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State Dairy and Food Commissioner
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1899

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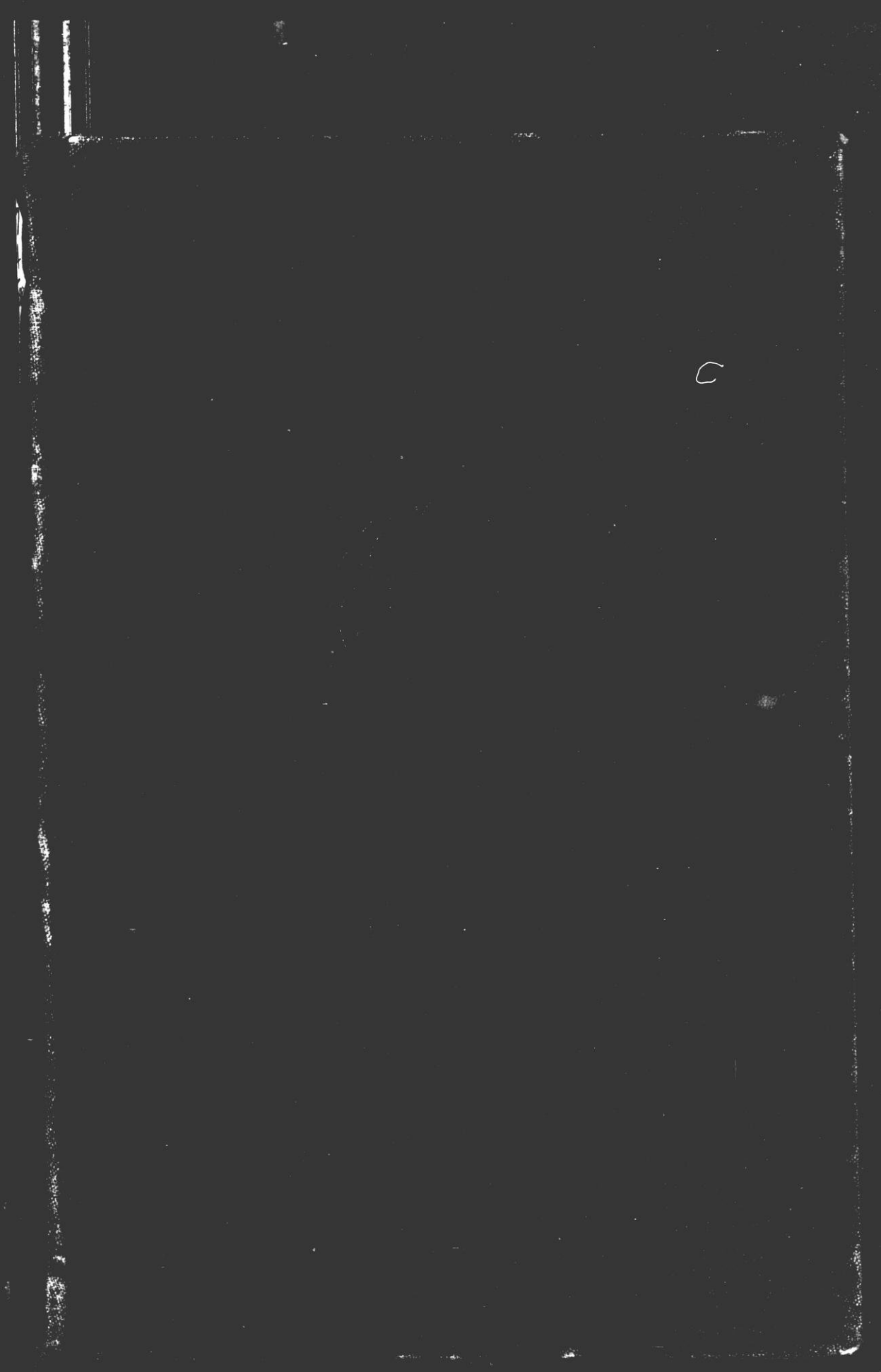
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BIENNIAL REPORT

OF THE

Dairy and Food Commissioner

OF

WISCONSIN

For the Years 1897-1898.

H. C. ADAMS,

Dairy and Food Commissioner.



MADISON

DEMOCRAT PRINTING COMPANY, STATE PRINTER.

1899.

WISCONSIN DAIRY AND FOOD COMMISSION.

H. C. ADAMS,	-	-	-	-	-	Commissioner.
W. W. CHADWICK,	-	-	-	-	-	Dairy Expert.
A. S. MITCHELL,	-	-	-	-	-	Chemist.
N. J. FIELD,	-	-	-	-	-	Dairy Inspector.
FLORENCE Q. NORTON,	-	-	-	-	-	Stenographer and Confidential Clerk.

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LETTER OF TRANSMITTAL.

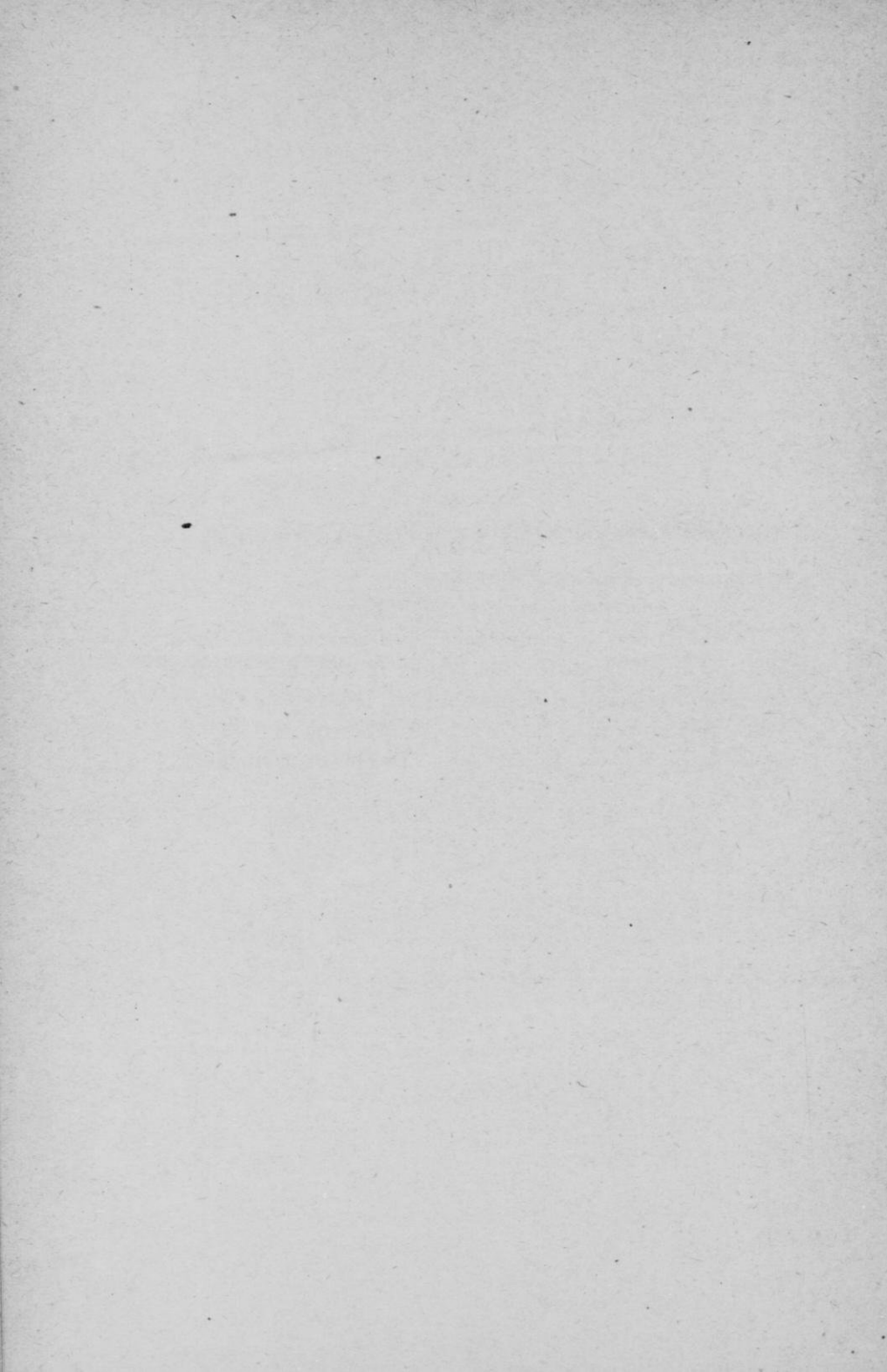
MADISON, WIS., Oct. 1, 1898.

To his Excellency, EDWARD SCOFIELD,

Governor of the State of Wisconsin:

I have the honor, in compliance with chapter 109, laws of 1893, to submit herewith the report of this commission for the two years ending September 30, 1898.

H. C. ADAMS,
Commissioner.



Dairy and Food Laws

OF WISCONSIN.

OF THE OFFICE AND DUTIES OF THE DAIRY AND FOOD COMMISSIONER.

1. Appointment, term and compensation. [Sec. 1; ch. 452, laws of 1889.] The office of dairy and food commissioner for the state of Wisconsin, is hereby created. Such commissioner shall be appointed by the governor, by and with the advice and consent of the senate, and his term of office shall be for two years from the date of his appointment, and until his successor is appointed and qualified; provided, that the term of office of the commissioner first appointed under this act shall expire on the first Monday in February, 1891; and vacancies occurring in the office for any cause shall be filled by appointment for the balance of the unexpired term. The salary of the commissioner shall be twenty-five hundred dollars per annum and his necessary and actual expenses incurred in the discharge of his official duties.

2. Assistants, their qualifications and salaries. [Sec. 2, ch. 452, laws of 1889.] Such commissioner may, with the consent and advice of the governor, appoint two assistants, each of acknowledged standing, ability and integrity, one of whom shall be an expert in the matter of dairy products and the other of whom shall be a practical analytical

chemist. The salaries of such assistants shall not exceed eighteen hundred dollars each per annum and their necessary and actual expenses incurred in the discharge of their official duties.

Ch. 355, of the laws of 1897, fixes the salary of the assistant commissioner at \$1,600; of the chemist at \$1,800, and of the commissioner's stenographer and confidential clerk at \$900.

3. Agent to inspect dairies, etc. [Ch. 328, laws of 1897.] The dairy and food commissioner, with the approval of the governor, shall have authority to appoint an agent for the inspection of milk dairies, factories and creameries, and to assist in the work of the dairy and food commission at such times, and for such periods of time as may be required in the enforcement of the dairy and food laws of the state. The compensation of such agent shall be three dollars per day for each day of actual service, and his expenses, to be paid by the state.

4. Commissioner's duties. [Sec. 3, ch. 452, laws of 1889.] It shall be the duty of the commissioner to enforce all laws that now exist, or that may hereafter be enacted in this state, regarding the production, manufacture or sale of dairy products, or the adulteration of any article of food or drink or of any drug; and personally or by his assistants to inspect any article of milk, butter, cheese, lard, syrup, coffee or tea, or other article of food or drink or drug, made or offered for sale within this state which he may suspect or have reason to believe to be impure, unhealthful, adulterated or counterfeit, and to prosecute, or cause to be prosecuted, any person or persons, firm or firms, corporation or corporations engaged in the manufacture or sale of any adulterated or counterfeit article or articles of food or drink or drug, contrary to the laws of this state.

5. His powers — Sealing samples — Refusing to sell for analysis. [Sec. 4, ch. 452, laws of 1889.] Said commissioner or any assistant shall have power in the perform-

ance of his official duties to enter into any creamery, factory, store, salesroom or other place or building where he has reason to believe that any food or drink or drug is made, prepared, sold or offered for sale, and to open any cask, tub, package or receptacle of any kind containing or supposed to contain, any such article, and to examine or cause to be examined and analyzed the contents thereof; and the commissioner or any of his assistants may seize or take any article of food or drink or drug for analysis, but if the person from whom such sample is taken shall request him to do so, he shall at the same time, and in the presence of the person from whom such property is taken, securely seal up two samples of the article seized or taken, the one of which shall be for examination or analysis under the direction of the commissioner, and the other of which shall be delivered to the person from whom the articles were taken. And any person who shall obstruct the commissioner or any of his assistants by refusing to allow him entrance to any place which he desires to enter in the discharge of his official duty, or refuses to deliver to him a sample of any article of food or drink or drug made, sold, offered or exposed for sale by such person, when the same is requested and when the value thereof is tendered, shall be deemed guilty of a misdemeanor punishable by a fine of not exceeding twenty-five dollars for the first offense and not exceeding five hundred dollars or less than fifty dollars for each subsequent offense.

Questions of evidence as to sealing and analysis. If there is contradictory evidence concerning the sufficiency of the seal of a sample, and the credibility of the witnesses for the prosecution is submitted to the jury, the defendant is not injured. If there is evidence that a few drops of carbolic acid was added to a sample of milk, and it is submitted to the jury as a question of fact whether this would change the character of the milk, make the analysis impossible or difficult, or in any way injuriously affect the sample for the purpose of analysis, the defendant has no cause of complaint. *Commonwealth v. Spear*, 143 Mass., 172.

It is observed of a similar statute that it is intended to secure a fair examination and analysis, by providing the defendant with the means of

making an analysis of a portion of the same specimen which the state has analyzed. If the sample is not saved, or not saved in proper condition, he has no means of showing that his evidence, if any he has as to the quality of the milk, applies to that with reference to which the government witnesses have testified. It cannot be said that a portion reserved is sealed, within the meaning of the statute, when wax is merely placed on the top of the cork, and not extended over the mouth of the bottle, thus making it airtight, if it is shown that the character of the milk will be affected by the air. *Commonwealth v. Lockhardt*, 144 Mass., 132.

Where the article analyzed has not been taken under the statute the competency of evidence is to be determined by the common law, and the testimony of any person who had sufficient skill to analyze it, and who has analyzed some which was proven to have been sold by the defendant, is admissible. *Commonwealth v. Holt*, 146 Mass., 38.

6. District attorneys to assist—Disposition of fines.
[Sec. 5, ch. 452, laws of 1889.] It shall be the duty of the district attorney in any county of the state, when called upon by the commissioner or any of his assistants, to render any legal assistance in his power to execute the laws, and to prosecute cases arising under the provisions of this act; and all fines and assessments collected in any prosecution begun or caused to be begun by said commissioner or his assistants shall be paid into the state treasury.

Counsel may be employed. See paragraph 24 which also provides that district attorneys shall assist the commissioner.

7. Analysis of articles— Assistance at institutes, etc.
[Sec. 6, ch. 452, laws of 1889.] With the consent of the governor, the state board of health may submit to the commissioner, or to any of his assistants, samples of water or of food or drink or drugs, for examination or analysis, and receive special reports showing the result of such examination or analysis. And the governor may also authorize the commissioner or his assistants, when not otherwise employed in the duties of their offices, to render such assistance in the farmers' institutes, dairy and farmers' conventions, and the agricultural department of the university, as shall by the authorities be deemed advisable.

8. Payment of salaries and expenses. [Sec. 7, ch. 452, laws of 1889.] The salaries of the commissioner and his assistants shall be paid out of the state treasury in the same manner as the salaries of other officers are paid, and their official expenses shall be paid at the end of each calendar month upon bills duly itemized and approved by the governor, and the amount necessary to pay such salaries and expenses is hereby appropriated annually.

9. Laboratory, and materials for. [Sec. 8, ch. 452, laws of 1889.] The commissioner may, under the direction of the governor, fit up a laboratory, with sufficient apparatus for making the analysis contemplated in this act, and for such purpose the sum of fifteen hundred dollars, or so much thereof as may be necessary, is hereby appropriated, and for the purpose of providing materials and for other necessary expenses connected with the making of such analyses, there is also hereby appropriated so much as may be necessary, not exceeding six hundred dollars annually. The appropriations provided for in this section shall be drawn from the state treasury upon the certificates of the governor.

10. Biennial report. [Sec. 9, ch. 452, laws of 1889, as amended by ch. 109, laws of 1893.] Said commissioner shall be furnished a suitable office in the capitol at Madison, and shall make a biennial report to the governor, which shall contain an itemized account of all expenses incurred and fines collected, with such statistics and other information as he may regard of value; and with the consent of the governor not exceeding twenty thousand copies thereof, limited to three hundred pages, may be published biennially, as other official reports are published, and of which five thousand copies shall be bound in cloth.

Stationery. Ch. 197, laws of 1895, authorizes the commissioner to obtain stationery for the use of his office.

SALE OF IMPURE MILK.

11. Penalty for. [Sec. 1, ch. 425, laws of 1889, as amended by ch. 106, laws of 1897.] Any person who shall sell or offer for sale, or furnish or deliver, or have in possession, with intent to sell or offer for sale or furnish or deliver to any creamery, cheese factory, corporation, person or persons whatsoever, as pure, wholesome and unskimmed, any unmerchantable, adulterated, impure, or unwholesome milk, shall, upon conviction thereof, be punished by a fine of not less than twenty-five nor more than one hundred dollars for each and every offense.

Validity of statute. A New York law (ch. 183 of 1885, ch. 202 of 1884), providing that "no person or persons shall sell, supply or bring to be manufactured, to any butter or cheese manufactory, any milk diluted with water, or any unclean, impure, unhealthy, adulterated or unwholesome milk," has been sustained as a valid exercise of legislative power. *People v. West*, 106 N. Y., 293.

Construction — Indictment. The New York law does not make fraudulent intent a necessary ingredient of the offense and it would not be a reasonable construction of it to apply it to a dairyman who owns and conducts a butter or cheese factory for the manufacture of those articles from milk furnished exclusively by himself, from his own cows. If the defendant is such a person, these facts are matter of defense, and their existence need not be negated on the face of the indictment. *People v. West*, 106 N. Y., 293.

Under a Massachusetts law imposing a penalty for selling or offering to sell "adulterated milk, or milk to which any foreign substance has been added," it is immaterial whether the substance added is injurious or not. The indictment need not allege the quantity of such substance. *Commonwealth v. Schaffner*, 16 Northeast. Rep., 280, 146 Mass., 512.

Under an act which prohibits the sale of milk which is not of a good, standard quality, the fact that the milk was delivered under a contract to furnish the person who bought it with the milk of one dairy, is not a defense if that furnished was not of such quality. The contract would be held to contemplate milk which should be bought and sold. *Commonwealth v. Holt*, 14 Northeast. Rep., 930, 146 Mass., 38.

Intent to sell, evidence of. Where one is charged with having in his possession, with intent to sell, milk which is not of a good, standard quality, the fact that he was upon a wagon which had his name painted on it, and that therein were cans of milk, and that a sample was given from one of them to one employed by the milk inspector for analysis, is competent evidence go to the jury upon the question of his intent. *Commonwealth v. Rowell*, 15 Northeast. Rep., 154, 146 Mass., 128.

