wm. Huffman, Loyd	Loyd cheese factory	1.0299	4.05	12.35	8.30	39.5	Slightly below standard in solids not fat.
Sept. 24	L. Drews, Dale	Snyder cheese factory	1.020	2.5	7.73	5.23	31.0	Heavily watered.
Oct. 10	Arthur Walter, Neosho	Lily cheese factory	1.0259	3.77	11.35	7.58	37.0	Watered.
Oct. 29	Charles Nemen, Darlington	Dublin cheese factory	1.0267	4.6	12.15	7.55	36.0	Heavily watered.
Nov. 6	C. L. Simons, Belmont	Gilt Edge cheese factory	1.0374	3.80	11.73	7.93	37.0	Watered.
Nov. 8	Chas. Behling, Watertown	Aliceton cheese factory	1.0246	3.25	10.09	6.84	35.1	Heavily watered.
Nov. 9	Chas. Hynek, Bloom City.	Bloom City cheese factory	1.0270	1.9	9.33	7.43	34.5	Heavily watered.
Nov. 9	Grover Watson, Bloom City	Bloom City cheese factory	1.0293	3.9	11.66	7.76	36.6	Watered.
Nov. 9	Wm. Snyder, Bloom City	Bloom City cheese factory	1.0284	3.4	11.19	7.79	36.3	Watered.
Nov. 19	Wm. Snyder, Bloom City	Bloom City cheese factory	1.0287	4.25	12.19	7.94	38.2	Below standard in solids not fat.
Nov. 19	Grover Watson, Bloom City	Bloom City cheese factory	1.0278	4.1	12.04	7.94	38.0	Watered.

DAIRY PRODUCTS—Continued.

Milk Delivered to Cheese Factories or Creameries, Below Standard—Continued.

Date.	Sold or Delivered by.	Delivered to.	Sp. G.	Per cent milk fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey.	Remarks.
1912								
Nov. 19	P. Campbell, Sullivan....	W. E. Blumenstein creamery, Sullivan	1.0236	4.65	11.85	7.20	35.0	Heavily watered.
Nov. 29	C. W. Smith, Muscoda....	Oak Ridge cheese factory.....	1.0296	3.9	12.29	8.39	41.3	Slightly below standard in solids not fat.
Dec. 19 1913	C. A. Schultz, South Wayne	Crosby cheese factory.....	1.0272	3.9	11.59	7.69	37.2	Watered.
April 23	F. Gritzmacher, Clintonville	Pella & Belle Plaine Ch. & B. Co.	1.0274	3.0	9.95	6.95	37.3	Watered.
April 24	Edward Krueger, Clintonville	Maple Grove Ch. & B. Co....	1.0276	3.3	10.78	7.48	.....	Watered.
April 29	F. Schultz, Shawano.....	Belle Plaine Ch. & B. Ass'n..	1.0306	2.8	10.60	7.80	39.7	Watered.
May 1	Chas. Smith, Dale.....	Island cheese factory.....	1.0303	2.6	10.51	7.91	39.0	Watered. See herd sample, 187 J. D. C.
May 7	H. Haut, Plymouth.....	C. H. Luecke cheese factory..	1.0279	2.85	10.20	7.35	37.5	Watered. See herd sample.
May 7	John Schellinger, Plymouth	C. H. Luecke cheese factory...	1.0293	2.4	9.88	7.48	37.7	Watered. See herd sample.
May 20	Robt. Bussiwitz, Reeseville	Pleasant View cheese factory..	1.0315	3.4	11.74	8.34	40.2	Slightly below standard in solids not fat.
Aug. 1	Joe Ruzicka, Cobb.....	High Point cheese factory....	1.0296	3.30	11.11	7.81	41.35	Below standard in solids not fat.
Aug. 2	H. Drews, Larson.....	Union Star cheese factory.....	1.0275	3.25	10.60	7.35	37.5	Below standard in solids not fat. Watered.
Aug. 5	Joe Cowling, Neenah.....	East Vinland cheese factory..	1.0231	2.6	8.74	6.14	33.15	Below standard in fat and solids not fat. Watered.
Sept. 10	Hugh Branker, Ridgeway	Mill Creek cheese factory.....	1.0277	3.8	11.26	7.46	37.0	Below standard in solids not fat. Watered.
Sept. 10	C. Bettke, Mayville.....	Rock River cheese factory....	1.0275	4.1	11.89	7.79	37.85	Below standard in solids not fat. Watered.
Sept. 11	John Schaumberg, Mayville	Perfection butter and ice cream factory	1.0208	2.35	8.04	5.69	31.15	Below standard in fat and solids not fat. Watered.
Sept. 23	Morritz Fiddler, Port Washington	Knellsville Dairy Co.....	1.0201	2.4	7.73	5.33	31.0	Below standard in fat and solids not fat. Watered.
Oct. 8	Matt. Weber, Hartford...	Hibernian cheese factory.....	1.0257	4.00	11.32	7.32	35.2	Below standard in solids not fat. Watered.

Oct. 8	Frank Wagner, Mayville..	Rock River cheese factory....	1.0309	2.5	10.48	7.98	39.9	Below standard in fat and solids not fat.
Oct. 10	.....	Iron Ridge cheese factory.....	1.0289	3.11	10.92	7.82	38.4	Below standard in solids not fat. Slightly watered.
Nov. 6	Anton Blazei, Kewaunee..	Thorn Apple cheese factory ..	1.0187	2.55	7.53	4.98	30.2	Below standard in fat and solids not fat. Watered.
Nov. 21	Anton Blazei, Kewaunee..	Rika cheese factory.....	1.0270	4.0	11.42	7.42	37.6	Below standard in solids not fat. Watered.
Nov. 25	Edw. Kundert, Monticello	Haemerli cheese factory	1.0266	3.5	10.21	7.16	36.7	Below standard in solids not fat. Watered.
Nov. 25	E. Kundert, Monticello....	Haemerli cheese factory.....	1.0305	4.2	12.46	8.26	40.3	Below standard in solids not fat.
Dec. 16	Ed. Walsh, Hartford.....	Erin cheese factory.....	1.0325	2.85	11.41	8.56	.....	Below standard in fat as given by the cows.
Dec. 16	T. B. Manning, Hartford	Erin cheese factory.....	1.0321	2.80	11.29	8.49	.....	Below standard in fat as given by the cows.
Dec. 16	John Monroe, Hartford..	Erin cheese factory.....	1.0323	3.2	11.6	8.40	.....	Below standard in solids not fat as given by the cows.
Dec. 16	Jos. Russell, Hartford...	Erin cheese factory.....	1.0308	3.3	11.26	7.96	40.3	Below standard in solids not fat as given by the cows.
Dec. 17	Edw. Horn, Clintonville.	Schwantes cheese factory.....	1.0246	2.8	9.38	6.58	34.9	Below standard in fat and solids not fat. Watered.
Dec. 19	Aug. Schmidt, Embarrass.	Silver Star cheese factory.....	1.0302	3.1	11.16	8.06	40.3	Below standard in solids not fat as given by the cows.
Dec. 19	Seth Allen, Embarrass...	Silver Star cheese factory.....	1.0277	2.85	10.12	7.27	37.1	Below standard in fat and solids not fat. Watered.
Dec. 24	Otto Buth, Embarrass...	Silver Star cheese factory.....	1.0284	3.15	10.97	7.82	38.3	Below standard in solids not fat. Watered.
1914								
Jan. 21	Blum Bros., Monticello...	Monticello cheese factory.....	1.0336	2.7	11.24	8.54	.....	Below standard in fat. Skimmed.
Jan. 28	Harry Verthein, Reedsburg	Westfield cheese factory.....	1.0099	1.8	4.45	2.65	23.2	Below standard in fat and solids not fat. Watered. See herd sample.
Jan. 30	John Christopherson, Hayton	H. Sonnabend cheese factory..	.....	2.7	10.74	8.04	40.9	Below standard in solids not fat.
Mar. 10	Thad. Trowbridge, Sheboygan Falls	Ebeling cheese factory.....	.....	3.0	10.01	7.01	37.25	Below standard in solids not fat. Watered.
Mar. 11	Nich. Zimmer, Saukville...	Saukville Dairy Co.	1.0130	1.7	6.17	3.47	25.4	Below standard in fat and solids not fat. Watered.
Mar. 11	F. Lieventhal, Columbus.	White Star cheese factory....	1.0301	3.3	11.48	8.18	40.1	Below standard in solids not fat.
Mar. 17	H. Lehman, Juneau.....	Oak Grove Union cheese factory	1.0303	3.2	11.38	8.18	41.1	Below standard in solids not fat.
Mar. 17	Alb. Butler, Juneau.....	Oak Grove Union cheese factory	1.0308	3.0	10.86	7.86	.....	Below standard in solids not fat.

DAIRY PRODUCTS—Continued.

Milk Delivered to Cheese Factories or Creameries. Below Standard—Continued.

Date.	Sold or Delivered by.	Delivered to.	Sp. G.	Per cent milk fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey.	Remarks.
1914								
Mar. 20	F. Prahl, Marion.....	Maple Grove cheese factory...	1.0247	4.15	10.96	6.81	37.1	Below standard in solids not fat. Slightly watered.
Mar. 26	Chas. Mueller, Fenwood..	Fenwood cheese factory	1.0249	2.7	9.34	6.64	35.3	Below standard in fat and solids not fat. Watered.
April 14	Wm. Moldenhauer, Iron Ridge	Iron Ridge cheese factory.....	1.0297	3.2	11.18	7.92	39.1	Below standard in solids not fat. Slightly watered.
April 14	L. Leuber, Iron Ridge....	Iron Ridge cheese factory....	1.0301	3.1	11.31	8.21	40.25	Below standard in solids not fat as given by the cows.
April 14	Ben Border, Iron Ridge..	Iron Ridge cheese factory.....	1.0307	3.35	11.72	8.37	.....	Below standard in solids not fat as given by the cows.
April 14	Wm. Robert, Iron Ridge	Iron Ridge cheese factory.....	1.0296	3.35	11.52	8.16	.....	Below standard in solids not fat as given by the cows.
April 14	Mrs. Mortz, Iron Ridge..	Iron Ridge cheese factory.....	1.0310	2.9	11.24	8.34	.....	Below standard in fat and in solids not fat.
May 6	Walter Strozyneski, Mosinee	Rocky Ridge cheese factory...	1.0326	2.2	10.56	8.36	.....	Below standard in fat and solids not fat.
May 13	P. Laeckees, Woodland...	Highland cheese factory.....	.....	3.25	10.53	7.28	.....	Below standard in solids not fat.
May 27	Aug. Laurenz, Jackson...	Showalter & Tesch cheese factory	1.0260	2.9	9.82	6.92	35.5	Below standard in fat and solids not fat. Watered.
June 16	Alb. Bahl, Gillett.....	Gillett Ch. & B. Co.....	1.0366	2.95	12.69	9.74	.....	Below standard in fat. Slightly skimmed.
June 26	R. Mareck, Johnson Creek	F. C. Mansfield Co., Jefferson	1.0303	3.75	12.03	8.28	40.4	Below standard in solids not fat as given by the cows.
June 26	Arthur Wilke, Johnson Creek	Fred C. Mansfield Co., Jefferson	1.0285	3.85	11.72	7.87	39.0	Below standard in solids not fat as given by the cows.
June 26	Christ Kopp, Johnson Creek	Fred C. Mansfield Co., Jefferson	1.0303	3.2	11.45	8.25	40.1	Below standard in solids not fat as given by the cows.
June 26	Peter Blankenheim, Johnson Creek	Fred C. Mansfield Co., Jefferson	1.0295	3.13	11.22	8.09	39.6	Below standard in solids not fat as given by the cows.

Milk Delivered to Cheese Factories or Creameries. Standard.

Date.	Delivered by.	Delivered to.	Sp. G.	Per cent milk fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey. (20° C.)
1912							
Aug. 2	Fred. Prahl, Marion	Maple Grove cheese factory	1.0289	3.5	11.21	7.71	38.9
Nov. 8	H. Eggert, Leopolis	Seneca cheese factory	1.0342	3.25	12.71	9.46	.....
Nov. 8	Chas. Walter, Leopolis	Seneca cheese factory	1.0340	3.2	12.49	9.29	.....
Nov. 20	Martin Heidenrick, Yuba	Yuba cheese factory	1.0332	3.5	12.61	9.11	41.1
1913							
May 20	Otto Huebner, Reeseville	Pleasant View cheese factory	1.0326	3.15	11.65	8.50	40.4
May 20	Geo. Breitenbach, Reeseville	Pleasant View cheese factory	1.0320	3.05	11.55	8.50	39.8
May 20	Frank Fischer, Reeseville	Pleasant View cheese factory	1.0320	3.5	12.00	8.50	39.5
May 20	Frank Hoehne, Reeseville	Pleasant View cheese factory	1.0330	3.25	11.87	8.62	40.0
Aug. 2	H. Raatz, Fremont	Union Star cheese factory	1.0356	3.3	12.67	9.37	42.75
Sept. 10	Hugh Branker, Ridgeway	Mill Creek cheese factory	1.0330	3.6	12.66	9.06	41.8
Dec. 24	H. Ehlert, Embarrass	Silver Star factory	1.0342	3.4	12.55	9.15	41.8
1914							
Jan. 14	Jos. Daly, Hartford	Hibernian cheese factory	1.0361	4.5	14.40	9.90	.....
Jan. 14	Ed. O'Neil, Hartford	Hibernian cheese factory	1.0347	3.8	13.34	9.54	.....
April 14	H. Voss, Iron Ridge	Iron Ridge cheese factory	1.0305	3.6	12.12	8.52	.....

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.

(Note: These herd samples were collected only in cases where corresponding samples taken at creameries, cheese factories, etc., were found below legal standard. While in many instances the herds were found to produce milk below legal standard in solids not fat, the proportionate number of samples found to be below standard in solids not fat is larger than it would have been had herd samples been taken of all herds furnishing milk to cheese factories, creameries and city milk supplies.)

Date.	From herd of	Sp. G.	Per cent milk fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey (20° C.)	Remarks.
1912							
July 23	John Bandsma, Randolph	1.0293	3.70	11.63	7.90	38.6	Below stand. n s. n. f.
Aug. 17	Fred Prahl, Maron	1.0310	4.0	12.73	8.73	42.0	
Oct. 29	Chas. Nemen, Darlington	1.0328	4.6	13.76	9.16	41.2	
Oct. 30	Chas. Nemen, Darlington	1.0321	4.4	13.19	8.79	40.6	
Nov. 6	C. L. Simons, Belmont	1.0312	5.5	14.57	9.07	40.3	
Nov. 7	C. L. Simons, Belmont	1.0302	4.1	12.62	8.52	39.2	
Nov. 8	Chas. Behling, Watertown	1.0323	4.15	13.15	9.0	40.7	
Nov. 20	Grover Watson, Bloom City	1.0305	4.75	13.53	8.78	41.5	
Nov. 21	Peter Campbell, Palmyra	1.0298	5.65	14.64	8.99	40.3	
Nov. 21	Peter Campbell, Palmyra	1.0297	6.1	14.98	8.88	39.9	
Dec. 19	C. A. Schultz, So. Wayne	1.0288	5.0	13.16	8.16	38.7	Below stand. in s. n. f.
Dec. 31	Newton Marsh, Whitewater	1.0304	4.2	12.73	8.53	40.5	
1913							
Jan. 1	Newton Marsh, Whitewater	1.032	4.0	12.86	8.86	41.65	
Feb. 11	John Skelly, Madison	1.0302	4.55	12.90	8.35	40.05	Below stand. in s. n. f.
Feb. 12	R. G. Bennett, Madison	1.0342	3.7	12.35	8.65	40.25	
Feb. 12	R. G. Bennett, Madison	1.0327	3.20	12.08	8.87	40.22	
Mar. 26	Fred Gigax, Waukesha	1.030	3.10	.....	8.26	.....	Below stand. in s. n. f.
April 25	A. C. Hine, Waukesha	1.0329	3.6	12.17	8.57	41.1	
April 25	A. C. Hine, Waukesha	1.0314	3.25	11.75	8.50	40.3	
April 25	Paul Dopp, Waukesha	1.0327	3.7	12.51	8.88	41.0	
April 26	Paul Dopp, Waukesha	1.0319	4.15	12.77	8.62	40.7	
April 29	Geo. Burmeister, Waukesha	1.0300	3.0	10.64	7.64	39.0	Below stand. in s. n. f.
May 1	Chas. Smith, Dale	1.0323	3.15	11.78	8.63	41.1	
May 7	H. Haut, Plymouth	1.0314	3.2	11.45	8.25	40.2	Below stand. in s. n. f.
May 8	John Schellinger, Plymouth	1.0311	3.5	11.87	8.37	40.5	Below stand. in s. n. f.
May 10	Edward Krueger, Clintonville	1.0307	4.0	12.53	8.53	41.2	

May 14	W. F. Gritzmacher, Clintonville	1.0312	3.6	11.88	8.28	40.5	Below stand. in. s. n. f.
May 15	Fred Schultz, Shawano	1.0311	3.5	11.80	8.30	41.2	Below stand. in s. n. f.
May 20	Robt. Bussiwitz, Reeseville	1.0315	3.55	12.14	8.59	.....	
May 21	Geo. Breitenbach, Reeseville	1.0315	3.4	11.91	8.51	.....	
May 21	Robt. Bussiwitz, Reeseville	1.0316	3.6	12.22	8.62	.....	
May 21	Otto Huebner, Reeseville	1.0322	3.0	11.65	8.65	.....	
May 22	Frank Hoehne, Reeseville	1.0331	3.7	12.72	9.02	.....	
May 22	Geo. Breitenbach, Reeseville	1.0315	3.5	12.08	8.58	.....	
May 22	Otto Huebner, Reeseville	1.0318	3.15	11.73	8.58	.....	
May 22	Frank Fischer, Reeseville	1.0331	4.5	13.68	9.18	.....	
May 23	Frank Hoehne, Reeseville	1.0321	4.1	12.95	8.85	.....	
May 23	Frank Fischer, Reeseville	1.0332	3.9	12.98	9.08	.....	
July 3	M. Bohman, Marinette	1.0300	4.3	12.70	8.40	41.25	Below standard in s. n. f.
Aug. 19	Jos. Cowling, Neenah	1.0301	3.8	12.27	8.47	40.9	Below standard in s. n. f.
Aug. 19	Herman Drews, Fremont, R. D.	1.0294	4.2	12.73	8.53	40.5	
Aug. 20	Herman Raatz, Fremont, R. D.	1.0324	4.4	13.81	9.41	41.9	
Sept. 10	Hugh Branker, Ridgeway	1.0310	3.95	12.34	8.39	40.25	Evening's milk. Below standard in s. n. f.
Sept. 11	Hugh Branker, Ridgeway	1.0319	4.25	13.15	8.90	40.7	Morning's milk.
Oct. 8	Geo. Nevels, Darlington	1.0312	4.05	12.70	8.65	40.6	Evening's milk.
Oct. 8	Geo. Nevels, Darlington	1.0316	4.15	13.21	9.06	41.1	Morning's milk.
Oct. 9	Matt. Weber, Hartford	1.0324	5.3	14.62	9.32	42.0	
Oct. 11	Moritz Fiddler, Port Washington	1.0316	4.1	12.96	8.86	42.0	
Nov. 6	Anton Blazei, Kewaunee	1.0323	4.75	13.59	8.84	43.0	Evening's milk.
Nov. 25	Edward Kundert, Monticello	1.0310	3.9	12.37	8.47	41.0	Evening's milk. Below standard in s. n. f.
Nov. 26	Edward Kundert, Monticello	1.0308	4.2	12.43	8.23	41.0	Morning's milk. Below standard in s. n. f.
Dec. 10	R. Federwisch, Sheboygan Falls	1.0297	4.2	12.2	8.0	40.5	Below standard in s. n. f.
Dec. 10	Ed. Mehls, Hustisford	1.0306	3.8	12.21	8.41	40.4	Below standard in s. n. f.
Dec. 11	Gus. Seefeld, Hustisford	1.0311	3.65	12.15	8.50	41.4	
Dec. 17	Geo. Russell, Hartford	1.0312	3.6	11.98	8.38	41.7	Evening's milk. Below standard in s. n. f.
Dec. 18	Geo. Russell, Hartford	1.0316	3.5	12.19	8.69	41.6	Morning's milk.
Dec. 18	Ed. Walsh, Hartford	1.0318	3.1	11.65	8.57	.....	Evening's milk.
Dec. 19	Seth Allen, Embarrass	1.0298	3.5	11.44	7.94	39.35	Below standard in s. n. f.
Dec. 19	T. B. Manning, Hartford	1.0316	3.05	11.56	8.51	.....	
Dec. 19	T. Pierce, Monticello	1.0317	3.2	11.77	8.57	41.9	
Dec. 20	Frank Pierce, Monticello	1.0319	3.2	11.81	8.61	41.3	
Dec. 20	T. B. Manning, Hartford	1.0315	3.5	12.08	8.58	.....	
Dec. 20	John Monroe, Hartford	1.0325	3.45	12.26	8.81	.....	Evening's milk.
Dec. 21	John Monroe,, Hartford	1.0327	3.15	11.96	8.81	.....	Morning's milk.
Dec. 22	Aug. Schmidt, Embarrass	1.0303	3.2	11.09	7.89	39.1	Below standard in s. n. f.
Dec. 23	Chas. Fries, Richland Center	1.0311	3.4	11.85	8.45	.....	Below standard in s. n. f.

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—Continued.

Date.	From herd of	Sp. G.	Per cent milk fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey (20° C.)	Remarks.
1913							
Dec. 23	Chas. Fries, Richland Center	1.0307	3.25	11.57	8.32	.....	Below standard in s. n. f.
Dec. 26	Otto Buth, Embarrass	1.0319	4.5	13.34	8.84	40.7	
Dec. 26	Herman Ehlert, Embarrass	1.0315	4.25	12.87	8.62	40.75	
Dec. 31	John Laufenberg, Avoca	1.0274	3.1	10.60	7.50	37.8	Below standard in s. n. f
1914							
Jan. 2	Chas. Fries, Richland Center	1.0298	3.5	11.69	8.19	40.1	Below standard in s. n. f
Jan. 5	Xavier Gamma, Grand Rapids	1.0330	4.7	13.67	8.97	.....	
Jan. 8	Satia Bros., Galesville	1.0333	4.7	13.73	9.03	.....	
Jan. 13	J. Laufenberg, Avoca	1.0320	4.1	12.92	8.82	42.15	Mixed herd sample.
Jan. 13	J. Laufenberg, Avoca	1.0342	7.00	16.95	9.95	44.4	Sample of cow No. 6.
Jan. 13	J. Laufenberg, Avoca	1.0315	5.15	14.06	8.91	42.7	Sample of cow No. 5.
Jan. 13	J. Laufenberg, Avoca	1.0308	4.00	12.50	8.50	41.8	Sample of cow No. 4.
Jan. 13	J. Laufenberg, Avoca	1.0331	3.25	12.18	8.93	43.2	Sample of cow No. 3.
Jan. 13	J. Laufenberg, Avoca	1.0326	3.7	12.59	8.89	42.6	Sample of cow No. 2.
Jan. 14	Ed. O'Neill, Hartford	1.0313	4.7	13.47	8.77	42.5	Sample of cow No. 1.
Jan. 15	Jos. Daly, Hartford	1.0331	4.1	13.16	9.06	.....	
Jan. 15	Ed. O'Neill, Hartford	1.0346	4.33	14.11	9.78	.....	
Jan. 21	Blum Bros., Monticello	1.0368	3.7	13.32	9.62	.....	
Jan. 22	Blum Bros., Monticello	1.0315	3.75	12.04	8.29	.....	Below standard in s. n. f.
Jan. 28	Harry Verthein, Reedsburg	1.0328	3.5	12.40	8.90	.....	
Feb. 12	John Christopherson, Hayton	1.0301	5.05	13.79	8.74	40.7	
Mar. 10	Thad. Trowbridge, Sheboygan Falls	1.0296	3.6	11.51	7.91	36.9	Below standard in s. n. f.
Mar. 11	Nich. Zimmer, Saukville	.....	3.6	12.55	8.95	42.1	
Mar. 20	Fred Poahl, Marion	1.0321	4.2	12.96	8.76	41.3	
April 13	J. W. Howitt, Pewaukee	1.0271	4.7	12.40	7.70	39.4	Below standard in s. n. f.
April 14	J. W. Howitt, Pewaukee	1.0305	3.7	11.83	8.13	.....	Below standard in s. n. f.
April 15	Wm. Moldenhauer, Iron Ridge	1.0303	3.7	11.98	8.28	.....	Below standard in s. n. f.
April 15	Louis Lueber, Iron Ridge	1.0317	3.25	11.75	8.50	41.3	
April 16	Ben Boerder, Iron Ridge	1.0325	4.1	12.75	8.65	42.45	
April 17	Wm. Robert, Iron Ridge	1.0298	3.3	11.41	8.11	.....	Below standard in s. n. f.
		1.0299	3.5	11.68	8.18	.....	Below standard in s. n. f.

May 4	John Trimberger, Burlington	1.0317	4.15	12.92	8.77	.....	Evening's milk. Below standard in s. n. f.
May 5	John Trimberger, Burlington	1.0330	3.75	12.65	8.90	.....	Morning's milk.
May 6	Walter Strozynaski, Mosinee	1.0305	3.7	11.97	8.27	.....	Evening's milk. Below standard in s. n. f.
May 7	Walter Strozyneski, Mosinee	1.0318	3.3	11.73	8.43	.....	Morning's milk. Below standard in s. n. f.
May 13	Alfred Haag, Ladysmith	1.0336	4.2	13.27	9.07	42.5	
May 18	Mrs. Drache, Monroe	1.0323	4.2	13.12	8.92	.....	
May 29	Aug. Lawrenz, Jackson	1.0321	4.0	12.92	8.92	40.5	
June 16	Albert Bahl, Gillett	1.0325	3.5	12.32	8.82	.....	

City Milk, Standard.

Date.	Sold by.	City.	Sp. G.	Per cent fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey (20° C.)	Remarks.
1912								
Sept. 16	Delivered to W. O. Allen by Jos. Hockers, De Pere	De Pere	1.0309	3.3	11.80	8.50	39.9	
Sept. 19	Fred Stieler, Stevens Point	Stevens Point	.....	4.8	14.02	9.22	.....	
1913								
Jan. 24	The Janesville Pure Milk Co., Janesville.	Janesville	1.0320	4.05	.....	.....	.....	Tested for boric acid and formaldehyde. None found.
Jan. 24	The Janesville Pure Milk Co., Janesville.	Janesville	1.033	4.8	.....	.....	.....	Tested for boric acid and formaldehyde. None found.
Jan. 24	The Janesville Pure Milk Co., Janesville.	Janesville	1.0325	3.75	.....	.....	.....	Tested for boric and benzoic acid.
Feb. 14	L. D. Moyer, Madison	Madison	1.0335	3.60	12.69	9.09	.....	
Feb. 14	Frank Meier, Madison	Madison	1.0310	4.80	13.30	8.5	.....	
Feb. 14	R. E. Lawrence, Madison	Madison	1.0331	3.1	11.97	8.87	.....	
Feb. 14	Thos. Hagen, Madison	Madison	1.0340	3.60	12.82	9.22	.....	

DAIRY PRODUCTS—Continued.

City Milk, Standard—Continued.

Date.	Sold by.	City.	Sp. G.	Per cent fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey (20° C.)	Remarks.
Mar. 1	F. C. Stock, Madison.....	Madison	1.031	3.8	12.31	8.51	.....	
Mar. 22	Delivered at Waukesha Milk Depot by Fred Gigax.	Waukesha	1.0307	3.35	12.08	8.73	.....	
Mar. 22	Delivered at Waukesha Milk Depot by Fred Gigax.	Waukesha	1.0308	3.25	11.75	8.5	.....	
April 17	W. B. Outhouse, Madison	Madison	1.0305	3.65	12.15	8.50	.....	
April 17	W. B. Outhouse, Madison	Madison	1.031	4.45	13.23	8.78	.....	
April 25	Paul Dopp, Waukesha.....	Waukesha	1.0301	3.85	12.55	8.70	39.5	
Dec. 19	F. Pierce, Monticello.....	Monticello	1.0317	3.75	12.35	8.60	41.7	
1914								
Jan. 13	E. C. Laufenberg, Avoca..	Avoca	1.0314	5.82	14.85	9.02	41.4	

City Milk, Below Standard.

Date.	Sold by.	City.	Sp. G.	Per cent fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey (20° C.)	Remarks
1912								
Sept. 10	W. O. Allen, De Pere.....	De Pere	1.0241	3.2	9.71	6.51	33.4	Heavily watered.
Oct. 15	J. A. McKearn, Beloit.....	Beloit	1.0097	1.4	3.93	2.53	23.0	Heavily watered.
Dec. 30	Newton Marsh, Whitewater.	Whitewater	1.0240	2.6	9.04	6.44	34.35	Watered.

1913								
Feb. 8	Delivered to Zilisch Pure Milk Co., Madison, by John Skelly, Madison.	Madison	1.0226	2.75	8.90	6.15	33.3	Watered.
Feb. 8	Delivered to Zilisch Pure Milk Co., Madison, by R. G. Bennett, Madison.	Madison	.....	2.8	12.07	9.27	42.0	Below standard in fat.
Feb. 12	Delivered to Zilisch Pure Milk Co., Madison, by John Skelly, Madison.	Madison	1.0304	4.1	12.37	8.27	40.25	Slightly below standard in solids not fat.
Feb. 14	W. H. Burhop, Madison...	Madison	1.0268	9.35	16.92	7.57	.....	Below standard in solids not fat.
Feb. 14	Charles Reamer, Madison..	Madison	1.0337	2.7	11.7	9.00	40.8	Below standard in fat.
Feb. 27	Fred Gygax, Waukesha...	Chicago	1.0316	3.5	11.65	8.15	40.2	Below standard in solids not fat.
April 24	D. H. Carstens, Waukesha	Waukesha	1.0313	3.1	11.03	7.93	40.0	Below standard in solids not fat.
April 24	Geo. Burmeister, Waukesha	Waukesha	1.0287	3.1	10.37	7.27	38.1	Below standard in solids not fat.
April 24	Henry Staabe, Waukesha..	Waukesha	1.0265	2.3	9.16	6.86	35.0	Watered.
April 24	C. A. Hine, Waukesha.....	Waukesha	1.0310	3.1	11.03	7.93	40.0	Below standard in solids not fat.
July 13	M. Bohman, Marinette....	Marinette	1.0316	2.65	10.88	8.23	39.6	Watered. See herd sample.
Oct. 7	Geo. Nevels, Darlington...	Darlington	1.0292	4.1	12.41	8.31	39.5	Below standard in solids not fat. See herd sample.
Oct. 7	Geo. Nevels, Darlington...	Darlington	1.0302	3.4	11.67	8.27	39.4	Below standard in solids not fat. See herd sample.
Nov. 19	Wm. Mohnson, Sheboygan Falls.	Sheboygan Falls	1.0260	3.7	10.86	7.16	37.3	Watered.
Dec. 19	F. Pierce, Monticello.....	Monticello	1.0314	2.8	11.17	8.37	41.3	Below standard in fat and in solids not fat.
Dec. 19	F. Pierce, Monticello.....	Monticello	1.0311	2.8	10.96	8.16	40.7	Below standard in fat and in solids not fat.
Dec. 29	Satia Bros., Galesville.....	Galesville	1.0352	3.5	13.22	9.72	.....	Slightly skimmed. See herd sample.
1914								
Jan. 2	Charles Fries, Richland Center.	Richland Center	1.0309	3.4	11.71	8.31	40.7	Below standard in solids not fat.
Jan. 3	Xavier Gamma, Grand Rapids.	Grand Rapids	1.0343	3.00	12.03	9.03	42.3	Skimmed. See herd sample.
Jan. 6	Satia Bros., Galesville....	Galesville	1.0348	2.85	12.41	9.56	.....	Below standard in fat. Skimmed.
Jan. 6	Satia Bros., Galesville....	Galesville	1.0350	3.00	12.48	9.48	.....	Slightly skimmed. See herd sample.
Feb. 5	J. O. Simson, Deerfield...	Deerfield	1.0309	3.9	12.03	8.13	40.7	Below standard in solids not fat. Watered.
Mar. 10	L. J. Cronin, Janesville...	Janesville	1.0270	3.2	10.40	7.20	37.45	Below standard in solids not fat.
Mar. 12	Henry Staab, Waukesha..	Waukesha	1.0271	3.4	10.97	7.57	36.6	Below standard in solids not fat. Watered.

DAIRY PRODUCTS—Continued.

City Milk, Below Standard—Continued.

Date.	Sold by.	City.	Sp. G.	Per cent fat.	Per cent total solids.	Per cent solids not fat.	I. R. of whey (20° C.)	Remarks.
1914								
April 7	J. W. Howitt, Pewaukee..	Pewaukee	1.0308	2.95	11.26	8.31	40.3	Below standard in fat and solids not fat.
April 9	Alfred Haag, Ladysmith..	Ladysmith	1.0248	3.3	10.05	6.75	35.0	Below standard in solids not fat. Watered. Night's milk.
April 9	Alfred Haag, Ladysmith..	Ladysmith	1.0253	3.35	10.25	6.90	36.25	Below standard in solids not fat. Watered. Morning's milk.
April 29	John Trimberger, Burlington.	Burlington	1.0343	3.1	12.12	9.02	42.6	Skimmed. See herd sample.

Submitted Milks Tested for Percentage of Fat.

Date.	Submitted by.	Per cent fat.	Remarks.
1912			
Aug. 1	Peter Gerber, Barneveld	3.2	Marked "No. 1"
Aug. 1	Peter Gerber, Barneveld	3.3	Marked "No. 2"
Aug. 1	Peter Gerber, Barneveld	3.5	Marked "No. 3"
Aug. 1	Peter Gerber, Barneveld	3.36	Marked "No. 4"
Aug. 1	Peter Gerber, Barneveld	3.6	Marked "No. 5"
Aug. 1	Peter Gerber, Barneveld	3.3	Marked "No. 6"
Aug. 1	Peter Gerber, Barneveld	3.6	Marked "No. 8"
Aug. 1	Peter Gerber, Barneveld	3.2	Marked "No. 9"
Aug. 1	Peter Gerber, Barneveld	3.5	Marked "No. 10"
Aug. 3	Carl Burmeister, Madison.....	3.2	
1913			
Jan. 2	Edward Wittwer & Bro., Monticello.....	.....	Found to contain blood.
Jan. 11	E. A. Ketcham, Madison.....	3.6	
Jan. 23	P. L. Wyman, Fall River.....	3.6	Marked "No. 1."
Jan. 23	P. L. Wyman, Fall River.....	3.4	Marked "No. 5."

Jan. 23	P. L. Wyman, Fall River	3.4	Marked "No. 6."
Feb. 6	J. A. Thiede, Bonduel	3.8	
Feb. 20	Fred Baertscky, Mayville	2.0	
Mar. 6	E. A. James, Madison	3.9	
Mar. 21	Wm. Engelland, Mishicot	4.2	
April 16	Helvetia Condensed Milk Co., New Glarus	2.8	
June 25	J. A. Thiede, Bonduel	3.3	Marked "No. 2."
June 25	J. A. Thiede, Bonduel	3.5	Marked "No. 10."
Nov. 6	D. H. Granger, Sheboygan Falls	2.7	
Dec. 22	Wittwer Bros., Monticello	3.3	Sample No. 1.
Dec. 22	Wittwer Bros., Monticello	3.85	Sample No. 2.
Dec. 22	Wittwer Bros., Monticello	2.35	Sample No. 3.
Dec. 22	Wittwer Bros., Monticello	3.2	Sample No. 4.
Dec. 22	Mrs. Frank Kelley, Wausau	2.2	Skimmed.
1914			
Jan. 5	The D. E. Wood Butter Co., Evansville	3.6	
Mar. 3	F. C. Yates, Auburndale	3.0	
Mar. 11	Wm. Heimdal, Deerfield	3.88	
April 13	Gust. Tvesme, Deerfield	3.9	
April 29	Roach & Seeber Co., Waterloo	3.4	
May 17	Mr. Burgi, Monroe	4.4	
May 17	Mauritz Baltzer, Monroe	5.55	
May 23	Joseph Wiskerchen, Fredonia, R. 3	3.1	
June 4	W. Nitzel, Portage	4.5	
June 4	W. Nitzel, Portage	4.6	
June 4	W. Nitzel, Portage	4.1	
June 4	W. Nitzel, Portage	3.8	
June 4	W. Nitzel, Portage	7.5	
June 28	Edw. McNair, Brodhead	4.5	Sample No. 1.
June 28	Edw. McNair, Brodhead	4.95	Sample No. 2.
June 28	Edw. McNair, Brodhead	3.8	Sample No. 4.
June 28	Edw. McNair, Brodhead	3.55	Sample No. 5.
June 28	Edw. McNair, Brodhead	3.5	Sample No. 6.

DAIRY PRODUCTS—Continued.

Milk from a City Supply Tested for Butter Fat and Examined Bacteriologically.

Date.	Delivered by.	Delivered to.	Time of milking.	Number of bacteria per cubic centimeter.	Colon bacilli.	Per cent fat.	Specific gravity.
1914							
Feb. 4	Otto Toepfer	Kennedy Dairy Co.	morn-eve	1,288,000	none	3.4	1.0310
Feb. 4	Otto Toepfer	Kennedy Dairy Co.	morn	205,000	none		
Feb. 4	Otto Toepfer	Kennedy Dairy Co.	eve	1,325,000	present		
Feb. 4	Otto Toepfer	Kennedy Dairy Co.	morn	410,000	present		
Feb. 4	Otto Toepfer	Kennedy Dairy Co.	eve	1,763,000			
Feb. 4	Emil Dreger	Kennedy Dairy Co.		44,000	none		
Feb. 4	Emil Dreger	Kennedy Dairy Co.		18,700	none		
Feb. 4	August Toepfer	Kennedy Dairy Co.		31,700	none		
Feb. 4	August Krey	Kennedy Dairy Co.		50,000	present		
Feb. 4	William Gugel	Kennedy Dairy Co.		31,000	none		
Feb. 11	L. Thielke	Kennedy Dairy Co.	eve	250,000	none	3.7	1.0310
Feb. 11	L. Thielke	Kennedy Dairy Co.	morn	450,000	none	3.8	1.0322
Feb. 11	A. Frisch	Kennedy Dairy Co.	morn	45,000	none	4.2	1.0317
Feb. 11	A. Frisch	Kennedy Dairy Co.	eve	125,000	none	4.5	1.0317
Feb. 11	William Gugel	Kennedy Dairy Co.	morn-eve	1,190,000	none	4.0	1.0307
Feb. 11	E. Schenk	Kennedy Dairy Co.	morn-eve	17,000	none	4.3	1.0336
Feb. 11	E. Schenk	Kennedy Dairy Co.	eve	123,000	none	4.2	1.0325
Feb. 11	J. Rowell	Kennedy Dairy Co.	morn	475,000	none	3.9	1.0321
Feb. 11	J. Rowell	Kennedy Dairy Co.	eve	230,000	none	3.8	1.0319
Feb. 11	—— Sussner	Kennedy Dairy Co.	morn	9,500	none	3.4	1.0310
Feb. 11	—— Sussner	Kennedy Dairy Co.	eve	1,175,000	none	4.6	1.0331
Feb. 11	E. Schwenkert	Kennedy Dairy Co.	morn	24,000	none	3.9	1.0335
Feb. 11	E. Schwenkert	Kennedy Dairy Co.	eve	475,000	none	4.4	1.0321
Feb. 11	F. Goth	Kennedy Dairy Co.	morn	21,000	none	4.3	1.0314
Feb. 11	F. Goth	Kennedy Dairy Co.	eve	160,000	none	4.0	1.0317
Feb. 11	W. Gilbert	Kennedy Dairy Co.	morn	5,000	none	3.3	1.0314
Feb. 11	W. Gilbert	Kennedy Dairy Co.	eve	3,000	none	3.5	1.0313
Feb. 11	H. Binger	Kennedy Dairy Co.	morn	35,000	none	4.0	1.0325
Feb. 11	H. Binger	Kennedy Dairy Co.	eve	27,000	none	4.2	1.0317
Feb. 11	H. Horstmeier	Kennedy Dairy Co.	morn	9,500	none	4.3	1.0325
Feb. 11	H. Horstmeier	Kennedy Dairy Co.		8,000	none	4.0	1.0315
Feb. 11	J. Fischenich	Kennedy Dairy Co.	morn-eve	115,000	none	4.0	1.0313

Feb. 11	.....	Kennedy Dairy Co. (Sample taken from pasteurizer)	.....	500	none	3.7	1.0330
Feb. 19	.....	Zilisch Pure Milk Co. (Sample taken from pasteurizer—one day old)	.....	42,000	none	.....	.....
Feb. 19	A. Gorman	Zilisch Pure Milk Co.	morn	79,000	none	.....	.....
Feb. 19	A. Gorman	Zilisch Pure Milk Co.	eve	160,000	none	.....	.....
Feb. 19	Ed. Wright	Zilisch Pure Milk Co.	morn-eve	840,000	none	.....	.....
Feb. 19	Will Kivilan	Zilisch Pure Milk Co.	morn	11,000	none	.....	.....
Feb. 19	Will Kivilan	Zilisch Pure Milk Co.	eve	27,000	none	.....	.....
Feb. 19	John Fahey	Zilisch Pure Milk Co.	morn	96,000	none	.....	.....
Feb. 19	John Fahey	Zilisch Pure Milk Co.	eve	150,000	none	.....	.....
Feb. 19	John Fahey	Zilisch Pure Milk Co.	morn-eve	900,000	none	.....	.....
Feb. 19	W. Lehnke	Zilisch Pure Milk Co.	morn	25,000	none	.....	.....
Feb. 19	W. Lehnke	Zilisch Pure Milk Co.	eve	33,000	.....	.....	.....
Feb. 19	H. Culp	Zilisch Pure Milk Co.	morn	70,000	.....	.....	.....
Feb. 19	H. Culp	Zilisch Pure Milk Co.	eve	32,000	none	.....	.....
Feb. 19	F. Blaney	Zilisch Pure Milk Co.	morn	6,000	none	.....	.....
Feb. 19	F. Blaney	Zilisch Pure Milk Co.	eve	8,000	none	.....	.....
Feb. 19	John Fox	Zilisch Pure Milk Co.	morn	5,000	none	.....	.....
Feb. 19	John Fox	Zilisch Pure Milk Co.	eve	14,000	none	.....	.....
Feb. 19	William Gugel	Zilisch Pure Milk Co.	morn	270,000	none	.....	.....
Feb. 19	William Gugel	Zilisch Pure Milk Co.	eve	115,000	none	.....	.....
Feb. 19	John Skelly	Zilisch Pure Milk Co.	morn-eve	17,000	none	.....	.....
Feb. 19	Tom Fahey	Zilisch Pure Milk Co.	morn-eve	23,000	none	.....	.....
Feb. 28	C. Dreger	Zilisch Pure Milk Co.	morn	17,000	none	.....	.....
Feb. 28	C. Dreger	Zilisch Pure Milk Co.	eve	210,000	none	.....	.....
Feb. 28	J. Byrne	Zilisch Pure Milk Co.	morn-eve	25,000	none	.....	.....
Feb. 28	P. Mutchler	Zilisch Pure Milk Co.	morn	31,000	none	.....	.....
Feb. 28	P. Mutchler	Zilisch Pure Milk Co.	eve	5,000	none	.....	.....
Feb. 28	R. A. Gillett	Zilisch Pure Milk Co.	morn	4,000	none	.....	.....
Feb. 28	E. Jones	Zilisch Pure Milk Co.	morn	10,000	none	.....	.....
Feb. 28	E. Jones	Zilisch Pure Milk Co.	eve	890,000	White and golden staphlococci present.	.....	.....
Feb. 28	Purcell Bros.	Zilisch Pure Milk Co.	morn	3,500	Badly contaminated none	.....	.....
Feb. 28	Purcell Bros.	Zilisch Pure Milk Co.	eve	65,000	none	.....	.....
Feb. 28	Geo. Blizzard	Zilisch Pure Milk Co.	morn	4,000	none	.....	.....
Feb. 28	Geo. Blizzard	Zilisch Pure Milk Co.	eve	17,000	none	.....	.....
Feb. 28	C. F. Adams	Zilisch Pure Milk Co.	morn-eve	47,000	present	.....	.....
Feb. 28	Whalen Bros.	Zilisch Pure Milk Co.	morn-eve	8,000	none	.....	.....

DAIRY PRODUCTS—Concluded.

Milk from a City Supply Tested for Butter Fat and Examined Bacteriologically—Concluded.

Date.	Delivered by.	Delivered to.	Time of milking.	Number of bacteria per cubic centimeter.	Colon bacilli.	Per cent fat.	Specific gravity.
1914							
Feb. 28	.....	Zilisch Pure Milk Co. ..... (Sample pasteurized—24 hours old)	.....	290,000	.....	.....	.....
Feb. 28	.....	Zilisch Pure Milk Co. ..... (Sample pasteurized—2 hours old)	.....	215,000	.....	.....	.....
Feb. 28	J. L. Whalen	Zilisch Pure Milk Co.	morn-eve	240,000	none	.....	.....
Feb. 28	J. Weiss	Zilisch Pure Milk Co.	morn-eve	335,000	none	.....	.....
Feb. 28	P. Byrne	Zilisch Pure Milk Co.	morn	23,000	.....	.....	.....
Feb. 28	P. Byrne	Zilisch Pure Milk Co.	eve	375,000	.....	.....	.....
Mar. 13	....	Kennedy Dairy Co. ..... (Sample taken from wagon)	.....	120,000	.....	3.4	1.0325
Mar. 13	....	Kennedy Dairy Co. ..... (Sample taken from wagon)	.....	80,000	.....	3.5	1.0330
Mar. 13	Doerfer Bros.	city milk patrons.....	.....	35,000	.....	3.4	1.0330
Mar. 13	Zilisch Pure Milk Co.....	city milk patrons.....	.....	210,000	.....	3.6	1.0325
Mar. 13	C. McCoy	city milk patrons.....	.....	11,300	.....	4.2	1.0325
Mar. 13	C. H. Messerschmidt.....	city milk patrons.....	....	515,000	....	3.3	1.0320
Mar. 13	Iver Hagen	city milk patrons.....	.....	9,500	.....	4.3	1.0320
Mar. 13	A. J. McCormick.....	city milk patrons.....	.....	175,000	.....	3.7	1.0320
Mar. 13	John Collins	city milk patrons.....	.....	475,000	.....	3.7	1.0320
Mar. 13	Alfonso Back	city milk patrons.....	.....	3,000	.....	4.0	1.0320
Mar. 13	Bowman Hinrich's	city milk patrons.....	.....	6,300	.....	3.5	1.0325
Mar. 13	E. Sachtjen	city milk patrons.....	.....	137,500	.....	3.5	1.0313
Mar. 13	E. A. Bruns	city milk patrons.....	.....	26,000	.....	4.4	1.0325

DAIRY PRODUCTS—Miscellaneous.

Date.	Kind.	Bought of or Submitted by.	Manufacturer or Jobber.	Remarks.
1912				
July 17	Ice cream	*H. E. Griffin, Mount Horeb		Below standard in fat.
Aug. 12	Evaporated milk	M. & H. Iffland, Watertown	The Van Camp Packing Co.	Standard.
Dec. 12	Buttermilk	*H. E. Griffin, Mount Horeb		Fat 0.37%.
1913				
Jan. 24	Brick cheese	*H. B. Stanz Co., Milwaukee		Standard.
Feb. 27	Ice cream	E. Juliani & Co., Kenosha	F. Juliani & Co., Kenosha	Below standard in fat.
Feb. 27	Ice cream	T. Leucioni & Son, Kenosha	T. Leucioni & Son, Kenosha	Below standard in fat.
Feb. 27	Ice cream	D. Unti, Kenosha	D. Unti, Kenosha	Below standard in fat.
Mar. 8	Cheese	*A. Linschied, Dallas		Standard.

*Submitted sample.

DRIED FRUITS.

Date.	Kind.	Bought of or Submittted by.	Manufacturer or Jobber.	Brand.	Remarks.
1913					
Nov. 28	Currants	*H. C. Larson, Madison	Loverin & Browne Co., Chicago		Contain sulphur dioxide.
Nov. 28	Raisins	*H. C. Larson, Madison	Loverin & Browne Co., Chicago		Contain sulphur dioxide.
Dec. 16	Figs	Prairie City Grocery Co., Prairie du Chien.		Daphne	Contain sulphur dioxide. Labeled "Bleached with SO_2."
1914					
Jan. 13	Figs	Taylor Bros., Janesville		Daphne	Labeled "Bleached with sulphur 9—10 oz." Contains sulphur dioxide.
April 29	Dried apples	E. F. Smith, Mauston			Tested for sulphur dioxide. None present.

*Submitted sample.

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% of ethyl alcohol by volume.

Hamamelis Water, Not Standard.

Date.	Purchased of.	Per cent alcohol by volume.	Remarks.
1914			
May 6	S. T. Barnard, Brillion	23.98	
May 18	J. P. Barlwin, Lena	12.87	
May 19	Hermann Drug Co., Wausaukee	11.0	
May 29	Jas. F. Meyer, Chilton	41.32	Contains 28.5% of wood alcohol.
June 18	A. B. Corbett, Hilbert	10.0	
June 30	E. W. Jaehnig, Fillmore	12 58	

Hamamelis Water, Standard.

Date.	Purchased of.
1914	
May 5	Williams & Johnson, Merrillan
May 12	M. J. Rice, Kewaunee
May 14	C. P. Bassett, Sturgeon Bay
May 15	Raphael Soquet, Green Bay
May 18	P. J. Love, Coleman
May 19	J. S. Pemberthy, Florence
June 4	Lemke-Gerlach Tea Co., Marinette

LIQUOR CALCIS (LIME WATER)

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

Lime Water, Below Standard.

Date.	Purchased of.	Remarks.
1914		
May 18	J. P. Baldwin, Lena	One-third standard strength.
May 19	J. S. Pemberthy, Florence	Slightly less than half strength.

Lime Water—Standard

Date.	Purchased of.
1914	
May 5	Williams & Johnson, Merrillan
May 6	S. T. Barnard, Brillion
May 12	M. J. Rice, Kewaunee
May 13	Boedecker Bros., Algoma
May 13	V. Kwapil, Algoma
May 14	O. P. Bassett, Sturgeon Bay
May 14	Stiles & Co., Sturgeon Bay
May 19	Herrmann Drug Co., Wausaukee
May 22	J. E. Koepenick, North Fond du Lac
May 29	Jas. F. Meyer, Chilton

DRUGS—Continued.

SULPHUR PRECIPITATUM (PRECIPITATED SULPHUR).

Precipitated sulphur, according to the U. S. pharmacopoeia, should be practically pure sulphur, leaving no weighable residue on ignition.

The directions in the pharmacopoeia for the manufacture of precipitated sulphur call for the use of hydrochloric acid and not sulphuric acid. It seems to have been a common practice to use sulphuric acid and perhaps for the reason that the yield obtained was about twice what it should be, the final product being always adulterated with calcium sulphate.

Precipitated Sulphur, Not Standard.

Date.	Purchased of.	Per cent residue on ignition.	Remarks.
1914			
May 5	Williams & Johnson, Merrillan	0.34	Residue found to consist chiefly of iron.
May 6	S. T. Barnard, Brillion	0.36	
May 8	The Weed Drug Store, Ashland	0.02	Not precipitated sulphur. Submiled sulphur sold for precipitated sulphur.
May 8	Crebb & Giese, Ashland	47.0	Found to be calcium sulphate.
May 13	Boedecker Bros., Algoma	45.6	Found to be calcium sulphate.
May 14	Stiles & Co., Sturgeon Bay	47.13	Found to be calcium sulphate.
May 14	C. P. Bassett, Sturgeon Bay	46.25	Found to be calcium sulphate.
May 18	J. P. Baldwin, Lena	12.91	Found to be calcium sulphate.
May 18	P. J. Love, Coleman	36.6	Found to be calcium sulphate.
May 19	Hermann Drug Co., Wausaukee	47.41	Found to be calcium sulphate.
May 22	J. E. Koepenick, North Fond du Lac	33.71	Found to be calcium sulphate.
May 22	E. M. McIntosh, Alma Center	15.78	Found to be calcium sulphate.

Precipitated Sulphur, Standard.

Date.	Purchased of.
1914	
May 12	M. J. Rice, Kewaunee
May 29	Jas. F. Meyer, Chilton

TINCTURA FERRI CHLORIDE (TINCTURE OF FERRIC CHLORIDE).

The tincture of ferric chloride of the U. S. pharmacopoeia is intended to be a hydro-alcoholic solution of ferric chloride containing not less than 13.28% of anhydrous ferric chloride.

Tincture of Ferric Chloride, Not Standard.

Date.	Purchased of.	Per cent of ferric chloride.
1914		
May 5	Williams & Johnson, Merrillan	12.42
May 12	M. J. Rice, Kewaunee	9.89
May 13	Boedecker Bros., Algoma	12.96
May 13	V. Kwapil, Algoma	12.8
May 15	Raphael Soquet, Green Bay	7.25
May 18	P. J. Love, Coleman	9.14
May 19	Hermann Drug Co., Wausaukee	10.68
May 29	Jas. F. Meyer, Chilton	4.58

Tincture of Ferric Chloride, Standard.

Date.	Purchased of.
1914	
May 6	S. T. Barnard, Brillion
May 14	C. P. Bassett, Sturgeon Bay
May 19	J. S. Pemberthy, Florence
May 20	Laona Drug Store, Laona
May 22	J. E. Koepenick, North Fond du Lac
June 25	J. R. Fitzgerald, Ironton

DRUGS—Continued.

TINCTURA 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.