Effect of the act of 1889 upon previous laws. It seems reasonably clear that sec. 1, of ch. 425, laws of 1889, as amended by ch. 106, laws of 1897, paragraph 11, supersedes sec. 1, of ch. 157, laws of 1887, as to the offense of selling diluted, impure and unclean milk. Both the acts referred to cover the provisions of sec. 4607, R. S., and hence that section is not in force.

What is a sale. A restaurant keeper who sells milk to be drunk by his guests on his premises is liable if the milk so sold is not of the prescribed quality. *Commonwealth v. Vieth*, 155 Mass., 442. See note to paragraph 17. Milk bought by a guest and delivered to him as part of his meal is as much a sale as if a specific price had been put upon it, or it had been bought or paid for by itself. *Commonwealth v. Warren*, 160 Mass., 533.

12. Standard for pure. [Sec. 2, ch. 425, laws of 1889.] In all prosecutions or other proceedings under this or any other law of this state relating to the sale or furnishing of milk, if it shall be proven that the milk sold or offered for sale, or furnished or delivered, or had in possession with intent to sell or offer for sale, or to furnish or deliver as aforesaid, as pure, wholesome and unskimmed, contains less than three per centum of pure butter fat, when subjected to chemical analysis or other satisfactory test, or that it has been diluted or any part of its cream abstracted, or that it or any part of it was drawn from cows known to the person complained of to have been within fifteen days before or four days after parturition, or to have any disease or ulcers or other running sores, then and in either case the said milk shall be held, deemed and adjudged to have been unmerchantable and adulterated, impure or unwholesome, as the case may be.

Validity of provision as to standard of purity. The supreme court of New York has ruled that a statute which provides that milk which contains less than three per centum of fat shall be declared adulterated is un-

unconstitutional. The ground upon which this was held was that the statute deprived the defendant of his liberty and property without due process of law, in that it barred him of the right upon the trial of the accusation against him to have the issue determined according to what might be the proof, and compelled him to submit to the statutory declaration thereof, without regard to the truth. *People v. Cipperly*, 37 Hun, 317. This decision was not unanimous, and on appeal was reversed by the court of appeals, without opinion, and on the grounds given by the dissenting judge of the supreme court. *People v. Cipperly*, 101 N. Y., 634.

A law of New Hampshire (ch. 42, laws of 1883), prohibited the sale of adulterated milk, or milk to which water or any foreign substance has been added, or, as pure, milk from which the cream or a part thereof has been removed. It authorized inspectors of milk to take samples and cause the same to be analyzed, and expressed that in all prosecutions under it if the milk is shown by analysis to contain more than eighty-seven per cent. of watery fluid, or less than thirteen per cent. of milk solids, it shall be deemed for the purposes of the statute to be adulterated. It was contended that the clause fixing the standard was unconstitutional. In answer the court said: "The statute tends to discourage the breeding of a certain class of cattle for the supply of the milk market. The difficulty of guarding against the adulteration of milk may have influenced the legislature in fixing a standard of richness. Practically it makes no difference whether milk is diluted after it is drawn from the cow, or whether it is made watery by giving her such food as will produce milk of an inferior quality, or whether the dilution, regarded by the legislature as excessive, arises from the nature of a particular animal, or a particular breed of cattle. The sale of such milk to unsuspecting consumers, for a price in excess of its value, is a fraud which the statute was designed to suppress. It is a valid exercise by the legislature of the police power for the prevention of fraud, and protection of the public health, and as such is constitutional." *State v. Campbell*, 64 N. H., 402.

In Rhode Island a similar provision has been sustained against an objection to its validity on the ground that it virtually confined the testimony to the analysis of the samples taken by the inspector, which samples were destroyed in making the analysis, so that the testimony could not be controverted. The court, however, was of the opinion "that the testimony, though it may not always be practicable to controvert it directly by another analysis, can be controverted by evidence of collateral facts going to prove that the analysis is incorrect, and, therefore, that the act is not unconstitutional for the reason alleged." *State v. Groves*, 15 R. I., 208, 1 Atl. Rep., 384. *Shivers v. Newton*, 45 N. J. L., 469, is to much the same effect.

Intent immaterial. The doing of the act condemned by the law constitutes the offense, if it is silent as to the knowledge or intent of the person who is charged with violating it. *People v. Kibler*, 106 N. Y., 321, 12 N. E. Rep., 795.

13. Proof of adulteration, how made. [Sec. 2, ch. 157, laws of 1887, as amended by ch. 344, laws of 1889.] Proof of adulterations and skimming may be made with such standard tests and lactometers as are used to determine the quality of milk, or by chemical analysis.

14. Sale, etc., of milk or cream containing antiseptics injurious to health. [Ch. 168, laws of 1895.] Any person who shall sell or offer for sale, or consign, or have in his possession with intent to sell to any person or persons, any milk, cream, butter, cheese, or other dairy products, or who shall deliver to any creamery or cheese factory, milk or cream to be manufactured into butter or cheese, to which boracic acid, salicylic acid, or compounds containing them, or other antiseptics injurious to health, have been added, shall be deemed guilty of a misdemeanor, and upon conviction thereof be punished by a fine of not less than twenty-five nor more than one hundred dollars for each and every offense.

Intent to sell. See note to paragraph 11.

IMITATION BUTTER AND CHEESE.

15. Filled cheese. [Sec. 1, ch. 30, laws of 1895.] No person, by himself or by his agents or servants, shall manufacture, or shall buy, sell, offer, ship, consign, expose or have in his possession for sale any cheese manufactured from or by the use of skimmed milk to which there has been added any fat which is foreign to such milk.

16. Size of skimmed-milk cheese. [Sec. 2, ch. 30, laws of 1895.] No person, by himself or by his agents or servants, shall manufacture, or shall buy, sell, offer, ship, consign, expose or have in his possession for sale, within this state, any skimmed milk cheese, or cheese manufactured from milk from which any of the fat originally contained therein has been removed, except such cheese is ten inches in diameter and nine inches in height.

17. Imitation butter. [Sec. 3, ch. 30, laws of 1895.] No person, by himself or by his agents or servants, shall render or manufacture, sell, ship, consign, offer for sale, expose for sale, or have in his possession with intent to sell, any article, product or compound made wholly or partly out of any fat, oil or oleaginous substance or compound thereof, not produced from unadulterated milk or cream from the same, and without the admixture or addition of any fat foreign to said milk or cream, which shall be in imitation of yellow butter produced from pure unadulterated milk or cream of the same, with or without coloring matter; provided, that nothing in this act shall be construed to prohibit the manufacture or sale of oleomargarine in a separate and distinct form and in such manner as will advise the consumer of its real character, free from coloration or ingredient that causes it to look like butter.

Validity. The foregoing section is almost an exact copy of sec. 1 of ch. 5, acts of Massachusetts, 1891. The words, "ship, consign," "and without the admixture or addition of any fat foreign to said milk or cream," found in this section, are not in the Massachusetts act. In *Commonwealth v. Huntley*, 156 Mass., 236, 30 N. E. Rep., 1127, the question of the validity of the act referred to came before the court. It was an agreed fact that the oleomargarine sold by the defendant was brought to Massachusetts from another state, and was sold there in the original package, and assumed by the court that it was wholesome, palatable and nutritious. The validity of the act, so far as the state constitution was concerned, does not appear to have been questioned. On this branch of the subject, the court quoted from the opinion of the court of appeals of Missouri in the case of *State v. Addington*, 12 Mo. App., 214, 223, language which has been approved by the supreme court of Pennsylvania in *Powell*

v. Commonwealth, 114 Penn. St., 265, 266, a case which was carried to the supreme court of the United States, and there affirmed, *Powell v. Pennsylvania*, 127 U. S., 678: "If an article of food is of such a character that few persons will eat it knowing its real character; if, at the same time, it is of such a nature that it can be imposed upon the public as an article of food which is in common use, and against which there is no prejudice; and if, in addition to this, there is probable ground for believing that the only way to prevent the public from being defrauded into purchasing the counterfeit article for the genuine is to prohibit altogether the manufacture and sale of the former, then we think such a prohibition may stand as a reasonable police regulation, although the article prohibited is in fact innocuous, and although its production might be found beneficial to the public, if in buying it they could distinguish it from the production of which it is the imitation." The Massachusetts court also said that "in New Hampshire, Missouri, Minnesota, New York, New Jersey, and Pennsylvania, statutes prohibiting the sale of oleomargarine made in imitation of butter have been upheld by the courts as valid. *State v. Marshall*, 64 N. H., 549; *State v. Addington*, 77 Mo., 110, 12 Mo. App., 214; *Butler v. Chambers*, 36 Minn., 69; *People v. Arensberg*, 105 N. Y., 123; *State v. Newton*, 21 Vroom (50 N. J. L.), 534; *Powell v. Commonwealth*, 114 Penn. St., 265." To the same effect are *McAllister v. State*, 72 Md., 390; *Weideman v. State*, 56 N. W. Rep., 688; *State ex rel. v. Horgan*, 55 Minn., 183. The doubtful question in the Massachusetts case arose under the provision of the constitution of the United States giving to congress power to regulate commerce among the several states. On this point, inasmuch as the statute only applied to oleomargarine which was deceptive, and authorized the sale, under restrictions, of that which was not deceptive, and did not forbid the transportation or storage of the former, a majority of the court held it valid. *Commonwealth v. Huntley*, 156 Mass., 236, 30 N. E. Rep., 1127.

The ruling of the United States supreme court. The validity of the Massachusetts statute, so far as it was affected by the clause of the federal constitution giving congress power over commerce, came before the supreme court of the United States in *Plumley v. Massachusetts*, 155 U. S., 461. It was there held, by a majority of the judges (three dissenting), that the federal statute imposing special taxes upon manufacturers and wholesale and retail dealers in oleomargarine does not restrict the power of the states over the manufacture and sale thereof within their respective limits. "The taxes prescribed by that act were imposed for national purposes, and their imposition did not give authority to those who paid them to engage in the manufacture or sale of oleomargarine in any state which lawfully forbade such manufacture or sale, or to disregard any regulation which a state might lawfully prescribe in reference to that article. . . .

Nor was the act of congress relating to oleomargarine intended as a regulation of commerce among the states. Its provisions do not have special application to the transfer of oleomargarine from one state of the union to another. They relieve the manufacturer or seller, if he conforms to the regulations prescribed by congress or by the commissioner of internal revenue, under the authority conferred upon him in that regard, from penalty or punishment so far as the general government is concerned, but they do not interfere with the exercise by the states of any authority they possess of preventing deception or fraud in the sales of property within their respective limits."

The opinion of the court then proceeds to discuss the validity of the statute of Massachusetts as affected by the commerce clause of the federal constitution. "It will be observed," said Justice Harlan, "that the statute of Massachusetts which is alleged to be repugnant to" that clause "does not prohibit the manufacture or sale of all oleomargarine, but only such as is colored in imitation of yellow butter produced from pure unadulterated milk or cream of such milk. If free from coloration or ingredient that causes it to look like butter, the right to sell it 'in a separate and distinct form, and in such manner as will advise the consumer of its real character,' is neither restricted nor prohibited. It appears, in this case, that oleomargarine, in its natural condition, is of a 'light yellowish color,' and that the article sold by the accused was artificially colored 'in imitation of yellow butter.' Now the real object of coloring oleomargarine so as to make it look like genuine butter is that it may appear to be what it is not, and thus induce unwary purchasers, who do not closely scrutinize the label upon the package in which it is contained, to buy it as and for butter produced from unadulterated milk or cream from such milk. The suggestion that oleomargarine is artificially colored so as to render it more palatable and attractive can only mean that customers are deluded, by such coloration, into believing that they are getting genuine butter. If any one thinks that oleomargarine, not artificially colored so as to cause it to look like butter, is as palatable or wholesome for purposes of food as pure butter, he is as, already observed, at liberty under the statute of Massachusetts to manufacture it in that state or to sell it there in such manner as to inform the customer of its real character. He is only forbidden to practice, in such matters, a fraud upon the general public. The statute seeks to suppress false pretenses and to promote fair dealing in the sale of an article of food. It compels the sale of oleomargarine for what it really is, by preventing its sale for what it is not."

After reviewing many of the cases cited by the supreme court of the United States and relied upon by counsel for the defendant to support his contention that the statute was void, the opinion uses this language: "In none of the above cases is there to be found a suggestion

or intimation that the constitution of the United States took from the states the power of preventing deception and fraud in the sale, within their respective limits, of articles in whatever state manufactured, or that that instrument secured to any one the privilege of committing a wrong against society. . . . If there be any subject over which it would seem the states ought to have plenary control, and the power to legislate in respect to which it ought not to be supposed was intended to be surrendered to the general government, it is the protection of the people against fraud and deception in the sale of food products. Such legislation may, indeed, indirectly or incidentally affect trade in such products transported from one state to another state. But that circumstance does not show that laws of the character alluded to are inconsistent with the power of congress to regulate commerce among the states. For, as said by this court in *Sherlock v. Alling*, 93 U. S., 99, 103: 'In conferring upon congress the regulation of commerce, it was never intended to cut the states off from legislating on all subjects relating to the health, life and safety of their citizens, though the legislation might indirectly affect the commerce of the country. Legislation, in a great variety of ways, may affect commerce and persons engaged in it without constituting a regulation of it within the meaning of the constitution. . . . And it may be said generally, that the legislation of a state, not directed against commerce or any of its regulations, but relating to the rights, duties, and liabilities of citizens, and only indirectly and remotely affecting the operations of commerce, is of obligatory force upon citizens within its territorial jurisdiction, whether on land or water, or engaged in commerce, foreign or interstate, or in any other pursuits.'

The opinion of the court then proceeds to point out that the case of *Leisy v. Hardin*, 135 U. S., 100, in which it was held that ardent spirits, distilled liquors, ale and beer, were subjects of exchange, barter and traffic, and, being articles of commerce, their sale while in the original packages in which they are carried from one state to another, could not, without the assent of congress, be forbidden by the state into which they were transported, was not conclusive of the case before it, because the articles sold in that case were what they purported to be. The opinion of the majority of the court on the Massachusetts statute concluded thus: "We are of opinion that it is within the power of a state to exclude from its markets any compound manufactured in another state, which has been artificially colored or adulterated so as to cause it to look like an article of food in general use, and the sale of which may, by reason of such coloration or adulteration, cheat the general public into purchasing that which they may not intend to buy. The constitution of the United States does not secure to any one the privilege of defrauding the public. The deception against which the statute of Massachusetts is

aimed is an offense against society; and the states are as competent to protect their people against such offenses or wrongs as they are to protect them against crimes or wrongs of more serious character. And this protection may be given without violating any right secured by the national constitution, and without infringing the authority of the general government. A state enactment forbidding the sale of deceitful imitations of articles of food in general use among the people does not abridge any privilege secured to citizens of the United States, nor, in any just sense, interfere with the freedom of commerce among the several states."

Expose for sale. Under the English statute regulating the sale of margarine it has been held that margarine kept for sale upon the counter of a shop, but behind a screen hiding it from the view of customers, is not exposed for sale, *Crane v. Lawrence*, 25 Queen's B. Div., 152; and that parcels of margarine placed upon a counter or shelf, in view of customers, are exposed for sale, although so wrapped in paper that the margarine cannot be seen. *Wheat v. Brown*, [1892] 1 Queen's B., 418.

In Massachusetts, from whence this section was borrowed (see first sentence of note), the court has said, in a case decided in 1893, that whenever goods are placed for convenient delivery upon expected sales, they are put out and in one sense exposed for sale. But in our opinion, the words are not so used in the statute under consideration. The prohibited articles are designed and adapted to deceive the eye, and because their appearance is likely to induce those who see them to buy them as the genuine of butter of which they are in imitation, there is special reason for prohibiting their exposure to view. It was held that oleomargarine colored in imitation of yellow butter and kept for sale in a shop, so long as it is in a closed and covered refrigerator and cannot be seen by customers, is not exposed for sale, notwithstanding there is a sign in the shop to the effect that oleomargarine is sold there. *Commonwealth v. Byrnes*, 158 Mass., 172.

Sale, what is. A restaurant keeper who furnishes oleomargarine to a customer, as part of a meal ordered by the latter, sells the same, notwithstanding the meal is paid for as a whole, and the oleomargarine is not eaten, but carried away. *Commonwealth v. Miller*, 131 Pa., 118. See note to paragraph 11.

A foreign manufacturer who puts up oleomargarine in packages evidently adopted for and intended to meet the requirements of an unlawful retail trade in another state, sending them to an agent there for sale to consumers, is not engaged in interstate commerce, but in an effort to carry on a forbidden business. *Commonwealth v. Paul*, 170 Pa., 284.

18. Sale of. [Sec. 4, ch. 30, laws of 1895.] It shall be unlawful for any person to sell or offer for sale to any person who asks, sends or inquires for butter, any oleomarga-

rine, butterine or any substance made in imitation or semblance of pure butter not made entirely from the milk of cows, with or without coloring matter.

19. Notice of sale of oleomargarine, etc. [Sec. 5, ch. 30, laws of 1895.] It shall be unlawful for any person to expose for sale oleomargarine, butterine, or any similar substance not marked and distinguished on the outside of each tub, package or parcel thereof by a placard with the word "oleomargarine," and not having also upon every open tub, package or parcel thereof a placard with the word "oleomargarine," such placard in each case to be printed in plain, uncondensed gothic letters not less than one inch long, and such placard shall not contain any other words thereon.

Expose for sale. See note to paragraph 17.

Provision valid. See note to paragraph 17. A statute which provides that no person shall sell any lard, or any article intended for use as lard, which contains any ingredient but the pure fat of healthy swine, under any label bearing the words "refined," "pure," "family," unless every package in which the article is sold is marked "compound lard," has been sustained as valid by the supreme court of Iowa. *State v. Snow*, 47 N. W. Rep., 777.

In Minnesota a statute which makes it a misdemeanor to manufacture for sale within that state, or to sell or offer to do so, baking powder containing alum, unless each package thereof is labelled, "this baking powder contains alum," has been sustained. *Stoltz v. Thompson*, 46 N. W. Rep., 410.

In Ohio it has been held that it is "within the undoubted power of the legislature to prohibit the sale of substances having the semblance of butter or cheese, but not wholly made from pure cream or milk, unless each package of such substance should have printed, stamped or marked thereon, in the manner prescribed by the statute, the name of each article used in, or entering into, the composition of such substance, and this power is possessed by the legislature over the sale of articles protected by letters patent as well as of those not protected." *Palmer v. State*, 39 Ohio St., 237.

20. Same, notice, how given. [Sec. 6, ch. 30, laws of 1895.] It shall be the duty of every person who sells oleomargarine, butterine, or any similar substance, from any dwelling, store, office or public mart, to have conspicuously

aimed is an offense against society; and the states are as competent to protect their people against such offenses or wrongs as they are to protect them against crimes or wrongs of more serious character. And this protection may be given without violating any right secured by the national constitution, and without infringing the authority of the general government. A state enactment forbidding the sale of deceitful imitations of articles of food in general use among the people does not abridge any privilege secured to citizens of the United States, nor, in any just sense, interfere with the freedom of commerce among the several states."