Date.	Purchased of or Submitted by.	Gms. of iodine in 100 ccs.	Gms. of potassium iodide in 100 ccs.	
1913				
Dec. 10	Spence-McCord Drug Co., La Crosse	4.8	4.9	
Dec. 13	*H. C. Larson, Madison	4.896	4.896	
Dec. 27	*J. E. Boettcher, Janesville	6.08	6.66	
1914				
May 4	S. H. Van Gordon & Son, Taylor	6.27	5.1	
May 5	Williams & Johnson, Merrillan	7.54	5.0	
May 6	S. T. Barnard, Brillion	7.32	5.0	
May 8	Crabb & Giese, Ashland	7.13	4.76	
May 8	Weed's Drug Store, Ashland	6.98	4.50	
May 12	M. J. Rice, Kewaunee	9.35	0.0	
May 13	V. Kwapil, Algoma	7.33	5.0	
May 13	Boedecker Bros., Algoma	7.66	5.0	
May 15	Dr. B. F. Hoyt, Johnson Creek	5.6	0.0	
May 15	Raphael Soquet, Green Bay	6.53	0.0	
May 18	P. J. Love, Coleman	4.28	0.0	
May 19	Herrmann Drug Co., Wausaukee	5.31	2.57	
May 19	J. S. Pemberthy, Florence	7.43	5.0	
May 22	E. M. McIntosh, Alma Center	8.33	6.18	
May 22	J. E. Koepenick, North Fond du Lac	7.68	5.7	
May 29	Jas. F. Meyer, Chilton	4.65	3.45	
June 25	J. R. Fitzgerald, Ironton	3.12	0.0	
June 26	H. E. Blank, La Valle	4.67	2.15	

*Submitted sample.

Tincture of Iodine, Standard.

Date.	Purchased of.
1914	
May 14	Stiles & Co., Sturgeon Bay
May 20	Laona Drug Store, Laona
June 23	F. S. Drake, Black Earth

SPIRITUS CAMPHORAE (SPIRIT OF CAMPHOR).

The latest current 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, Below Standard.

Date.	Purchased of.	Gms. of camphor per 100 ccs.
1914		
May 12	M. J. Rice, Kewaunee	7.76
May 14	Stiles & Co	9.05
May 18	P. J. Love, Coleman	1.3
May 19	Herrmann Drug Co., Wausaukee	5.17
June 16	V. A. Lundgren, Marinette	8.2
June 22	Theo. Grinder, Perry	9.2
June 26	H. E. Blank, La Valle	8.6

DRUGS—Continued.

Spirit of Camphor, Above Standard.

Date.	Purchased of.	Gms. of camphor per 100 ccs.
1913		
April 12	Pardee Pharmacy, Wausau	11.3
Dec. 12	*J. E. Boettcher, Janesville	10.9
1914		
May 6	S. T. Barnard, Brillion	12.4
May 8	Harrison Drug Co., Ashland	12.0
May 15	Raphael Soquet, Green Bay	12.0
May 18	J. P. Baldwin, Lena	11.37
May 19	J. S. Pemberthy, Florence	11.2
May 20	Laona Drug Store, Laona	11.37
May 22	J. E. Koepenick, North Fond du Lac	11.2
June 16	Gould-Paust Co., Crivitz	11.2
June 18	A. B. Corbett, Hilbert	10.6
June 23	F. S. Drake, Black Earth	11.4

*Submitted sample.

Spirit of Camphor, Standard.

Date.	Purchased of.
1912	
Nov. 1	Gimbel Bros., Milwaukee
1913	
April 12	Weichmann's Pharmacy, Wausau
May 13	V. Kwapil, Algoma
May 13	Boedecker Bros., Algoma
May 29	Jos. F. Meyer, Chilton
June 14	C. P. Bassett, Sturgeon Bay
June 24	C. L. Sprecher, Leland
June 25	J. R. Fitzgerald, Ironton

Drugs—Miscellaneous.

Date.	Kind.	Bought of.	Remarks.
1912			
Nov. 1	Cream of tartar	Gimbel Bros., Milwaukee	Slightly below standard.
Nov. 1	Alcohol	Gimbel Bros., Milwaukee	Not standard.
Nov. 1	Camphorated oil	Gimbel Bros., Milwaukee	Not standard. Deficient in camphor.
Nov. 1	Spirit of nitre	Gimbel Bros., Milwaukee	About one-fifth standard strength.
1913			
Feb. 19	Anti-headache and pain pills	B. O. Oyaas, Superior	Labeled "Each pill contains two and one-half grains acetanilid." Statement correct.
Aug. 12	Sweet oil	Slinde Bros., Monroe	Cottonseed oil sold for sweet oil. Standard.
Aug. 23	Rochelle salts	Gimbel Bros., Milwaukee	Standard.
Aug. 22	Cream of tartar	Gimbel Bros., Milwaukee	Standard.
Oct. 29	Gum asafetida	The Schempf Drug Co., Watertown	Not standard. Less than 50% soluble in alcohol.
Oct. 29	Gum asafetida	Gamm Drug Store, Watertown	Not standard. Less than 50% soluble in alcohol.
Oct. 30	Gum asafetida	H. L. Kellogg, Oconomowoc	Not standard. Less than 50% soluble in alcohol.
Nov. 28	Alcohol	Edwin Sumner & Son, Madison	Not standard. Should be 94.9% by volume.

FLAVORS AND FLAVORING EXTRACTS.

LEMON EXTRACT AND TERPENELESS LEMON EXTRACT.

Not Standard, or Misbranded.

Date.	Bought for.	Labeled.	Bought of.	Manuf'r or Jobber.	Brand.	Remarks.
1912						
Sept. 24	Lemon extract	Extract of Lemon	Ed. Babcock, Milton	Dr. Koch Vegetable Tea Co., Winona, Minn.	Dr. Koch's	Not standard.
Nov. 1	Lemon extract	Essence of Lemon	Gimbel Bros., Milwaukee.			Not standard. Contains artificial coloring.
Dec. 20	Lemon extract	Pure Extract of Lemon Alcohol 85%, Lemon Oil 5%. Full 2 oz.	H. E. Stumpf, Blair	Arthur S. Holden, Winona, Minn.	Holden's Sugar Loaf.	Not standard in oil, Misbranded as to percentage of alcohol and measure.

FLAVORS AND FLAVORING EXTRACTS—Continued.

LEMON EXTRACT AND TERPENELESS LEMON EXTRACT—Continued.

Not Standard, or Misbranded—Continued.

Date	Bought for	Labeled.	Bought of.	Manuf'r or Jobber.	Brand.	Remarks.
1913						
July 9	Pure extract of lemon....	Pure Extract of Lemon	Felix Derouin, Eau Claire.	Ideal Extract Bottling Works, Eau Claire.	.....	Below standard in oil.
Aug. 11	Turpeneless lemon flavor.	Terpeneless Lemon Flavor, One Quarter Standard Strength	Borgen & Aune, Eau Claire.	Eau Claire Grocery Co., Eau Claire.	Valley Belle	Below standard in citral.
Aug. 22	Essence of lemon.....	Essence of Lemon.....	Gimbel Bros., Milwaukee.	.....	.....	Not standard. Colored with turmeric.
Oct. 13	Lemon flavor	Imitation Flavor of Lemon and Lemon Grass	Banner Coffee Co., Madison.	Banner Coffee Co., Milwaukee.	Crown	Not lemon flavor. Contains no oil of lemon.
1914						
Feb. 5	Lemon extract	Pure Lemon Extract Highly Concentrated, 2 Oz. Full Measure	Gloudeman-Gage Co., Appleton.	.....	Purity	Misbranded. Not a highly concentrated product.
May 7	Lemon flavor	Imitation Flavor of Lemon and Lemon Grass	Banner Coffee Co., Milwaukee.	Banner Coffee Co., Milwaukee.	Crown	An imitation. Contains no oil of lemon or citral.
May 13	Extract lemon	Absolutely Pure Extract Lemon	Seifart & Son, Omro	Manufacturers' and Retailers' Company, Chicago, Ill.	Marco	Misbranded as to volume of contents.
June 3	Lemon extract	Jenning's Terpeneless Extract Messina Lemon, 2¼ Oz.	Chas. Nevquist, Florence.	Jenning's Flavoring Extract Co., Grand Rapids, Mich.	O. C.....	Misbranded as to volume of contents. Not lemon extract. Contains no oil of lemon.
June 10	Extract lemon	Extract of Lemon.....	Wensink-Stolpin Co., Plymouth.	W. T. Rawleigh Medical Co., Freeport, Ill.	.....	Not standard. Artificially colored with turmeric.
June 11	Lemon extract	Terpeneless Lemon Flavor, One Quarter Standard Strength	J. P. Olson, Eau Claire	Eau Claire Grocery Co., Eau Claire.	Valley Belle	Not lemon extract.
June 11	Lemon extract	Terpeneless Lemon Flavor, One Quarter Standard Strength	H. P. Stang, Eau Claire	Eau Claire Grocery Co., Eau Claire.	Valley Belle	Not lemon extract.

June 17	Extract of lemon.....	Lemon Extract, 5% Lemon Oil, Turmeric Col.	M. G. Otis, New London.	J. R. Watkins Medical Co., Winona, Minn.	Watkins	Not standard. Contains artificial color, turmeric.
June 22	Lemon extract	Crystal Flavoring Extract Lemon, 88% Alcohol 3 Oz.	Theo. Grindler, Perry....	McFadden Coffee & Spice Co., Dubuque, Iowa.	Crystal	Below standard in oil. Misbranded as to volume of contents.
June 23	Lemon extract	Pure Extract of Lemon	Geo. Vasen, Cross Plains.	Dr. Codman, Janesville.	.....	Not standard. Contains no trace of lemon oil.

Lemon Extract, Standard.

Date.	Bought of.	Manufacturer or Jobber.	Brand
1913			
July 9	Hans Peterson, Eau Claire.....	McFadden Coffee & Spice Co., Dubuque, Iowa.....	.....
1914			
May 13	Berray & Stearns, Omro.....	Puhl-Webb Co., Chicago.....	Standard
May 13	Brey Leischow & Co., Algoma.....	Arbuckle Bros., Chicago.....	.....
June 5	Nintzel Bros. Tea Co., Oshkosh.....	.....	.....
June 11	John H. Moen, Eau Claire.....	Pure Food Co., New York and Chicago.....	Serv-us.
June 16	Grand Union Tea Co., Marinette.....	Grand Union Tea Co., Brooklyn, N. Y.....	.....
June 25	Fey-Goedecke Co., Ableman.....	Retailers' Commercial Union, Chicago	Purity.
June 30	Christ Retger, Fredonia.....	W. T. Rawleigh Medical Co., Freeport, Ill.....	.....

FLAVORS AND FLAVORING EXTRACTS—Continued.

Vanilla Extract, Not Standard.

Date.	Labeled.	Bought of.	Manufacturer or Jobber.	Brand.	Remarks.
1912					
Sept. 24	Vanilla Flavoring, composed of Vanilla, Vanillin, Coumarin, Caramel.	Edw. Babcock, Milton.....	Dr. Koch Vegetable Tea Co., Winona, Minn.	Dr. Koch.....	Not a vanilla extract.
Nov. 1	Tincture of Vanilla...	Gimbel Brothers, Milwaukee...	.....	.....	Contains coumarin.
Nov. 7	Vanilla Flavoring, composed of Vanilla, Vanillin, Coumarin and Caramel.	J. E. Ritchart, Waukesha.....	Dr. Koch Vegetable Tea Co., Winona, Minn.	.....	Not a vanilla extract. Artificially colored with caramel.
Nov. 15	Vanilla Flavoring, Vanilla, Vanillin, Coumarin, Caramel.	W. C. Riddle, Dousman.....	Dr. Koch Vegetable Tea Co., Winona, Minn.	Dr. Koch.....	Not a vanilla extract. Artificially colored with caramel.
Nov. 19	Compound Extract of Vanilla, Vanillin, Coumarin.	C. C. Morrel, Oconomowoc....	J. R. Watkins Medical Co., Winona, Minn.	.....	Not a vanilla extract. Artificially colored with caramel.
1913					
Jan. 14	Flavoring Extract, Vanillan.	E. Daub, 1st and Central Sts., Milwaukee.	Janzen Co., Milwaukee.....	Daisy	Not a vanilla extract. Artificially colored in imitation of vanilla extract.
Jan. 14	Compound Flavor, Vanillin, Coumarin, Colored with Caramel for Flavoring.	Brets Bros., 177 Concordia Ave., Milwaukee.	Janzen Co., Milwaukee.....	Daisy	Not a vanilla extract. Artificially colored in imitation of vanilla extract.
Jan. 14	Compound Vanillin and Coumarin, Sugar, Color.	Albert Gonnrich, 58 Concordia Ave., Milwaukee.	Janzen Co., Milwaukee.....	Daisy	Not a vanilla extract. Artificially colored in imitation of vanilla extract.
Jan. 14	Compound Flavor, Vanillin, Coumarin, Colored with Caramel for Flavoring.	F. Johannsmeyer, 720-26th St., Milwaukee	Janzen Co., Milwaukee.....	Daisy	Not a vanilla extract. Artificially colored in imitation of vanilla extract.

Jan. 14	Flavoring Extract Vanillan.	R. W. Bruckner, 760 27th St., Milwaukee.	Janzen Co., Milwaukee.....	Daisy	Not a vanilla extract. Artificially colored and flavored in imitation of vanilla extract.
Jan. 22	Compound Vanillin, Coumarin Sugar Color.	Otto Linz, 1415 12th St., Milwaukee.	Janzen Co., Milwaukee.....	Daisy	Not a vanilla extract. Artificially colored in imitation of vanilla extract.
Jan. 22	Imitation Extract of Vanalline, Coumarin, Colored with Vanilla Bean.	F. Cesar, 1519 8th St., Milwaukee.	E. R. Pahl Co., Milwaukee.....	.....	Not a vanilla extract.
Jan. 22	Compound Flavor Vanillin, and Coumarin. Colored with Caramel for Flavoring.	Fred Schneider, 1419 Second St., Milwaukee.	Janzen Co, Milwaukee.....	Daisy	Not a vanilla extract. Artificially colored in imitation of vanilla extract.
Jan. 22	Vanilla Bean, Vanillin, Coumarin.	Fred Hahn, 1381 7th St., Milwaukee.	Day-Bergwall Co., Milwaukee..	Household	Not a vanilla extract.....
Jan. 22	Extract Vanilla and Vanilline.	H. Jens, 1503 Green Bay Ave., Milwaukee.	Imperial Vanilla Co., Chicago..	Imperial	Misbranded. Contains no extract of vanilla. Adulterated. Artificially colored with a coal-tar dye.
Jan. 22	Vanilla and tonka....	W. A. Bergman, 714 Davis St., Milwaukee.	Sherer-Gillett Co., Chicago.....	.....	Deficient in coumarin and alcohol. Not a vanilla extract.
Jan. 22	Vanillin, Coumarin, and Vanilla Extract.	Fred Eckermann, Milwaukee....	Sherer-Gillett Co., Chicago.....	Echo	Not a vanilla extract.....
April 11	Imitation Vanilla and Tonka Caramel Color.	J. Neissenbaum, Merrill.....	.....	.....	An imitation product. Artificially colored in imitation of vanilla extract.
July 9	Pure Concentrated Extract of Vanille.	Felix Derouin, Eau Claire....	.....	.....	Not a pure concentrated extract of vanille. Misbranded.
Aug. 11	Pure Concentrated Extract of Vanilla.	Felix Derouin, 834 Water St., Eau Claire.	Ideal Extract & Bottling Works, Eau Claire.	.....	Not a pure concentrated extract of vanilla. Misbranded.
Sept. 7	Compound Extract of Vanilla, Vanillin, Coumarin.	Floyd Fisher, Jefferson.....	J. R. Watkins Medical Co., Winona, Minn.	Watkins	Artificially colored with caramel. Not vanilla extract.
Oct. 13	Imitation Vanilla, Vanillin Coumarin.	Banner Coffee Co., Madison....	Banner Coffee Co., Milwaukee..	Crown	Contains little or no vanilla.
1914 Jan. 6	Compound Extract of Vanilla, Vanillin, and Coumarin.	Floyd Fisher, Jefferson.....	J. R. Watkins Medical Co., Winona, Minn.	Watkins	Artificially colored with caramel. Not vanilla extract.

FLAVORS AND FLAVORING EXTRACTS—Continued.

Vanilla Extract, Not Standard—Continued.

Date.	Labeled.	Bought of.	Manufacturer or Jobber.	Brand.	Remarks.
1914					
Jan. 9	Compound Extract of Vanilla, Vanillin and Coumarin.	C. C. Morral, Oconomowoc....	J. R. Watkins Medical Co., Winona, Minn.	Watkins	Artificially colored with caramel. Not vanilla extract.
Feb. 5	— Pure 2 Ounces Full Measure Highly Concentrated.	Gloudemans-Gage Co., Appleton.	.....	Purity	Misbranded. Not a highly concentrated product.
May 7	Imitation Extract of Vanilline, Vanilla, Tonka and Coumarin.	Banner Coffee Co., Milwaukee..	Banner Coffee Co., Milwaukee	Crown	Not vanilla flavor. Artificially colored in imitation of vanilla extract.
May 13	Pure Flavoring Extract Vanilla, 1 Oz. Net. Wt.	Berray & Stearns, Omro.....	Puhl-Webb Co., Chicago.....	Standard	Misbranded. Short weight.
May 13	Concentrated Extract Vanilla.	Thiard Bros., Algoma.....	C. F. Sauer Co., Richmond, Va.	.....	Misbranded. Not a concentrated extract of vanilla.
May 15	Superior Flavoring, Vanilla, Vanillin and Coumarin.	Peshtigo Lumber Co., Peshtigo	Arbuckle Bros., Chicago.....	.....	Not vanilla extract, but so sold.
June 4	Pure Vanilla Bean, Vanillin & Coumarin.	Lemke-Gerlach Tea Co., Marinette.	Day-Bergwall Co, Milwaukee...	Household	Not vanilla extract.
June 22	Vanilla & V. Flavor...	Glaeden & Hanson, Forward..	.....	.....	Not vanilla extract. Contains little or no vanilla. Artificially colored.
June 22	Vanilla Extract 4 oz...	Koch Bros., Mount Vernon.....	McFadden Coffee & Spice Co., Dubuque, Iowa.	.....	Misbranded as to volume of contents. Short measure.
June 22	Flavoring Extract of Vanilla 4 oz. net.	Glaeden & Hanson, Forward...	McFadden Coffee & Spice Co., Dubuque, Iowa.	Right Hand	Misbranded as to volume of contents. 6.5% short measure.
June 22	Crystal Flavoring Extract Vanilla 40% Alcohol 3 oz.....	Theo. Grinder, Perry.....	McFadden Coffee & Spice Co., Dubuque, Iowa.	.....	Misbranded as to volume of contents. 19% short measure.
June 23	Strictly Pure Ext. Vanilla 2 oz. 6-10. Standard.	J. Valentine, Black Earth.....	Gould, Wells & Blackburn Co., Madison.	.....	Not vanilla extract.
June 23	Vanilla Flavoring Composed of Vanilla Caramel Vanilline, Coloring Coumarin.	Geo. Vasen, Cross Plains.....	Cadman Extract and Medicine Co., Janesville.	.....	Not vanilla extract. Artificially colored with caramel in imitation of vanilla extract.

Vanilla Extract, Standard.

Date.	Bought of.	Manufacturer or Jobber.	Brand.
1913			
Mar. 25	*Jahnke Cry. Co., Watertown	John Hoffman & Sons Co., Milwaukee	
Aug. 13	The Arnquist Mercantile Co., New Richmond	Griggs, Cooper & Co., St. Paul, Minn	Home Brand.
Aug. 13	The Arnquist Mercantile Co., New Richmond	Griggs, Cooper & Co., St. Paul, Minn	New Stock. Home Brand.
Aug. 22	Gimbel Bros., Milwaukee		
1914			
May 5	A. J. Graff & Co., Merrillan	Sprague, Warner & Co., Chicago	Favorite.
May 7	C. J. Westphal, Manitowoc	Royal Remedy & Extract Co., Dayton, O	
May 7	D. Zimmerman, Reedsville	Plumb & Nelson Co., Manitowoc	Plu-Nel-Co.
May 12	L. J. Englebert, Algoma		Englebert's Rose.
May 13	Seifert & Son, Omro	Retailers' Co., Chicago, Ill	Marco.
May 15	H. Groessler, Peshtigo	Gitchell Inness Co., Marinette	Amazon.
May 15	J. L. Chudacoff, Peshtigo	The Michigan Coffee & Spice Co., Menominee, Mich	Shield.
May 19	Ziesler & Kotick, Florence	Jos. Burnett Co., Boston, Mass	
June 3	Chas. Neuquist, Florence	Jennings Flavoring Ext. Co., Grand Rapids, Mich	D. C.
June 5	Nintzel Bros. Tea Co., Oshkosh		
June 11	D. F. Kaiser, New Holstein	Day-Bergwall Co., Milwaukee	M. B.
June 11	Iversen Bros., New Holstein	Day-Bergwall Co., Milwaukee	Full Value.
June 16	V. A. Lundgren, Marinette		
June 16	Grand Union Tea Co., Marinette	Grand Union Tea. Co., Brooklyn, N. Y	
June 18	F. G. Hoose, Forest Junction	Geo. Geiger & Co., Milwaukee	Reliance.
June 22	Glaeden & Hanson, Forward	Arbuckle Bros., Chicago	Natural.
June 22	Theo. Grinder, Mount Horeb, R. D	MacFadden Coffee & Spice Co., Dubuque, Iowa	Festival.
June 22	Koch Bros., Mount Horeb, R. D	Arbuckle Bros., Chicago	Natural.
June 23	H. M. Zander, Cross Plains	Arbuckle Bros., Chicago	
June 24	E. L. Sprecher, North Freedom	Chamberlain Medicine Co., Des Moines, Iowa	
June 25	Fey-Goedecke Co., Ableman	Retailers' Commercial Union, Chicago	Purity.

*Submitted sample.

FLAVORS AND FLAVORING EXTRACTS—Continued.

Compound Flavors.

Date.	Bought for.	Labeled.	Bought of.	Manufacturer or Jobber.	Brand.	Remarks.
1912						
July 16	Compound essence vanillin.	Compound Essence Vanillin and Cumarin, Colored with Caramel.	A. F. Solomonson, Dresser Junction.	Tubbs Medicine Co., River Falls.	.....	Colored in imitation of vanilla extract.
Oct. 12	Essence of vanillin and coumarin.	Ess. Vanillin and Coumarin 1½ oz. Full Measure.	Tubbs Medicine Co., River Falls.	Tubbs Medicine Co., River Falls.	.....	Artificially colored with caramel. Short measure. Misbranded.
1913						
July 8	Extract vanillin, coumarin and tonka.	Compound Extract Vanillin, Coumarine and Tonka.	O. H. Johnson, Eau Claire.	H. T. Lange Co., Eau Claire.	Stella	Contains little or no tonka extract.
July 8	Vanillin, coumarin and tonka.	Compound Extract Vanillin, Coumarin and Tonka.	A. H. Wilke, Eau Claire	Ideal Extract Co., Eau Claire.	.....	Contains little or no tonka extract.
Aug. 14	Vanilline and coumarine flavor.	Vanilline, Coumarine Flavor, Artificially Colored, 8 Oz. net.	L. H. Lerch, Ellsworth.	W. M. Hoyt Co., Chicago, Ill.	Tropic	Artificially colored in imitation of vanilla extract.
Aug. 29	Compound extract of vanilla, coumarin and vanillin.	Compound Extract of Vanilla Coumarin and Vanillin.	O. W. Sanborn, Pardeeville	S. F. Baker & Co., Keokuk, Iowa.	.....	Passed.
Nov. 11	Compound flavor of vanillin	Compound Flavor Vanillin Coumarin, Vanilla with Caramel Coloring.	Gilbert Bros. & Restlock, Eau Claire.	Steinwender, Stoffregen Coffee Co., St. Louis.	Jumbo	Misbranded. Contains no vanilla. Artificially colored in imitation of vanilla extract.
Nov. 20	Vanelda	Vanelda Not Vanilla but a Flavoring Compound.	Barron Cash Supply Co., Barron.	E. A. Lange Medical Co., De Pere.	.....	Artificially colored in imitation of vanilla extract.
1914						
Jan. 15	Extract of vanilla and vanillin.	Extract of Vanillin and Vanilla.	Nudeck Bros., Neenah.	Imperial Vanilla Co., Chicago	Imperial	Contains little or no vanilla. Artificially colored with coal-tar dyes.
Feb. 5	Vanillin and coumarin flavor.	Vanillin Coumarin, Caramel Color.	Mrs. F. Belling, Appleton.	Mrs. F. Belling, Appleton.	.....	Artificially colored in imitation of vanilla extract.
Feb. 5	Vanilline and coumarine flavor.	Vanilline and Coumarine Flavor, Artificially Colored.	National Tea & Coffee Co., Appleton.	National Tea & Coffee Co., Appleton.	National	Artificially colored in imitation of vanilla extract.

April 21	Vanola	Vanola Composed of Vanillin, Coumarin Sugar and Alcohol.	Monday-Gerlach Co., Milwaukee.	Day-Bergwall Co., Milwaukee.	Mongerco	Artificially colored in imitation of vanilla extract.
April 21	Vanilla Compound....	Watkins' Compound Extract of Vanilla, Vanillin and Coumarin, 11 Oz. Sugar Color.	J. R. Watkins Medical Co., Milwaukee.	J. R. Watkins Medical Co., Winona, Minn.	.....	Artificially colored.
April 21	Vanillin and coumarin flavor.	Watkins Vanillin and Coumarin Flavor.	J. R. Watkins Medical Co., Milwaukee.	J. R. Watkins Medical Co., Winona, Minn.	.....	Properly labeled and contains no coloring matter.
April 21	Imitation vanilla	Imitation of Vanilline, Vanilla Tonka and Coumarin.	D. Rosenheimer, Milwaukee.	.....	Rex	Contains little or no vanilla. Artificially colored in imitation of vanilla extract.
April 21	Van-Cu-Co	Van-Cu-Co. A Flavoring Compound Composed of Artificial Coloring, Vanillin and Coumarin, Sugar, Water and Alcohol.	Krantz Coffee Co., 2206 Walnut St., Milwaukee.	Day-Bergwall Co., Milwaukee.	.....	Artificially colored in imitation of vanilla extract.
April 28	Extract of vanilla and tonka.	Extract Vanilla & Tonka.	E. L. Anderson & Co., Mauston.	Quaker Extract Co., Chicago.	Quaker	Contains little or no vanilla extract.
April 30	Vanelda	Vanelda—Not Vanilla, but a Flavoring Compound Composed of Vanillin, Coumarin, Sugar, Caramel and Alcohol.	Krueger, Huebing & Clement Co., Reedsburg.	E. A. Lange Medical Co., De Pere.	.....	Artificially colored with caramel in imitation of vanilla extract.
May 1	Extract vanilla and tonka.	Extract Vanilla and Tonka. About 75% Alcohol.	C. H. Evenson, Baraboo.	C. H. Evenson, Baraboo.	.....	Passed.
May 5	Vanelda	Vanelda, a Flavoring Compound.	J. J. Stumrider, Fifield.	E. A. Lange Medical Co., De Pere.	Vanelda	Artificially colored in imitation of vanilla extract.
May 6	Compound extract of vanilla, vanillin and coumarin.	Compound Extract of Vanilla, Vanillin and Coumarin, 4½ Oz.	J. R. Watkins Medical Co., Milwaukee.	J. R. Watkins Medical Co., Winona, Minn.	Watkins	Artificially colored with caramel.