Expose for sale. Under the English statute regulating the sale of margarine it has been held that margarine kept for sale upon the counter of a shop, but behind a screen hiding it from the view of customers, is not exposed for sale, *Crane v. Lawrence*, 25 Queen's B. Div., 152; and that parcels of margarine placed upon a counter or shelf, in view of customers, are exposed for sale, although so wrapped in paper that the margarine cannot be seen. *Wheat v. Brown*, [1892] 1 Queen's B., 418.

In Massachusetts, from whence this section was borrowed (see first sentence of note), the court has said, in a case decided in 1893, that whenever goods are placed for convenient delivery upon expected sales, they are put out and in one sense exposed for sale. But in our opinion, the words are not so used in the statute under consideration. The prohibited articles are designed and adapted to deceive the eye, and because their appearance is likely to induce those who see them to buy them as the genuine of butter of which they are in imitation, there is special reason for prohibiting their exposure to view. It was held that oleomargarine colored in imitation of yellow butter and kept for sale in a shop, so long as it is in a closed and covered refrigerator and cannot be seen by customers, is not exposed for sale, notwithstanding there is a sign in the shop to the effect that oleomargarine is sold there. *Commonwealth v. Byrnes*, 158 Mass., 172.

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20. Same, notice, how given. [Sec. 6, ch. 30, laws of 1895.] It shall be the duty of every person who sells oleomargarine, butterine, or any similar substance, from any dwelling, store, office or public mart, to have conspicuously

posted thereon the placard or sign, in letters not less than four inches in length, "oleomargarine sold here," or "butterine sold here." Such placard shall be approved by the dairy and food commissioner of the state of Wisconsin.

21. Notice of sale from vehicles. [Sec. 7, ch. 30, laws of 1895.] It shall be unlawful for any person to peddle, sell or deliver from any cart, wagon or other vehicle, upon the public streets or ways, oleomargarine, butterine, or any similar substance, not having on the outside of both sides of said cart, wagon or other vehicle the placard in uncondensed gothic letters, not less than three inches in length, "licensed to sell oleomargarine."

This section is not in the exact words of sec. 4, ch. 412, acts of Mass., 1891, though it is modeled after it. That act does not use the words "on the outside of both sides," etc., but contained the phrase "on both sides of the vehicle." It was held that placing the placards on the inside of the cover of the wagon, which was open at both ends, was not a compliance with the law. It was also ruled that the statute was not in conflict with the act of congress authorizing the licensing of the sale of oleomargarine. *Commonwealth v. Crane*, 158 Mass., 218, 33 N. E. Rep., 388.

22. Notice to guests at hotels, etc. [Sec. 8, ch. 30, laws of 1895.] It shall be unlawful for any person to furnish, or caused to be furnished, in any hotel, boarding house, restaurant, or at any lunch counter, oleomargarine, butterine or any similar substance to any guest or patron of said hotel, boarding house, restaurant, or lunch counter, without first notifying such guest or patron that the substance so furnished is not butter.

See notes to paragraphs 17, 19, 21. This section is similar to sec. 5, ch. 412, Mass. acts, 1891. Notice given by printed signs and on the bills of fare satisfies the statute; it need not be given, either orally or in writing, to each guest on every occasion when he is furnished with oleomargarine or butterine in the stead of butter. *Commonwealth v. Stewart*, 159 Mass., 113.

23. Penalties. [Sec. 9, ch. 30, laws of 1895.] Any person who shall violate any of the provisions of this act shall

be guilty of a misdemeanor, and upon conviction thereof shall be punished for the first offense by a fine of not less than fifty dollars nor more than five hundred dollars; and upon conviction of any subsequent offense shall be punished by a fine of not less than one hundred dollars or more than five hundred dollars, or by imprisonment in the county jail of not less than ten days nor more than sixty days, or by both such fine and imprisonment, at the discretion of the court.

24. Duty of district attorneys — Special counsel. [Sec. 10, ch. 30, laws of 1895.] It shall be the duty of the district attorney in any county of the state, when called upon by the dairy and food commissioner of this state, or any of his assistants, to render any legal assistance in his power to execute, and to prosecute the cases arising under the provisions of this act; and the dairy and food commissioner shall have power to appoint, with the approval of the governor, special counsel to prosecute or to assist in the prosecution of any case arising under the provisions of this act.

25. Butter and cheese, use of, in state institutions. [Sec. 7, ch. 165, laws of 1891.] No butter or cheese not made wholly and directly from pure milk or cream, salt and harmless coloring matter shall be used in any of the charitable or penal institutions of the state.

26. Penalty. [Sec. 8, ch. 165, laws of 1891.] Any person or persons violating any of the provisions or sections of this act, shall upon conviction thereof, be fined not less than twenty-five nor more than fifty dollars for the first offense, or for each subsequent offense not less than fifty nor more than one hundred dollars, or be imprisoned in the county jail not less than ten nor more than ninety days or both.

Sec. 9, ch. 165, 1891, is repealed by ch. 189, 1897, and the other sections of the act of 1891 are believed to be superseded by ch. 228, 1893, paragraphs 27-32.

BRANDING CHEESE, ETC.

27. Sale of falsely branded. [Sec. 1, ch. 228, laws of 1893.] No person shall offer for sale, sell, ship or consign cheese labeled with a false brand or label as to the quality of the article.

28. Uniform brand. [Sec. 2, ch. 228, laws of 1893.] The state dairy and food commissioner is hereby authorized and directed to issue to the cheese manufactories of the state, upon proper application therefor and under such regulations as to the custody and use thereof as he may prescribe, a uniform stencil or brand, bearing a suitable device or motto and the words "Wisconsin full cream cheese."

29. Brand, how used—Registration of factories. [Sec. 3, ch. 228, laws of 1893.] Every brand issued shall be used upon the side of the cheese on the bandage thereof, also upon the package containing the same, and shall bear a different number for each separate manufactory, and the commissioner shall keep a book in which shall be registered the name, location and number of each manufactory using the said brand, and the name or names of the persons at each manufactory authorized to use the same.

30. Fraudulent use of brand. [Sec. 4, ch. 228, laws of 1893.] It shall be unlawful to use or permit such brand to be used upon any other than full cream cheese, or package containing the same.

31. Brand for skimmed cheese. [Sec. 5, ch. 228, laws of 1893.] Every person who shall, at any cheese factory in the state, manufacture skimmed cheese, shall distinctly and durably stamp upon each and every such cheese, and upon the box, the words "Wisconsin skimmed cheese." All cheese not manufactured as in sections 1, 2, 3 and 4, of this act, shall be deemed to be skimmed cheese under the provisions of this act. The brand herein provided by this

section of this act, for designating the grade and quality of cheese provided by this section shall be such as to produce an impression not less than three inches in width and five inches in length, and shall be in full-faced capital letters of as large size as the space hereby provided for will permit, and the whole to be included within a plain, heavy border. Ordinary stamping ink, either red, green or violet in color, and of such composition as not to be easily removed or wholly obliterated by moisture, shall be used in stamping as provided for by this section.

So far as the act of 1893 relates to branding skimmed cheese, it is probably superseded by that part of ch. 30, 1895, embodied in paragraph 16. The provisions of the act of 1893, relating to branding full cream cheese, are in force, and supersede ch. 165, 1891.

32. Penalty. [Sec. 6, ch. 228, laws of 1893, as amended by ch. 189, 1897.] Whoever violates the provisions of this act shall be deemed guilty of a misdemeanor, and for each and every package so falsely branded or omitted to be branded as herein provided, shall be punished by a fine of not less than twenty-five nor more than fifty dollars.

CLEANLINESS OF DAIRIES, FACTORIES AND CONDEMNATION OF IMITATION DAIRY PRODUCTS.

33. Powers of dairy and food commissioner. [Sec. 1, ch. 257, laws of 1895.] The dairy and food commissioner or his agents shall have full access and ingress to any factory or building where any product of the dairy is manufactured or stored for sale or shipment of the same, and shall be empowered to enforce such measures as may be necessary for the perfect cleanliness of said factories, buildings and surroundings, also for the cleanliness of all

the utensils necessarily used in the manufacture and general handling of the dairy product. Any person refusing the privilege of such access to the dairy and food commissioner or his agent, or opposing him in any way shall be considered as having committed a misdemeanor.

34. Warrant for seizure of imitation products. [Sec. 2, ch. 257, laws of 1895.] When complaint shall be made on oath to any magistrate authorized to issue warrants in criminal cases, that imitation butter or imitation cheese or any substance designed or intended to be used as a substitute for butter or cheese, is in the possession or under the control of any person or persons contrary to the provisions of law of this state, and that the complainant believes that it is concealed in any particular warehouse, store or refrigerator for mercantile purposes, the magistrate, if he be satisfied that there be cause for such belief, shall issue a warrant for such property.

35. Terms of the warrant. [Sec. 3, ch. 257, laws of 1895.] All such warrants shall be directed to the sheriff of the county or his deputy or to any constable of the county commanding such officer to search the house, building, store or other place where the imitation butter or imitation cheese or any substance designed or intended to be used as imitation butter or cheese, for which he is required to search, is believed to be concealed, which place and property to be searched for shall be designated and described in the warrant, and to bring such property when found and the person or persons in whose possession the same shall be found before the magistrate who issued the warrant or before some other magistrate or court having cognizance of the case.

36. Preservation, analysis and confiscation of property [Sec. 4, ch. 257, laws of 1895.] When any officer in the execution of a search warrant under the provisions of this act shall find any imitation butter or cheese, or any substance designed or intended to be used as an imitation

for butter or cheese, and for which a search is allowed by this act, all the property so seized shall be safely kept by the direction of the court or magistrate so long as shall be necessary for the purpose of being produced as evidence on any trial; provided, that it shall be the duty of the officer who serves a search warrant issued for imitation butter or imitation cheese or any substance designed or intended to be used as imitation for butter or cheese and alleged to be in his possession or under the control of any person or persons contrary to law, to deliver to the state dairy and food commissioner, or to any person by such commissioner authorized in writing to receive the same, a true and perfect sample of each article seized by virtue of such warrant, for the purpose of having the same analyzed. If any sample be found to be imitation butter or imitation cheese or substance designed or intended to be used as an imitation for butter or cheese and that the same, at the time of such seizure, was in the possession or under the control of any person or persons contrary to any of the provisions or requirements of this act, then and in such case the property so seized shall be confiscated and destroyed, under the direction of the court or magistrate; otherwise the same shall be forthwith returned to the person or persons from whom it was taken.

37. Penalty. [Sec. 5, ch. 257, laws of 1895.] Any person or persons violating any of the provisions or sections of this act shall be guilty of a misdemeanor and upon conviction thereof be fined not less than twenty-five nor more than fifty dollars for the first offense, and for each subsequent offense not less than fifty nor more than one hundred dollars, or be imprisoned in the county jail not less than thirty nor more than ninety days in the discretion of the court before whom such conviction may be had.

Sec. 6, ch. 257, laws of 1895, is repealed by ch. 189, 1897.

38. Sale of unwholesome milk, etc. [Sec. 1, ch. 94, laws of 1897.] The dairy and food commissioner or his agents,

shall have full access and ingress to all premises, buildings or dairies where milk is stored, produced or handled for the city milk trade, and is hereby empowered to enforce such measures as may be necessary to prevent the sale of milk from diseased cows or from cows fed upon unwholesome food, and to require cleanliness in all barns, stables, milk houses or buildings where milk is produced or stored for the city milk trade.

39. Food for dairy cows, etc. [Sec. 2, ch. 94, laws of 1897.] Any person or persons owning or managing a dairy, the product of which is sold as milk for family use, shall feed his cows upon wholesome food, keep them, when housed, in clean and comfortable stables, and handle the milk with clean utensils.

40 Penalty. [Sec. 3, ch. 94, laws of 1897.] Any person or persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor and, upon conviction thereof, be fined not less than twenty-five nor more than one hundred dollars for the first offense, and not less than one hundred nor more than two hundred for each subsequent offense.

FRAUD IN DAIRY FACTORIES.

41. Penalty. [Sec. 1494a, R. S.] Any butter or cheese manufacturer who shall knowingly use, or allow any of his employes or any other person to use for his or their own individual benefit, any milk, or cream from the milk, brought to said butter or cheese manufacturer, without the consent of all the owners thereof, or any butter or cheese manufacturer who shall refuse or neglect to keep, or cause to be kept, a correct account (open to the inspection of any

one furnishing milk to such manufacturer) of the amount of milk daily received, or of the number of pounds of butter, and the number and aggregate weight of cheese made each day, or of the number cut or otherwise disposed of, and the weight of each, shall for each and every offense forfeit and pay a sum not less than twenty-five dollars, nor more than one hundred dollars, to be recovered in an action in any court of competent jurisdiction, one-half for the benefit of the person or persons, firm or association, or their assigns, upon whom such fraud or neglect shall be committed, first having made complaint therefor, the remainder to the school fund.

ADULTERATION OF FOOD, DRUGS, LIQUORS, ETC.

42. Sale of adulterated food or drug. [Sec. 1, ch. 166, laws of 1897.] No person, by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver, or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange, any drug or article of food which is adulterated within the meaning of this act.

This and the two next following sections are modeled after paragraphs 8805-8807, R. S. of Ohio, 6th ed., first enacted in that state in 1884.

43. "Drug" and "food" defined. [Sec. 2, ch. 166, laws of 1897.] The term "drug," as used in this act, shall include all medicines for internal or external use, antiseptics, disinfectants and cosmetics. The term "food," as used herein, shall include all articles used for food or drink by man, whether simple, mixed or compound.

44. Adulteration, what is. [Sec. 3, ch. 166, laws of 1897.] An article shall be deemed to be adulterated within the meaning of this act:

(a) In the case of drugs: First, if, when sold under or by a name recognized in the United States Pharmacopoeia, it differs from the standard of strength, quality, or purity laid down in the latest current edition thereof; second, if, when sold under or by [a] name not recognized in the Pharmacopoeia, but which is found in the Pharmacopoeia of some other country, the national formulary or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in the latest current edition of such work; third, if its strength, quality or purity falls below the professed standard under which it is sold.

(b) In the case of food: First, if any substance or substances have been mixed with it, so as to lower or depreciate or injuriously affect its strength, quality or purity; second, if any inferior or cheaper substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary ingredient has been wholly or in part abstracted from it; fourth, if it is an imitation of or is sold under the name of another article; fifth, if it consists wholly, or in part, of a diseased, infected, decomposed, putrid, tainted or rotten animal or vegetable substance or article, whether manufactured or not; sixth, if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous, injurious or deleterious to health, or any deleterious substance not a necessary ingredient in its manufacture; provided, that the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles of food, if the same be distinctly labeled as mixtures or com-

pounds, and from which no necessary ingredient in its preparation is eliminated.

45. Canned food, how labeled. [Sec. 4, ch. 166, laws of 1897.] No person, by himself, his servant or agent or as the servant or agent of any other person, shall: First, pack, can or preserve fruits, vegetables or other articles of food; second, or sell, exchange, deliver or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange, such canned articles after January first, 1898, with the exception of goods bought from foreign countries, unless such articles be distinctly labeled with the grade or quality of the same, together with the name and address of the person, firm or corporation packing or canning or preserving the same, or the dealer who sells the same.

46. Baking powder containing alum, how labelled. [Sec. 5, ch. 166, laws of 1897.] No person, by himself, his servant or his agent or by the agent or servant of any other person, shall; First, make or manufacture baking powder or any mixture or compound intended for use as a baking powder; second, or sell, exchange, or deliver, or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange such baking powder, or any mixture or compound intended for use as a baking powder, which contains alum in any form or shape, unless the presence of the same be distinctly shown by a label on the outside and face of which is printed with black ink, in legible type, not smaller than brevier heavy gothic caps, the name and residence of the manufacturer and the following words: "This Baking Powder Contains Alum."

See note to paragraph 19.

47. Patent medicine containing poison, labeling of. [Sec. 6, ch. 166, laws of 1897.] No person by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver, or have in his posses-

sion with the intent to sell or exchange, or expose or offer for sale or exchange, any medicine known as patent or proprietary, or of which the formula is kept secret by the manufacturer, which contains morphine, strychnine, cocaine, or poisonous or narcotic alkaloid or drug in any quantities which the state board of health shall deem harmful to the life or health of the public unless the presence of the same be distinctly shown by a label upon the bottle or package and upon the outer wrapper thereof.

48. Penalty. [Sec. 7, ch. 166, laws of 1897.] Whoever violates any of the provisions of this act shall be guilty of a misdemeanor, and, upon conviction, shall be fined not exceeding one hundred nor less than twenty-five dollars for each and every offense.

49. Repealing clause. [Sec. 8, ch. 166, laws of 1897.] Section 4, chapter 248, laws of 1879; sections 1, 2, 3, 4, 5 and 6, chapter 252, laws of 1880; section 5, chapter 40, laws of 1881; section 13, chapter 167, laws of 1882, as amended by section 11, chapter 227, laws of 1895, and all acts and parts of acts inconsistent with this act shall be and the same are hereby repealed.

50. When to be in effect. [Sec. 9, ch. 166, laws of 1897.] This act shall take effect and be in force from and after January 1, 1898.

51. Adulterated honey, marking of. [Sec. 2, ch. 40, laws of 1831.] Every person, company or corporation, who shall sell or offer for sale, honey or any imitation of honey, which is adulterated with glucose, or any other substance, shall mark the package or parcel with the words "adulterated honey," as required by section one of this act.

Section 1, of chapter 40, laws of 1831, related to the manufacture of imitation butter, and provided that each firkin, tub, package or parcel thereof, should be marked on top of same in letters not less than one-half inch in length, and breadth in proportion, and in such manner that it may be plainly seen. As applied to butter the said section was repealed by chapter 361, laws of 1885. Section 3 of the act of 1831, related to imitation cheese. It was also repealed by the act of 1885.

52. Penalty. [Sec. 3, ch. 40, laws of 1881.] Any person found guilty of any violation of this act, shall for each offense be punished by imprisonment in the county jail not less than ten days nor more than six months, or by a fine of not less than ten dollars nor more than one hundred dollars, or both, in the discretion of the court.

Sec. 5, ch. 40, 1881, was repealed by sec. 8, ch. 166, 1897.

53. Imiattion cider vinegar. [Sec. 1, ch. 394, laws of 1891.] Every person who manufactures for sale, or offers or exposes for sale, as cider vinegar, any vinegar not the legitimate product of pure apple juice, known as apple cider, or vinegar not made exclusively of said apple cider, or vinegar into which foreign substances, drugs or acids have been introduced, as may appear by proper tests, shall be deemed guilty of a misdemeanor.

54. Adding injurious ingredients to vinegar. [Sec. 2, ch. 394, laws of 1891.] Every person who manufactures for sale, or offers for sale, any vinegar, found, upon proper tests, to contain any preparation of lead, copper, sulphuric acid, or other ingredient injurious to health, shall be deemed guilty of a misdemeanor.

55. Adulteration and false labeling of vinegar. [Sec. 3, ch. 394, laws of 1891.] No person, by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver, or have in his custody or possession, with intent to sell or exchange, or expose or offer for sale or exchange, any adulterated vinegar, nor shall he label, brand or sell as cider vinegar, or as apple vinegar, any vinegar not the legitimate product of pure apple juice, or not made exclusively from apple cider.

56. Standard of pure vinegar, marking of. [Sec. 4, ch. 394, laws of 1891.] All vinegar shall have an acidity equivalent to the presence of not less than four per cent. by weight, of absolute acetic acid, and, in the case of cider

has been so fumigated, or the color or healthfulness thereof so affected, shall be punished by imprisonment in the county jail not more than one month, or by fine not exceeding fifty dollars.

Affect the color. See note to paragraph 56.

REPORT OF THE COMMISSIONER.

The work of the dairy and food commission for the two years ending September 30, 1898, has comprised an examination of a considerable portion of the factories and creameries of the state, an inspection of dairies producing milk for city consumption, the education of manufacturers, wholesale and retail dealers in food products as to the meaning of the pure food law of 1897, and the prosecution of violators of the dairy and food laws of the state.

There has always been a strong sentiment in Wisconsin in behalf of legislation designed to secure purity in food products. That sentiment has been greatly strengthened in recent years. Legislation against imitation of dairy products has been of great value to the dairy and agricultural interests of the state as well as to the general consumer of milk, butter and cheese. The friends of the dairy interest have not at any time demanded unreasonable legislation in their own behalf. Neither have they asked for an unreasonable interpretation of existing laws. They have made no effort, as has been charged, to strike down any legitimate competing interest. The laws against the manufacture and sale of impure milk, of filled cheese, and of butterine have been founded upon broad principles of public policy. Their primary purpose is to protect consumers of dairy products from the imposition of counterfeits and frauds.

The law of 1895, prohibiting the manufacture of filled cheese, has obliterated the filled cheese industry in this state.

The law requiring the peculiar form of ten inches in diameter and nine inches in height for skim cheese has very nearly stopped the manufacture of that article.

The cheese product of Wisconsin to-day is superior to that of any other period in the history of the industry. The state could not properly prohibit the manufacture of skim cheese, which is in itself a legitimate article. But as long as it was manufactured

has been so fumigated, or the color or healthfulness thereof so affected, shall be punished by imprisonment in the county jail not more than one month, or by fine not exceeding fifty dollars.

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The law of 1895, prohibiting the manufacture of filled cheese, has obliterated the filled cheese industry in this state.

The law requiring the peculiar form of ten inches in diameter and nine inches in height for skim cheese has very nearly stopped the manufacture of that article.

The cheese product of Wisconsin to-day is superior to that of any other period in the history of the industry. The state could not properly prohibit the manufacture of skim cheese, which is in itself a legitimate article. But as long as it was manufactured

and sold in many instances for full cream cheese, it had an unquestioned right to throw such restrictions about its manufacture and sale as would protect the public from impositions of this kind. The result of this legislation has been to make full cream cheese constitute almost the entire product of the state.

Very little Wisconsin cheese is now shipped to European markets. For the last two years the domestic demand has been constantly increasing. At least three-fourths of the cheddar cheese manufactured in this state is sent into the southern states.

A marked change has taken place in factory management. Buildings and utensils are kept more scrupulously clean. Cheese makers are more generally becoming students of their business rather than imitators of their predecessors. The Dairy School of the State University is bringing into the business a constantly increasing number of trained experts in cheese making. The influence of the Farmers' Institutes and of the dairy press, of the State Dairymen's Association, and of the Agricultural College, is giving us cheese makers who know their business, who like it, and who are on the alert to catch any idea which may be of value in securing economy in the manufacture of cheese, perfection in curing it, and intelligence in its sale.

A. D. DeLand of Sheboygan, who has been familiar with the cheese industry of Wisconsin from its inception to the present time both as a manufacturer and wholesale dealer, and who handles millions of pounds of Wisconsin cheese annually, says that the cheese of 1898 produced in this state has never been equalled in quality. The correctness of this statement is emphasized by the fact that Wisconsin cheese is bringing one and one-half cents more per pound than in 1896, and that the demand is far in excess of the supply.

A large amount of Swiss, Limburger and similar forms of cheese is manufactured in the counties of the southern part of the state, the bulk of it being manufactured in Green county. Shipments from Green county in 1898 will reach ten million pounds, and the total product of the state is undoubtedly over fifteen million pounds.

While there has been great improvement in cheese making in Wisconsin, we are a long way from perfection. The inspectors

of this department and the cheese instructors sent out by the State Dairymen's Association and by the Agricultural College find many factories where uncleanness and disorder evince careless or incompetent management.

Wisconsin produces more than one-fourth of the entire cheese product of the United States. Good climate and accessibility to the southern markets give her great natural advantages. The progress made during the last two years has been such that at the present time the best Wisconsin cheese is selling in the markets of this country on a par with the best products of New York and Canada. Improvement in the character of the American cheese product will carry with it an increased domestic demand, and rapidly tend to restore our former position in the European markets.

The state of Wisconsin has been wise in protecting this great industry from fraudulent competition, and by generous appropriations to the State Dairymen's Association and to the Dairy School at the State University for educational purposes.

The consumption of cheese in this country is only about three pounds annually per capita. A pound of cheese costs less than a pound of meat and has more than double its nutritive value. A work of education should be carried on by the friends of the dairy interest, not only for the purpose of producing a palatable and digestible cheese, but in educating the public to use it as a staple food of great economic value. The time has come when this kind of education can be made effective. We can urge people to eat cheese with the enthusiasm born of conviction when we offer them cheese which is fit to eat. It will be wise policy on the part of the state, in addition to the excellent legislation already upon our statute books affecting this industry, to add to the dairy commission a force large enough to give rigid inspection to every cheese factory in the state, and enforce such sanitary regulations as will secure cleanliness and healthfulness of the product.

BUTTER.

The butter product of Wisconsin for 1898 will reach nearly 80,000,000 pounds, and will have a value of nearly \$13,000,000. The counties of Columbia, Dane, Dodge, Fond du Lac, Grant, Green, Iowa, Jefferson, Kenosha, La Crosse, LaFayette, Manitowoc, Monroe, Outagamie, Pierce, Racine, Richland, Rock, Eau Claire, Trempealeau, Vernon, Walworth, Washington, Waukesha, Waupaca, and Winnebago produce over a million pounds each. Dane heads the list with a butter production of nearly 6,000,000, pounds, and Walworth follows with the production of 5,500,000.

Creameries dot all the great agricultural counties of the state in close proximity. No comprehensive and correct list of them has ever been made. The list published in the last biennial report of this department embraced 951 creameries. This list was obtained by taking the reports of the census enumerators and by correspondence with every post master in the state. It was expected that through these means the name and post office address of each creamery could be ascertained, but it was found that a considerable number of mistakes were made by the enumerators and not all of them were corrected by correspondence with the post masters. For the purpose of obtaining a more perfect list, this department sent return postal cards to every creamery and factory upon the original list requesting their name and address, and also the addresses and names of creameries and factories recently established. There were sent out 2,650 of these postal cards, and only 750 replies were received. The list published in this report is substantially correct so far as it goes, but it does not embrace all the factories and creameries of the state.

Seventy-five per cent. at least of the Wisconsin creameries are now operated upon the co-operative plan. The average quality of the butter product of the state is improving, owing to the same influences which have changed the character of our cheese production. The rapid increase in butter production in all the great agricultural states of the west has had its effect upon prices, and the Wisconsin butter maker is compelled to accept each year a slightly diminished average price. The net profits of the busi-

ness, however, have not been diminished, because of the general increase in knowledge of the dairy business, because the standard of dairy stock is steadily being improved, because dairy cattle are receiving better care, and because there is more widespread information about economical feeding and the manufacture of the butter product.

OLEOMARGARINE.

The great competitor of butter, oleomargarine, has had a more restricted field during the last two years. The law of 1895, which prohibited the sale of oleomargarine and similar compound when made in imitation of yellow butter, has been effective in reducing the number of licensed dealers in oleomargarine in this state and in greatly diminishing the total sales of that article.

The report of prosecutions under the oleomargarine law in the last biennial report of this department was mainly composed of violations by retail dealers of the anti-coloring law. During the past two years we have had 11 oleomargarine cases, but mainly against hotel, boarding-house and restaurant keepers. In every case the law has been upheld by the lower courts, and no appeal has been made to the supreme court of the state. Recent decisions of the United States supreme court, declaring unconstitutional the law of Pennsylvania, which prohibits without qualification the manufacture and sale of oleomargarine, and the law of New Hampshire, which requires oleomargarine and similar compounds to be colored pink, have given new life and aggressiveness to the manufacturers of and dealers in this article. The misapprehension which seemed to exist upon the part of the metropolitan press of the country has added to this feeling and given to the public the widespread belief that the laws of Illinois, Massachusetts and Wisconsin, which were drawn upon the same lines, had also been nullified by the decisions referred to.

The oleomargarine law of Wisconsin is not a prohibitory law. It explicitly permits the sale of oleomargarine, when sold under its own name and color. The constitutionality of the Wisconsin statute was not in question in the New Hampshire and Pennsylvania cases. The oleomargarine law of Massachusetts, upon

which the Wisconsin anti-coloring act was based, was passed upon by the Supreme Court of the United States in the Plumley case, which was carried up from the state of Massachusetts and a sweeping decision rendered by Justice Harlan, affirming the constitutionality of the Massachusetts law and declaring it to be a proper exercise of the police powers of a state to prevent the manufacture and sale of counterfeit food products.

In the first cases brought under the anti-coloring act of 1895, the state was successful and an appeal was made by the defendants to the Supreme Court. It is to be regretted that this appeal was afterward withdrawn, the defendants evidently anticipating an adverse decision. The friends of the law would have been well satisfied to have had its constitutionality passed upon by the highest court in the state. Without presuming to determine what a supreme court decision would be, the assumption is reasonable that the law would have been upheld, as it has been in every court of every state where a similar law has been in force.

The enforcement of the law has greatly diminished the sales of oleomargarine in this state, and has made it impossible for the Chicago manufacturers to market their goods in Wisconsin in any considerable quantities through retail dealers.

A device for avoiding the law has been adopted by the Chicago manufacturers and dealers to retain a portion of their trade. It consists in the selection of local agents who take orders from consumers, to whom the goods are shipped direct. As it is not an offense to buy oleomargarine, and as the sale is made outside of the state, it is not possible under the present law to reach these cases. Additional legislation is needed which shall provide that when any person takes orders for oleomargarine to be supplied by parties within or without the state, such person shall be deemed a retail dealer under the oleomargarine act. No other amendments have been suggested by the experience of this department in enforcing the law during the last three years. No flaw has been discovered in the court proceedings of that period. The only way in which the law could be made more effective would be by an addition to the number of inspectors now authorized by law.

It is possible with the present force of the department to

determine whether or not licensed dealers in oleomargarine in the state are complying with the law, but it is not possible to send inspectors to the boarding houses, restaurants and cheap hotels scattered all over Wisconsin, which are using it upon their tables as butter and selling it to their boarders as butter. In these cases the fraud committed upon the final consumers is as great as that which can be perpetrated by a retail dealer. In all classes of hotels and boarding-houses, from the most expensive to the one which sells a meal for ten cents, there is not one customer in one hundred who will call for or desire to eat butterine. In these places when it is consumed, it is almost invariably in response to a call for butter, and purchased and eaten as butter.

The law is primarily intended to protect, and does protect, the purchaser of dairy products from the imposition of a counterfeit. Incidentally it removes, or tends to remove from the butter markets of the country a dishonest and dangerous competitor of a better and more costly product, which is the result of honest labor and skill. The law was wisely framed, and it is gratifying to know that it has not only been sustained by the courts of the state, but by general public sentiment.

DAIRY INSPECTION.

The legislature of 1897 created the office of Dairy Inspector. The compensation of this officer was fixed at \$3 per day for actual service and expenses. The appointment rests in the hands of the Dairy and Food Commissioner, with the approval of the Governor. Norton J. Field, of Milwaukee, was appointed to the position. The office was created mainly for the purpose of securing an assistant in the food and dairy department who could devote a portion of his time to the inspection of dairies furnishing milk for the city milk trade. 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. Field 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 law requires that cows kept for the purpose of producing milk for the city milk trade shall be kept in a clean and wholesome condition. The offending dairymen were all notified of the fact that they were violating the law, instructed to clean up, and some of them were prosecuted and convicted. Such convictions and warnings have had a wholesome effect. There is a marked change in the character of the milk supply which has taken place during the past two years.

All efforts of this department have been vigorously supplemented by the health department of Milwaukee. The dairy inspector reports that almost without exception the offending dairymen have heeded his warnings and manifested an earnest desire to comply with the law. Milwaukee has not only obtained cleaner and more healthful milk, but milk of a better character than ever before. An examination was recently made by this department of samples of milk taken from over 100 milk wagons in that city, and only one of the samples fell below the legal standard. In 1897 an examination of samples taken from 200 wagons indicated that the milk supply of Milwaukee was either adulterated or skimmed to the extent of 16 per cent. The work of dairy inspection is important and should be extended by the appointment of an additional inspector whenever state finances will permit.

THE PURE FOOD LAW.

The only comprehensive general pure food law ever enacted in Wisconsin was passed by the legislature of 1897. The laws relating to the sale of adulterated dairy products were made reasonably stringent before that time. The only law under which the Dairy and Food commission could prosecute dealers in adulterated food products, other than those of the dairy, was the law of 1879, which prohibited the false labeling of these products and provided for the prosecution of parties who knowingly violated

the law. As it is practically impossible to prove the matter of intent, the law was a dead letter, and the work of adulteration went on without let or hindrance by the state. The present law as passed embodies the main features of the pure food law now in force in Ohio, Massachusetts and other states, and which have been incorporated in the various pure food bills which have been presented to the attention of congress.

While the majority of the adulterations common in food products have not been injurious to the public health, all of them have taken money from the public pocket. Adulterations had become so common and widespread in many articles of food that it was deemed impossible by many sincere men in the grocery trade to eradicate them by any law that could be devised.

The most common violations of the pure food law have been the sale of low wine vinegars for cider vinegars, 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 powders sold for cream of tartar, baking powders, and of pure honey adulterated with glucose.

The law of 1897 provided that it should not become operative until January 1st, 1898, the purpose of delay being that the grocers of the state might become informed of the provisions of the law and prepare themselves to meet its requirements. This delay in enforcement did not accomplish its purpose. Men seldom inquire about a law until it begins to press upon them and no general inquiry was aroused until the law took effect. On January 8th, 1898, for the purpose of informing the trade with reference to this legislation which so materially affected them, this department sent out the following circular and warning:

MADISON, WIS., January 8, 1898.

To the Manufacturers and Dealers in Foods and Drugs in Wisconsin:

The pure food law passed by the legislature of 1897 became operative under its provisions January 1st, 1898. At the request of the officers of the Wholesale Grocers' Association of the state, and for the information of the trade generally, this department has interpreted the law to the extent of the rulings printed herewith. Specific lists of brands of pure or adulterated articles will not be sent out by this office, as such lists would be used for advertising purposes. No list of alum baking powder will be issued by this department for the same reason. The retailers must find their protection in the guarantees of reliable jobbers or manufacturers that the goods purchased are made and labeled in accordance with the law. It will not be possible for the chemist of the commission to analyze and report the character of samples of food products sent to us, unless such analysis is desired for the purpose of prosecution, if proof be found that the articles so submitted are sold in violation of law.

The dairy and food commissioner is authorized by law to employ only one chemist, and if all samples sent him for analysis by individuals should be analyzed and reported upon, he would have no time to analyze the samples taken by our inspectors, or to appear in court proceedings as a witness for the state. Retailers of canned goods should comply with the law requiring such goods to be labeled with the name and address of the manufacturer or the retailer. A large correspondence with retailers, jobbers and manufacturers indicates clearly the general desire of the trade to comply with the law. It is also backed by a strong public sentiment in behalf of pure food products. This department which to a considerable extent is entrusted with the execution of the law, will endeavor to make it effective because it is the law, because it is based upon sound principles of public policy, and because it has the endorsement of public judgment. The wholesale adulteration of foods has been a great evil, injurious to reputable dealers and the public alike. It cannot be stopped in a day. But gradually, as the dealers in food products become acquainted with the meaning of the law, they will be held responsible for a compliance with its provisions.

H. C. ADAMS,

Dairy and Food Commissioner.

LAW PROHIBITING THE ADULTERATION OF FOOD
AND DRUGS.

TAKING EFFECT JANUARY 1ST, 1898.

Sale of adulterated food or drug. [Sec. 1, ch. 166, laws of 1897.] No person, by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver or have in his possession with intent to sell or exchange, or expose or offer for sale or exchange, any drug or article of food which is adulterated within the meaning of this act.

“Drug” and “food” defined. [Sec. 2, ch. 166, laws of 1897.] The term “drug,” as used in this act, shall include all medicines for internal or external use, antiseptics, disinfectants and cosmetics. The term “food” as used herein, shall include all articles used for food or drink by man, whether simple, mixed or compound.

Adulteration, what is. [Sec. 3, ch. 166, laws of 1897.] An article shall be deemed to be adulterated within the meaning of this act:

(a) In the case of drugs: First, if, when sold under or by a name recognized in the United States Pharmacopoeia, it differs from the standard of strength, quality or purity, laid down in the latest current edition thereof; second, if, when sold under or by [a] name not recognized in the Pharmacopoeia, but which is found in the Pharmacopoeia of some other country, the National Formulary or other standard work on materia medica, it differs materially from the standard of strength, quality or purity laid down in the latest current edition of such work; third, if its strength, quality, or purity falls below the professed standard under which it is sold.

(b) In the case of food. First, if any substance or substances have been strength, mixed with it, so as to lower or depreciate or injuriously affect its quality or purity; second, if any cheaper or inferior substance or substances have been substituted wholly or in part for it; third, if any valuable or necessary ingredient has been wholly or in part abstracted from it; fourth, if it is an imitation of or is sold under the name of another article; fifth, if it consists wholly, or in part, of a diseased, infected, decomposed, putrid, tainted or rotten animal or vegetable substance or article, whether manufactured or not; sixth, if it is colored, coated, polished or powdered, whereby damage or inferiority is concealed, or if by any means it is made to appear better, or of greater value than it really is; seventh, if it contains any added substance or ingredient which is poisonous, injurious or deleterious to health, or any deleterious substance not a necessary ingredient in its manufacture; provided, that the provisions of this act shall not apply to mixtures or compounds recognized as ordinary articles of food, if the same be distinctly labeled as mixtures or compounds, and from which no necessary ingredient in its preparation is eliminated.