FLAVORS AND FLAVORING EXTRACTS—Continued.

Compound Flavors—Continued.

Date.	Bought for.	Labeled.	Bought of.	Manufacturer or Jobber.	Brand.	Remarks.
1914						
May 7	Van-Cu-Co Flavoring Compound.	Van-Cu-Co. A Flavoring Composed of Artificial Vanillin and Coumarin, Sugar Water and Alcohol. 8 Oz. Net Wt. Artificially Colored.	Krantz Coffee Co., 2206 Walnut St., Milwaukee.	Day-Bergwall Co., Milwaukee.	Van-Cu-Co	Artificially colored and flavored in imitation of the color and flavor of vanilla extract.
May 7	Extract of vanillin, vanilla, tonka and coumarin.	Extract Vanillin, Vanilla, Tonka and Coumarin, 2½ oz.	The Monday-Gerlach Tea Co., Milwaukee.	The Monday-Gerlach Tea Co., Milwaukee.	Mongerco	Misbranded. Short measure.
May 14	Extract of vanillin and vanilla.	Extract of Vanillin and Vanilla.	Anckersen-Hansen Co., Oshkosh.	Imperial Vanilla Co., Chicago.	Imperial	Contains little or no vanilla extract. Contains coumarin and artificial color—coal-tar dye.
May 15	Vandello	Vandello, a Flavoring Compound Composed of Artificial Vanillin and Coumarin, Sugar Water and Alcohol.	J. H. Stibbe, Peshtigo.	Day-Bergwall Co., Milwaukee.	.....	Artificially colored in imitation of vanilla extract.
June 10	Vanillin and coumarin	Vanillin and Coumarin Flavor.	Wensink-Stolper Co., Plymouth.	W. T. Rawleigh Medical Co., Freeport, Ill.	.....	Artificially colored with caramel in imitation of vanilla extract.
June 10	Essence vanillin and coumarin.	Compound Essence Vanillin and Coumarin. Artificial Color.	Wensink-Stolper Co., Plymouth.	A. J. Hilbert & Co., Milwaukee	National perfecto...	Artificially colored in imitation of vanilla extract.
June 16	Compound essence of vanillin.	Compound Essence Vanillin.	Gould-Paust Co., Crivitz.	Joannes Bros. Co., Green Bay.	Champion	Contains coumarin. Misbranded. Artificially colored in imitation of vanilla extract.

June 16	Extract vanilla and tonka.	Extract Vanilla and Tonka Compound: Extract Vanilla ⅝, Extract Tonka, ⅛, 2 Oz.	Grand Union Tea Co., Marinette.	Grand Union Tea Co., Brooklyn, N. Y.	.....	True to label.
June 17	Vanilla compound.....	Vanilla, Vanillin and Coumarin.	W. G. Otis, New London.	J. R. Watkins Medical Co., Winona, Minn.	Watkins	Artificially colored to make it appear better or of greater value than it really is.
June 30	Vanillin and coumarin	Compound Vanillin and Coumarin.	E. W. Jaehnig, Fillmore.	Koehler-Clemens Co., Milwaukee.	Superior	Artificially colored in imitation of vanilla extract.
June 30	Vanillin and coumarin	Compound Vanillin and Coumarin, Colored with Caramel.	E. W. Jaehnig, Fillmore.	Riedel Extract Co., Milwaukee.	.....	Artificially colored in imitation of vanilla extract.
June 30	Vanillin and coumarin	Vanillin and Coumarin Flavor.	Christ. Retger, Fredonia, R. 2.	W. T. Rawleigh Medical Co., Freeport, Ill.	.....	Artificially colored in imitation of vanilla extract.
June 30	Vanelda	Vanelda Not Vanilla But a Flavoring Compound Composed of Vanilla, Coumarin and Caramel.	Christ. Retger, Fredonia, R. 2.	E. A. Lange Medical Co., De Pere.	.....	Artificially colored in imitation of vanilla extract.

Other Flavoring Extracts.

Date.	Bought for.	Labeled.	Bought of.	Manufacturer or Jobber.	Brand.	Remarks.
1912 Sept. 10	Orange extract	.....	Landar, Peterson Co., Superior.	.....	.....	Not an orange extract. Contains artificial color.
Oct. 12	Artificial vanilla.....	Artificial vanilla	Tubbs Medicine Co., River Falls.	Tubbs Medicine Co., River Falls.	.....	Contains no vanilla. Artificially colored and flavored in imitation of genuine vanilla extract.
Nov. 1	Essence of wintergreen....	Essence of Wintergreen.	Gimbel Bros., Milwaukee.	.....	.....	Standard.
Nov. 1	Essence of peppermint....	Essence of Peppermint..	Gimbel Bros., Milwaukee.	.....	.....	Standard .....

FLAVORS AND FLAVORING EXTRACTS—Continued.

Other Flavoring Extracts—Continued.

Date.	Bought for.	Labeled.	Bought of.	Manufacturer or Jobber.	Brand.	Remarks.
1913						
July 8	Extract of wintergreen...	Extract of Wintergreen.	John H. Moen, Eau Claire.	Ideal Extract & Bottling Works Co., Eau Claire.	Ideal	Standard .....
July 8	Extract of pineapple.....	Artificial Superior Extract of Pineapple.	John H. Moen, Eau Claire.	Ideal Extract & Bottling Works, Eau Claire.	Ideal	An artificial product, not so sold and labeled.
July 8	Imitation strawberry flavor.	Imitation Strawberry Flavor. 1½ Oz. 60% Alcohol.	August Kuhlmann, Jr., Eau Claire.	McFadden Coffee & Spice Co., Dubuque, Iowa.	Monitor	An artificial product, not so sold and labeled.
July 8	Imitation flavor of strawberry.	Imitation Flavor of Strawberry.	O. H. Johnson, Eau, Claire.	Van Duzer Extract Co., New York.	Standard	An artificial product, not so sold and labeled.
July 8	Extract of peppermint....	Extract of Peppermint, 1 Oz. Full Measure. Standard Quality.	Borgen & Aune, Eau Claire.	Van Duzer Extract Co., New York.	Van Duzer's.....	Standard.
July 8	Imitation flavor of pineapple.	Imitation flavor of Pineapple, 1 Oz. full measure. Standard quality.	Borgen & Aune, Eau Claire.	Van Duzer Extract Co., New York.	Van Duzer's.....	An artificial product, not so sold and labeled.
July 9	Extract of orange.....	Extract of Orange.....	Felix Derouin, Eau Claire.	Ideal Extract & Bottling Co. Eau Claire.	Ideal	Not standard. Contains no oil of orange.
July 9	Extract of almond.....	Extract of Almond, about 50% alcohol, 1 Oz. Full Measure.	Felix Derouin, Eau Claire.	Eddy & Eddy, St. Louis, Mo.	Eddy's Special...	Standard.
July 26	Artificial banana flavor...	Artificial Banana. A Mixture Harmless as a Substitute for Banana Fruit Flavoring.	Harry Olson, Eau Claire.	Jennings Flavoring Extract Co., Grand Rapids.	D. C.	Correctly labeled.
July 26	Imitation raspberry flavor	Imitation Raspberry. Color Trace. Full Weight. 2 Oz.	Grand Union Tea Co., Eau Claire.	Grand Union Tea Co., Brooklyn, N. Y.	.....	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.

July 26	Imitation strawberry flavor.	Imitation Strawberry. Full Weight. 2 Oz.	Grand Union Tea Co., Eau Claire.	Grand Union Tea Co., Brooklyn, N. Y.	.....	An artificial product, not so sold and labeled.
July 26	Artificial strawberry flavor	Artificial Strawberry. A Mixture Harmless as a Substitute for Strawberry Fruit in Flavoring.	Harry Olson, Eau Claire	Jennings Flavoring Extract Co., Grand Rapids, Mich.	D. C.	Correctly labeled.
Aug. 14	Imitation strawberry flavor.	Imitation Strawberry. 1 Oz. Net Weight. Artificial and Colored.	L. H. Leach, Ellsworth.	W. M. Hoyt Co., Chicago.	Revolution	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.
Aug. 22	Essence peppermint.....	Essence Peppermint.	Gimbel Bros., Milwaukee	.....	.....	Standard.
Sept. 10	Raspberry flavor.....	Raspberry Flavor, Imitated, Harmless Vegetable. Artificial Color.	Monat-Deuenow Co., Chippewa Falls.	Price Flavoring Extract Co., Chicago.	Dr. Price's.....	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.
Sept. 10	Pineapple flavor.....	Pineapple Flavor, Imitated Harmless Vegetable. Artificial Color.	Monat-Deuenow Co., Chippewa Falls.	Price Flavoring Extract Co., Chicago.	Dr. Price's.....	An artificial product not so sold and labeled.
1914 April 28	Strawberry flavor	Eddy's Imitation Strawberry. 1 Oz. Full.	Mauston Mercantile Co., Mauston.	Eddy & Eddy Mfg. Co., St. Louis, Mo.	.....	Misbranded as to volume of contents. An artificial product, not so sold and labeled.
April 29	Strawberry flavor.....	Artificial Fruit Flavors. Imitation Strawberry.	A. Marochowsky, Mauston.	Durand & Kasper Co., Chicago.	Rival	An artificial product, not so sold and labeled.
April 29	Pineapple flavor	Artificial Fruit Flavors. Imitation Pineapple.	A. Marochowsky, Mauston.	Durand & Kasper Co., Chicago.	Rival	An artificial product, not so sold and labeled.
May 6	Pineapple flavor	Imitation Pineapple Flavor. Color Artificial.	Smith's Variety Store, Brillion.	Joannes Bros. Co., Green Bay.	.....	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.

FLAVORS AND FLAVORING EXTRACTS—Continued.

Other Flavoring Extracts—Continued.

Date.	Bought for	Labeled.	Bought of.	Manufacturer or Jobber	Brand.	Remarks.
1914						
May 6	Banana flavor	Imitation Banana Flavor. Color Artificial.	Smith's Variety Store, Brillion.	Joannes Bros. Co., Green Bay.	.....	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.
May 6	Raspberry flavor	Imitation Raspberry Flavor. Color Artificial.	Smith's Variety Store, Brillion.	Joannes Bros. Co., Green Bay.	.....	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.
May 12	Pineapple flavor	Imitation Pineapple Flavor. Color Artificial.	A. M. Hoppe, Luxembourg.	Joannes Bros. Co., Green Bay.	.....	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.
May 15	Pineapple flavor	Imitation Pineapple.....	Ellison & Holm, Peshtigo.	Royal Remedy & Extract Co., Dayton, Ohio.	.....	An artificial product, not so sold and labeled.
May 15	Banana flavor	Imitation Banana.....	Ellison & Holm, Peshtigo.	Royal Remedy & Extract Co., Dayton, Ohio.	.....	An artificial product, not so sold and labeled.
May 15	Strawberry flavor	Imitation Strawberry...	Ellison & Holm, Peshtigo.	Royal Remedy & Extract Co., Dayton, Ohio.	.....	An artificial product, not so sold and labeled.
June 16	Imitation raspberry	Imitation Raspberry. Color Trace. Full Weight 2 Oz. Artificially Colored.	Grand Union Tea Co., Marinette.	Grand Union Tea Co., Brooklyn, N. Y.	.....	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.

June 16	Imitation banana	Imitation Banana. Color Trace. Full Weight 2 Oz.	Grand Union Tea Co., Marinette.	Grand Union Tea Co., Brooklyn, N. Y.	.....	An artificial product, not so sold and labeled.
June 18	Imitation banana flavor..	Imitation Banana Flavor. Color Artificial.	Wiechmann & Hoffman, Forest Junction.	Joannes Bros. Co., Green Bay.,	.....	An artificial product, not so sold and labeled. Artificially colored to make it appear better or of greater value than it really is.
June 18	Imitation pineapple flavor.	Imitation Pine Apple Flavor. Color Artificial.	Vollmer & Dohr, Hilbert.	Joannes Bros. Co., Green Bay.,	.....	An artificial product, not so sold and labeled. Colored whereby it is made to appear better or of greater value than it really is.

FLOURS AND MEALS.

Buckwheat Flour.

Date.	Bought of or Submitted by.	Manufacturer or Jobber.	Remarks.
1912			
Dec. 12	Dan Cummings, Iron River.....	Wright's Mills, Berlin.....	Standard.
Dec. 12	Martin Nordan, Ashland.....	Blodgett's Mills, Janesville....	Standard.
Dec. 18	*R. C. Joyce, Stanley.....	.....	Commercially pure.
Dec. 18	*John Schaefer, Muskego.....	.....	Contains foreign starch.
Dec. 24	*August Schmidt, Stetsonville.....	.....	Contains foreign starch.
Dec. 27	*John Schaefer, Muskego.....	.....	Contains foreign starch.
Dec. 30	*John Medley & Son, Fox Lake.....	.....	No adulteration found.
1913			
Jan. 7	*P. E. Cronston, Viola.....	.....	Commercially pure.
Jan. 13	*C. H. Lawrence, Ferryville.....	.....	Commercially pure.
Jan. 15	*Aug. Schmidt, Stetsonville.....	.....	Six samples. None standard.
Jan. 23	*D. Goldberg & Son, Antigo.....	.....	Standard.
Jan. 24	*Frank Sieg, Marathon City.....	.....	Standard.
Mar. 6	*Mrs. P. F. Finner, Cassville.....	.....	Standard.

FLOURS AND MEAL—Continued.

Buckwheat Flour—Continued.

Date.	Bought of or Submitted by.	Manufacturer or Jobber.	Remarks.
1913			
Mar. 18	*F. B. Swingle, Racine		Contains foreign starch.
Mar. 18	*H. West, Evansville		No foreign starch found.
April 3	*L. A. Swiggum, Ferryville		Contains large amount of foreign starch.
Dec. 18	*E. W. Crowley, Steuben		Standard.
Dec. 13	*F. M. Buzzell, Chippewa Falls		Contains about 10% foreign starch.
Dec. 22	*Beemis-Hooper-Hays Co., Oshkosh		Three samples. All standard.
Dec. 29	*B. W. Divers, Fond du Lac		Standard.
Dec. 29	*H. Fulkerson, Watertown		Standard.
1914			
Jan. 14	*B. N. De Remer, Brooklyn		Standard.
Feb. 25	*Mrs. H. Porter, Marshall		Standard.
Mar. 2	*Cylon Elevator Co., Cylon		Standard.
Mar. 9	*B. Shetney, Arkdale		Two samples. Standard.

* Submitted samples.

Flour.

Date.	Bought of or Submitted by.	Manufacturer or Jobber.	Brand.	Remarks.
1913				Standard—
July 14	*M. B. McGinley, Hammond			No evidence of bleaching found.
Nov. 17	T. H. Cochrane Co., Madison	Wells, Abbott & Niemann Co., Schuyler, Neb.	Golden West	No evidence of bleaching found.
Nov. 17	T. H. Cochrane Co., Madison	Wells, Abbott & Niemann Co., Schuyler, Neb.	Puritan	No evidence of bleaching found.
Nov. 20	J. C. Coxe, Whitewater	Wells, Abbott & Niemann Co., Schuyler, Neb.	Puritan	No evidence of bleaching found.
Nov. 20	Jackson & Jackson, Delavan	Wells, Abbott & Niemann Co., Schuyler, Neb.	Puritan	No evidence of bleaching found.
1914				
Feb. 2	Jackson & Jackson, Delavan	Wells, Abbott & Niemann Co., Schuyler, Neb.	Puritan	No evidence of bleaching found.
Feb. 26	*F. Kehl, Markesan			No evidence of bleaching found.
Mar. 14	*Northern Milling Co., Wausau	Northern Milling Co., Wausau		Marked "First clear." Moisture 10.52%.
Mar. 14	*Northern Milling Co., Wausau	Northern Milling Co., Wausau		Marked "Patent." Moisture 11.48%.

* Submitted samples.

Miscellaneous—Submitted Samples.

Date.	Submitted by.	Submitted as.	Remarks.
1914			
Mar. 14	Northern Milling Co., Wausau	Rye flour	Moisture 10.4%.
Mar. 26	Northern Milling Co., Wausau	Whole wheat flour	Moisture 10.78%.
Mar. 26	Northern Milling Co., Wausau	Corn meal	Moisture 15.31%.

GELATIN, GUM AND STARCH MIXTURES.

Used for Desserts or Dessert Fillers.

Date.	Sample of.	Bought of.	Manufacturer or Jobber.	Remarks.
1912				
Aug. 24	Ice Cream Filler	J. Wuench, Viola		Composed essentially of corn starch and cane sugar with a little gum tragacanth.
1913				
Nov. 5	Snow Mellow	Ruger & Symes, Racine	The Hipolite Co., St. Louis	Composed essentially of cornstarch and gelatin.
1914				
June 18	Jelly Powder	Geo. Wolff & Co., Hilbert	Manufacturers' & Retailers' Co., Chicago.	Composed essentially of sugar (86.6%), gelatin (8.2%) acidified with citric acid, artificially colored and flavored. Not a "jelly powder." Misbranded.
June 19	Tryphosa	G. H. Weyenberg, Little Chute	E. C. Rich, New York	Composed essentially of sugar (91.0%) and gelatin (6.0%) slightly acidified with citric acid, flavored and colored.
June 19	Jello-Ice Cream Powder	G. H. Weyenberg, Little Chute	The Genesee Pure Food Co., Le Roy, N. Y.	Composed essentially of sugar (97.6%) and a small percentage of gum tragacanth, flavored with terpeneless lemon oil, and artificially colored.

LARD AND LARD SUBSTITUTE.

Date.	Bought for or Submitted as,	Bought of or Submitted by,	Manufacturer.	Remarks.
1912				
Oct. 11	Lard	M. Pittman, Dresser Junction		Standard.
Oct. 11	Lard	Hansen & Lindall, Cumberland		Standard.
1913				
Feb. 20	Lard	*B. H. Seals, Madison		Standard.
Mar. 6	Cotosuet	W. J. Clark, Evansville	Swift & Co., Chicago.	Essentially a cottonseed oil product, colored with annatto.
Mar. 6	Lard	*Mrs. M. F. Grace, Oshkosh		Not standard. Contains a vegetable oil.
1914				
April 6	Lard	*Wm. Misfeldt, Chippewa Falls		Not standard. Composed essentially of a cottonseed oil product.

*Submitted samples.

LINSEED OILS.

Not Standard.

Found to contain unsaponifiable material,—either a mineral oil product or rosin oil or a mixture of both.

Date.	Bought for.	Bought of.	Manufacturer or Jobber.	5% to 55% unsaponifiable material.	Less than 5% unsaponifiable material.
1912					
June 19	Boiled linseed oil	J. A. Mack, St. Croix Falls			4.91
July 9	Raw linseed oil	Henry Volkman, Kingston		36.0	
July 9	Boiled linseed oil	J. T. Shaw, Kingston	Central Oil Co., Omaha, Neb.	43.4	
July 9	Raw linseed oil	J. T. Shaw, Kingston	Central Oil Co., Omaha, Neb.	46.64	
July 9	Boiled linseed oil	G. Williams, Kingston	Central Oil Co., Omaha, Neb.	37.72	
Nov. 21	Boiled linseed oil	Fred Crane & Son, Marathon City.	Southern States Turpentine Co., Cleveland, O.	33.21	

1913					
Jan. 10	Raw linseed oil	The Cash Mercantile Co., Merrimack.	Central Oil Co., Omaha, Neb	51.0	
Jan. 24	Boiled linseed oil	J. L. Keller Hdw. Co., Marathon City.	White & Hill, Chicago		4.93
April 14	Boiled linseed oil	Farmers' Mercantile Co., Mount Horeb.	The Globe Oil Co., Cleveland, O	35.16	
April 14	Raw linseed oil	Farmers' Mercantile Co.. Mount Horeb.	Central Linseed Oil Co., Omaha, Neb	44.11	
May 13	Boiled linseed oil	Jules Verdecker, Ableman			4.53
May 13	Boiled linseed oil	Fay & Goldecker, Ableman	Chicago White Lead & Oil Co. Chicago		3.21
May 13	Boiled linseed oil	Fred Prehn, Marathon City	Southern States Turpentine Co., Cleveland, O	33.8	
May 22	Boiled linseed oil	J. Ballentine, Mauston			4.41
May 22	Boiled linseed oil	G. M. Frohmader, Camp Douglas	National Linseed Co., Cleveland	12.26	
May 22	Raw linseed oil	Neuzum & Sherman, Hillsboro	Central Oil Co., Omaha, Neb	50.55	
May 22	Raw linseed oil	M. O. Lind, Hillsboro		50.85	
May 22	Boiled linseed oil	M. O. Lind, Hillsboro		42.74	
June 13	Raw linseed oil	E. J. Henry, Basco	Central Linseed Oil Co., Cleveland and Omaha		1.55
June 24	Boiled linseed oil	Prehn & Steiber, Marathon City		24.1	
July 14	Boiled linseed oil	Jerdee & Bakken, Deerfield	Milwaukee Linseed Oil Co., Milwaukee		4.3
July 14	Boiled linseed oil	Kline & Co., Deerfield			2.18
July 16	Boiled linseed oil	A. S. Hamilton, Hancock	O'Neil Oil & Paint Co., Milwaukee		4.05
July 18	Boiled linseed oil	W. W. Connolley, Packwaukee		45.76	
Aug. 12	Boiled linseed oil	Slinde Bros., Monroe		38.5	
Aug. 12	Raw linseed oil	Slinde Bros., Monroe		41.01	
1914					
April 28	Boiled linseed oil	D. F. Smith, Mruston	O'Neil Oil & Paint Co., Milwaukee		3.97
April 29	Boiled linseed oil	Behnken Bros., Mauston	O'Neil Oil & Paint Co.. Milwaukee		4.01
May 4	Boiled linseed oil	August Yahr, Taylor	Central Linseed Oil Co., Cleveland, O	52.4	
May 4	Boiled linseed oil	August Yahr, Taylor	Central Linseed Oil Co., Cleveland, O	48.86	
May 5	Boiled linseed oil	T. G. Anderson & Co., Merrillan	Archer Daniels Linseed Co., Minneapolis		2.58
May 6	Boiled linseed oil	Reinhardt Bros., Brillion	National Linseed Co.. Cleveland, O	21.83	
May 7	Boiled linseed oil	Maertz & Bloedern, Reedsville	Milwaukee Linseed Oil Works, Milwaukee		1.62
May 12	Raw linseed oil	The Duvall Co., Kewaunee	S. D. Stuart Co., Chicago	17.39	
May 12	Boiled linseed oil	The Duvall Co., Kewaunee	S. D. Stuart Co., Chicago	20.24	
May 15	Boiled linseed oil	H. F. Prenzlow, Johnson Creek	Yahr & Lange Drug Co., Milwaukee		4.11
May 15	Boiled linseed oil	Peshtigo Lumber Co., Peshtigo	Milwaukee Linseed Oil Works, Milwaukee	6.00	
May 16	Boiled linseed oil	F. W. Stangel, Tisch Mills	Worel, Zeman & Stangel Co., Manitowoc		2.95
May 18	Boiled linseed oil	M. Martens, Coleman	F. Dohmen Co., Milwaukee		1.19
May 18	Boiled linseed oil	J. H. Duquaine, Coleman	Eastland Linseed Co., Cleveland, O	40.10	
May 28	Raw linseed oil	F. A. Lavell & Co., Shell Lake	Eastland Linseed Co., Cleveland, O	31.04	
May 29	Boiled linseed oil	Hipke Drug Co., Chilton	Milwaukee Linseed Oil Co., Milwaukee		4.46
May 29	Boiled linseed oil	Chilton Hardware Co., Chilton	S. D. Stuart Co., Chicago	27.15	
June 1	Boiled linseed oil	W. A. Kalk, Columbus			4.39

Linseed Oils—Continued.

Not Standard—Continued.

Date.	Bought for.	Bought of.	Manufacturer or Jobber.	5% to 55% unsaponifiable material.	Less than 5% unsaponifiable material.
1913					
June 3	Boiled linseed oil	William Hughes, Pardeeville			2.48
June 3	Boiled linseed oil	J. E. Roberts Co., Cambria	Milwaukee Linseed Oil Co., Milwaukee		2.50
June 5	Boiled linseed oil	John Hughes Hardware Co., Fond du Lac.	Archer Daniels Linseed Co., Minneapolis	5.79	
June 5	Boiled linseed oil	S. S. Squires, Delton		42.36	
June 10	Boiled linseed oil	J. H. Timm Co., Plymouth	D. A. Stuart Co., Chicago	12.67	
June 11	Boiled linseed oil	Woelfel & Weihler, Hayton	O'Neil Oil & Paint Co., Milwaukee		4.40
June 11	Boiled linseed oil	Breckheimer & Raeder, Elkhart Lake.	O'Neil Oil & Paint Co., Milwaukee		4.46
June 16	Boiled linseed oil	P. Dana & Co., Crivitz	Patek Bros., Milwaukee		2.89
June 24	Boiled linseed oil	G. & E. Zick, Denzer			4.80
June 24	Raw linseed oil	G. & E. Zick, Denzer	Central Linseed Oil Co., Omaha, Neb	37.2	
June 24	Boiled linseed oil	Wm. Reuschlein, Plain	Central Linseed Oil Co., Omaha, Neb	45.90	
June 24	Boiled linseed oil	Julius Nold, Blackhawk		33.96	
June 24	Boiled linseed oil	Yaffe & Scholl, White Mounds		51.49	
June 24	Raw linseed oil	Yaffe & Scholl, White Mounds	American Linseed Oil Co., Omaha, Neb	44.30	
June 25	Boiled linseed oil	F. W. Zwieg, Sandusky	Duluth-Superior Linseed Works	20.37	

Standard.

Date.	Bought for.	Bought of.	Manufacturer or Jobber.
1912			
July 9	Boiled linseed oil	Henry Volkman, Kingston	
Aug. 16	Boiled linseed oil	Johnson, Ecklie & Co., Cumberland	Minnesota Lead & Oil Co., Mnpls., Minn.
Sept. 13	Raw linseed oil	Roth Brothers Co., Superior	Minnesota Lead & Oil Co., Mnpls., Minn.
Sept. 13	Boiled linseed oil	Roth Brothers Co., Superior	Minnesota Lead & Oil Co., Mnpls., Minn.