Baking powder containing alum, how labeled. [Sec. 5, ch. 166, laws of 1897.] No person, by himself, his servant or his agent or by the agent or servant of any other person, shall: First, make or manufacture baking powder or any mixture or compound intended for use as a baking powder; second, or sell, exchange, or deliver, or have in his possession with the intent to sell or exchange; or expose or offer for sale or exchange such baking powder, or any mixture or compound intended for use as a baking powder, which contains alum in any form or shape, unless the presence be distinctly shown by a label on the outside and face of which is printed with black ink, in legible type, not smaller than brevier heavy.

gothic caps, the name and residence of the manufacturer and the following words:

"THIS BAKING POWDER CONTAINS ALUM."

Canned food, how labeled. [Sec. 4, ch. 163, laws of 1897.] No person by himself, his servant or agent or as the servant or agent of any other person, shall: First pack, can or preserve fruits, vegetables or other articles of food; second, or sell, exchange, deliver or have in his possession with the intent to sell or exchange, or expose or offer for sale or exchange, such canned articles after January first, 1898, with the exception of goods bought from foreign countries, unless such articles be distinctly labeled with the grade or quality of the same, together with the name and address of the person, firm or corporation packing or canning or preserving the same, or the dealer who sells the same.

Patent medicine containing poison, labeling of. [Sec. 6, ch. 166, laws of 1897.] No person by himself, his servant or agent, or as the servant or agent of any other person, shall sell, exchange, deliver or have in his possession with the intent to sell or exchange or expose or offer for sale or exchange, any medicine known as patent or proprietary, or of which the formula is kept secret by the manufacturer, which contains morphine, strychnine, cocaine, or poisonous or narcotic alkaloid or drug in any quantities which the State Board of Health shall deem harmful to the life or health of the public, unless the presence of the same be distinctly shown by label upon the bottle or package and upon the outer wrapper thereof.

Penalty. [Sec. 7, ch. 166, laws of 1897.] Whoever violates any of the provisions of this act shall be guilty of a misdemeanor, and upon any conviction shall be fined not exceeding one hundred nor less than twenty-five dollars for each and every offense.

Repealing clause. [Sec. 8, ch. 166, laws of 1897.] Section 4, chapter 248, laws of 1879; sections 1, 2, 3, 4, 5 and 6, chapter 252, laws of 1880; section 5, chapter 40, laws of 1881; section 13, chapter 167, laws of 1882, as amended by section 11, chapter 227, laws of 1895, and all acts and parts of acts inconsistent with this act shall be and the same are hereby repealed.

When to be in effect. [Sec. 9, ch. 166, laws of 1897] This act shall take effect and be in force from and after January 1, 1898.

In addition to this, a number of rulings were made by this department for the purpose of giving the grocers a better understanding of the law. It was definitely stated at the time that the rulings were not final, and that they were subject to such changes as a further examination and trial of the law should make necessary. The Dairy and Food Commissioner met representatives of the Wholesale Grocers' Association, of Milwaukee, in compliance

with their invitation, on several occasions, and discussed with them the character of the law and the interpretation which should be placed upon it. This association passed formal resolutions declaring itself in full sympathy with the purposes of the act, and the members individually, to a very large extent, declared their purpose of supporting it in every reasonable way. Ten thousand circulars were scattered over the state. Copies of the law were sent to all the daily papers of the state, and a vigorous effort made to give it proper publicity. The law not only prohibited the adulteration of foods, giving to the word "food" the sweeping definition of meaning every article of food or drink used by man; it also provided that all packages of alum baking powder should be labeled, "This baking powder contains alum." It further provided that all canned goods offered for sale should be labeled with the date of their manufacture and the address of the manufacturer or the retail dealer.

The law further provided for the examination of patent medicines and required that, whenever, in the judgment of the State Board of Health, any patent medicine should contain poison in a quantity sufficient to be injurious to the public health, such medicine should be labeled "This mixture contains poison."

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. In the beginning, manufacturers of alum baking powders insisted that the law relating to their product was unconstitutional; that they would not obey it, but would fight it in every court in the state. This programme has not been carried out. On the contrary, manufacturers and jobbers have manifested a marked activity in supplying their trade with the necessary labels, and it is estimated that within three months after the law went into effect over 100,000 baking-powder labels had been placed upon packages of that article in this state.

The manufacturers of alum baking powders have presented to

this department a formidable array of authorities maintaining the healthfulness of their product, and urging that, as it was a wholesome product, the requirements of the law were unjust and should be disregarded. The question of the wholesomeness of alum baking powders has not been considered by this department. The legislature of the state required that they should be labeled. The requirement was not made to protect the public health, but to advise consumers of the character of the article purchased and so prevent fraud. The practice had been common in many communities to sell the cheap alum baking powders for and as the most costly cream of tartar powders.

The state has been successful in all the cases brought under the pure-food law, with one exception. In one case the defendant was able to escape conviction by committing rank perjury. The pure-food law has undoubtedly reduced the sales of adulterated foods in this state fifty per cent. As the dealers in food products become better informed as to the meaning of the law, its provisions will be more rigidly enforced, and Wisconsin will finally be made a state where honest food products shall dominate the markets.

FACTORY AND CREAMERY INSPECTION.

Nearly all of the time of the Assistant Dairy Commissioner, W. W. Chadwick, has been taken up in response to calls from managers of creameries and factories desiring that the milk of their patrons be tested. These requests have been less numerous during the last year. This line of work carried on by this department during the preceding years, coupled with the vigorous prosecutions of offenders against the law, has materially reduced the number of patrons of creameries and factories who deliver milk below the legal standard. The almost universal use at the present time of the Babcock tester in factories, as well as creameries, makes it also possible for the managers of these concerns to know what kind of milk they get.

The general condition of creameries and factories, so far as cleanliness and methods of management are concerned, has been greatly improved, but a considerable number of them are still open to severe criticism. Great good could be accom-

plished if the force at the disposal of this department were sufficient to inspect every factory and creamery in the state each year, and compel, by the strong arm of the law, the best sanitary regulations, and suggest through instruction the best possible management. If this work could be thoroughly done, the butter and cheese products of Wisconsin would be placed, in quality, where they would find no dangerous competition either in American or European markets.

COURT PROCEEDINGS.

In all the cases brought by this department during the last two years in behalf of the state, not one has been compromised. No effort has been made to secure success for the sake of success in any of these cases, unless the evidence warranted fully the conviction of the defendant. In every instance of prosecution the case for the state has rested and depended upon the testimony of the chemist of this department, Mr. A. S. Mitchell. The chemical tests made by him have never been impeached in the judgment of court or jury by opposing expert testimony.

This department has found Wisconsin courts good places in which to try violators of pure-food laws. They have been found above the reach of personal and local considerations, and alive to the necessity of sustaining those laws which protect health and which tend to secure honesty in trade.

REPORT OF THE CHEMIST.

MILK.

Since the publication of the last report of this department, few important discoveries have been made in the chemistry of milk.

Galactase.

The most important scientific discovery relative to the composition of milk is perhaps the discovery of an enzyme normal in milk and having digestive properties similar to trypsin of the pancreatic juice. The original article was published by Drs. Babcock and Russell in the proceedings of the Agricultural Experiment Station, University of Wisconsin, for 1897. Since that report further work has been done confirming the presence of the enzyme, galactase, and determining the relative amounts present in cow's milk during the various periods of lactation. Experiments have also been made showing its presence in the milk of other mammalia all of which have been published in the report of this experiment station for 1898.

Milk sugar manufactured.

The increased production of milk sugar in the United States has greatly lessened its cost and increased its demand, with the result that the Swiss and foreign product has been almost excluded from this country. Many factories are in successful operation in the eastern states and one in Illinois.

Casein utilized.

The demand for casein obtained from skimmed milk and used in the sizing of paper is greatly on the increase, and bids fair to become a large and important industry. Many of the newer and better class of books are printed on paper so sized.

Puffy cheese.

Many calls have come to this department from cheese-makers who are troubled with "puffy cheese," due to filthy milk or milk improperly cared for. As this department has principally to do with the enforcement of the laws with reference to the adulteration of dairy products and food and drugs, the inspectors are unable to make the tests required to locate the milk giving the trouble.



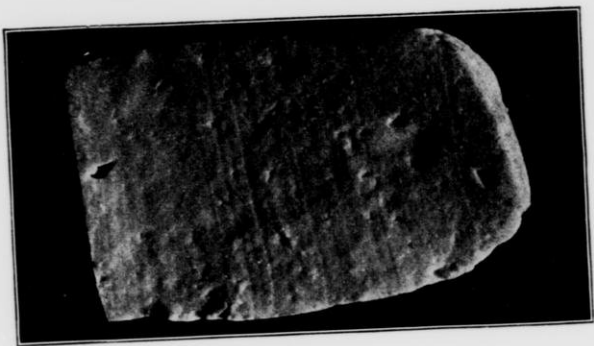


FIG. 7.—Curd from a good milk. Large irregular holes mechanical.



FIG. 8.—Curd from a bad milk. Large irregular holes mechanical, small pin holes due to gas.

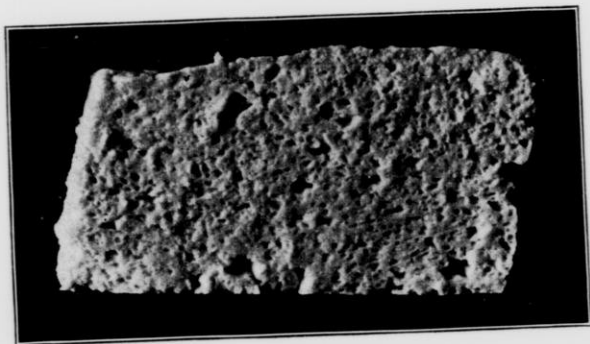


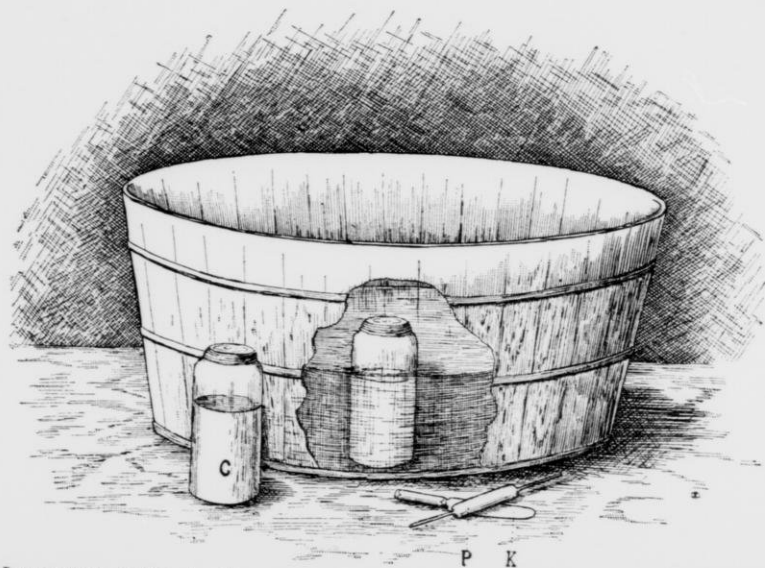
FIG. 9.—Floating curd from a very bad milk. Condition reached by further development of fig. 8, or a greater number of gas-producing bacteria.

Detection of
tainted milk.

Directions for making this test are given under "Improved Curd Test," in bulletin No. 67, published by the Agricultural Experiment Station, University of Wisconsin, entitled "Factory Tests for Milk." These directions are also given in perhaps more concise form in the manual entitled "Testing Milk and Its Products," by Farrington & Woll. This work describes many other tests of value to dairymen, cheese and butter makers. For the convenience of cheese-makers, that portion of the bulletin referring to the curd test is here inserted in abridged form.

WISCONSIN CURD TEST.

An improvement over the ordinary fermentation test is the preparation of a curd test or the making of a small pat of curd out of each patron's milk. In this the conditions of the test more closely approximate those that occur when the milk is made into cheese. The test as here described originated at the Wisconsin Dairy School in 1895, and is known as the Wisconsin Curd Test.



Improved curd test. C, cans used to hold samples; P, pipette for measuring rennet; K, knife for breaking curd.

A method based on the same principle, although executed in a different manner, has been used in Switzerland during the last few years.

The advantages of this curd test over the earlier fermentation tests are as follows:

1. That the curd prepared from individual samples of milk more closely conforms to cheese conditions, thereby permitting a more accurate determination of the value of milk for cheese.
2. The development of gas and the relative amount of the same can be more easily traced in the curd than in the milk.
3. The removal of the milk serum with its abundance of fermentable sugar renders a more accurate test possible.
4. The detection of odors in milk that has been tainted by direct absorption is rendered possible.



Showing different stages of test. A, milk; B, broken curd in whey; C, matted curd.

A study of different milks by this test shows that almost all samples contain slight evidences of gas, if kept under conditions unfavorable for the keeping of milk, as is the case in the test.

During the heated season, the conditions are more favorable for the rapid development of these bacteria, and therefore, "gassy" fermentations are more troublesome in the summer months. A study of different herd milks for a considerable period of time shows, as might be expected, that this condition is not abso-

lutely constant, but nevertheless, the presence of bad taints in certain milks has been found to be surprisingly uniform. In some herds the milk is so carelessly received and handled that gas-forming bacteria are almost a constant accompaniment; in others, the undesirable condition is transitory, some days gas appearing in quantities, to be followed by a period of comparative freedom from taints. In such cases the difficulty is temporary, the climatic conditions often being the deciding factor. In still other cases the herd milks are always free from any suspicion of taint. These represent in general the patrons that exercise the greatest care in their treatment of the milk. In case the curds are kept for 24-36 hours some gas will appear in even the very best milk, as gas-producing organisms are present to some extent under the most favorable circumstances. In general, however, a tainted or defective condition, as revealed by the curd test, is usually traceable to the introduction of foreign matter such as filth, dirt or dust.

It not infrequently happens that a tainted condition may appear in the curd that is not associated with the production of gas. In some cases this arises from direct absorption of undesirable odors, either from the animal herself or from exposure after milking. It is a current belief that milk will not absorb odors when it is warmer than the surrounding air, but such an hypothesis has been experimentally determined by one of us (R.*) to be erroneous.

Leaving the warm milk in the stable, even for a limited time, where obnoxious odors are almost always present, is detrimental, as it gives an opportunity for the direct absorption of taints. Taints of this sort are not very prominent in the curd test, yet they can frequently be detected, as they are retained in the milk and are more readily perceived when the milk is warm.

It frequently happens that digesting bacteria that dissolve the casein without the production of gas may also be present. In such cases, the casein passes partially into solution, and is lost in the whey. The taints caused by this class of organisms are peculiarly offensive. Milks that contain such bacteria in any considerable numbers give a materially diminished

*Unpublished data.

yield of cheese, and illustrate the unfairness of the guarantee principle that demands that a maker should make a pound of cheese from a certain quantity of milk regardless of conditions.

IMPROVISED CURD TEST.

The apparatus for the Wisconsin Curd Test resembles in some respects the Gerber apparatus. A home-made test can be improvised that will give good results, but we would advise the use of one of the perfected tests as it is more convenient.

The apparatus for the test consists of a wash tub (see Fig. 2) that is half filled with warm water, a set of pint fruit jars (C) for the different samples, a pipette (p) for measuring the rennet, and a case knife (k) for breaking the curd.

HOW TO MAKE A TEST.

To make a test, fill a jar half full of milk. Set samples in the tub and fill the same half full of warm water. Usually water at 115° F. will raise the temperature of the milk to the desired point, viz., 98°. If the milk is very cold care should be taken not to use too hot water to prevent cracking the jars.

When the temperature of the milk reaches 98° F., add to each sample by means of a pipette, ten drops of rennet extract and mix thoroughly. Allow the jars to remain undisturbed until milk is curdled, then break the curd into small particles by stirring with a case knife, in order to better expel the whey. In using thermometers for taking temperatures, or knife for cutting the curds, care should be taken to rinse after using in each sample so as to prevent the transference of many organisms from one sample to another.

The whey should be poured off as soon as the curd settles to the bottom, this process being repeated at frequent intervals until the curd mats into a solid mass. This expels the excess of whey which contains the fermentable sugar, thereby simulating cheese conditions more closely. The temperature of the surrounding water should be maintained from six to

eight hours to favor a rapid development of the contained organisms.

This improvised apparatus will enable any cheese maker to use the test with satisfactory results, but time can be saved and greater convenience secured if apparatus is devised for the particular purpose in hand. When the curd test is in constant use some special apparatus will be well worth the expense.

INTERPRETATION OF RESULTS.

If the milk contains no deleterious bacteria the curd when cut will present a firm, even texture as shown in Fig. 7. If gas-producing bacteria are present the texture of the curd will be more spongy, the cut surface showing a number of holes varying in size, depending upon the prevalence and gas-producing ability of the undesirable bacteria as shown in Figs. 8 and 9.

Care should be taken to discriminate between purely mechanical holes that are formed by the failure of the curd to mat closely and those caused by the fermentation of gas. Mechanical holes are irregular in form and more variable in size, while holes formed by gas are circular in outline and more uniformly distributed throughout the whole mass of curd. As gas continues to be formed, the curd puffs up and some of the gas may escape into these mechanical openings, distending them, and giving them the appearance of regularly formed gas holes. The size of the gas holes in the curd is largely dependent upon the duration and activity of the fermentations. The longer the curd is allowed to ferment at a proper temperature, the larger and more numerous will be the holes. Even in a good milk, a few holes will develop if the curd is held for 24 hours or more, but the presence of a few "pin holes" within six hours need not condemn a milk unless accompanied by undesirable odors.

The conditions under which the curd test is conducted accelerate the fermentative action, so that a milk that might show no symptoms of gas formation until the cheese was on the shelf, would be detected when subjected to the curd test. Milks that are sufficiently contaminated to produce floating curds will show a very spongy texture in the test in a few hours.

No hard and fast rules can be given for the interpretation of the results of the curd test, but an ordinary operator will very quickly learn to discriminate between milks that should and should not be accepted.

It should be borne in mind that the formation of gas is generally accompanied with the production of other decomposition products that possess more or less pronounced undesirable flavors and odors and that the injury to the cheese is due to this more than to the mere mechanical presence of gas.

It is also possible that taints may be produced by bacterial decomposition in cases where no gas is formed. This is particularly true with that class of organisms that act upon the albumen and casein instead of the milk sugar. Those bacteria that find their way into the milk through the introduction of filth and dust are particularly prone to produce this change, and this type of fermentation is very often found during the summer months. In the curd test such milks are not condemned upon the texture of the curd but upon the odor which is more or less pronounced when the bottles are opened.

CONCLUSION.