Nov. 21	Boiled linseed oil	C. C. DeLonge & Co., Edgar	Red Wing Linseed Oil Co., Red Wing, Minn.
Nov. 21	Boiled linseed oil	Lemmer Hardware Co., Marathon City	Southern States Turpentine Co., Cleveland, O.
1913			
Jan. 10	Linseed oil	M. J. Kindschi, Merrimack	
Jan. 10	Boiled linseed oil	O'Keefe Bros., Merrimack	
Jan. 10	Raw linseed oil	O'Keefe Bros., Merrimack	
April 4	Boiled linseed oil	E. S. Spears, Bruce	Midland Linseed Products Co., Mnpls., Minn.
May 13	Raw linseed oil	Henry Davis, North Freedom	Interstate Oil Co., La Crosse.
May 13	Boiled linseed oil	J. L. Keller Hardware Co., Marathon City	Wright-Hill Co., Chicago.
May 13	Boiled linseed oil	Aug. Ritger, Marathon City	Red Wing Linseed Oil Co., Red Wing, Minn.
May 14	Boiled linseed oil	R. Connors Co., Stratford	Jas. Patten Co., Milwaukee.
May 14	Boiled linseed oil	Brinkmann-Szebsdat Mercantile Co., Fenwood	
June 13	Boiled linseed oil	M. Lind, Hillsboro	
June 13	Raw linseed oil	M. Lind, Hillsboro	
July 16	Raw linseed oil	Ben Hale Pharmacy, Hancock	
July 17	Boiled linseed oil	L. J. Neuheisel, Montello	O'Neil Paint & Oil Co., Milwaukee.
1914			
April 28	Raw linseed oil	Hansen-Snider Lumber Co., Kilbourn	Red Wing Linseed Co., Red Wing, Minn.
April 28	Raw linseed oil	Martens Bros., Kilbourn	Red Wing Linseed Co., Red Wing, Minn.
April 29	Raw linseed oil	Everybody's Drug Store, Camp Douglas	Yahr & Lange Drug Co., Milwaukee.
April 29	Boiled linseed oil	Ballentine Hardware & Lumber Co., Mauston	Red Wing Linseed Co., Red Wing, Minn.
April 30	Raw linseed oil	Ellenberg & Ost, Reedsburg	
April 30	Boiled linseed oil	Ellenberg & Ost, Reedsburg	
April 30	Boiled linseed oil	C. H. Evenson, Baraboo	American Linseed Co., Chicago.
May 7	Raw linseed oil	Maertz & Bloedern, Reedsville	Spencer-Kellogg & Sons, Buffalo, N. Y.
May 7	Raw linseed oil	E. W. Pautz, Reedsville	Morley-Murphy Hdw. Co., Green Bay.
May 12	Boiled linseed oil	L. J. Englebert, Algoma	Spencer-Kellogg & Sons, Buffalo, N. Y.
May 12	Boiled linseed oil	Kewaunee Hardware Co., Kewaunee	Spencer-Kellogg & Sons, Buffalo, N. Y.
May 12	Raw linseed oil	Kewaunee Hardware Co., Kewaunee	Archer Daniels Linseed Co., Minneapolis.
May 13	Raw linseed oil	F. W. Lidral, Algoma	Wm. F. Zummach, Milwaukee.
May 13	Boiled linseed oil	F. W. Lidral, Algoma	Wm. F. Zummach, Milwaukee.
May 16	Raw linseed oil	F. Shebesta, Tisch Mills	Morley-Murphy Hardware Co., Green Bay.
May 16	Raw linseed oil	F. W. Stangel, Tisch Mills	Worel, Zeman & Stangel Co., Manitowoc.
May 16	Boiled linseed oil	F. Shebesta, Tisch Mills	Dallman & Cooper Supply Co., Fond du Lac.
May 18	Raw linseed oil	M. Martens, Coleman	Sherwin-Williams Co., Cleveland, Chicago.
May 18	Boiled linseed oil	J. H. Duquaine, Coleman	Spencer-Kellogg & Sons, Buffalo, N. Y.
May 19	Boiled linseed oil	H. P. Christ, Wausaukee	Sherwin-Williams Co., Cleveland, Chicago.
May 22	Boiled linseed oil	J. E. Koepenick, North Fond du Lac	
May 22	Boiled linseed oil	J. J. Schantz, N. Fond du Lac	Midland Linseed Co., Minneapolis.
May 26	Raw linseed oil	A. N. Larkin, Black River Falls	Winona Oil Co., Winona, Minn.
May 28	Boiled linseed oil	Geo. Warren Co., Warrens	

LINSEED OILS—Continued.

Standard—Continued.

Date.	Bought for.	Bought of.	Manufacturer or Jobber.
1914			
May 28	Boiled linseed oil	F. A. Lavell & Co., Shell Lake	Spencer-Kellogg Linseed Co., Minneapolis.
May 28	Boiled linseed oil	Tarbox & Neumann, Shell Lake	Archer Daniels & Co., Minneapolis.
May 29	Raw linseed oil	Jos. F. Meyer, Chilton	S. D. Stuart Co., Chicago.
May 29	Boiled linseed oil	Jodar & Hein, Chilton	Morley-Murphy Hdw. Co., Green Bay.
June 3	Boiled linseed oil	Scharf Hardware Co., Pardeeville	.....
May 29	Raw linseed oil	Jodar & Hein, Chilton	Morley-Murphy Hdw. Co., Green Bay.
June 4	Boiled linseed oil	Fisher Bros., Baraboo	.....
June 4	Boiled linseed oil	Lauerman Bros. Co., Marinette	Spencer-Kellogg & Sons.
June 4	Raw linseed oil	Watson Bros. Hdw. Co., Marinette	Northern Hdw. & Supply Co., Menomonie.
June 5	Boiled linseed oil	Frank Leach Hardware Co., Oshkosh	Midland Linseed Products Co., Minneapolis.
June 5	Raw linseed oil	John Hughes Hardware Co., Fond du Lac	Archer Daniels Linseed Co., Minneapolis.
June 8	Boiled linseed oil	Parham's Pharmacy, Necedah	.....
June 9	Boiled linseed oil	Wm. C. Raue & Sons Co., Watertown	Spencer-Kellogg & Sons.
June 9	Boiled linseed oil	The J. B. Murphy Co., Watertown	Midland Linseed Products Co., Minneapolis.
June 9	Raw linseed oil	The J. B. Murphy Co., Watertown	Midland Linseed Products Co., Minneapolis.
June 10	Raw linseed oil	A. N. Larkin, Black River Falls	.....
June 10	Raw linseed oil	Reinhold & Meyer Mfg. Co., Plymouth	Midland Linseed Products Co., Minneapolis.
June 10	Raw linseed oil	Wensink-Stolper Co., Plymouth	Midland Linseed Products Co., Minneapolis.
June 10	Boiled linseed oil	Wensink-Stolper Co., Plymouth	Midland Linseed Products Co., Minneapolis.
June 10	Boiled linseed oil	Gaffron & Leifer, Plymouth	Douglas & Co., Minneapolis.
June 10	Raw linseed oil	Gaffron & Leifer, Plymouth	Douglas & Co., Minneapolis.
June 10	Boiled linseed oil	Reinhold & Meyer Mfg. Co., Plymouth	Midland Linseed Products Co., Minneapolis.
June 10	Raw linseed oil	J. H. Timm Co., Plymouth	Stuart Co., Chicago.
June 16	Boiled linseed oil	H. S. Duquaine, Crivitz	Morley-Murphy Hdw. Co., Green Bay.
June 18	Boiled linseed oil	Ernest F. Roddatz, Hilbert	Wadhams Oil Co., Milwaukee.
June 18	Boiled linseed oil	E. C. Plank, Forest Junction	.....
June 19	Boiled linseed oil	Butler-Dietzler Hdw. Co., Kaukauna	Midland Linseed Products Co., Minneapolis.
June 19	Boiled linseed oil	J. S. Wynboom, Little Chute	Joannes Bros. Co., Green Bay.
June 22	Boiled linseed oil	Glaeden & Hanson, Forward	Alston-Lucas Paint Co., Chicago.
June 22	Boiled linseed oil	T. G. Lingard, Mt Vernon	Midland Linseed Products Co., Minneapolis.
June 23	Boiled linseed oil	Chas. Blum, Roxbury	O'Neil Oil & Paint Co., Milwaukee.
June 23	Boiled linseed oil	Geo. Vesen, Cross Plains	.....
June 24	Raw linseed oil	Wm. Reuschlein, Plain	Central Linseed Oil Co., Omaha, Neb.
June 24	Boiled linseed oil	W. F. Schmalz, Blackhawk	Wright & Hills Linseed Oil Co., Chicago.
June 25	Boiled linseed oil	Ableman Hardware & Implement Co.	Midland Linseed Products Co., Minneapolis.
June 30	Boiled linseed oil	J. H. Klessig & Sons Co., Fredonia	Midland Linseed Products Co., Minneapolis.

Submitted Samples, Standard.

Date.	Kind.	Submitted by.
1912		
Aug. 8	Boiled	Mrs. Samuel Hall.
Oct. 28	Boiled	Martens Bros., Kilbourn.
1913		
May 2	Boiled	S. B. Hawksford, Cylon
May 8	Boiled	J. Solberg, Ashland
June 9	Raw	I. B. Rowell Co., Waukesha
June 23	Raw	Farmers' Store Co., Bloomer
Aug. 6	Raw	A. J. Kull, Ashland
1914		
April 6	Boiled	State Board of Control, Madison
May 6	Raw	A. J. Kull, Ashland
May 21	Boiled	Geo. Imig, Madison

Submitted Samples, Not Standard.

Date.	Kind.	Submitted by.	Remarks.
1912			
July 16	Boiled	John Kelley, Woodman	Contains mineral oil.
July 16	Raw	John Kelley, Woodman	Contains mineral oil.
Sept. 16	Boiled	H. Zschiegner, Portage	Heavily adulterated with mineral oil (41.54%).
Nov. 23	Boiled	C. O. Luce, Hancock	Mineral oil 29.15%.
Dec. 27	Boiled	H. A. Rueter, Burlington	
1913			
Jan. 6		J. Strand, Clayton	
Jan. 16	Boiled	Paragon Oil & Supply Co., Oshkosh	Contains 10.96% mineral oil and 6.75% rosin oil.
April 5	Boiled	P. J. Stevens, Cylon	Contains 29.76% mineral oil.
May 8	Boiled	J. Solberg, Ashland	
May 26	Boiled	Ed. Rood, Blanchardville	

LINSEED OILS—Continued.

Submitted Samples, Not Standard—Continued.

Date.	Kind.	Submitted by.	Remarks.
1913			
July 29	Boiled	Wm. Smith, Waukesha	Heavily adulterated with a mineral oil product.
Aug. 1	Raw	O. A. Klenert, Portage	Contains 16% of mineral oil.
Aug. 19		D. E. McDonald, Oshkosh	Contains 28% of a mineral oil product.
Sept. 15		G. W. Hyink, Cedar Grove	Heavily adulterated with mineral oil.
Sept. 20	Boiled	R. J. Goul, Waukesha	Contains 29% of mineral oil.
1914			
Mar. 11		G. B. Gilbertson, Morrisonville	Contains 36% of mineral oil.
April 23	Boiled	O'Neil Oil & Paint Co., Milwaukee	Contains 19% of mineral oil.
May 27	Boiled	W. R. Chappell, Eau Claire	Contains 0.95% of mineral oil.

MISCELLANEOUS FOODS.

Free from Adulteration and Properly Labeled.

Date.	Sample of.	Bought of or Submitted by.	Manufacturer or Jobber.
1912			
Dec. 20	Egg Noodles	J. McNamara, Madison	Lorenz Brothers Macaroni Co., Milwaukee.
1913			
Feb. 17	Coffee	Northwestern Tea Co., Fond du Lac	
April 25	Coffee	Fox Lake Hotel, Chas Voy, Prop., Fox Lake	
May 22	Fresh strawberries	*Dr. J. H. Lee, Iola	
July 9	Juice of lemon	Felix Derouin, Eau Claire	Veeko Process Co., London, Sicily, New York.
July 16	Sour pickles (Deerfield brand)	E. E. Ostrum, Hancock	Wm. Henning Co., Chicago.
Aug. 2	Egg Noodle Figures	A. Dernehl, Milwaukee	
Nov. 25	Smoked fish	*H. C. Thompson, Medford	
Nov. 28	Japan rice	*H. C. Larson, Madison	Loverin & Browne Co., Chicago.
1914			
Feb. 28	Wheat Bran Breakfast Food	*Findlay & Co., Madison	
June 3	Ground coffee	Chas. Neuquist, Florence	J. H. Bell & Co., Chicago.
June 3	Tea	Chas. Neuquist, Florence	The Woolson Spice Co., Toledo, O.

* Submitted sample.

Adulterated or Misbranded.

Date.	Sample of.	Labeled.	Brand	Bought of or Submitted by.	Manufacturer or Jobber.	Remarks.
1912 Sept. 10	Sweet mixed pickles.	.002% aluminum sulphate used.	Baby	Geo. Evans, Superior.	Gowan-Peyton-Congdon Co., Duluth.	Contains alum. Not so labeled.
Dec. 24	Rice	.....	.....	*Fromm Bros., Hamburg.	.....	Polished and coated with talc. Not standard.
Dec. 28	Dressed poultry...	.....	.....	Paul La Lound, Eau Claire.	.....	Fowl showed evidence of having died otherwise than by slaughter. Not fit for food.
1913 Feb. 20	Raspberry jam compound.	Made with approximately 45% corn syrup, 35% fruit juice from apple trimmings, 20% granulated sugar. Contains added phosphoric acid.	Marmo	Lahti & Kuorikoski, Superior.	Corn Products Refining Co., N. Y.	Contains added phosphoric acid.
Feb. 20	Fruit preserves....	Strawberry flavor made of apple juice from trimmings—strawberry, sugar and 1-10 of 1% citric acid.	Giant	Lahti & Kuorikoski, Superior.	Gowan-Peyton-Congdon Co., Duluth.	Contains added citric acid.
June 10	Juice of lemon....	Contents 4 oz.	Veeko	National Grocery Co., Oconto.	Veeko Process Co., London, Sicily, New York.	Misbranded as to contents. Short measure.
1914 Feb. 25	Oysters	.....	.....	J. E. Trainor, Madison.	....	Sample sour. Liquid cloudy, indicating partial decay.
Feb. 26	Oysters	.....	.....	J. E. Trainor, Madison.	.....	Sample sour. Liquid cloudy, indicating partial decay.
June 4	Sweet cocoa	.....	L. G.	Lemke-Gerlach Tea Co., Marinette.	Lemke-Gerlach Tea Co., Marinette.	Contains numerous small insects.

* Submitted sample.

MISCELLANEOUS FOODS—Continued.

Suspected of Containing Poison.

Date.	Sample of.	Bought of or Submitted by.	Remarks.
1912			
Oct. 4	Candy	*B. M. Vaughan, Grand Rapids	Tested for arsenic and strychnine. None found.
Dec. 28	Candy	*John Marx, Eau Claire	Tested for arsenic. None found.
1913			
Jan. 3	Burnt peanut candy	The Independent Five-and Ten-Cent Store, Eau Claire.	Tested for arsenic. None found.
Aug. 8	Candy	*W. H. Elkinton, Eleva	Tested for lead chromate and arsenic. None found.
Oct. 17	Brick cheese	*Dr. Henry A. Pfeifer, Jackson	Tested for ptomaines. None found.
Oct. 29	Cheese	*H. R. Moldenhauer, Watertown	Chemical tests show presence of an alkaloidal substance indicating presence of ptomaines. Solution injected into guinea pigs caused death in each case.
Nov. 7	Cheese	*Dr. W. J. Wehle, West Bend	Chemical test for ptomaines negative.
1914			
Jan. 23	Brick cheese	*H. R. Moldenhauer, Watertown	Chemical test for ptomaines negative.
June 4	Candy	*Dr. C. O. Cron, Camp Douglas	Tested for arsenic. None found. Candy highly flavored with artificial flavors. Sample too small for adequate tests.

*Submitted sample.

OLEOMARGARINE.

Held to be in Semblance of Yellow Butter.

Date.	Bought of.	Manufacturer or Jobber.
1912		
Nov. 13	Charles Hess, Milwaukee	
Dec. 18	Frank S. Dhooge, Ashland	Sulzberger & Sons Co.
1913		
Jan. 14	J. Nissenbaum, Merrill	Swift & Co., Chicago.
Jan. 14	Peterman Bros., Merrill	Swift & Co., Chicago.
Jan. 14	Freda Meyer, Merrill	Armour & Co., Chicago.
Jan. 15	H. Harris, Merrill	Swift & Co., Chicago.
Jan. 16	D. C. Jones, Tomahawk	Swift & Co., St. Paul.
Jan. 28	Peterman Bros., Merrill	Swift & Co., St. Paul.

OLIVE OIL.

Standard.

Date.	Bought of or Submitted by.	Manufacturer or Jobber.	Brand.
1912			
Sept. 10	Geo. Evans, Superior	Cowan-Peyton-Twohy Co., Duluth, Minn	Honor.
Dec. 28	*Joseph Savone, Madison		
1913			
July 12	Wm. A. Oppel, Madison		
July 21	Findlay & Co., Madison	Pompeian Company, Washington, D. C	Pompeian.
July 23	Findlay & Co., Madison	Pompeian Company, Washington, D. C	Pompeian.
Aug. 22	Gimbel Brothers, Milwaukee		
1914			
April 23	F. M. Bielowski, Milwaukee	Roundy, Peckham & Dexter Co., Milwaukee	Chateaux.
April 23	Kostrivas & Damouras, Milwaukee		Athene.
May 29	Knauf & Tesch Co., Chilton		
June 4	Thos. Hornibrook, Marinette	Ackerman & Tuffley, N. San Diego, Cal	Old Mission.
June 16	V. A. Lundgren, Marinette		

*Submitted sample.

PACKAGE GOODS

Weighed or Counted to Check Labels.

Kind.	Manufacturer or Jobber.	Labeled.	Remarks.
Shredded Whole Wheat	Shredded Wheat Co., Niagara Falls, N. Y.	Net Weight of Contents 12 ozs.	Three samples. All full weight.
Pettijohns Breakfast Food	The Quaker Oats Co., Chicago	Weight 1 lb. 8 oz. Net	Two samples. One 10-32 oz. short; one 1 oz. short.
Pettijohns Breakfast Food	The Quaker Oats Co., Chicago	Net Weight 24 oz	Three-fourths oz. short.
Ralston's Wheat Food	Ralston Purina Co., St. Louis	Net Weight 16 oz	Three samples. All full weight.
Puffed Rice	The Quaker Oats Co., Chicago	Weight 6 oz. Net	Five samples. All full weight.
Cream of Wheat	Cream of Wheat Company, Minneapolis.	Net Weight when it leaves factory not less than 28 ozs.	Three samples. One full weight. One 1 1-32 oz. short. One 27-32 oz. short.
Educator Wafers	Johnson Educator Food Co., Boston.	Weight 4 to 5 oz. 42 to 46 wafers	Net weight 4 oz. Count 44 wafers.
Educator Wafers	Johnson Educator Food Co., Boston.	Weight 12 to 14 oz. 125 to 130 wafers	Net weight 11½ oz. Count 95 wafers.
Toasted Corn Flakes	Kellogg Toasted Corn Flake Co., Battle Creek, Mich.	Average Net Wt. 10½ oz.	Three samples. All full weight.
Cheese Wafers	L. Iten & Sons, Clinton, Iowa	Weight 4¼ oz. 38 Biscuits	Full weight and count.
Cheese Wafers	Loose-Wiles Biscuit Co., Boston	Net Weight 4 to 6 oz.	Net weight 5⅛ oz.
Quaker Rolled White Oats	The Quaker Oats Co., Chicago	Net Weight 1 lb. 6 oz.	Three samples. One full weight. One 1 7-32 oz. short. One ½ oz. short.
Cooked Rolled Oats	The Cooked Rolled Oats Co., Chicago		Two samples. One weighed 1 lb ¼ oz. One weighed 1 lb. 3-8 oz.
Graham Crackers	The National Biscuit Co., New York	Average Contents Weight 3 oz. 32 Biscuits.	Full weight and count.
Graham Crackers	The National Biscuit Co., New York	Average Contents Weight 8½ oz. 30 Biscuits.	Full weight and count.
Coffee (Bell brand)	J. H. Bell & Co., Chicago	One lb. Net Weight	Full weight.
Coffee (Marco brand)	Manufacturers' & Retailers' Co., Chicago.	One lb. Net Weight	Full weight.
Coffee (Mex-O-Ja brand)	Arbuckle Bros., Chicago	Net Weight 1 lb	Full weight.
Coffee (Revere brand)	The Howard W. Spurr Coffee Co., Boston.		Net weight 1¾ oz.
Ginger Snaps	Johnson Educator Food Co., Boston.	Weight 6 to 8 oz. 35—40 Snaps	Net weight 4¾ oz. Count 39.
Ginger Snaps	L. Iten & Sons, Clinton, Iowa	Minimum Net Wt. 4¼ oz	Full weight.
Uneeda Ginger Wafers	National Biscuit Co., New York	Average Contents Wt. 6 oz. 45 Biscuits	Full weight and count.

Cameo Biscuit	National Biscuit Co., New York	Contents Average Wt. 5½ oz. 18 Biscuits.	Full weight and count.
Tea Biscuit	National Biscuit Co., New York	Contents Average Wt. 6¼ oz., 34 Biscuits.	Full weight. Count 32.
Arrowroot Biscuit	National Biscuit Co., New York	Contents Average Weight 6¼ oz., 32 Biscuits.	Full weight and count.
Saltine Biscuit	National Biscuit Co., New York	Contents Average Wt. 5¼ oz., 44 Biscuits.	Full weight and count.
Uneeda Biscuit	National Biscuit Co., New York	Average Contents 4¾ oz., 22 Biscuits..	Full weight and count.
Malt Breakfast Food	The Malted Cereals Co., Burlington, Vt.		Net weight 1 lb. 15 23-32 oz.
Society Flakes	L. Iten & Sons, Clinton, Iowa	Minimum Net Wt. 9¼ oz	¾ oz. short.
Hearts of Barley Flakes	Minnesota Barley Cereal Co., Minneapolis.	10 oz. Full Wt	Two packages. One full weight. One ½ oz. short.
Fairy Soda Crackers	L. Iten & Sons, Clinton, Iowa	Minimum Net Wt. 10 oz	Full weight.
Oatmeal Crackers	National Biscuit Co., New York	Average Contents Wt. 9 Oz., 30 Biscuits.	Full weight and count.
Royal Toast	National Biscuit Co. New York	Average Contents Wt. 8¼ oz., 22 Biscuits.	Full weight. Count 21.
Toasterette Wafers	Johnson Educator Food Co., Boston..	Weight 11 to 14 oz., 125 to 135 pieces...	Full weight. Count 113.
Sugar Wafers	Loose-Wiles Biscuit Co., Boston	Contents Average Wt. 2¼ oz., 29 Wafers.	Full weight and count.
Lemon Snaps	National Biscuit Co., New York	Contents Average Wt. 4 oz., 27 Biscuits	Full weight and count.
Nabisco Wafers	National Biscuit Co., New York	Contents Average Wt. 2¾ oz., 29 Nabiscos.	Full weight and count.
Ralston Health Flour	Topeka Milling Co., Topeka, Kans....	Weight 24 oz. Net when packed	11-16 oz. short.
Pretzelettes	National Biscuit Co., New York	Contents Average Wt. 7 oz., 35 Biscuits.	Full weight and count.
Chocolate Tokens	National Biscuit Co., New York	Contents Average Wt. 6 oz., 16 Tokens	Full weight and count.
Fig Newtons	National Biscuit Co., New York	Contents Average Wt. 8½ oz., 15 Biscuits.	⅝ oz. short. Full count.
Celebrated Zwiebach Toast	National Biscuit Co., New York	Contents Average Wt. 6½ oz., 24 Biscuits.	Full weight and count.

SACCHARINE PRODUCTS.

Maple Syrup and Maple Syrup Mixtures.

Date.	Bought for.	Labeled.	Brand.	Bought of.	Manufacturer or Jobber.	Remarks.
1912						
Dec. 27	Maple syrup.....	Pure Maple Syrup.....	Native Purity....	Taylor Bros., Janesville	The F. N. Johnson Maple Syrup Co., Bellefontaine, O.	Contains an excessive amount of water. Not standard.
Dec. 27	Maple syrup.....	Pure Maple Sap Syrup..	Autumn Leaf....	Wm. J. Rothermel, Janesville.	The F. N. Johnson Maple Syrup Co., Bellefontaine, O.	Standard.
1913						
Feb. 8	Maple syrup.....	Pure Maple Sap Syrup..	Hiawatha	S. W. Hines Mercantile Co., Cumberland.	Stone-Ordean-Wells Co., Duluth, Minn.	Contains more than 32% of water. Not standard.
Feb. 20	Sugar and maple syrup.	Sugar and Maple Syrup	Commercial Club	Edward Larson, Superior.	Minnesota Maple Syrup Co., Duluth, Minn.	Passed.
Feb. 28	Sugar syrup and maple syrup.	Sugar Syrup and Maple Syrup; 50 Maple and 50 Cane.	Log Cabin.....	J. Novick, Madison.....	The Towle Maple Products Co., St. Paul, Minn.	Proportions not correctly stated. Misbranded.
Mar. 3	Maple syrup.....	Pure Maple Syrup.....	Native Purity....	Pelletier & Paquette, Chippewa Falls.	The F. N. Johnson Maple Syrup Co., Bellefontaine, O.	Standard.
Nov. 20	Maple syrup.....	Maple Syrup	Gold Bond.....	Evans Bros., Oshkosh.	The F. N. Johnson Maple Syrup Co., Bellefontaine, O.	Contains more than 32% of water. Not standard.
Dec. 12	Maple syrup.....	Pure Maple Syrup.....	.....	M. Pederson & Co., Hudson.	National Syrup Co., St. Joseph, Mo.	Contains more than 32% of water. Not standard.
Dec. 18	Maple syrup.....	Pure Maple Syrup.....	T. E. M. Co.....	The C. S. Nelson Co., Spooner.	Twohy-Eimon Merc. Co., Superior.	Standard.
1914						
Jan. 8	Maple syrup.....	Pure Maple Syrup.....	None Such	S. N. Van Gorden & Sons Co., Osseo.	McNeil & Higgins Co., Chicago.	Standard.
April 27	Sugar and maple syrup.	Sugar Syrup and Maple Syrup.	Crest	A. W. Elliott & Co., Kilbourn.	Edward Dewey & Co., Milwaukee.	Passed.
June 10	Maple syrup.....	Maple Syrup	.....	Wensink-Stolper, Plymouth.	.....	Standard.

Maple Sugar and Maple Syrup—Submitted Samples.

Date	Sample of.	Submitted by.	Remarks.
1912			
July 15	Maple syrup	John Larsen, Endeavor	Standard.
July 28	Maple syrup	Wm. Maasz, Helenville	Standard.
July 28	Maple syrup	Wm. Maasz, Helenville	Standard.
Sept. 9	Maple syrup	J. Handy, Richland Center	Not standard. Contains an excessive amount of water.
1913			
Jan. 7	Maple syrup	O. A. Solom, Northland	Standard.
April 1	Maple syrup	J. A. Perkins, Clintonville	Standard.
April 16	Maple sugar	J. G. Eastman, Valley	Standard.
April 16	Maple syrup	L. C. Tonne, Shawano	Not standard. Contains an excessive amount of water.
April 25	Maple syrup	H. B. Weiland, Grand Rapids	Not standard. Contains an excessive amount of water.
May 9	Maple syrup	Unity Mercantile Co., Unity	Standard.
May 15	Maple syrup	Dr. Rodecker, Holcombe	Standard.
May 27	Maple syrup	J. H. Wolfenden, Wonewoc	Standard.
Sept. 22	Maple syrup	Charles Much, Berlin	Standard.
Sept. 29	Maple syrup	W. R. Meyer, Oshkosh	No adulteration found. Flavor of syrup indicates scorching.
1914			
April 21	Maple syrup	W. J. Ebert, Merrill	Standard.
April 24	Maple sugar	I. P. Tiffault, Marshfield	Standard.
April 24	Maple sugar	I. P. Tiffault, Marshfield	Standard.
April 29	Maple syrup	Tilda Hanson, Emerald	Standard.
May 7	Maple syrup	H. Pigott, Loyal	Not standard. Contains an excessive amount of water.