From the foregoing it is evident that the Wisconsin curd test in the hands of the factory operator is a valuable adjunct in enabling him to determine the presence of taints which might otherwise escape detection. The losses that accrue from these sources are in the aggregate very large and the difficulty hitherto has been that the cause of these troubles could not be located with sufficient accuracy to enable restrictive measures to be employed. The Wisconsin curd test fills this want and has been shown to be an efficient detective of tainted milks. It is therefore earnestly recommended that this test be employed in factories when difficulties of this sort are met with.

While the curd test is especially useful in helping to solve the controversies that arise in every factory between maker and patrons as to the presence and origin of tainted milks, the other factory tests mentioned in this bulletin should not by any means be ignored as they will often throw light upon the character of the milk.

Prepared milk
adulterants.

Formic
aldehyd.

The preparation and sale of carefully made adulterants and preservatives for milk, calculated to elude both consumer and chemist, are increasing. Formic aldehyde for the preservation of milk has been largely sold under the following titles: "Freezine," "Liquid Sweet" and "Special M. Preservaline." Extravagant claims are usually made as to the properties of these substances. In one instance the formalin was stated to act in the same manner as "freezing the bacteria." In all instances the material is guaranteed to be non-poisonous and perfectly harmless.

Injurious
nature of.

The injurious character of formalin in the concentrated state is well known, and its effect upon living cells, even when greatly diluted, is best shown by pointing out that the use of formalin as a preservative for morphine solutions for use as ear drops was discontinued because the formalin seemed to kill the skin, causing it to dry and peel off where it had remained in contact with it, even when highly diluted.

I would emphasize the fact that the use of any of these preservatives is only necessary where milk is filthy, or has not been properly cared for. If their use is wholly prohibited by law, the purchaser may be assured that old or dirty milk will show its true character through the taste and smell.

Formic
aldehyd,
detection.

For the detection of formic aldehyde in milk three tests have proved of value in my hands. Perhaps the most satisfactory is the phloro-glucin test, as suggested by M. Jorissen, and described in the Analyst, 1897, page 282. A modification of this test has been used as follows:

Phloroglocin
test.

.500 Gm. of phloro-glucin and 10 Gms. of caustic potash are each dissolved in a small amount of water, mixed and diluted to 50cc.; 10cc. of the milk to be tested is placed in a white capsule and 2cc. of the reagent added. Upon mixing, a pink color rapidly develops when formalin is present. A strong reaction is yielded when one dram of formic aldehyde (40%) is added to 8 gallons of milk. One-half this amount gives a distinct showing and may be detected.

Hehner's test.

Hehner's test, resulting in the production of a violet color at the point of contact, when milk is overlaid on concentrated commercial sulphuric acid, gives reliable results and is extremely sensitive with certain samples of acid. When acid giving a satisfactory re-

action is found, it is well to reserve a portion of it especially for this purpose. The color produced will frequently remain for several days.

Lieberman's reaction.

The distillate from milk preserved with formic aldehyde may also be tested when mixed with a very dilute aqueous solution of phenol and overlaid on sulphuric acid, formic aldehyde being indicated by a crimson coloration.

Silver test.

The silver reduction test may also be used as corroborative evidence in working upon fairly concentrated distillates. Reduction takes place more rapidly when a small quantity of caustic soda is added to the silver nitrate solution which has previously been precipitated and re-dissolved in a slight excess of ammonia. A distinct and decisive reduction should take place in every case where reliance is placed on this reaction.

Shiff's re-agent.

Shiff's re-agent has been shown to give fallacious results upon milk, and is not to be recommended.

Formalin in wines and cider.

Hegner's test for formic aldehyde in milk may be modified, as suggested by him, so as to be of value in the detection of formic aldehyde in wine, cider and similar liquors. The blue color is the result of the reaction between the proteids of the milk, the formic aldehyde and the acid in the presence of small amounts of ferric chloride or similar salts. If, then, to wine or cider a few drops of milk are added and the mixture overlaid on sulphuric acid, the blue-to-violet coloration will take place.

Gelatin detection.

A method of detecting gelatin in milk was published by Stokes in the Analyst for December, 1897. A quantity of mercury is dissolved in twice its weight of concentrated nitric acid and the resultant solution diluted to 25 times its bulk. 10cc. of this solution is added to 10cc. of cream with 20cc. of water. The mixture is then shaken, allowed to stand for five minutes and filtered. To this filtrate picric acid solution is added precipitating the gelatin when present.

Writer's method.

In the tests made by this department tannic acid has been used as a precipitant and the casein, albumen and globulin removed by the following method:

A volume of cream from 25 to 50cc. is precipitated by mixing with an equal volume of 5% sulphuric acid; the mixture is then warmed until separation of

the casein takes place, and filtered. To the filtrate magnesium sulphate is added until a flocculent precipitate is produced. The precipitated albuminoids are then removed by filtration and the filtrate tested for gelatin with a 5% solution of tannic acid. A flocculent and quickly subsiding precipitate is produced in case gelatin is present. It is well to carry on a corresponding test upon pure cream under the same conditions for comparison. Prof. A. H. Lowe has pointed out that when the magnesium sulphate becomes too concentrated tannin is liable to be precipitated.

Dextrin.

Dextrin is said to be in use in England and on the continent as a similar adulterant for cream and milk. No milk adulterated with dextrin has reached this department.

Laktone.

A coloring matter sold for use as a milk adulterant for the purpose of giving the milk an appearance of richness was found to consist of a solution of "sulphonated aniline yellow."

For the detection of ordinary adulterants in milk and their estimation, the methods published in the previous report of this department, together with the official methods, have been used.

Samples examined.

In addition to the milk samples tested for fat, quantitative analyses were made of sixty-eight samples of milk and three samples of cream. In eleven instances the milk was found to be watered and in five instances it was found to be skimmed. Boracic acid was detected in three samples and formic aldehyde in one. One sample of milk was also found to contain starch. Butter color was found in cream in one instance.

BUTTER AND OLEOMARGARINE.**Methods of examination.**

In the examination of samples of suspected butter the official methods have been used. For the identification of the fat the Reichert-Wollny number has been relied upon, together with physical examination by means of the Wollny butyro-refractometer and the polariscope.

Properties of renovated butter.

Renovated butter is becoming very common. The Reichert number is found to be about the mini-

mum for normal butter. The polariscope and selenite shows a crystalline and prismatic field, and with the refractometer the sample gives figures slightly higher than normal for butter.

Examination
for coloring.

The coloring matter used in oleomargarine has in all instances been found to consist of oil soluble azo colors, stated by Allen to be allied to "Soudan I." For the extraction of oil soluble coloring matter, Martin's test is probably the most serviceable. For this test alcohol is nearly saturated with carbon disulphide and 10 Gms. of the melted and filtered fat are mixed with 50cc. of the mixture and shaken. A layer of carbon di-sulphide and fat settles to the bottom, leaving the larger portion of the coloring matter with some fat and free fatty acids in solution in the alcohol. If the alcohol or alcoholic mixture is acidulated with sulphuric acid or other mineral acid, a pink coloration takes place when a coal tar color of the Soudan type is present. (Allen.) Natural coloring matter of butter is not soluble in alcohol. Upon evaporation of the alcohol separated by the above process, the coloring matter may be concentrated and will be found contaminated with fatty matter. The residue may be purified by solution in alcohol and saponification. The alcohol should then be evaporated and the resultant soap dissolved in hot water and the solution cooled. The coloring matter may then be extracted from the alkaline aqueous solution by washing with ether. If non-alcoholic ether is used alcohol must be added in considerable quantity in order to effect a ready separation. The separated ethereal solution should then be washed at least twice with water for the removal of the dissolved soap. The ether may then be evaporated leaving the coloring matter sufficiently concentrated for presentation as evidence. This coloring matter is not a dye and therefore cannot be exhibited in the usual manner by dyeing yarn.

BUTTER COLORS.

Coal tar
colors.

The use of coal tar colors as butter colors has been much discussed during the past few years. Several instances of undoubted poisoning by the use of such colors have occurred where the butter color itself has been taken internally in its concentrated form. While it is probably a fact that the amount of dry color used in any one pound of butter does not exceed two-tenths of one grain under ordinary circumstances, and that several times this amount might be administered in the concentrated form with impunity, it is nevertheless also a fact that wholly satisfactory vegetable coloring can be procured at a reasonable cost. And where harmless substances can be used it would seem there could be no excuse for the use of deleterious colors in food products in any amount whatever.

Renovated
butter.

The rigid regulation of the sale of oleomargarine has given incentive to a new industry. In Illinois and various parts of the east and in one instance in Wisconsin, butter manufacturers have sent agents abroad buying up cheaper grades of dairy butter. This material of inferior and greatly varying quality is melted and treated to remove or mask its rancidity, after which it is chilled, churned with fresh milk and uniformly colored, with or without the addition of ethers or glucose to improve its flavor. This material thus renovated has been known as "Process Butter." Parties in Elgin and Chicago have placed it upon the market in competition with regular creamery butter, quoting it as such.

It has been found possible to closely imitate the original grain of the butter and to produce a flavor, which, if not pleasant, is unobjectionable for a few weeks after its treatment.

Legislation on.

An effort will probably be made at this session of the legislature to put such restrictions upon the sale of this article as will insure its being put upon the market under its true name of "Renovated Butter," and thus prevent its being foisted upon the public as the fresh article.

The results of examinations of butters and butter substitutes are here appended in tabulated form.

Analysis of butters and butter substitutes.

Date.	Name.	Address.	Character of fluid with polarized light.	BUTYRO-REFRACTO-METER.		Reichert No. (cc. of $\frac{N}{10}$ NaOH)	Remarks.
				Critical angle.	Butter scale.		
1896. Nov. 18	C. E. Meyers Factory	Medina	Monochromatic				Genuine butter.
1897. Jan. 23	Milwaukee County Almshouse	Milwaukee	Prismatic			32.0	Genuine butter.
Feb. 9	N. Simon (Chicago consignment)	Neensh	Monochromatic			29.8	Genuine butter.
Feb. 9	Mr. Prout	Honey Creek	Monochromatic			30.2	Genuine butter.
Feb. 10	J. P. Smith	Lake Geneva	Monochromatic			26.9	Genuine butter.
Feb. 11	Geo. Auer (sent by)	Milwaukee				27.4	Genuine butter.
Feb. 11	Gronquist & Erickson	West Superior	Monochromatic			27.3	Genuine butter.
Mch. 5	Wilson & Link	Superior	Monochromatic			29.6	Genuine butter.
Mch. 11	Wm. Jones (Hotel)	Oconomowoc	Prismatic	50.3	46.5		Oleomargarine.
June 3	C. W. Howard (Restaurant)	Milwaukee	Prismatic	48.5	44.3	1.0	Oleomargarine.
Nov. 10	L. S. Townsend (Restaurant)	Milwaukee	Prismatic	49.	44.5	.9	Oleomargarine.
Nov. 10	Wm. Orlebeke (Restaurant)	Milwaukee	Prismatic	49.	44.6	.9	Oleomargarine.
Nov. 10	"One Minute Lunch House"	Milwaukee	Monochromatic	44.	44.8		Genuine butter.
Nov. 10	G. Draeger	Milwaukee	Monochromatic				Butter.
Nov. 18	G. Jessen	Milwaukee	Monochromatic				Butter.
Nov. 18	Eidelweiss Cafe	Milwaukee	Monochromatic				Butter.
Nov. 18	Emil Lange	Milwaukee	Monochromatic				Butter.
Nov. 18	Restaurant, 450 E. Water St.	Milwaukee	Monochromatic				Butter.
Nov. 18	Vienna Restaurant	Milwaukee	Monochromatic				Butter.
Nov. 18	W. Koch	Milwaukee	Monochromatic				Butter.
Nov. 18	Geo. O. Elliott (Restaurant)	Milwaukee	Prismatic	51.5	45.3	.9	Oleomargarine.
Nov. 24	Fess House	Madison	Prismatic	48.5	45.	9.8	Butterine.
Nov. 24	Elver House	Madison	Prismatic	50.5	45.2	2.1	Oleomargarine.
Nov. 23	Michael Meyers	Madison	Prismatic	53.	45.3	10.4	Butterine.
Nov. 23	Central House	Milwaukee	Prismatic	44.	44.8	27.5	Butter.
Nov. 24	Pabst Cafe	Milwaukee	Monochromatic				Butter.
Nov. 24	Sargeant's Restaurant	Milwaukee	Monochromatic				Butter.
Nov. 24	M. H. Bauer (Restaurant)	Milwaukee	Monochromatic				Butter.
Nov. 24	Weber's Restaurant	Milwaukee	Monochromatic				Butter.
Nov. 24	Chamber of Commerce Restaurant	Milwaukee	Monochromatic				Butter.
Nov. 24	A. Hoffmann's Restaurant	Milwaukee	Prismatic	49.5	45.	2.5	Oleomargarine
Nov. 24	J. Linehan, butcher	Milwaukee	Monochromatic	43.5	44.3		Butter.

1897.		Salem					
Jan. 4	Sent by J. A. Foster						This sample contained a large amount of casein and water and was evidently made by the black pepsin process.
Nov. 30	Flom's Hotel	Madison	Prismatic	54.	46.2	.75	Oleomargarine, colored.
Nov. 30	Gem Restaurant	Madison	Monochromatic	42.5	44.3		Butter.
Nov. 30	Edw. McGrath	Milwaukee	Prismatic	50.	44.8		Oleomargarine, colored.
Nov. 26	D. C. Adams	Milwaukee	Prismatic	51.	45.8	.9	Sold as butterine, uncol'd
Dec. 1	Avenue Hotel	Madison	Monochromatic	44.	44.9		Butter.
Dec. 1	Lacher Hotel	Madison	Monochromatic	46.	46.2		Butter.
Dec. 9	Burk's Hotel	Madison	Monochromatic	45.5	46.3		Butter.
Dec. 9	C., M. & St. P. Lunch Counter	Madison	Monochromatic	43.5	44.5		Butter.
Dec. 9	Ogden Hotel	Madison	Monochromatic	43.5	44.3		Butter.
Dec. 22	Capitol House	Madison	Monochromatic	46.	46.		Butter.
Dec. 22	C. & N. W. Hotel	Madison	Monochromatic	46.	47.		Butter.
Dec. 22	Park Hotel	Madison	Monochromatic	42.5	44.2		Butter.
Dec. 22	W. F. Carle	Janesville	Prismatic	53.	45.		Sold as but'rine, uncol'd.
Dec. 22	McGavock Bros.	Beloit	Prismatic	53.5	44.6		Butterine, colored.
Dec. 23	E. H. Schwartz & Co.	Marinette	Monochromatic	44.5	43.8		Butter.
Dec. 23	E. H. Schwartz & Co.	Marinette	Prismatic	53.	44.5		Butterine, uncolored.
Dec. 22	Grand Hotel	Janesville	Monochromatic	44.7	45.5		Butter.
Dec. 22	Watson's Restaurant	Janesville	Monochromatic	43.	44.		Butter.
Dec. 22	Hotel Goodwin	Beloit	Monochromatic	43.	44.6		Butter.
1898.							
Feb. 12	C. & N. W. Depot	Janesville	Monochromatic	44.	44.8		Butter.
Feb. 16	Windsor Hotel	Fond du Lac	Monochromatic	45.	47.7		Butter.
Feb. 16	Palmer House	Fond du Lac	Monochromatic	44.5	46.3		Butter.
Feb. 17	Meyers House	Janesville	Monochromatic	46.5	48.4		Butter.
Feb. 23	Russell House	Janesville	Monochromatic	44.	45.		Butter.
Feb. 23	Sent by E. B. Heimstreet	Janesville	Monochromatic	40.	44.3		Butter.
Feb. 23	Shiocton Hotel	Sun Prairie	Monochromatic	43.2	47.		Butter.
Mch. 4	Shiocton Hotel	Shiocton	Monochromatic	44.	46.7		Butter.
Mch. 23	Jones House	Oconomowoc	Monochromatic	46.	47.		Butter.
Mch. 23	Wegemann & Straus	Watertown	Monochromatic	46.	47.		Butter.
Apr. 27	Geo. O. Elliot	Milwaukee	Prismatic	41.5	42.3		Butter.
May 17	Restaurant Camp Harvey (taken with meal by W. W. Chadwick)	Milwaukee	Monochromatic	45.0	46.2		Renovated butter.
							Genuine.

Dairy and Food Commissioner.

CHEESE.

Examination. For the examination of cheese official methods have been used. Sufficient fat for examination can frequently be readily obtained by placing a few ounces of the chopped cheese in a close muslin cloth in a dish upon the water bath. Several Gms. of fat will usually flow out clear and sufficiently free from water for examination by the Reichert test and butyro-refractometer.

Several samples of cheese have been examined, two of which were found to be skimmed. No cheese containing foreign fat has been found in Wisconsin during the past two years.

Date.	Name.	Address.	Butter fat.	Remarks.
1896. Nov. 1.	Jos. Mallmann	Manitowoc	33.9	This cheese is known to be made from milk partly skimmed. Milk at this season of the year averaged 4.2 per cent. butter fat.
1897. April 8.	Sent by L. O'Brien	West Superior...	16.02	Skimmed.

June 2. "New York State Cheese" on Madison market. This cheese caused suspicion by separating on cutting into an outer shell and central core, differing slightly in color. Portions from each contained the same amount of fat,—34.1 and 34.2 per cent. The oleo refractometer showed both to contain butter fat, and the Reichert No. was found to be 29.9 and 29.8 respectively. The central core probably consisted of cheese left over from one batch and placed in the center of a cheese made subsequently and with which it did not cohere.

1897.

July 30. Bought of F. C. Bates, Milwaukee. Made by Fred Luder, Mount Horeb. Retailed at seven cents. Contained 31.9 per cent. fat, having a Reichert No. 33.7. Passed as pure.

Aug. 3. N. Simon, Neenah. "Young America." Butter fat 36.9 per cent. fat.

Oct. 1. J. Wm. Beilke, Wausau. Contained 33.75 per cent. butter fat. Passed.

Several samples of cheese have been examined for tyrotoxicon, or similar ptomaines, without positive results.

VINEGAR.

But little change has taken place in the status of the vinegar production during the past two years.

Methods for the identification of cider solids as distinct from foreign solids are being but slowly elaborated. As suggested by Smith, a valuable indication is found in the quantity of ash and the proportion of phosphates contained therein. The condition of the phosphates as to solubility will probably prove

of less value than was originally asserted, but the ratio of the phosphoric acid to the whole amount of ash present is likely to prove of much value. The methods used in the examination of vinegar are the same as were given in the previous report of this department.

Vinegar
extracts.

Certain so-called vinegar extracts have been placed upon the market, with directions that one pint of the extract, or a given amount, be diluted with water, to a fixed volume, as one gallon, to produce a first-class table vinegar. These "extracts" are mixtures of strong acetic acid and caramel. The flavor, which is the result of by-products produced in fermentation, is entirely wanting in these vinegars. They are simply colored dilute acetic acid. The use of such extracts should be discountenanced.