SACCHARINE PRODUCTS—Continued.

Honey—Standard.

Date.	Bought of or Submitted by.	Manufacturer or Jobber.
1912		
Oct. 14	Wm. Filter, Madison	E. Meyer, Madison.
Oct. 14	F. Schenk, Madison	E. R. Pahl, Milwaukee.
Oct. 14	B. Nessvig, Madison	E. Meyer, Madison.
Oct. 14	Bigelow Grocery, Madison	E. Meyer, Madison.
Oct. 14	E. N. Jacobson, Madison	Sprague, Warner & Co., Chicago.
Oct. 14	A. C. Mills, Madison	Mr. Bareis, Madison.
Oct. 14	J. Feldman, Madison	E. Meyer, Madison.
Oct. 15	J. E. McCarthy, Madison	McNeil & Higgins Co., Chicago.
Oct. 15	M. Jensen, Madison	L. Post, Madison.
Oct. 15	J. McNamara, Madison	Gould, Wells & Blackburn Co., Madison.
Oct. 15	K. A. Bibbs, Madison	A. L. Reed, Barnum.
1913		
April 1	*J. J. Hein, Gotham	
1914		
Jan. 13	*J. M. Bienfang, Jefferson	
Jan. 22	*Baer & Greengo, Menomonee Falls	
Jan. 23	*James Gary, Ladysmith	
Jan. 28	*Miss G. Esselman, Marshfield	
Feb. 9	*Geo. Jerome, Jefferson	
Feb. 17	*Pick Bros. Co., West Bend	
Mar. 17	*Northern Hospital for the Insane, Winnebago	
April 30	Wintermantel Bros., Reedsburg	A. L. Klebes, Reedsburg.
May 16	C. A. Wojta, Mishicot	John Cochems, Mishicot.
May 19	Zeisler & Kotick, Florence	Elias E. Coveyon, Petosky, Mich.
May 29	Knauf & Tesch Co., Chilton	Andrew Stevens, Stockbridge.
June 16	V. A. Tundgren, Marinette	Lehn & Fink, New York.

Miscellaneous.

Date.	Kind.	Labeled.	Bought of or Submitted by.	Manufacturer or Jobber.	Brand.	Remarks.
1913 Oct. 17	Sugar	.....	*Mrs. A. J. Michels, Strum.	.....	.....	No adulteration found.
Nov. 10	Sorghum syrup.	.....	*Everette Baker, Bridgeport.	.....	.....	Contains an abnormally high percentage of ash.
Nov. 15	Sorghum	.....	*Everette Baker, Bridgeport.	.....	.....	No adulteration found.
Nov. 28	Sugar	.....	*H. C. Larson, Madison	Loverin & Browne Co., Chicago.	.....	No adulteration found.
Dec. 12	Sorghum	Pure Missouri Sorghum	M. Pederson, Hudson..	National Syrup Co., St. Joseph, Mo.	.....	Contains an abnormally high percentage of ash.
1914 Jan. 30	Syrup	Independent Syrup.....	Independent 5- and 10-Cent Store, Eau Claire.	Independent 5- and 10-Cent Store, New York City.	Independent	No adulteration found.
Feb. 19	Sugar	.....	*Mrs. Jennie E. Reynolds, Wausau.	.....	.....	From bottom of maple syrup container. Found to be pure sucrose crystallized from the syrup.
Jan. 27	Sugar	.....	*E. M. Rideout, Bruce..	.....	.....	Found to contain a trace of insoluble matter too small to be identified.
1914 April 22	Cane syrup....	Crystal Domino Pure Cane Sugar Syrup.	Zeeman Grocery Co., Milwaukee.	American Sugar Refining Co., Jersey City, N. J.	N. J.	Not a pure cane sugar syrup. Misbranded.
April 23	Imitation maple syrup	Maple Syrup Imitation.	Kostrivas & Damomas, Milwaukee.	.....	Athene	Sugar syrup colored and flavored in imitation of maple syrup.
June 22	Powdered sugar	Powdered Sugar Contains 3% starch, 97% sugar.	J. C. Ronnold, Perry...	Hirsh Bros. Co., Chicago.	Reliance	Not powdered sugar. A mixture of powdered sugar with starch. Misbranded as to weight of contents.

SAUSAGE.

Bought for Sausage—Found to Contain More Than 4% of Cereal.

Date.	Bought of.	Labeled.	Remarks.
1913			
Jan. 27	Buehler Bros., Milwaukee		Two samples.
Mar. 12	Buehler Bros., Milwaukee		
April 4	Buehler Bros., Milwaukee		Contains added water.
1914			
Feb. 18	Joseph Pahle, West Allis		
June 25	Ed. Westenhaver, Loganville	Bologna sausage	

Bought for Sausage—Found to be Sausage with Cereal—Less than 4% of Cereal.

1913			
Feb. 26	Wm. Barnes, Edgerton	Sausage with cereal added.	
1914			
Feb. 18	Honrath Bros., West Allis		
May 14	Hupford's Meat Market, Sturgeon Bay	Sausage	
June 18	Wm. Brochtrup, Forest Junction	Bologna sausage with water and cereal.	

Bought for Sausage—Found to be Free from Adulteration.

1913			
Dec. 22	*F. A. Mass, Shiocton		
1914			
Feb. 18	Joseph Holub, West Allis		
June 18	Walter Gessert, Hilbert	Bologna sausage	

*Submitted sample.

SPICES.

Date.	Kind.	Bought of or Submitted by.	Manufacturer or Jobber.	Brand.	Remarks.
1912					
Sept. 11	Ground pepper	Cronstrom & Skoglund, Superior..			Standard.
Nov. 21	Black pepper	Slepyan, Buntman & Co., Edgar.			Standard.
Nov. 21	Black pepper	A. Silverman & Co., Marathon...			Standard.
1913					
Jan. 27	Ground mustard	*M. A. Schmitz, Boyd, R. 2			No adulteration found.
1914					
June 4	Cloves	Lemke-Gerlach Tea Co., Marinette	Monday-Gerlach Tea Co., Milwaukee.	Mongereo	Standard.
June 4	Cinnamon	Lemke-Gerlach Tea Co., Marinette	Aberdeen Coffee & Specialty Co., Aberdeen, S. D.	Aberdeen	Standard.
June 4	Mustard	Lemke-Gerlach Tea Co., Marinette	Monday-Gerlach Tea Co., Milwaukee.	Mongereo	Standard.
June 4	Ginger	Lemke-Gerlach Tea Co., Marinette	Monday-Gerlach Tea Co., Milwaukee.	Mongereo	Standard.

*Submitted sample.

TURPENTINE.

Not Standard.

Date.	Bought of or Submitted by.	Manufacturer or Jobber.	Per cent mineral oil product.
1913			
Jan. 17	*F. J. and A. H. Smith, Merrill		25.6
Aug. 21	Raphael Soquet, Green Bay		24.0
Aug. 22	B. Fountaine Hardware Co., Green Bay		28.5
Aug. 22	Van Veghel Bros., Green Bay		10.0
Dec. 23	*W. D. Cook Hardware Co., Green Bay		
1914			
April 13	*R. J. Gaul, Waukesha		36.0
May 6	Oestereich Bros., New London	Wadhams Oil Co., Milwaukee	14.0
May 13	Gensch Hardware Co., Omro, Wis.		6.4
May 19	E. W. Peterson, Florence	Southern States Turpentine Co., Cleveland, Ohio	40.0
June 4	Lauerman Bros. Co., Marinette	S. D. Stuart Co., Chicago	17.5
June 10	Reinhold & Meyer Mfg. Co., Plymouth	Geo. R. Linnes & Co., Chicago	24.0
June 26	Wm. Reuschlein, Plain	Gould, Wells & Blackburn, Madison	26.5

*Submitted sample.

TURPENTINE—Continued.

Standard.

Date.	Bought of.	Manufacturer or Jobber.
1913		
June 24	Prehn & Steiber, Marathon City	
Sept. 25	W. D. Cooke, Green Bay	
Sept. 25	B. Fontaine Hardware Co., Green Bay	American Naval Stores Co., Chicago.
Sept. 26	White Cross Pharmacy, Oshkosh	Taylor, Lowenstein & Co., Mobile, Ala.
Sept. 26	Stroud & Co., Oshkosh	American Naval Stores Co., Chicago.
Sept. 26	E. A. Horn, Oshkosh	American Naval Stores Co., Chicago.
Sept. 26	Ira Parker & Sons Paint Co., Oshkosh	Stroud & Co., Oshkosh.
		Ira Parker & Sons Co., Oshkosh.
1914		
May 6	Virchow Drug Co., New London	
May 6	Reinhardt Bros., Berlin	
May 7	Maertz & Bloedern, Reedsville	Pittsburgh Plate Glass Co., Milwaukee.
May 12	Kewaunee Hardware Co., Kewaunee	Wadhams Oil Co., Milwaukee.
May 14	Stroud & Co., Oshkosh	Morley-Murphy Hardware Co., Green Bay.
May 16	Stelzer & Krieck, Mishicot	
May 18	M. Martens & Sons, Pound	
May 19	Laun Hardware Co., Wausaukee	Royal Remedy & Extract Co., Dayton, O.
May 29	Jos. F. Meyer, Chilton	Taylor, Lowenstein & Co., Mobile, Ala.
May 29	Hipke Drug Co., Chilton	
June 5	Frank Leach Hardware Co., Oshkosh	Taylor, Lowenstein & Co., Mobile, Ala.
June 5	John Hughes Hardware Co., Fond du Lac	Stroud Oil & Paint Co., Oshkosh.
June 9	The J. B. Murphy Co., Watertown	Standard Oil Co.
June 10	Wensink-Stolper Co., Plymouth	Midland Linseed Products Co., Minneapolis.
June 11	Nametz & Matthias, Elkhart Lake	
June 16	V. A. Lundgren, Marinette	
June 18	R. Ruppenthal, Hilbert	
June 19	J. S. Wynboom, Little Chute	
June 22	Koch Bros., Mount Vernon	Joannes Bros. Co., Green Bay.
		H. M. Hooker Co., Chicago.

VINEGARS.

Cider Vinegar—Not Standard.

(Results are expressed in grams or cubic centimeters in 100 cubic centimeters.)

Sample Number	Sp. Gr. at 20° C.	Total solids g ns.	Acid as acetic gms.	Ash gms	Soluble alkalinity of ash in ccs of n-10 acid	Insoluble alkalinity of ash in ccs. of n-10 acid	Total phosphoric acid as P_2O_5 gms.	Reducing sugars before evaporation and inversion gms.	Reducing sugars after evaporation and before inversion gms.	Reducing sugars after evaporation and inversion gms.	Glycerol gms.	Volatile reducing bodies gms.	Polarization
1	1.0130	1.94	4.21	0.2692	31.2	10.8	0.0158	0.8582	0.6736	0.6748	0.1154	0.1816	levo.
2	1.0139	2.088	4.18	0.2752	28.6	11.2	0.0202	0.9299	0.7544	0.7584	0.1636	0.1755	levo.
3	1.0145	2.17	4.4	0.3212	29.4	11.6	0.0170	0.8953	0.7712	0.7920	0 2316	0.1241.	levo.
4	1.0131	1.85	4.45	0.3548	36.9	10.0	0.0337	0.8521	0.7632	0.7712	0.1166	0.0889	levo.
5	1.0148	2.22	5.01	0.3268	31.6	10.0	0.0220	0.9555	0.8784	0.8960	0.1724	0.0771	levo.
6	1.0136	2.084	4.30	0.2620	28.8	10.4	0.0165	0.8240	0.7712	0.7752	0.2382	0.0528	levo.
7	1.0134	1.777	4.87	0.2836	32.4	9.6	0.030	0.7724	0.6918	0.6816	0.1366	0.0864	levo.
8	1.0137	2.118	4.08	0.2900	28.8	14.6	0.0146	0.8528	0.7968	0.8208	0.1102	0.0560	levo.
9	1.0117	1.578	4.4	0.2744	31.2	9.2	0.0301	0.6716	0.6070	0.6184	0.1440	0.06464	levo.
10	1.0122	1.635	4.56	0.2816	32.8	9.6	0.0307	0.74304	0.60896	0.6640	0.1646	0.08906	levo.
11	1.0116	1.616	4.23	0.2756	32.0	9.2	0.0329	0.7960	0.7906	0.7404	.....	0.0864	levo.
12	1.0141	2.171	4.20	0.3236	36.8	12.0	0.0200	0.7584	0.6808	0.6944	0.2236	0.0776	levo.

Conclusions:

Sample No. 1. Low in glycerol. Percentage of reducing sugars in total solids is abnormally high.

Sample No. 2. Very low in glycerol. Percentage of reducing sugars in total solids is abnormally high.

Sample No. 3. Glycerol slightly below normal. Percentage of ash in nonsugars is abnormally high. Percentage of reducing sugars in total solids is abnormally high.

Sample No. 4. Very low in glycerol. Volatile reducing bodies are very low. Percentage of ash in the nonsugars is abnormally high. Percentage of reducing sugars in the total solids is abnormally high.

Sample No. 5. Low in glycerol. Volatile reducing bodies are very low. Percentage of ash in the nonsugars is abnormally high.

Sample No. 6. Glycerol slightly below normal. Volatile reducing bodies are very low. Percentage of reducing sugars in total solids is too high.

Sample No. 7. Glycerol very low. Volatile reducing bodies very low. Percentage of ash in nonsugars abnormally high. Percentage of reducing sugars in total solids abnormally high.

Sample No. 8. Glycerol very low. Volatile reducing bodies very low. Total phosphoric acid very low. Percentage of reducing sugars in total solids not abnormally high.

Sample No. 9. Glycerol very low. Total solids below legal standard. Volitile reducing bodies very low. Percentage of ash in the nonsugars abnormally high. Percentage of reducing sugars in the total solids abnormally high.

Sample No. 10. Glycerol very low. Volatile reducing bodies very low. Percentage of ash in the nonsugar solids abnormally high. Percentage of reducing sugars in the total solids abnormally high.

Sample No. 11. Volatile reducing bodies very low. Percentage of ash in the nonsugars abnormally high. Percentage of reducing sugars in the total solids not abnormally high.

Sample No. 12. Glycerol slightly below normal. Volatile reducing bodies very low.

VINEGARS—Continued.

Cider Vinegar—Standard.

Date.	Bought of or Submitted by.	Manufacturer or Jobber.
1913		
Oct. 30	Walther & Fredrickson, Oconomowoc	Sprague, Warner & Co., Chicago.
Oct. 30	Walther & Fredrickson, Oconomowoc	H. J. Heinz Co., Pittsburg.
1914		
Jan. 15	Herring & Gluch, Lodi	M. A. Gedney Co., Minneapolis and St. Paul.
Mar. 3	*Dr. R. Fischer, Madison	

*Submitted sample.

Wine Vinegar—Not Standard.

Date.	Bought of.	Manufacturer or Jobber.	Remarks.
1913			
June 20	E. W. Martin, Fond du Lac	A. F. Watke, Fond du Lac	Not standard in acidity; artificially colored; contains salicylic acid.
June 20	J. H. Wickert, Fond du Lac	A. F. Watke, Fond du Lac	Not standard in acidity; contains salicylic acid.

Vinegar—Submitted Samples.

Date.	Submitted by.	Gms. of acetic acid per 100 cubic centimeters.
1912		
July 8	A. M. Richter & Sons, Manitowoc	11.15
Aug. 22	P. Brickbauer & Sons, Plymouth	4.62
Oct. 8	W. H. Wilbur, Milton	6.6
Oct. 16	Wm. Bible & Sons, Cazenovia	4.24
Oct. 30	H. C. Witte, Granton	4.53
Nov. 20	E. P. Merriman, Clinton	3.39 "No. 1"
Nov. 20	E. P. Merriman, Clinton	3.54 "No. 2"
Nov. 20	E. P. Merriman, Clinton	2.4 "No. 3"
Nov. 20	E. P. Merriman, Clinton	0.57 "No. 4"
Nov. 20	E. P. Merriman, Clinton	4.86 "No. 5"
1913		
April 3	E. Breithauft, Platteville	0.46
April 26	J. H. Hill, Baraboo	3.63
May 12	E. W. Martin, Fond du Lac	3.82
May 19	Francis Duncan, Kendall	2.62
June 10	J. & W. Jung Co., Sheboygan	4.02
Sept. 12	L. Simonds, Mukwonago	1.85
Sept. 12	L. Simonds, Mukwonago	1.5 (sample No. 2)
Oct. 21	J. H. Tew, Oakfield	4.0
Nov. 21	Mrs. R. Thelen, Madison	3.60
Dec. 8	Louis Herziger, Neenah	5.28 (sample No. 1)
Dec. 8	Louis Herziger, Neenah	3.51 (sample No. 2)
Dec. 8	Louis Herziger, Neenah	5.34 (sample No. 3)
1914		
Mar. 9	H. O. Natesta, Clinton	3.69
Mar. 13	W. M. Ellis, Endeavor	2.7
Mar. 21	Whitney Allen, Baraboo	4.95 (sample No. 1)
Mar. 21	Whitney Allen, Baraboo	3.64 (sample No. 2)
April 13	J. C. Coxe Co., Whitewater	4.17
April 21	Whitney Allen, Baraboo	4.6 (sample No. 1)
April 21	Whitney Allen, Baraboo	4.2 (sample No. 2)
April 21	Whitney Allen, Baraboo	5.2 (sample No. 3)

WHITE LEAD AND ZINC WHITE.

White Lead—Not Standard.

(Note: Notwithstanding the fact that all but one of these samples were plainly labeled to show that the product was not white lead, in every case the dealer sold the product as white lead. The pigment in all cases was found to be composed largely of barium sulphate (barytes).

Date.	Bought of.	Manufacturer or Jobber.
1913		
April 25	*Hahn & Deman, Sauk City	
June 24	Prehn & Steiber, Marathon City	Patterson & Sargeant Co., Chicago.
1914		
June 8	D. F. Smith, Mauston	Alston-Lucas Paint Co., Chicago.
June 8	Behnken Bros., Mauston	The Ullman-Philpott Co., Cleveland, Ohio.
June 10	Gaffron & Leifer, Plymouth	Wm. Zummach, Milwaukee.
June 10	Reinhold & Meyer Mfg. Co., Plymouth	Wm. Zummach, Milwaukee.
June 10	Wensink-Stolper Co., Plymouth	Wm. Zummach, Milwaukee.
June 11	F. W. Mathaeus, New Holstein	Wm. Zummach, Milwaukee.
June 11	Breckheimer & Raeder, Elkhart Lake	Ivorald Mixed Paint Co., Newark, N. J.
June 11	Nametz & Matthias, Elkhart Lake	Wm. Zummach, Milwaukee.
June 18	Ernest F. Raddatz, Hilbert	Wm. Zummach, Milwaukee.
June 19	F. J. Oerstegen, Little Chute	Stolberg Paint Works, New York.
June 24	Conger-Schoephorster Co., Prairie du Sac	Ivorald Mixed Paint Co., Newark, N. J.
June 25	Wm. Burmeister, Hill Point	Ivorald Mixed Paint Co., Newark, N. J.
June 25	John Riggert & Co., Loganville	
June 25	Fischer Bros. Co., Cazenovia	Lodi City White Co., Chicago.

White Lead—Standard.

Date.	Bought of or Submitted by.	Manufacturer or Jobber.
1913		
Jan. 10	The Cash Mercantile Co., Merrimack	
1914		
Feb. 20	*Henry Bonn & Co., Milwaukee	
May 29	Noll & Co., Chilton	Wm. F. Zummach, Milwaukee.
May 29	Jas. F. Meyer, Chilton	
May 29	Chilton Hardware & Furniture Co., Chilton	
June 9	L. E. Schmutzler, Watertown	Eagle White Lead Co., Cincinnati, Ohio.

* Submitted sample.

Zinc White.

Date.	Bought of.	Remarks.
1914		
May 9	Jas. F. Meyer, Chilton	Not standard. Contains basic carbonate of lead.

Respectfully submitted,

HARRY KLUETER,

Chemist.

REPORTS OF ASSISTANT COMMISSIONERS

REPORT OF E. L. ADERHOLD, ASSISTANT DAIRY AND FOOD COMMISSIONER.

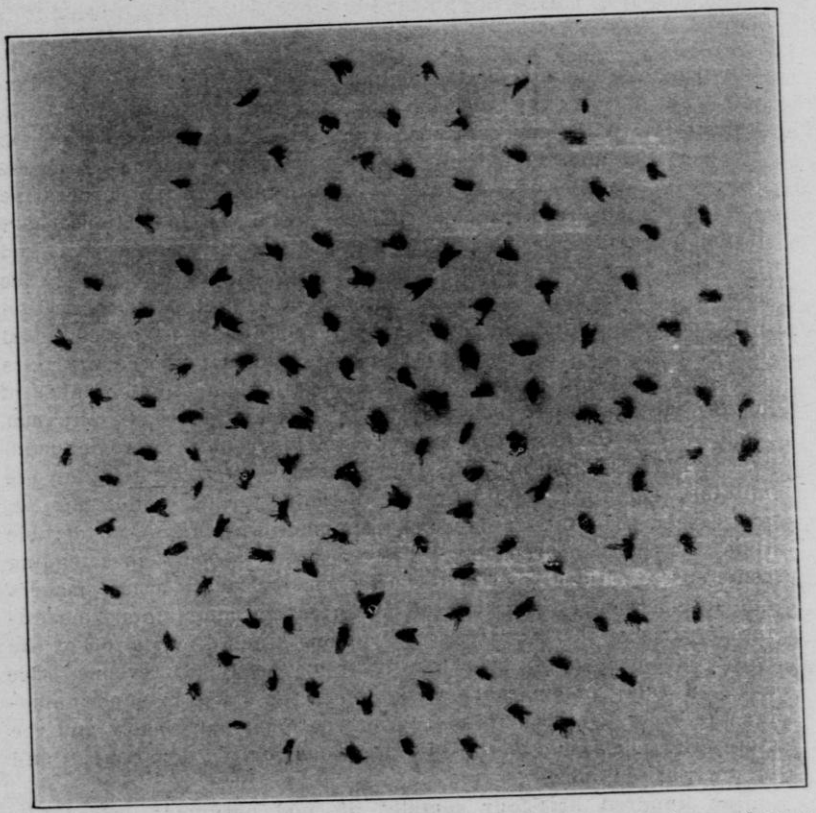
Honorable J. Q. EMERY,
Dairy and Food Commissioner.

The following is a summary of my work as assistant dairy and food commissioner for the biennial period ending June 30, 1914:

Cheese Factory inspections	340
Creamery inspections	61
City milk plant inspections	47
Milk cans inspected, (estimated)	8,800
Sediment tests of milk	3,550
City milk wagons including utensils inspected	35
Dairy barn inspections	147
Dairy separators inspected	70
Milk condensaries inspected	3
Ice cream plants inspected	5
Oleomargarine inspections	46
Samples of milk tested at cheese factories	48
Grocery store inspections	64
Slaughterhouse inspections	9
Meat market inspections	9
Dairy conventions addressed	8
Farm institute meetings addressed	75
Number of days employed as assistant superintendent of dairy exhibits at International Dairy Show, Milwaukee	21
Number of days spent judging cheese at fairs and scoring contests, 650 exhibits	18
Number of days spent at office and in clerical work	30
Prosecutions for selling meat not protected from filth, etc.	2
Prosecutions for violation of dairy laws	116
Convictions	116

Respectfully submitted,

E. L. ADERHOLD,
Assistant Commissioner.



Picture of 140 flies taken by one of the assistant commissioners from a can of milk offered at a creamery.

REPORT OF H. C. LARSON, SECOND ASSISTANT DAIRY AND FOOD COMMISSIONER.

Honorable J. Q. EMERY,
Dairy and Food Commissioner.

During the biennial period ending June 30, 1914, I have personally and in company with Messrs. Aderhold, Cannon, Southard, Linzmeyer, Willimann, Dufner, Van Duser, and Cook, made 62 creamery, skimming station and cream buying station, 7 cheese factory, 7 condensary, 41 dairy, 95 sanitary, 257 oleomargarine, 4,150 milk and cream can, and 284 ice cream can inspections; have tested 9 cream scales, made 137 fat tests of milk and cream, and 1,705 sediment tests of milk; have spent one or two days each month scoring and criticizing the butter exhibited in connection with the state butter and cheese scoring exhibitions; have also scored the butter exhibited at the 1912 state fair and at two county fairs and at one county butter makers' association, the total number of butter exhibits scored being 2017. In company with Mr. Brannon, a chemist in the department, a cow testing contest was conducted at the 1912 Darlington fair. The work necessitated witnessing the milking, weighing, and testing of the milk for fat, solids not fat, and casein. The total number of tests made was 112. Considerable time was spent in preparing court cases and in court, in attending conferences, national and state butter makers', state cheese makers' and local creamery meetings, in investigating complaints from different parts of the state charging various kinds of violation of the dairy and food laws, in obtaining from the U. S. revenue office a list of retail oleomargarine dealers in the state, in superintending the dairy departments of the international dairy show and the state fair, in making special investigations for the department, and in work in the office.

One hundred fifty-four samples of food products, linseed oil, turpentine, etc., were collected and delivered to the state chemist, and 50 prosecutions were brought for violations of the dairy and food laws which resulted in 49 convictions. I am of the opinion that before the dairy and food laws are really complied with, the persons amenable to such laws must realize that the laws are reasonable and right and compliance with such laws will be profitable and will result in an all-around better condition. Therefore, in my special work I have tried at all times to give instructions along lines of more sanitary production and distribution of dairy and food products; also, where there was an opportunity, have made suggestions as to improvement in business methods.

I am glad to report that the number who appreciate the work of the commission is rapidly increasing and that in the main there

has been a general improvement in all conditions over which the dairy and food department has jurisdiction. The creameries, cheese factories, and apparatus, are, I believe, maintained in a more sanitary condition than ever before. There are, however, bad conditions existing in connection with many cheese factories where the whey is separated which should be corrected. The arrangements for handling this product are in many cases very poor. The pumps, piping, etc., used for conducting the whey from the cheese vat or whey vat to the separator are not of the sanitary kind and are not arranged so that the same can be thoroughly cleaned. Occasionally like apparatus used for handling milk and cream will be found in a creamery. All such apparatus should be of the sanitary kind and arranged so that the same can be taken apart each time used and thoroughly washed.

Not all factory operators are careful to protect from flies the food products they are manufacturing. All factory windows and doors should be well screened and suitable fly traps should be provided and placed not only inside the factories but also outside at fly breeding places, such as the skim milk, buttermilk, and whey tanks and place of unloading milk and cream. With ordinary care on the part of the operator the factory should be practically free from flies.

Since the enforcement of the law with reference to cream scales and glassware used for making the Babcock test of milk and cream, much more accurate testing is being done. Complaints charging inaccurate testing are very few to-day as compared with the time before the enforcement of the law.

The law with reference to the sale of oleomargarine in the state is being complied with. During the biennial period I have found only one case where the oleomargarine handled was held to be in imitation of yellow butter and the dealer stopped selling it just as soon as his attention was called to the law.

Grocery stores and meat markets and all apparatus used in connection therewith are maintained in a much cleaner condition. There are, however, markets where more or less of the food products are not protected from filth, flies, dust, etc., as the law provides they should be. Particularly is this true in meat markets. It seems to be the opinion of many meat dealers that meat needs no protection, for the reason that much of it will be found on the open market hanging on the racks or placed on the counters with no protection from flies, dust, etc. In this particular field the work of the department could be made much more effective if a larger number of people who trade at markets that are not kept in a clean condition or where any part of the food products is not protected, would call the dealer's attention to the fact that the market should be kept clean and that all food should be protected from flies, dust, etc., and refuse to trade with a dealer who does not respect their wishes in this matter.

There is a great improvement in the dairy barns. Many are

whitewashed and are being provided with more light and ventilation, good cement floors and deep gutters and adjustable stanchions, and as a result the cows are kept much cleaner.

The sediment testing of milk indicates that the milk offered for sale is much cleaner than ever before. Where the test shows that the milk is dirty, it always proves to be a great lesson for the producer. In almost every case such producers have said to me that they had no idea their milk was so dirty, and would seek information as to how to produce cleaner milk, agreeing to employ such methods as would result in the production of cleaner milk. Many milk houses have been built and as many separators have been removed from barns and other unsuitable places and placed in the milk houses.

The great majority of cans used for delivering milk and cream to the factories are kept clean and are free from dust and open seams. There are very few milk and cream and ice cream cans that are not thoroughly washed before return shipment is made.

Notwithstanding all the improvements, there is still a large quantity of poor milk and cream delivered to the creameries, cheese factories, and other milk plants in the state and there manufactured into butter, cheese, and other food products of a poor quality. I say poor quality because the finished product can be no better than the raw material from which it is manufactured. A can of poor milk or cream mixed with a vat of good milk or cream reduces the quality of the entire lot and the product manufactured therefrom, be it butter, cheese or any other article of food, will not be as good as it would have been had not the poor milk or cream been mixed with the good. The more poor milk and cream that is received and mixed with the good, the poorer will be the finished product. The inevitable result will be that the producer of the good milk or cream will suffer a great loss because he will not receive the price he should. He will be forced to accept the price paid for the produce manufactured from the good and poor milk or cream, which price when determined on a quality basis will be lower. For the production and sale of milk and cream of a poor quality in this state, the creamery and cheese factory owners and operators and the milk and cream dealers in the state are responsible. I maintain that any factory owner or operator or milk or cream dealer can obtain just as good milk and cream as he wants. If only fresh and clean milk and cream are really wanted, only such will be accepted. Let there be no market for milk or cream not fresh and clean and the time will soon come when such milk or cream will not be produced. It is said, "if I don't accept the poor milk or cream some one else will and therefore I accept it." Such an excuse for receiving poor milk or cream simply means that anyone who takes it does not *really* want only fresh and clean milk and cream. And, furthermore, anyone who will make that excuse for receiving poor milk or cream says in effect that he does not intend to refuse to accept poor milk and cream until every other factory owner or operator

and milk and cream dealer in the state refuses it. In other words, such a person practically admits that he will be the last one in the state to refuse to accept poor milk and cream. Just as long as there is a market for poor milk and cream and the factory owners and operators and milk and cream dealers continue to injure the producers of good milk and cream by mixing the poor with their good products, thereby forcing them to accept a lower price than they would otherwise receive, there is little hope of further improvement. I am of the opinion that there is only one way to solve the poor milk and cream question and that way is to refuse to buy it. Let there be no market for the poor stuff and it will not be produced.

Respectfully submitted,

H. C. LARSON,

Second Assistant Commissioner.

REPORT OF FRED P. DOWNING, CHIEF INSPECTOR OF WEIGHTS AND MEASURES.

Honorable J. Q. EMERY,

Dairy and Food Commissioner, Ex Officio State Superintendent of Weights and Measures.

Dear Sir:—Much has been done during the biennial period ending June 30, 1914, toward improving conditions in weights and measures throughout the state. In the performance of my duties as chief inspector of weights and measures I have come in contact with every phase of the work performed by city and state sealers of weights and measures, having devoted approximately one-third of my time to this work in the field. The work in the office of the state department of weights and measures has been heavy and approximately two-thirds of my time has been taken up in this way. The office correspondence has been very large. There have been many conferences and much correspondence of a technical nature with manufacturers and jobbers in weighing and measuring appliances. As the number of sealers in the field has been increased, the reports filed at this office, each of which must be examined, have correspondingly increased. Statistics dealing with the work done in the field have been compiled. It has been found necessary to revise many of the tolerances and specifications. It also became necessary to design new carrying cases for the sealers with compartments to hold the additional equipment for testing Babcock glassware, creamery and jewelers' scales and druggists' prescription balances.

Following the publication and distribution of a pamphlet containing regulations relating to cream test scales and Babcock milk and cream test bottles the number of office tests has been enor-

mously increased. The office tests include the calibration of milk and cream test bottles, milk pipettes, and cream test scales, the certification of sealers' standards and the examination and testing of weighing and measuring appliances submitted by manufacturers.

The law relating to the supervision of work of city sealers requires that at least once in each two years the work of the local sealers in the various cities of the state of over 5000 inhabitants shall be inspected. This work has been done to a very large extent by myself. The importance of the work in the large towns of the state has made it necessary to pay more than one visit to some of the cities in Wisconsin. The majority of the city sealers of the state are doing excellent work in the number of inspections made and the number of prosecutions brought as is shown by the tables in the commissioner's report.

The following tables are summaries of the tests of weighing and measuring appliances made in the field and in the office by state inspectors of weights and measures:

FIRST FIELD INSPECTIONS MADE BY INSPECTORS OF WISCONSIN WEIGHTS AND MEASURES DEPARTMENT, JULY 1, 1912–JUNE 30, 1914.

	Sealed.	*Adjusted.	Condemned for repairs.	Condemned.	Total.
Scales:					
Counter	4,103	453	449	147	4,699
Computing	2,967	733	598	10	3,575
Spring	1,491	261	628	636	2,755
Other platform	6,016	1,048	1,294	112	7,422
Wagon	1,066	167	901	5	1,972
Hopper	238	41	44	1	283
Suspension	127	19	32	1	160
Beam	68	4	15	1	84
Cream	107	2	76	160	343
Moisture	66	1	10	3	79
Prescription	115	9	22	1	138
Slot	196	7	31	3	230
Grain tester	2	.....	.....	.....	2
Dry measures	366	2	4	349	719
Liquid measures	17,112	50	176	4,520	21,808
Weights	54,031	6,021	4,697	2,767	61,495
Linear measures	4,309	1,023	3,639	370	8,318
Automatic pumps	1,920	641	394	13	2,327
Milk bottles	16	.....	.....	27	43
Miscellaneous	28	1	15	1	44
Total	94,344	10,483	13,025	9,127	116,496

* 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, 1912–JUNE 30, 1914.

	Sealed.	*Adjusted.	Condemned for repairs.	Condemned.	Total.
Scales:					
Counter	447	20	57	10	514
Computing	495	103	126	6	627
Spring	131	17	65	34	230
Other platform	402	65	139	51	592
Wagon	311	79	191	11	513
Hopper	20	2	5	2	27
Suspension	13	.....	4	1	18
Beam	4	1	.....	1	5
Cream	6	.....	6	1	13
Moisture	2	1	.....	.....	2
Prescription	2	.....	.....	.....	2
Slot	3	.....	.....	.....	3
Dry measures	64	.....	1	30	95
Liquid measures	1,213	4	19	76	1,308
Weights	3,704	719	318	193	4,215
Linear measures	3,476	468	469	135	4,080
Automatic pumps	280	96	82	9	371
Miscellaneous	.....	.....	3	.....	3
Total	10,573	1,575	1,485	560	12,618

* 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, 1912–JUNE 30, 1914.

	Sealed.	*Adjusted.	Condemned for repairs.	Condemned.	Total.
Scales:					
Counter	4,550	473	506	157	5,213
Computing	3,462	836	724	16	4,202
Spring	1,622	278	693	670	2,985
Other platform	6,418	1,113	1,433	163	8,014
Wagon	1,377	246	1,092	16	2,485
Hopper	258	43	49	3	310
Suspension	140	19	36	2	178
Beam	72	5	15	2	89
Cream	113	2	82	161	356
Moisture	68	2	10	3	81
Prescription	117	9	22	1	140
Slot	199	7	31	3	233
Grain tester	2	.....	.....	.....	2
Dry measures	430	2	5	379	814
Liquid measures	18,325	54	195	4,596	23,116
Weights	57,735	6,740	5,015	2,960	65,710
Linear measures	7,785	1,491	4,108	505	12,398
Automatic pumps	2,200	737	476	22	2,698
Milk bottles	16	.....	.....	27	43
Miscellaneous	28	1	18	1	47
Total	104,917	12,058	14,510	9,687	129,114

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

OFFICE TESTS, STATE DEPARTMENT OF WEIGHTS AND MEASURES, DEC. 1, 1912, TO JUNE 30, 1914.

Instrument.	Sealed.	*Adjusted.	Condemned for repairs.	Condemned.	Total.
Cream scales	380	.....	78	17	475
Cream weights	1,101	20	53	1	1,155
Other weights	348	.....	3	.....	351
Cream test bottles	18,468	.....	.....	1,767	20,235
Milk test bottles	7,297	.....	.....	1,111	8,408
Milk pipettes	684	.....	.....	400	1,084
Moisture scales	7	.....	1	.....	8
City standards	768	14	3	2	773
State standards	1,220	58	.....	44	1,264
Miscellaneous	545	2	10	33	588
Totals	30,818	94	148	3,375	34,341

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

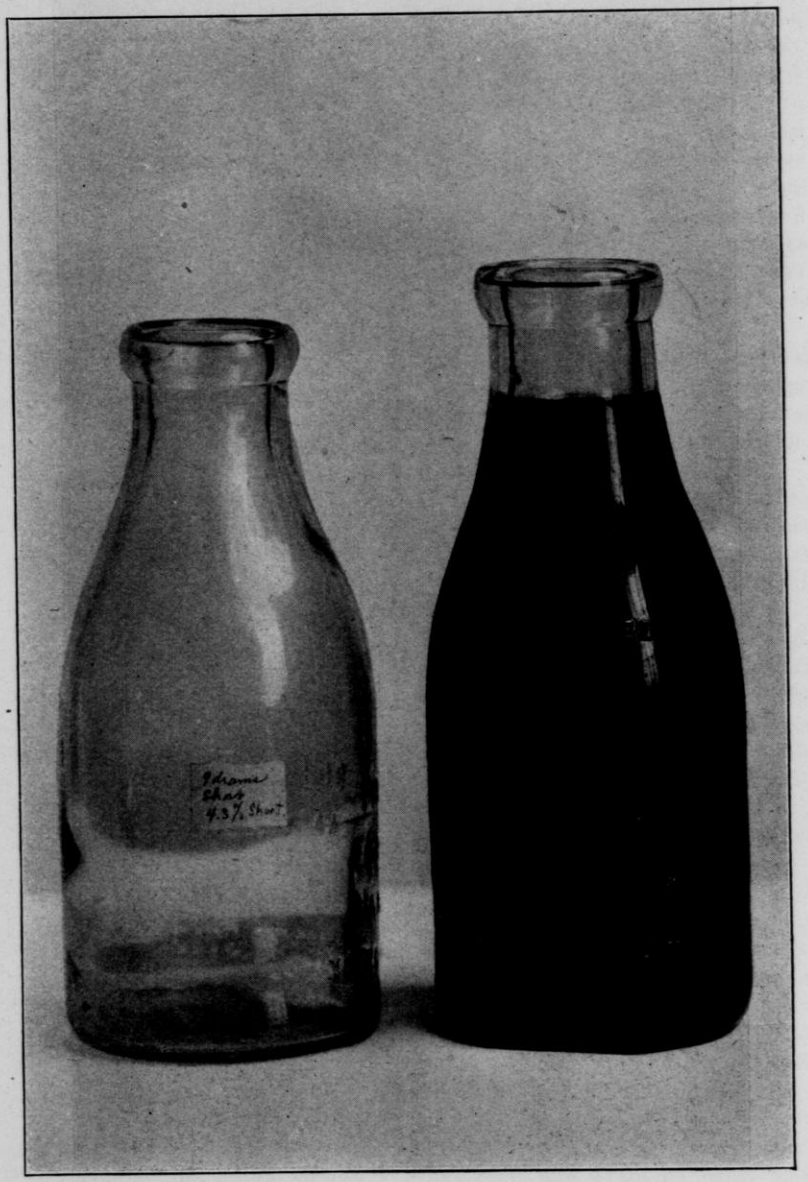
The following summary of tests of weighing and measuring appliances for the entire state during the full biennial period shows that a total of 460,949 tests have been made of which 293,364 were made by the city sealers of the state. This summary likewise shows that of the total number of weighing and measuring appliances tested 20 per cent or one-fifth were found to be inaccurate.

SUMMARY OF TESTS OF WEIGHING AND MEASURING APPLIANCES FOR THE ENTIRE STATE, JULY 1, 1912, TO JULY 1, 1914.

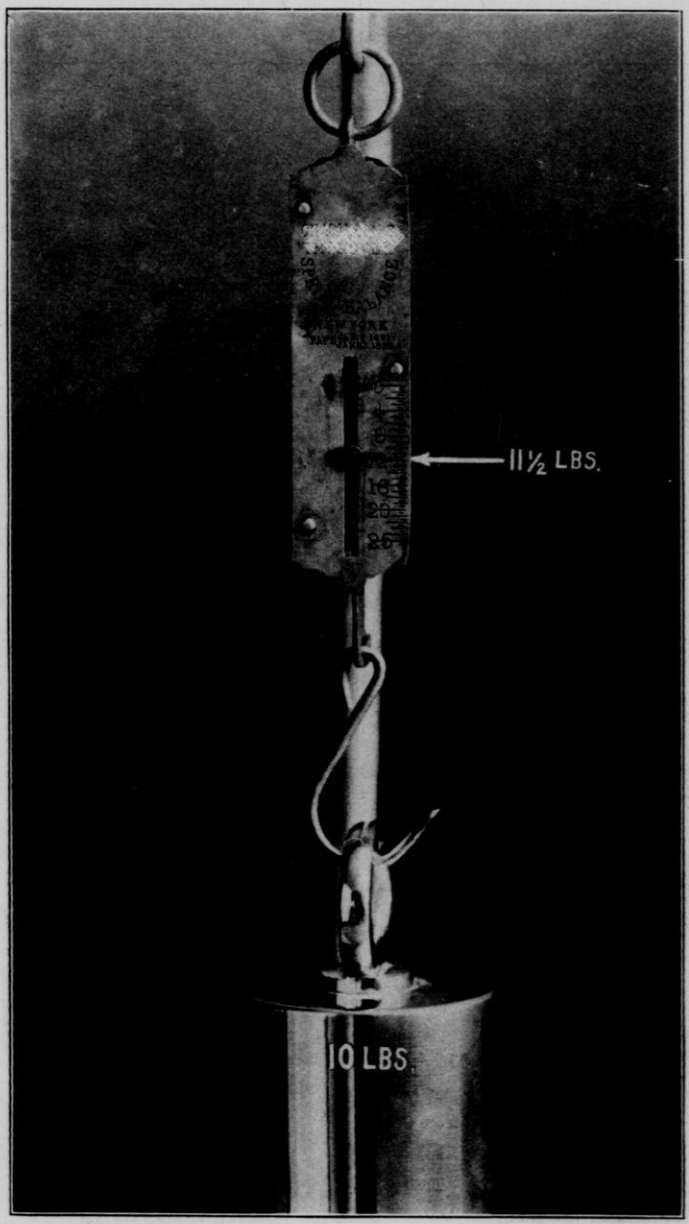
	Sealed.	*Adjusted.	Condemned for repairs.	Condemned.	Total.
First inspections by state department	94,344	10,483	13,025	9,127	116,496
Reinspections by state department	10,573	1,575	1,485	560	12,618
Office tests	34,628	94	468	3,375	38,471
Inspections by city sealers	250,331	8,915	11,306	31,727	293,364
Total	389,876	21,067	26,284	44,789	460,949

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

These figures show the importance of making periodical tests of weighing and measuring appliances. It is of even greater importance from the standpoint of the consuming public, that when these scales, weights, and measures have been tested and corrected, they are then used correctly by the dealers of the state. If the dealer is dishonest he can very readily weigh out 15 ounces on a sealed



Standard and nonstandard milk bottle. Nonstandard bottle now practically eliminated from use.



Spring Balance. This spring balance was used by a fish peddler and beat the customer out of 1½ pounds on every ten pounds. Scales of this type when weighing correctly are only intended for the weighing of cheap commodities such as rags and iron.

scale and call the same a pound. To see that scales are used correctly it is therefore necessary that packages put up by dealers be reweighed to see whether full weight has been given. More than three thousand dealers were "tried out" in the above manner by state sealers of weights and measures. The city sealer of weights and measures can devote a much larger proportion of his time to the work of seeing that dealers use their scales correctly than can the state sealers who have a very much larger territory to cover and who are obliged to devote the greater portion of their time to the actual work of inspecting and testing weights, scales, and measures. The reports of city sealers show that 83,748 packages were reweighed during the past two years of which number 17,211 were incorrect in weight. In nearly all cases the packages were found short.

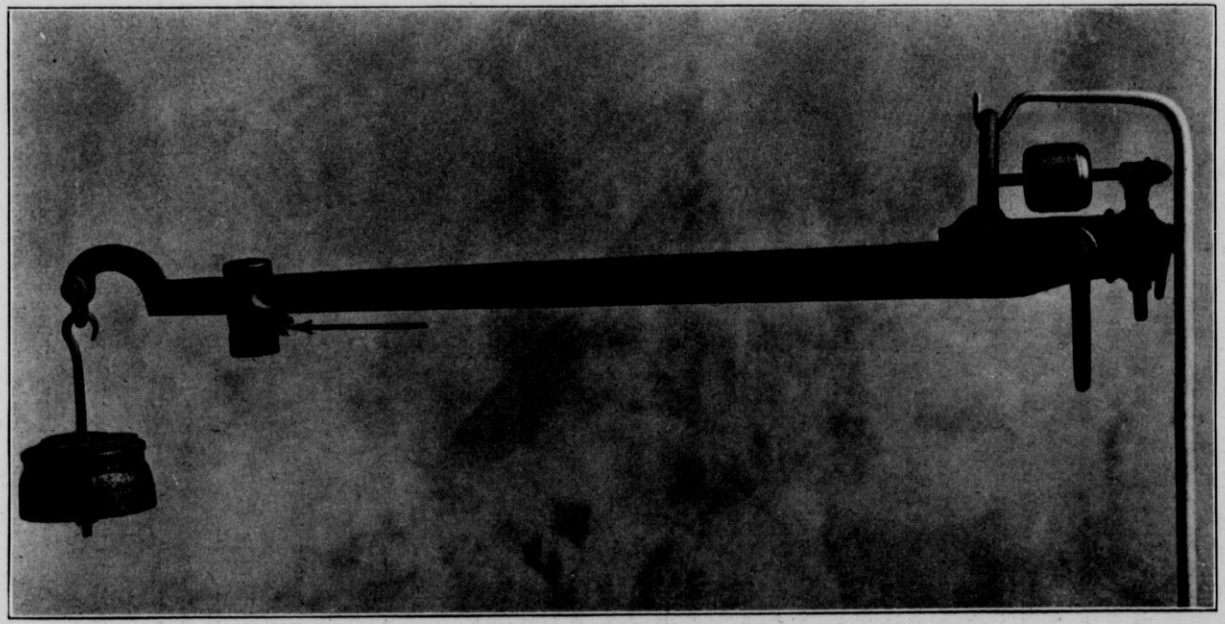
In connection with this work may be mentioned the occasional testing of milk bottles which are not required by law to be sealed. Large numbers of new bottles were found inaccurate and condemned. In several instances carload shipment of bottles were returned to the manufacturer.

It is impossible to make any accurate statement showing to what extent the public is the loser through the use of incorrect scales and measures. A few concrete illustrations will show that as a matter of equity to both buyer and seller scales should weigh accurately.

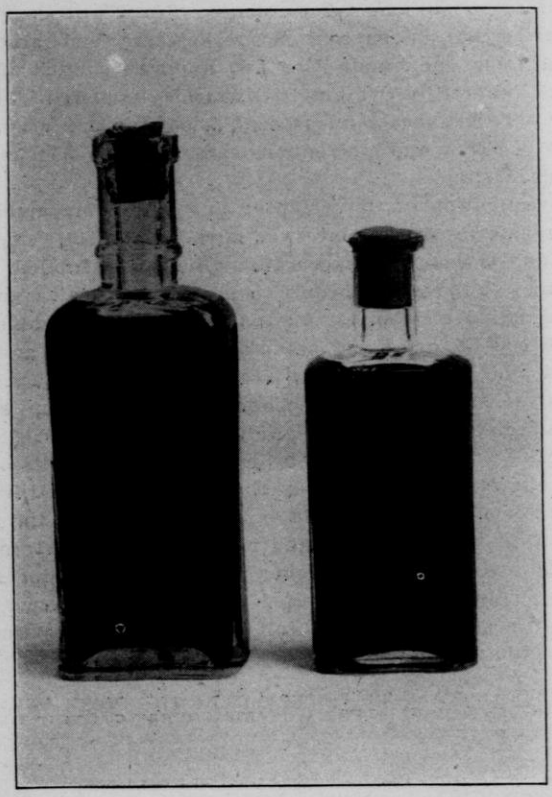
The scale used by a cheese maker in the eastern part of the state weighs two pounds heavy on every 100 pounds. Six thousand pounds of milk were received daily at this cheese factory. The owner of the factory lost 120 pounds of milk daily through the use of this scale. At $1.25 a hundred the loss for the year would amount to nearly $550, all of which would have been saved to the cheese maker had his scales been accurate.

One of the state sealers in the northern part of the state reports the following: "I found the railroad stock scale at ———— indicating 43 pounds short on a thousand. About 50 carloads of stock are sold each year over this scale. The average weight of each car being 24,000 pounds, a shortage of 43 pounds on the thousand would give 1,032 pounds on each car or 51,600 pounds on 50 cars which at 6c a pound amounts to $3,096 a year as a loss to the farmers who were selling stock over this scale." Thousands of illustrations of a similar nature can be cited showing losses fully as great as those mentioned above.

The plea of "trade custom" has been given by many merchants as a pretext for short weighting their customers in small amounts. Including the weight of heavy paper sacks and wrapping paper or of wooden trays in the weight of the commodity sold has been a prevailing practice all over the state. While the practice has not as yet been entirely eliminated, it has been diminished to a very great extent. The shortage in individual instances does not seem appreciа-



Stock Scale Beam. The arrow points to a piece of lead that was dropped into the sliding poise. This made the beam weigh 25 pounds heavy on 1,000 pounds. Over 200 carloads of stock were annually weighed over this scale, beating the farmers out of hundreds of dollars.



Vanilla Bottles. Each of the bottles shown above holds two fluid ounces of vanilla, although to the eye the bottle on the left appears to be much the larger. This is an example of the deception practiced by certain manufacturers. The large bottle is made of heavier glass and has paneled sides. The heavy glass edges act as a magnifying lens. The net container law now requires the manufacturer or packer to mark the contents of the bottle on the outside thereof so that the purchaser who wishes to buy intelligently can compare different brands.

ble, but in the aggregate the losses due to this trade custom are enormous. Many dealers have used paper sacks weighing two or three ounces in the sale of sugar in dollar amounts. A "No. 1" wooden tray weighs one-half an ounce; "No. 2" wooden tray weighs three-fourths on an ounce. Many butchers and grocers in the state use from one hundred to five hundred pounds of paper and from one hundred to two hundred and fifty pounds of wooden trays monthly. To get meat and grocery prices for this wood and paper is radically wrong and a strenuous campaign has been made against this trade custom.

An investigation of the weighing and measuring appliances used in the creameries of the state was made by the state department of weights and measures. Inaccurate appliances abounded. A booklet containing regulations relating to cream test scales and Babcock milk and cream test bottles was published. This booklet was sent to all cheese factories and creameries of the state and to manufacturers and jobbers handling creamery supplies.

An investigation was also made of the condition of the prescription weights, scales and graduates found in drug stores and of the scales and weights used by jewelers. The results of the investigation show most conclusively the necessity of testing all of the appliances found in these places of business. In fact the percentages of inaccurate weights, scales and measures in drug stores and jewelry shops are found to be higher than in grocery stores and meat markets. This may be attributed to the fact that such appliances had never been tested. The following table shows the result of this inspection:

DRUG AND JEWELRY STORE INSPECTION BY THE STATE DEPARTMENT OF WEIGHTS AND MEASURES FOR A PERIOD COVERING ABOUT SIX MONTHS.

	Sealed.	*Adjusted.	Condemned for repairs.	Condemned.	Total.	Per cent incorrect.
Prescription balances	117	9	22	1	140	22.8
Metric & apothecary weights.	2,552	95	0	882	3,434	25.6
Glass graduates	514	0	0	185	699	26.4
Jewelers' balances	38	2	15	26	79	54.9
Troy weights	705	13	37	123	865	20.0

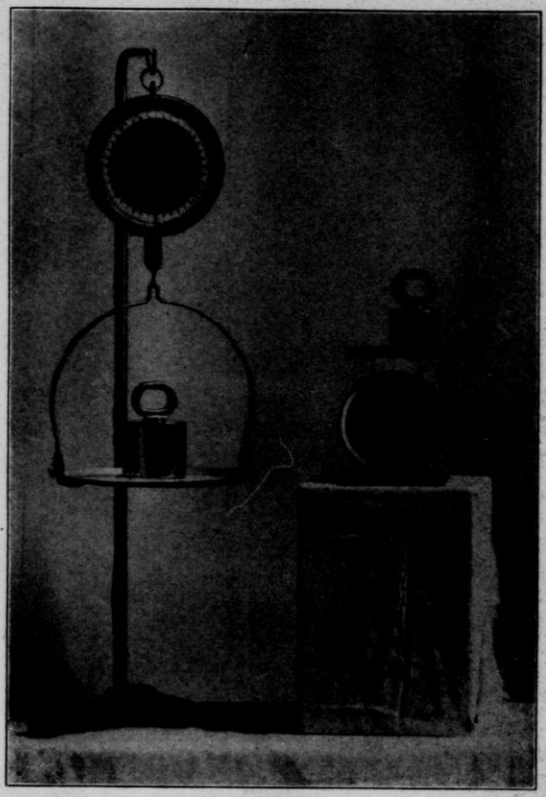
DRUG STORE INSPECTION BY THE MILWAUKEE DEPARTMENT OF WEIGHTS AND MEASURES FROM FEBRUARY TO JUNE 30, 1914.