The appended table gives the results of examinations of vinegars made during the last two years.

Analysis of Vinegar.

1896.	Sample sent by—	Postoffice.	Sold by—	Sold as—	Acetic acid per cent.	Solids per cent.	Malic acid.	Comments.
Oct. 3	E. B. Sanders.....	Merrillan.....	Alden Vin. Co., St. Louis.....	Apple cider (6 yr old)	3.15	0.45	None.....	Condemned.
Oct. 7	Stiles & Rogers (1).....	Beloit.....	P. Bechtner Vin. Co., Milwaukee	Apple cider.....	4.56	3.92	Present.....	Passed.
Oct. 7	Stiles & Rogers (2).....	Beloit.....	P. Bechtner Vin. Co., Milwaukee	Apple cider.....	4.86	.....	Present.....	Passed.
Oct. 7	J. E. Paine.....	Marshfield.....	Alden Vin. Co., St. Louis.....	Pure cider.....	2.91	0.47	None.....	Condemned.
Oct. 7	Geo. Weisner.....	Neillsville.....	Alden Vin. Co., St. Louis.....	Pure cider.....	2.93	0.40	None.....	Condemned.
Oct. 7	H. C. Prange.....	Sheboygan.....	Mr. Giddings, She. Falls.....	Farmer's cider.....	3.24	2.16	Present.....	Acid low.
Oct. 8	Jos. Stadler.....	Appleton.....	Alden Vin. Co., St. Louis.....	.....	2.56	.....	.....	Condemned.
Oct. 12	P. F. Perry.....	Madison.....	Red Cross Vin. Co., St. Louis.....	Cider.....	3.95	1.86	Large amt.....	Sl'g'tly below
Oct. 15	P. Hanson.....	Eau Claire.....	Red Cross Vin. Co., St. Louis.....	Cider.....	4.09	0.23	None.....	Not cider.
Oct. 15	Geo. Weisner.....	Neillsville.....	Red Cross Vin. Co., St. Louis.....	.....	4.26	0.20	None.....	Not cider.
Oct. 22	H. Fleishbein.....	Glidden.....	Alden Vin. Co., St. Louis.....	Pure cider.....	3.09	0.20	None.....	Condemned.
Oct. 22	H. E. Brehme.....	Green Bay.....	.....	.....	3.18	.45	None.....	Condemned.
Oct. 27	W. F. Ferguson.....	Madison.....	Roundy, Peckham & Co., Milwaukee	Cider.....	5.25	3.32	Large amt.....	Passed.
Oct. 27	Wm. Steinmeyer & Co.....	Milwaukee.....	Petrie Fruit Co., Rochester, N Y	.....	4.95	.....	Large amt.....	Passed.
Nov. 17	.....	.....	Red Cross Vin. Co., St. Louis	Pure apple.....	4.11	0.22	None.....	Not cider.
Nov. 17	M. L. Nelson.....	Madison.....	.....	Cider.....	4.14	.....	Large amt.....	Passed.
Nov. 25	.....	.....	.....	Michigan cider.....	4.32	2.44	Large amt.....	Passed.
Dec. 4	J. W. Calkins.....	Evansville.....	C. H. Rosenstiel, Freeport, Ill	Crown brand.....	5.04	.....	None.....	Not cider.
Dec. 4	J. W. Calkins.....	Evansville.....	Franklin, McVeagh & Co., Chicago	Pure apple.....	3.84	.....	Present.....	Acid low.
Dec. 4	M. Fitz & Co.....	Milwaukee.....	Bo't by W. W. Chadwick.....	Cider.....	4.68	1.01	Small amt.....	Part cider.
Dec. 4	B. F. Oetker.....	Milwaukee.....	Bo't by W. W. Chadwick.....	Cider.....	3.72	4.04	Present.....	Acid low.
Dec. 4	Wm. Weichhardt.....	Milwaukee.....	Bo't by W. W. Chadwick.....	Cider.....	4.22	3.03	Present.....	Passed.
Dec. 4	D. D. Evans & Co.....	Milwaukee.....	Bo't by W. W. Chadwick.....	Cider.....	3.86	.30	None.....	Condemned.
Dec. 4	Reimer & Hensler.....	Milwaukee.....	Bo't by W. W. Chadwick.....	Cider.....	4.28	.28	None.....	Condemned.
Dec. 4	Geo. Gieger & Co.....	Milwaukee.....	Bo't by W. W. Chadwick.....	Cider.....	4.13	2.40	Present.....	Passed.
Dec. 8	Thos. Flatly.....	Chilton.....	Alden Vin. Co., St. Louis.....	Jeniton.....	3.44	.45	None.....	Condemned.
Dec. 15	A. Graef.....	Hortonville.....	Alden Vin. Co., St. Louis.....	Pure apple.....	3.27	.59	None.....	Condemned.
Dec. 15	Clifford & Smilie.....	Beloit.....	Reed, Walsh & Lange, Chic.	Cider.....	4.11	1.84	Large amt.....	Low in solids.
1897.	.....	.....	.....	.....	.....	.....	.....	.....
Jan. 15	D. D. Evans & Co.....	Milwaukee.....	(Sent for comparison)	Cider.....	2.78	.40	None.....	Condemned.
Jan. 15	W. Bentzler.....	Milwaukee.....	Rediske Vin. Co., Milwaukee	White distilled.....	10.02	.....	.....	.....
Jan. 15	Rhymer & Hensler.....	Milwaukee.....	Amer. Vin Works, Milw.	White Pickling.....	4.46	.....	.....	Passed.
Jan. 15	Rhymer & Hensler.....	Milwaukee.....	Amer. Vin. Works, Milw.	Pure cider.....	4.62	3.98	Present.....	Passed.

Jan. 15	Rhymer & Hensler	Milwaukee	Amer. Vin. Works. Milw.	Brown distilled	4.32				
Feb. 10	W. O. Bentzler	Milwaukee	Redske Vin. Co., Milwaukee	White distilled	10.20				Passed.
Feb. 10	Rhymer & Hensler	Milwaukee	Mendel Smith & Co.	Brown distilled	4.60				Passed.
Feb. 10	Rhymer & Hensler	Milwaukee		White distilled	4.35				Condemned.
Feb. 10	Rhymer & Hensler	Milwaukee	Red Cross Vin. Co., St. Louis	Pure cider	4.35	0.22	None		Distilled.
Feb. 24	H. E. Genske	Plymouth	Alden Vin. Co., St. Louis	Red A	4.66	.20			Condemned.
Feb. 24	H. E. Genske	Plymouth	Alden Vin. Co., St. Louis	White wine	3.03	.39			Condemned.
Feb. 24	H. E. Genske	Plymouth	Alden Vin. Co., St. Louis	West India spiced	3.78				Condemned.
Mch. 3	Geo. R. Taylor	Milwaukee	Red Cross Vin. Co., St. Louis	Cider	3.63	.40			Present
Mch. 4	Albert Heath	Milwaukee	Bo't by W. W. Chadwick	Cider	4.38	2.65	Present		Passed.
Mch. 4	C. R. Mapes	Milwaukee	Bo't by W. W. Chadwick	Cider	2.97	.54	None		Condemned.
Mch. 4	Geo. Wagner	Milwaukee	Bo't by W. W. Chadwick	Cider	5.85	.38	None		Condemned.
Mch. 4	Bo't of H. W. Schwab	Milwaukee	Bo't by W. W. Chadwick	Cider	5.28	2.99	Present		Passed.
Mch. 12	C. Rostad	Milwaukee	H. J. Heinz & Co., Pittsburg	Cider	4.47	2.85	Large amt.		Passed.
Mch. 12	P. Anchuetz	Milwaukee	Bo't by W. W. Chadwick	Cider	4.00	.38	None		Condemned.
Mch. 18	E. J. Hirthe	Milwaukee	Bo't by W. W. Chadwick	Cider	3.67	3.41	Present		Passed.
Mch. 18	E. P. Balcom	Milwaukee	Bo't by W. W. Chadwick	Cider	2.76	2.26			Under streng.
Mch. 18	Chas. Paik	Milwaukee	Bo't by W. W. Chadwick	Cider	4.20		Present		Passed.
Mch. 18	P. Hackendahl	Milwaukee	Bo't by W. W. Chadwick	Cider	3.14	3.77	Large amt.		Not wholly fermented.
Mch. 18	D. Dickson	Milwaukee	Bo't by W. W. Chadwick	Cider	4.08	1.30	Present		Below in sol's.
Mch. 18	W. H. Behl	Milwaukee	Bo't by W. W. Chadwick	Spiced	3.91	1.41	Large amt.		Below in sol's.
Mch. 18	John Nickel	Milwaukee	Bo't by W. W. Chadwick	Cider	5.40	4.05	None		Foreign sol's.
Mch. 18	Adolph Rosenheim	Milwaukee	Bo't by W. W. Chadwick	Cider	5.16	4.36	None		Foreign sol's.
Mch. 25	Fred Leskey	Berlin	Bo't by W. W. Chadwick	Cider	2.76	.60	None		Condemned.
Mch. 25	B. D. Fuller	Berlin	Bo't by W. W. Chadwick	Cider	5.67	.20	None		Condemned.
Mch. 25	J. C. Priske	Berlin	Bo't by W. W. Chadwick	Cider	4.00	0.22	None		Condemned.
Mch. 25	C. Johnson	Berlin	Bo't by W. W. Chadwick	Cider	7.04	0.60	None		Condemned.
Mch. 25	C. Brunk	Berlin	Bo't by W. W. Chadwick	Cider	4.17	1.47	Present		Solids below.
Mch. 25	L. C. Schmidt	Berlin	Bo't by W. W. Chadwick	Cider	4.17	1.57	None		Condemndd.
Apr. 2	Walther & Frederickson	Oconomowoc	Red Cross Vin. Co., St. Louis	Cider	4.17	0.15	None		Condemned.
Apr. 2	Buri & Karlen	Monroe		Cider	3.96	.27	None		Condemned.
Apr. 2	Buri & Karlen	Monroe		Distilled white	4.59				Condemned.
Apr. 13	Chas. Harnes	Milwaukee	Redske Vin. Co., Milwaukee	Cider	4.70	4.10			Passed.
Apr. 14	Fred Schaefer	Milwaukee	The P. Bechtner Co., Mil	Cider	4.15	2.49	Present		Passed.
Apr. 14	Albert Heath	Milwaukee	The P. Bechtner Co., Mil	Cider	4.85	4.49	Large amt.		Passed.
Apr. 9	J. W. Nichols & Co.	Livingston		Cider	4.92	4.40	Large amt.		Passed.
Apr. 9	John Kelly	Milwaukee		Cider	2.62	1.41	Present		Condemned.
Apr. 9	Buri & Karlen	Monroe	The P. Bechtner Co., Mil	Cider	4.20	4.56	Present		Passed.
Apr. 15	W. L. Rhodes	Appleton		Fern ented wine	2.91	.77			Condemned.
Apr. 1	G. Lausmann	Appleton	Breckenbauer, Plymouth	Cider	3.86	1.68	Present		Below st'd'rd.
Apr. 1	C. A. Devenor	Appleton	Bo't by W. W. Chadwick	Cider	4.41	.36	None		Condemned.
Apr. 15	Walsh & Ottle	Appleton	Bo't by W. W. Chadwick	Cider	5.30	.29	None		Condemned.
Apr. 1	W. Butler	Appleton	Bo't by W. W. Chadwick	Cider	4.22	.26	None		Condemned.
Apr. 1	E. Schrottky	Appleton	Bo't by W. W. Chadwick	Cider	4.08	2.79	Present		Passed.
Apr. 1	H. Rademacher & Son.	Appleton	Bo't by W. W. Chadwick	Cider	4.35	1.09			Condemned.
Apr. 15	C. W. Schultz	Appleton	Bo't by W. W. Chadwick	Cider	3.29	.84	None		Condemned.
				Cider	4.90	2.87	Small amt.		Passed.

Analysis of Vinegar—Continued.

1897.	Sample sent by—	Postoffice.	Sold by—	Sold as—	Acetic acid per cent.	Solids per cent.	Malic acid.	Comments.
Apr. 15	Ingold Bros.....	Appleton.....	Bo't by W. W. Chadwick....	Cider.....	3.79	.75	Small amt...	Condemned.
Apr. 15	N. Schafer.....	Appleton.....	Bo't by W. W. Chadwick....	Cider.....	3.67	4.11	Small amt...	Below str'g'h.
Apr. 20	D. B. Bailly.....	Appleton.....	Bo't by W. W. Chadwick....	Cider.....	3.91	1.34	Small amt...	Condemned.
Apr. 20	N. Nitschke.....	Appleton.....	Bo't by W. W. Chadwick....	Cider.....	5.30	1.60	Small amt...	Solids below.
Apr. 20	Maruzg & Briese.....	Appleton.....	Bo't by W. W. Chadwick....	Cider.....	4.20	.95	Small amt...	Condemned.
Apr. 20	Ben D. Fuller.....	Berlin.....	.....	Cider.....	4.85	4.28	Present.....	Passed.
Apr. 20	Ben D. Fuller.....	Berlin.....	.....	Cider.....	3.93	1.61	Present.....	Below str'g'h.
Apr. 20	Ben D. Fuller.....	Berlin.....	.....	Cider.....	4.14	2.95	Present.....	Passed.
Apr. 22	H. F. Runge.....	La Crosse.....	Bo't by W. W. Chadwick....	Cider.....	4.11	1.70	Present.....	Solids below.
Apr. 22	H. F. Forschler.....	La Crosse.....	Bo't by W. W. Chadwick....	Cider.....	4.87	1.87	Present.....	Passed.
Apr. 22	H. C. Stephens.....	La Crosse.....	Bo't by W. W. Chadwick....	Cider.....	3.95	.18	None.....	Condemned.
Apr. 22	A. M. Watson.....	La Crosse.....	Bo't by W. W. Chadwick....	Cider.....	4.59	.39	None.....	Condemned.
Apr. 22	C. N. Hawley.....	La Crosse.....	Bo't by W. W. Chadwick....	Cider.....	4.58	.18	None.....	Condemned.
Apr. 22	C. N. Hawley.....	La Crosse.....	.....	Catawva wine.....	8.34	.24	None.....	Distilled vin.
Apr. 22	Bergonst Groc. Co.....	La Crosse.....	Bo't by W. W. Chadwick....	Cider.....	4.01	2.15	Present.....	Passed.
Apr. 27	Walther & Fredrickson.....	Oconomowoc.....	Red Cross V. Co., St. Louis.....	Cider.....	5.46	2.12	Present.....	Passed.
Apr. 27	Roland & O'Dwyer.....	Waupun.....	W H. Bunge & Co., Chicago.....	Cider.....	3.93	1.32	Small amt...	Understr'g'h.
Apr. 29	D. B. Bailly.....	Appleton.....	Sprague, Warner & Co., Chi.....	Cider.....	4.11	2.19	Mod'rate amt	Second lot.
Apr. 29	D. B. Bailly.....	Appleton.....	Sprague, Warner & Co., Chi.....	Cider.....	3.36	3.24	Large amt...	Low in acid.
Apr. 29	J. S. Hussman.....	Milwaukee.....	.....	Cider.....	4.21	.17	None.....	Condemned.
Apr. 29	Dolliver & Murphy.....	Berlin.....	Red Cross V. Co., St. Louis.....	Cider.....	3.88	.17	None.....	Condemned.
Apr. 29	A. E. Bishop.....	Ripon.....	Red Cross V. Co., St. Louis.....	Old stock.....	4.62	2.30	Large amt...	Passed.
Apr. 29	A. E. Bishop.....	Ripon.....	Red Cross V. Co., St. Louis.....	New stock.....	4.20	3.35	Large amt...	Passed.
May 6	D. C. Adams.....	Milwaukee.....	The P. Bechtner Co, Mil.....	Cider.....	4.06	.21	None.....	Condemned.
May 6	Remington Drug Co.....	Fond du Lac.....	.....	Cider.....	3.69	1.66	.....	Spiced, con-demned.
May 6	Appleton Pres. Co.....	Appleton.....	.....	Cider.....	.....	.....	.....	.....
May 6	Chas. Paul.....	Neenah.....	Amer. Vin. Works, Mil.....	Cider.....	4.08	4.01	Present.....	Passed.
May 6	L. C. Schmidt.....	Berlin.....	.....	Cider.....	4.44	2.46	Large amt...	Passed.
May 6	L. C. Schmidt.....	Berlin.....	.....	Cider.....	4.50	3.75	Large amt...	Passed.
May 11	Dahlinden & Co.....	Milwaukee.....	.....	Cider.....	4.23	2.71	Small amt...	Passed.
May 11	Dahlinden & Co.....	Milwaukee.....	.....	Cider.....	4.52	4.85	Small amt...	Passed.
May 11	Maruzg & Briese.....	Appleton.....	Amer. Vin. Works, Mil.....	Cider.....	4.53	4.68	.....	Passed.
May 12	H. Rademacher.....	Appleton.....	Amer. Vin. Works, Mil.....	Cider.....	4.05	.25	None.....	Condemned.
May 11	T. E. Ward.....	Appleton.....	.....	Cider.....	4.08	3.72	Large amt...	Passed.
May 11	John Oelhafen.....	Tomahawk.....	H. Scheftels & Son, Mil.....	Cider.....	4.32	.26	None.....	Condemned.
May 12	J. G. Poser & Co.....	Merrill.....	Red Cross, St. Louis.....	Cider.....	4.26	2.45	Large amt...	Passed.
May 12	F. J. Runge.....	Merrill.....	Mich. Cider Co., Chicago.....	Cider.....	4.26	.....	.....	Passed.
May 12	John Oelhafen.....	Tomahawk.....	.....	White distilled.....	4.05	.....	.....	Passed.
May 12	John Oelhafen.....	Tomahawk.....	.....	Cider.....	4.56	1.45	.....	Solids low.
May 12	Alsteens & Co.....	Green Bay.....	Bo't by W. W. Chadwick....	Cider.....	4.98	2.05	Present.....	Passed.
May 12	J. J. Luetenegger.....	Neenah.....	Bo't by W. W. Chadwick....	Cider.....	.....	.....	.....	.....