	Sealed.	*Adjusted.	Condemned for repairs.	Condemned.	Total.	Per cent incorrect.
Prescription scales	222	12	40	4	266	21.1
Metric & apothecary weights.	5,035	946	58	1,687	6,780	39.7
Glass graduates	1,431	0	0	737	2,168	33.9

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

Prescription Graduates and Weights. There are over 700 apothecary and metric weights in the pile in the center of the picture, many of which were from 3% to 10% light. Some of the glass graduates were 15% too large, made this way by careless manufacturers. These weights and graduates were used by druggists in prescription work.

The Wisconsin department of weights and measures is one of the first in the Union to make a systematic inspection of the prescription scales and weights used by druggists. It is very essential that scales used in drug stores be extremely sensitive. When



Family Spring Scales. The scale to the left weighs accurately. The five pound weight placed on the scale to the right moves the pointer to the 5½ pound mark. This is not due so much to the spring as to friction or rubbing caused by shifting the weight to one side of the pan. This does not happen when the pan is suspended. The scale on the left can be hung from a swinging bracket fastened to the kitchen wall. The pan can be folded over so that when not in use the scale can be pushed back against the wall. This type of scale is moderate in price and can be used to advantage by the housewife in reweighing purchases.

human lives are dependant on a balance, as when a prescription clerk is weighing poisons, the main features to be considered in the balance are sensitiveness and accuracy. If small loads of from one to twenty grains are to be weighed upon a prescription balance, the same

should be sensitive to 2 or 3 milligrams. If the druggist never weighs a load on the balance of less than twenty grains a less sensitive balance can be used with accuracy. The tests given below on prescription scales of different degrees of sensibility show the large per cent of error resulting through the use of sluggish and insensitive prescription balances.

The druggist was asked to make five weighings of either one or two grains of a powder, using his balance. The loads were then reweighed on the sealer's balance. The results show that the more insensitive the prescription balance, the greater variation found in the weighings which should have been identical.

RESULTS OF TESTS ON PRESCRIPTION BALANCES.

Box Prescription Balance. Sensibility .2 grain.

Weight on druggist's balance.	Weight on sealer's balance.	Percentage error.
1 grain or 64.8 milligrams	56 milligrams	—14.0
1 grain or 64.8 milligrams	66 milligrams	+ 1.5
1 grain or 64.8 milligrams	56 milligrams	—14.0
1 grain or 64.8 milligrams	59 milligrams	— 9.4
1 grain or 64.8 milligrams	65 milligrams	0.0

Box Prescription Balance. Sensibility .2 grain.

Weight on druggist's balance.	Weight on sealer's balance.	Percentage error.
2 grains or 129.6 milligrams	123 milligrams	—5.0
2 grains or 129.6 milligrams	126 milligrams	—3.0
2 grains or 129.6 milligrams	121 milligrams	—7.0
2 grains or 129.6 milligrams	129 milligrams	0.0
2 grains or 129.6 milligrams	127 milligrams	—2.3

Dispensing Scale. Sensibilty 1 grain.

Weight on druggist's balance.	Weight on sealer's balance.	Percentage error.
2 grains	1.6 grains	—20.0
2 grains	2.3 grains	+15.0
2 grains	3.1 grains	+55.0
2 grains	1.8 grains	—10.0
2 grains	2.1 grains	+ 5.0

Beam Prescription Balance with hanging pans, twelve years old. Sensibility 2 milligrams.

Weight on druggist's balance.	Weight on sealer's balance.	Percentage error.
1 grain or 64.8 milligrams	62 milligrams	—4.3
1 grain or 64.8 milligrams	64 milligrams	—1.0
1 grain or 64.8 milligrams	63 milligrams	—2.7
1 grain or 64.8 milligrams	65 milligrams	0.0
1 grain or 64.8 milligrams	62 milligrams	—4.3

Torsion Balance with side beam. Sensibility 2 milligrams.

Weight on druggist's balance.	Weight on sealer's balance.	Percentage error.
1 grain or 64.8 milligrams	64 milligrams	—1.0
1 grain or 64.8 milligrams	63 milligrams	—2.7
1 grain or 64.8 milligrams	67 milligrams	+3.4
1 grain or 64.8 milligrams	67 milligrams	+3.4
1 grain or 64.8 milligrams	62 milligrams	—4.3

Dry and Liquid Measures. A dry quart measure is nearly 15% larger than a liquid quart measure. A liquid quart measure of beans will only fill the dry quart measure to the height indicated in the picture. The glass graduate in the center shows the difference in capacity amounting to 9.45 cubic inches between the liquid and the dry quart measures. It is illegal to sell beans, cranberries and other dry commodities by liquid measure.

Special equipment for the testing of the appliances in drug stores had to be devised. Sealers were provided with a pocket balance sensitive to one milligram, a set of apothecary's weights and a set of metric weights. They were also provided with glass graduates of varying capacities with which to test the prescription measures of the druggist.

With a view of gathering data that would be valuable to sealers of the state in the enforcement of the net weight law, shrinkage tests have been made under the direction of the state department of weights and measures on flour, print butter, and cheese. The accompanying tables show in concise form the results obtained.

DATA ON SHRINKAGE OF CREAMERY PRINT BUTTER (IN CARTONS) GATHERED BY A. J. KULL, CITY SEALER OF ASHLAND. (BUTTER STORED IN ICE BOX.)

No. of print.	First weighing Aug. 21, 1913.	Second weighing Aug. 29, 1913.	Third weighing Sept. 4, 1913.
	Ounces.	Ounces.	Ounces.
1	16 10/32	16 4/32	16 3/32
2	16 6/32	15 31/32	15 30/32
3	16 10/32	16 4/32	16 3/32
4	16 8/32	16 3/32	16 1/32
5	16 11/32	16 7/32	16 5/32
6	16 14/32	16 9/32	16 7/32
7	16 15/32	16 9/32	16 8/32
8	16 15/32	16 9/32	16 7/32
9	16 12/32	16 5/32	16 4/32
10	16 12/32	16 5/32	16 5/32
11	16 13/32	16 5/32	16 2/32
12	16 27/32	16 21/32	16 20/32
13	16 23/32	16 16/32	16 15/32
14	16 13/32	16 9/32	16 7/32
15	16 7/32	16 1/32	16
16	16 17/32	16 9/32	16 7/32
17	15 29/32	15 24/32	15 22/32
18	16 5/32	15 31/32	15 30/32
19	16 20/32	16 14/32	16 13/32
20	16 12/32	16 5/32	16 3/32
21	16 9/32	16 3/32	16 1/32
22	16 23/32	16 18/32	16 17/32
23	15 28/32	15 22/32	15 22/32
24	16 17/32	16 11/32	16 11/32
25	16 4/32	15 30/32	15 29/33
26	16 8/32	16 3/32	16 2/32
27	16 17/32	16 12/32	16 11/32
28	16 14/32	16 7/32	16 6/32
29	16 9/32	16 3/32	16 3/32
30	15 27/32	15 22/32	15 20/32
31	16 10/32	16 5/32	16 4/32
32	16 12/32	16 6/32	16 5/32
33	16	15 26/32	15 25/32
34	16 9/32	16 4/32	16 4/32
35	16 14/32	16 8/32	16 7/32
36	16 10/32	16 6/32	16 5/32
37	16 19/32	16 13/32	16 13/32
38	16 17/32	16 11/32	16 11/32
39	16 20/32	16 14/32	16 14/32
40	16 7/32	16 1/32	16
41	16 12/32	16 6/32	16 5/32
42	16 12/32	16 7/32	16 6/32
43	16 5/32	16	15 31/32
44	16 5/32	15 31/32	15 31/32
45	16 12/32	16 7/32	16 6/32
46	16 11/32	16 5/32	16 5/32
47	16 15/32	16 9/32	16 8/32
48	16 10/32	16 4/32	16 4/32
49	16 8/32	16 2/32	16 2/32
50	16 4/32	15 30/32	15 30/32
Totals	817 7/32	808 3/32	806 18/32

Total shrinkage, Aug. 21-Sept. 4, 10 21/32 oz. Average per print, 7/32 oz.

DATA OF SHRINKAGE OF AMERICAN CHEESE OF "DAISY" TYPE COLLECTED BY AUGUST LUTZE, CITY SEALER OF WEIGHTS AND MEASURES, SHEBOYGAN, WISCONSIN.

(Average temperature of storage room 34° to 35°.)

Box No.	Date 7-31-13	Date 8-31-13	Date 9-30-13	Date 10-31-13	Date 12-1-13	Date 12-31-13	Date 1-31-14	Date 2-27-14	Remarks.
	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	
1	22 3	22 3	22 2	22 1	21 15	21 14	21 11	21 11	Cheese paraffined—gassy—not firm.
2	22 2	22 3	22 3	22 2	22	21 14	21 12	21 12	
3	22 2	22 2	22	21 14	21 12	21 11	21 7	21 7	
4	22 8	22 7	22 7	22 6	22 3	22	21 15	21 15	
5	22 3	22 3	22 1	22	21 13	21 12	21 8	21 8	
	111 3	111 2	110 13	110 7	109 11	109 3			Shrinkage 46 oz.—2.6%.
1	21	21	21	20 15	20 14	20 12	20 10	20 10	Cheese paraffined—A No. 1—firm.
2	20 7	20 7	20 6	20 6	20 4	20 4	20 1	20	
3	19 12	19 12	19 12	19 10	19 9	19 7	19 7	19 5	
4	21 11	21 11	21 11	21 11	21 8	21 8	21 6	21 6	
5	19 4	19 4	19 3	19 3	19	19	18 15	18 14	
	102 2	102 2	102	101 13	111 3	100 15	8 001	4 001	Shrinkage 31 oz.—1.9%.

DATA ON SHRINKAGE OF FOREIGN TYPES OF CHEESE COLLECTED BY JOSEPH WILLIMANN, DAIRY AND FOOD INSPECTOR.

Cheese stored in warehouse of Badger Cheese Company, Monroe, Wisconsin.

LIMBURGER.

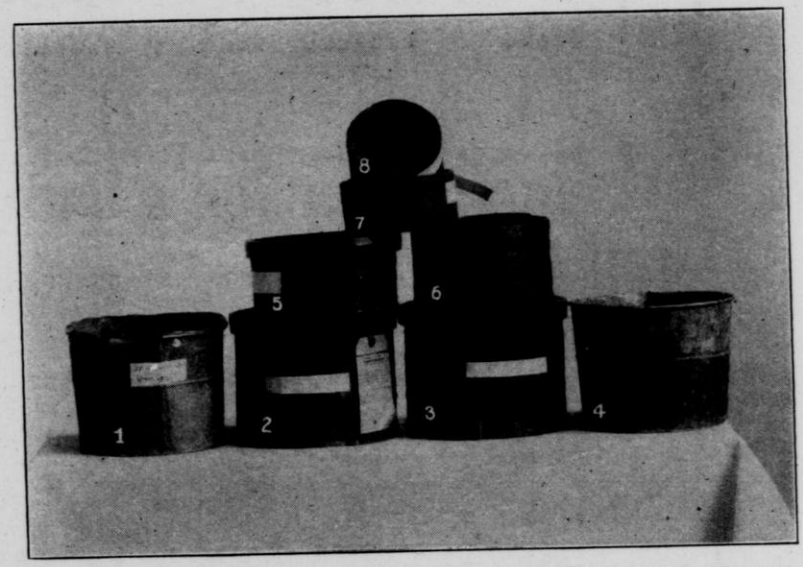
Date.	Weight of box.	Weight of cheese with wrappers.	Shrinkage.	Per cent shrinkage.	Average weight of print.	Shrinkage per print.	Remarks.
1913	lbs.	lbs.	lbs.		lbs.	oz.	
Nov. 22	20.00	132.00			2.2		Three boxes containing 60 prints each. Prints "2-lb." size. Cheese green and heavy, wrapped in parchment, tinfoil and manila.
Dec. 24	20.00	131.00	1.00	0.76		0.25	
1914							
Feb. 8	20.00	129.00	3.00	2.30		0.80	
BRICK.							
1913							
Nov. 22	19.00	124.50			5.7		Three boxes containing 22 bricks each. Wrapped in tinfoil and manila.
Dec. 24		122.50	2.00	1.60		1.50	
1914							
Feb. 8	18.75	120.25	4.25	3.40		3.00	
SWISS-BLOCK.							
1913							
Nov. 22	22.00	143.50					
Dec. 24		142.50	1.00	0.70			
1914							
Feb. 8	22.50	140.75	2.75	1.90			
SWISS—ROUND LEAF STYLE.							
1913							
Nov. 22		107.00					
Dec. 24		105.75	1.25	1.16			
1914							
Feb. 8		105.00	2.00	1.87			

DATA ON SHRINKAGE OF INDIVIDUAL PRINTS OF LIMBURGER CHEESE COLLECTED BY WILLIAM WINDER, STATE SEALER OF WEIGHTS AND MEASURES.

Print No.	Weight Aug. 12, '13.	Weight Sept. 13, '13.	Weight Oct. 4, '13.	Loss in weight.	Remarks.
	lbs. oz.	lbs. oz.	lbs. oz.	oz.	
1	1 9 29/32	1 9 12/16	1 9 5/8	9/32	
2	1 12	1 11 29/32	1 11 13/16	3/16	These prints were wrapped in parchment, tinfoil and manila, stored in ice box, and were three weeks old when test was started.
3	2 2 1/4	2 1 15/16	2 1 29/32	11/32	
4	2 1 1/8	2 14/16	2 13/16	15/16	
5	15 7/32	15 1/16	15 1/32	3/16	
6	1 17/32	1 15/32	1 13/32	1/8	
7	14 9/16	14 7/16	14 7/16	1/8	
8	1 1/16	15 15/16	15 29/32	5/32	

SHRINKAGE IN FIVE SACKS OF WHEAT FLOUR STORED IN A STEAM HEATED FLOUR MILL AT GRAND RAPIDS, WIS. WEIGHINGS MADE BY B. METZGER, CITY SEALER.

	May 22, 1913.	June 11, 1913.	July 23, 1913.	Aug. 10, 1913.	Nov. 12, 1913.	Feb. 15, 1914.	April 14, 1914.
	lbs.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.	lbs. oz.
Sack No. 1.....	49	48 — 5	47 — 8	47 — 7	47 — 4	47 — 0	46 —10
Sack No. 2.....	49	48 — 5	47 —12	47 — 8	47 — 6	47 — 2	46 — 9
Sack No. 3.....	49	48 — 2	47 —12	47 —10	47 — 6	47 — 1	46 —10
Sack No. 4.....	98	96 —12	95 — 8	95 — 8	95 — 0	94 — 8	93 — 8
Sack No. 5.....	98	96 —14	95 — 8	95 — 6	94 —14	94 — 9	93 — 9



False Measures. (1) The top of this measure has been battered so as to shorten its capacity. (2, 3) Peck measures cut to show the false bottoms. (4) Graduated measure in which it is impossible to determine proper heap when half the capacity is measured. (5) One-half peck measure with double bottom. (6, 7) "Cut down" measures. (8) Four thicknesses of cardboard were placed in the bottom of this measure to lessen its capacity.

SHRINKAGE TESTS ON FLOURS AND CORN MEAL—Continued.

Brand.	Observations—Humidity and Temperature of Place of Storage.				Weights.					Remarks.
	Date.	No.	Humidity average Per cent.	Temperature average degrees F.	Date.	Gross.		Loss.		
	1913				1913	lbs.	oz.	lbs.	oz.	
Sack No. 1 Patent Wheat Flour.	.....	.....	.....	.....	Sept. 10	49	1	..	....	Stored in office of state department of weights and measures. Cloth sack. Made from hard wheat by I. W. York Co., Portage, Wis. Original moisture content of cereal 8.37%.
	Sept. 10-Oct. 1	15	55	72	Oct. 1	48	9	..	8	
	Oct. 1-Nov. 3	21	48	71	Nov. 3	47	6	1	11	
	Nov. 3-Dec. 4	7	49	71	Dec. 4	47	5	1	12	
					1914					
	Dec. 4-Jan. 3, '14 .	5	37	70	Jan. 3	46	10	2	7	
	1914									
	Jan. 3-Feb. 10	3	32	71	Feb. 10	46	..	3	1	
	Feb. 10-Mar. 3	3	33	71	Mar. 3	45	10½	3	6½	
	Mar. 3-April 2	4	47	69	April 2	46	1	3	....	
	April 2-May 5	3	62	72	May 5	46	11	2	6	
	May 5-June 9	3	61	77	June 9	47	8	1	9	
	June 9-July 7	3	64	75	July 7	47	11	1	6	
	July 7-Aug. 18	1	.....	.....	Aug. 18	47	5½	1	11½	
	1913									
Sack No. 2 Best Grade Rye Flour.	.....	.....	.....	.....	Sept. 10	49	5	..	....	Stored in office of state department of weights and measures. Cloth sack. Made by I. W. York Co., Portage, Wis. Original moisture content of cereal 8.21%.
	Sept. 10-Oct. 1	15	55	72	Oct. 1	48	10	..	11	
	Oct. 1-Nov. 3	21	48	71	Nov. 3	47	6	1	15	
	Nov. 3-Dec. 4	7	49	71	Dec. 4	47	6	1	15	
					1914					
	Dec. 4-Jan. 3, '14 .	5	37	70	Jan. 3	46	11	2	10	
	1914									
	Jan. 3-Feb. 10	3	32	71	Feb. 10	46	3	3	2	
	Feb. 10-Mar. 3	3	33	71	Mar. 3	45	14	3	7	
	Mar. 3-April 2	4	47	69	April 2	46	6	2	15	
	April 2-May 5	3	62	72	May 5	47	..	2	5	
	May 5-June 9	3	61	77	June 9	47	14	1	7	
	June 9-July 7	3	64	75	July 7	48	2	1	3	
	July 7-Aug. 18	1	.....	.....	Aug. 18	48	6	..	15	

Sack No. 3 Patent Wheat Flour.	1913				1913					Stored in office of state department of weights and measures. Cloth sack. Made from hard wheat by I. W. York Co., Portage, Wis. Original moisture content of cereal 9.70%.
	Oct. 6-Nov. 3	19	48	71	Oct. 6	48	15	..	....	
	Nov. 3-Dec. 4	7	49	71	Nov. 3	47	4	1	11	
					Dec. 4	47	2¼	1	12¼	
					1914					
	Dec. 4-Jan. 3, '14	5	37	70	Jan. 3	46	8	2	7	
	1914									
	Jan. 3-Feb. 10	3	32	71	Feb. 10	46	..	2	15	
	Feb. 10-Mar. 3	3	33	71	Mar. 3	45	10	3	5	
	Mar. 3-April 2	4	47	69	April 2	46	3	2	12	
	April 2-May 5	3	62	72	May 5	46	12	2	3	
	May 5-June 9	3	61	77	June 9	47	9¾	1	5¼	
	June 9-July 7	3	64	75	July 7	47	15¼	..	15¾	
	July 7-Aug. 10	2	60	.....	Aug. 10	47	12½	1	2½	
White River Rye Flour	1913				1913					Stored in office of state department of weights and measures. Paper sack. Made by Walker Milling Co., Wautoma, Wis. Original moisture content of cereal 8.28%.
	Oct. 4-Nov. 3	20	48	71	Oct. 4	10	1¼	..	....	
	Nov. 3-Dec. 4	7	49	71	Nov. 3	9	10¾	..	6½	
					Dec. 4	9	11¼	..	6	
					1914					
	Dec. 4-Jan. 3 '14	5	37	70	Jan. 3	9	8¼	..	9	
	1914									
	Jan. 3-Feb. 10	3	32	71	Feb. 10	9	7½	..	9¾	
	Feb. 10-Mar. 3	3	33	71	Mar. 3	9	6¼	..	11	
	Mar. 3-April 2	4	47	69	April 2	9	8½	..	8¾	
	April 2-May 5	3	62	72	May 5	9	11¼	..	6	
	May 5-June 9	3	61	77	June 9	9	14	..	3¼	
	June 9-July 7	3	61	75	July 7	9	14¾	..	2½	
	July 7-Aug. 18	1	.....	.....	Aug. 18	9	14¼	..	3	
Graham Flour	1913				1913					Stored in office of state department of weights and measures. Paper sack. Purchased in Winneconne, Wis. Original moisture content of cereal 8.12%.
	Sept. 10-Oct. 4	21	55	72	Sept. 10	10	..	..	..	
	Oct. 4-Nov. 3	19	48	71	Oct. 4	9	13¾	..	2¼	
	Nov. 3-Dec. 4	6	49	71	Nov. 3	9	10½	..	5½	
					Dec. 4	9	10¼	..	5¼	

SHRINKAGE TESTS ON FLOURS AND CORN MEAL—Continued.

Brand.	Observations—Humidity and Temperature of Place of Storage.				Weights.					Remarks.
	Date.		No.	Humidity average Per cent.	Temperature average degrees F.	Date.	Gross.		Loss.	
	1913					1914	lbs.	oz.	lbs.	oz.
	Dec.	4-Jan. 3, '14..	5	37	70	Jan. 3	9	9	..	7
	1914									
	Jan.	3-Feb. 10	3	32	71	Feb. 10	9	7¼	..	8¾
	Feb.	10-Mar. 3	3	33	71	Mar. 3	9	6	..	10
	Mar.	3-April 2	4	47	69	April 2	9	8	..	8
	April	2-May 5	3	62	72	May 5	9	10½	..	5½
	May	5-June 9	3	61	77	June 9	9	13½	..	2½
	June	9-July 7	3	61	75	July 7	9	14	..	2
	July	7-Aug. 18	1	.....	.....	Aug. 18	9	14	..	2
	1913					1913				Stored in office of state department of weights and measures. Paper sack. Purchased in Winneconne, Wis. Original moisture content of cereal 7.7%.
	.....		.....	.....	.....	Sept. 13	10	1⅛	..	....
Corn Meal	Sept.	13-Oct. 1	16	55	72	Oct. 1	9	15⅛	..	1¼
	Oct.	1-Nov. 3	22	48	71	Nov. 3	9	11¾	..	5⅜
	Nov.	3-Dec. 4	6	49	71	Dec. 4	9	12¼	..	4⅞
						1914				
	Dec.	4-Jan. 3, '14 .	5	37	70	Jan. 3	9	10	..	7⅛
	1914									
	Jan.	3-Feb. 10	4	32	71	Feb. 10	9	8	..	6¼
	Feb.	10-Mar. 3	3	33	71	Mar. 3	9	7	..	10⅛
	Mar.	3-April 2	4	47	69	April 2	9	9	..	8⅛
	April	2-May 5	3	62	72	May 5	9	12	..	5⅛
	May	5-June 9	3	61	77	June 9	9	15¼	..	1¾
	June	9-July 7	4	64	75	July 7	10	..	..	1⅛

	1913				1913					
Wheat Flour	Aug. 30-Sept. 16	18	81	70	Aug. 30	24	9	..	....	Stored in office of J. M. Kelliher, City Sealer, Green Bay. Paper sack. Original moisture content of cereal 8.8%.
	Sept. 16-Oct. 1	16	68	73	Sept. 16	24	7¾	..	1¼	
	Oct. 1-Oct. 13	11	69	72	Oct. 1	24	¼	..	8¾	
					Oct. 13	23	14¼	..	10¼	
Graham Flour					Aug. 30	10	6½	..	....	Stored in office of J. M. Kelliher, City Sealer, Green Bay. Paper sack. Original moisture content of cereal 7.56%.
	Aug. 30-Oct. 1	32	68	73	Oct. 1	10	4¼	..	2¼	
	Oct. 1-Oct. 13	12	69	72	Oct. 13	10	4¼	..	2¼	
Corn Meal					Sept. 16	9	12¼	..	....	Stored in office of J. M. Kelliher, City Sealer, Green Bay. Paper sack.
	Sept. 16-Oct. 1	16	68	73	Oct. 1	9	9	..	3¼	
	Oct. 1-Oct. 13	11	69	72	Oct. 13	9	8½	..	3¼	
Corn Meal					Aug. 7	9	15¾	..	....	Pagel Milling Co., Stevens Point. Observations made by E. H. Flentie, City Sealer. Original moisture content of cereal 11.2%.
	Aug. 7-Sept. 1	22	....	75	Sept. 1	9	13½	..	2¼	
	Sept. 1-Oct. 1	26	....	70	Oct. 1	9	13½	..	2¼	
					1913					
Corn Meal					Oct. 9	10	4	..	....	Jackson Milling Co., Stevens Point, Wis. Observations made by E. H. Flentie, City Sealer.
					Nov. 1	10	5	..	*1	
					Nov. 3	10	2	..	2	
					Dec. 1	10	1	..	3	
					1914					
					Jan. 5	10	..	..	4	
					Jan. 19	9	13½	..	6½	
Corn Meal					April 20	10	..	..	....	Stored in warehouse of Northern Milling Co., Wausau, Wis. Observations made by J. H. Pomeroy, City Sealer. Original moisture content of cereal 15.3%.
					April 24	9	14	..	2	
					May 4	9	9	..	7	
					June 2	9	2½	..	13½	
					June 25	9	4	..	12	
					1914					
Patent Pure Quality Wheat Flour.					Mar. 13	98	4	..	....	Stored in warehouse of Northern Milling Co., Wausau, Wis. Observations made by J. H. Pomeroy, City Sealer.
					Mar. 23	97	..	1	4	
					April 4	95	8	2	12	
					April 15	95	4	3	....	
					April 24	95	5	2	15	
					May 4	95	7	2	13	
					May 14	91	13	3	7	

*gain.

SHRINKAGE TESTS ON FLOURS AND CORN MEAL—Concluded.

Brand.	Observations—Humidity and Temperature of Place of Storage.				Weights.					Remarks.
	Date.	No.	Humidity average Per cent.	Temperature average degrees F.	Date.	Gross.		Loss.		
					1914	lbs.	oz.	lbs.	oz.	
First Clear Wheat Flour.					Mar. 13	98	4	..	....	Stored in warehouse of Northern Milling Co., Wausau, Wis. Observations made by J. H. Pomeroy, City Sealer.
					Mar. 23	97	3	1	1	
					April 4	96	11	1	9	
					April 15	96	7	1	13	
					April 24	96	8½	1	11½	
					May 4	96	9	1	11	
					May 14	96	..	2	4	
					1914					
Pure Quality Wheat Flour.					Mar. 13	49	3	..	....	Stored in warehouse of Northern Milling Co., Wausau, Wis. Observations made by J. H. Pomeroy, City Sealer.
					Mar. 23	48	4½	..	14½	
					April 4	47	8½	1	10½	
					April 15	47	6	1	13	
					April 24	47	7½	1	11½	
					May 4	47	8½	1	10½	
					May 14	47	2½	2	½	

Respectfully submitted,

FRED P. DOWNING,
Chief Inspector.

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