May 12	C. S. Briggs & Co.	Neenah	Bo't by W. W. Chadwick	Cider	4.74	2.79	Prentes	Passed.
May 12	F. W. Buboltz	Menasha	Bo't by W. W. Chadwick	Cider	2.53	.60	None	Condemed.
May 12	Karl Koch	Menasha	Bo't by W. W. Chadwick	Cider	2.82	.83	Small amt	Condemed.
May 12	J. Planner	Neenah	Bo't by W. W. Chadwick	Cider	4.12	.29	None	Condemed.
May 12	Chas. Paul	Green Bay	Bo't by W. W. Chadwick	Cider	4.05	4.05	Large amt.	Passed.
May 13	Bungener & Bur.	Green Bay	Bo't by W. W. Chadwick	Cider	5.79	2.18	Small amt.	Passed.
May 13	A. E. Zeibel	Wausau	Amer. Vin. Works, Mil.	Cider	4.48	5.28	Large amt.	Passed.
May 13	Nejildo Bros	Green Bay	Joannes Bros, Green Bay	Cider	3.90	3.28	Large amt.	Passed.
May 13	A. L. Platten	Green Bay	Bo't by W. W. Chadwick	Cider	6.30	2.45	Present	Passed.
May 13	C. P. Miller	Green Bay	Bo't by W. W. Chadwick	Cider	4.14	1.69	Present	Solids low.
May 13	M. J. Corbett	Green Bay	Bo't by W. W. Chadwick	Cider	4.23	2.68	Present	Passed.
May 13	John Both & Sons Co.	Green Bay	Bo't by W. W. Chadwick	Cider	4.26	2.51	Present	Passed.
May 19	F. J. Platten & Son	Green Bay	Bo't by W. W. Chadwick	Cider	4.20	2.67	Large amt.	Passed.
May 19	J. Decremer	Green Bay	Bo't by W. W. Chadwick	Cider	3.93	.21	None	Condemed.
May 19	Callaghan Bros.	Green Bay	Bo't by W. W. Chadwick	Cider	4.38	1.87	Large amt.	Passed.
May 19	W. W. Winegard & Co.	Green Bay	Bo't by W. W. Chadwick	Cider	3.95	.87	Present	Condemed.
May 19			M. A. Gedney Pick. Co., Minn.	Cider	6.31	3.64	Slight amt	Passed.
May 19			F. C. Johnson, Kishwaukee	Cider	2.52	1.97	Present	Condemed.
May 19	Branns & Van	Green Bay	Bo't by W. W. Chadwick	Cider	4.29	.51	None	Condemed.
May 19	E. H. Brehme	Green Bay	Bo't by W. W. Chadwick	Cider	3.57	2.80	Large amt	Passed.
May 19	Jas. Cosgrove	Stevens Point.	A. W. Richter, Manitowoc	Brown distilled	8.88			Passed.
May 19	Jas. Cosgrove	Stevens Point.	A. W. Richter, Manitowoc	Brown distilled	7.56			Passed.
May 19	Stiles & Rogers	Beloit	Sprague, Warner & Co., Chic	Cider	4.65	2.71	Present	Passed.
May 19	Stiles & Rogers	Beloit	Sprague, Warner & Co. (1 lot)	Cider	4.67		Present	Passed.
May 19	Stiles & Rogers	Beloit	Sprague, Warner & Co.	Cider	4.56		Present	Passed.
May 19	Stiles & Rogers	Beloit	Sprague, Warner & Co.	Cider	4.62		Present	Passed.
May 19	Stiles & Rogers	Beloit	Sprague, Warner & Co.	Cider	4.65		Present	Passed.
May 19	Stein Bros. & Co.	Clintonville	A. M. Richter, Manitowoc	Cider	5.07	3.95	Present	Passed.
May 19	Stein Bros. & Co.	Clintonville	P. Bechtner Vin. Co., Milw.	Cider	4.32	4.42	Small amt	Passed.
May 19	Plumb & Nelson Co.	Manitowoc	Prussing Cider Co., Chic	Cider	4.02	2.62	Traces	Colored.
May 26	J. A. Smith	Eau Claire	Bo't by W. W. Chadwick	Cider	5.40	2.60	Present	Passed.
May 26	J. McIntyre	Eau Claire	Bo't by W. W. Chadwick	Cider	4.89	4.05	Small amt.	Passed.
May 26	Arthur Smith	Eau Claire	Bo't by W. W. Chadwick	Cider	4.53	1.38	Present	Passed.
May 26	Geo. Linton	Eau Claire	Bo't by W. W. Chadwick	Cider	4.71	1.80	Present	Passed.
May 26	Frank N. Larson	Eau Claire	Bo't by W. W. Chadwick	Cider	4.17	.18	None	Condemed.
May 26	C. Nelson & Co	Eau Claire	Bo't by W. W. Chadwick	Cider	5.28	.26	None	Condemed.
May 26	T. E. Ward	Appleton		Cider	4.96	1.88	Present	Passed.
May 26	Dolliver & Murphy	Berlin	Red Cross V. Co., St. Louis	Cider	4.35	2.85	Present	Solids low.
May 26	Richard & Co	Rewey	Alden v. m. Co., St. Louis	Cider	2.54	.84	Present	Passed.
June 2	Byron Chapel	Rhineland	Red Cross V. Co., St. Louis	Madison Co., Cider	4.00	.26	None	Condemed.
June 2	R. W. Schlagel	Dartford	Reid, Murdock & Co., Chic.	Cider	3.72	1.94	Present	Bel. standard
June 2	Libby & Engler	Menasha	Amer. Vin. Works, Mil.	Cider	3.84	5.23	Slight amt.	Added sug'rs.
June 2	R. Hooper	Marion	Red Cross V. Co., St. Louis	Madison Co. Cider	4.44	.38	None	Condemed.
June 2	C. F. Voigt	Lake Mills	Own make	Farmers' Cider	4.65	3.02	Large amt.	Passed.
June 2	C. F. Voigt	Oshkosh		Cider	4.23	2.77	Present	Passed.
June 2	C. F. Voigt	Oshkosh	Red Cross V. Co., St. Louis	Madison Co., Cider	4.02	.36	None	Condemed.
June 8	C. J. Iverson	Amberst		Cider	3.96	.50	None	Condemed.
June 8	A. M. Richter & Son	Manitowoc		Cider	4.02	2.20	Present	Passed.

Analysis of Vinegar — Continued.

1897.	Sent by—	Postoffice.	So'd by—	Sold as—	Acetic acid per cent.	Solids per cent.	Malic acid.	Comments.
June 8	Bergoust Groc. Co	La Crosse	Sprague, Warner & Co., Chi	Cider	4.50	1.85	Large amt...	Solids low.
June 8	C. M. Hawley	La Crosse	Red Cross V. Co., St. Louis	Cider (2d lot)	4.56	2.64	Small amt...	Passed.
June 8	The Wm. Steinmeyer Co.	Milwaukee	E. L. Prussing & Co., Chic	Cider	3.81	2.31	Large amt...	Passed.
June 8	O. Huuro, & Co.	Iola	Rediske Vin. Co., Milw	Cider	4.02	2.81	Large amt...	Passed.
June 8	H. C. Koenig	Marshfield	Am. Vin. Works, Milw	Cider	4.89	4.85	Traces	For'gn sugars
June 8	Stannard & Meader	Neillsville	C. E. Meyers & Co., Freeport	Cider	4.47	1.44	Present	Below solids.
June 15	Stannard & Meader	Neillsville	W. H. Bunge & Co., Chic	Cider	5.67	2.49	Large amt...	Passed.
June 15	Wm. Steinmeyer & Co.	Milwaukee	Genesee Fruit Co., N. Y	Cider	4.62	2.35	Large amt...	Passed.
June 15	E. Plumb	Fond du Lac		Cider	3.99	1.65	Large amt...	Slightly weak
June 15	R. W. Schlagel	Menasha	Amer. Vin Works, Milw	Cider	4.14	4.72	Small amt	For'gn sugars
June 15	J. B. Scherubel	Beaver Dam		Cider	3.90	.28	None	Condemne d.
June 15	H. C. Franze	Sheboygan	Red Cross V. Co., St. Louis	Colored, distilled	4.74			Passed.
June 15	H. C. Franze	Sheboygan	Dahinden & Gallasch, Milw.	White, distilled	4.23			Passed
June 15	Roland & O'Dwyer	Wau'un	W. Bunge & Co., Chic	Cider	2.58	2.48	Present	Acid below.
June 16	Scantlan Bros	Lyndon Station	Alden Vin. Co., St. Louis	Cider	5.67	.62	Present	Condemned,
June 16	R. Hooper	Lake Mills	Bo't, at Lake Mills	Cider	4.23	.27	None	Not cider.
June 16	Ingold Bros	Appleton	Amer. Vin. Works, Milw	Cider	4.35	4.01	Small amt	Passed.
June 16	F. N. Larson	Eau Claire		Cider	4.08	1.56	Present	Solids low.
June 16	F. N. Larson	Eau Claire		Cider	4.11	1.68	Present	Solids below.
June 16	F. B. Hatfield	Evansville	Farmer's cider	Cider	5.70	1.01	Slight amt...	Condemned.
June 16	F. B. Hatfield	Evansville	C. H. Rosensteil & Sons, Freeport	Brown distilled	4.47			Passed.
June 23	Whitcomb & Fowler	Columbus	The P. Bechtner Co., Mil	Cider	4.59	4.71	None	Solids doubt-ful.
June 24	A. C. Nott & Son	Marinette	W. M. Barrett, Chicago	Cider	4.50	.46	None	Condemned.
June 24	G. C. Lantwever	Medford	Amer. Vin. Wk's, Mil.	Brown distilled	7.29	.33		Passed.
June 24	J. Topp & Bro. Co	Columbus	Albion C. V. Wk's, N. Y	Cider	5.37	4.50	Large amt...	Passed.
June 24	J. Topp & Bro. Co	Columbus	Ills. Vin. Co., Chic	White distilled	7.68			Passed.
June 24	Berg & Danielson	Ashland	C. E. Meyer & Co., Freeport.	Pure crab	4.53	1.97	Traces	Passed.
June 24	Berg & Danielson	Ashland	Amer. Vin. Wk's, Mil	Brown distilled	4.38			Passed.
June 24	Berg & Danielson	Ashland	Amer. Vin. Wk's, Mil	White distilled	4.39			Passed.
June 24	Libby & Engler	Marion	Red Cross Vin. Co., St. L.	Red cross cider	5.10	1.93	Large amt	Passed.
June 24	H. C. Franze & Co.	Sheboygan	H. J. Heinz Co., Pittsburgh.	Malt	4.68			Passed.
June 24	H. C. Franze & Co.	Sheboygan	H. J. Heinz Co., Pittsburgh.	White distilled	6.12			Passed.
June 24	S. A. Davidson	Waupun	F. C. Johnson, Kishwaukee	Cider	4.62	2.36	Large amt...	Passed.
June 24	S. A. Davidson	Waupun	Dean Bros. & Lincoln, Chic.	Cider	4.02	1.64	Large amt...	Solids below.
June 24	D. E. Thorpe	Milton Junct.	Red Cross Vin. Co., St. L	Madison Co. cider	4.05	0.52	none	Condemned.
June 25	Winegard & Co	Green Bay	H. J. Heinz Co., Pittsburgh	Cider	4.35	2.89	Large amt	Passed.
July 1	Wm Steinmeyer & Co.	Milwaukee		White distilled	3.99			Passed.
July 1	Kronke Bros	Madison		Cider	4.53	.25	None	Condemned.

July 1	F. N. Larson.....	Eau Claire							
July 1	F. N. Larson.....	Eau Claire		Cider.....	4.32	2.68	Present.....	Passed.	
July 1	H. M. Johnston & Co.	Glenwood	H. F. Spinke & Co.....	Cider.....	4.35	2.72	Present.....	Passed.	
July 1	F. E. Kellner.....	Centralia	C. E. Meyer & Co., Freeport.	Cider.....	5.16	2.71	Present.....	Passed.	
July 1	M. Plank & Co.....	Hancock		Cider.....	4.89	.53	None.....	Condemned.	
July 1	F. L. Warner.....	Randolph	Amer. Vin. Wk's, Milwaukee	Cider.....	4.80	2.28	Present.....	Passed.	
July 2	A. M. Watson.....	La Crosse	Red Cross Vin. Wk's, St. L.	Cider.....	4.35	1.14	Doubtful.....	Condemned.	
July 2	A. M. Watson.....	La Crosse	H. J. Heinz Co., Pittsburgh	Cider.....	4.62	2.93	Small amt.....	Passed.	
July 2	C. E. Mylrea & Co.	Kilbourn	Corbin, May & Co., Chic.	Cider.....	4.38	2.66	Present.....	Passed.	
July 2	C. E. Mylrea & Co.	Kilbourn	F. C. Johnson, Kishwaukee	Cider.....	4.47	2.25	Present.....	Passed.	
July 2	J. Gardiner.....	Spencer	C. E. Meyers & Co., Freeport	Fruit vinegar.....	5.73	2.08	Present.....	Passed.	
July 2	J. Gardiner.....	Spencer	C. E. Meyers, Freeport.	Cider.....	3.51	.27	.....	Condemned.
July 7	Siefert & Fernholz.	Jefferson	Rediske Vin. Co., Milwaukee	Cider.....	5.67	.63	Doubtful.....	Condemned.	
July 7	J. S. Parkinson.....	Windsor		Cider.....	4.08	4.27	Present.....	Passed.	
July 7	A. Dietl.....	Wausau		Cider.....	4.11	2.26	Slight amt.....	Passed.	
July 7	A. Dietl.....	Wausau		White distilled.....	6.33	.....	.....	Passed.
July 7	Dr. A. Amer.....	Janesville	The P. Bechtner Co., Milw..	Cider.....	4.65	4.22	Slight amt.....	Passed.	
July 7	F. L. Powers.....	Plainfield	H. J. Heinz Co., Pittsburgh	Cider.....	4.59	2.73	Large amt.....	Passed.	
July 7	F. L. Powers.....	Plainfield	C. E. Meyers & Co., Freeport	Cider.....	4.47	.66	None.....	Condemned.	
July 7	F. L. Powers.....	Plainfield	C. E. Meyers & Co., Freeport	Crab cider.....	3.75	.64	None.....	Condemned.	
July 14	Torsch & Fisher.....	Baraboo	C. E. Meyers & Co., Freeport	Fruit vinegar.....	3.15	.21	None.....	Condemned.	
July 14	A. C. Nott & Son.....	Marinette	S. Warner & Co., Chicago...	Cider.....	4.11	2.61	.....	Condemned.
July 14	A. C. Nott & Son.....	Marinette		Cider.....	4.50	.65	None.....	Condemned.	
July 15	F. L. Warner.....	Randolph	C. E. Meyers & Co., Freeport	Cider.....	4.95	5.12	Slight amt.....	For'gn sugars	
July 15	F. L. Warner.....	Randolph	Barrett & Barrett, Chicago.	Cider.....	4.59	2.32	Pre-ent.....	Passed.	
July 15	Schneller, Felix Co.....	Prairie du Sac	H. J. Heinz Co., Pittsburg..	Cider.....	4.20	2.06	Slight amt.....	Passed.	
July 15	Schneller, Felix Co.....	Prairie du Sac	Prussing Cider Co., Chicago	Cider.....	4.53	2.61	Large amt.....	Passed.	
July 15	O. W. Lloyd.....	Randolph	Amer. Vin. Works, Milw..	Brown distilled.....	4.02	2.58	Slight amt.....	Passed.	
July 15	Jno. Beule.....	Fox Lake	Dahinden & Gallasch.....	Cider.....	3.96	.53	.....	Passed.
July 15	H. G. Chase & Co.....	Platteville	W H. Bunge & Co., Chicago	Cider.....	4.65	4.11	None.....	For'gn sugars	
July 21	O. G. Hubbard.....	Hancock	Barrett & Barrett, Chicago.	Cider.....	5.43	3.58	Large amt.....	Passed.	
July 22	H. M. Johnston & Co.	Glenwood	Griggs, Cooper & Co., St. P	Cider.....	3.96	1.84	Slight amt.....	Condemned.	
July 22	Chas. Trener.....	Mazomanie	Corbin, May & Co., Chicago	Cider.....	5.07	3.33	Slight amt.....	Passed.	
July 22	F. E. Kellner.....	Centralia	The P. Bechtner Co., Milw..	White distilled.....	4.53	1.69	Large amt.....	Condemned.	
July 22	Seidel Bros.....	Augusta	Red Cross Vin. Co., St L..	Cider.....	6.66	.....	.....	Passed.
July 22	F. L. Warner.....	Randolph	Amer. Vin. Works, Milw..	Cider.....	4.89	2.93	None.....	For'gn sugars	
July 23	Bach, Kiewig & Poser Co.	Kewaunee	Rediske Vin. Co., Milwaukee	Cider.....	4.21	2.65	Slight amt.....	Passed.	
July 23	Borgunst Groce Co	La Crosse		Cider.....	4.05	3.47	Slight amt.....	Passed.	
July 23	Bach, Kiewig & Poser Co.	Kewaunee	Rediske Vin. Co., Milwaukee	Cider.....	4.20	2.67	Present.....	Passed.	
July 23	C. F. Voigt.....	Oshkosh	Red Cross Vin. Co., St. L..	White distilled.....	4.50	2.45	Present.....	Passed.	
July 23	C. F. Voigt.....	Oshkosh	Red Cross Vin. Co., St. L..	Cider.....	4.05	.....	.....	Passed.
July 29	Samuel Hanson.....	Marinette	Reid, Murdock & Co	Cider.....	4.59	2.92	Present.....	Passed.	
July 29	Samuel Hanson.....	Marinette	H. J. Heinz Co., Pittsburgh.	Cider.....	4.29	2.69	.....	Passed.
July 30	J. E. Tarrant.....	Fox Lake	Amer. Vin. Wks, Mil.	White distilled.....	4.44	2.81	Large amt.....	Passed.	
July 30	J. E. Tarrant.....	Fox Lake	Amer. Vin. Wks, Mil.	Brown distilled.....	4.64	.....	.....	Passed.
July 31	Arthur Smith.....	Eau Claire	J. Cushing & Sons, Dub., Ia.	Cider.....	4.55	.24	.....	Passed.
July 31	Arthur Smith.....	Eau Claire	C. E. Meyer, Freeport.....	Cider.....	4.38	.44	Slight amt.....	Condemned.	
July 31	Elliott & Skrongsted.....	Beloit	(No. 1).	Cider.....	4.38	2.01	Slight amt.....	Passed.	
July 31	Elliott & Skrongsted.....	Beloit		Cider.....	4.44	2.32	Present.....	Passed.	

Analysis of Vinegar —Continued.

1897.	Sample sent by—	Postoffice.	Sold by—	Sold as—	Acetic acid per ct.	Solids per ct.	Malic acid.	Comments.
July 31	Elliott & Skougsted....	Beloit	(No. 2).....	Cider	4.14	.43	None	Condemned.
July 31	Elliott & Skougsted....	Beloit	(No. 3).....	Cider	4.02	.76	Slight amt..	Condemned.
July 31	Elliott & Skougsted....	Beloit	(No. 4).....	Cider	5.04	3.93	Large amt..	Passed.
Aug. 4	G. A. Rickeman	Racine	F. C. Johnson, Kishw'kee Ill.	Cider	4.62	2.36	Present	Passed.
Aug. 4	G. A. Rickeman	Racine	Red Cross Vin Co., St. Louis	Cider	4.08	.27	None	Condemned.
Aug. 4	H. M. Johnston & Co.	Glenwood		Premium cider.....	5.67	2.07	None	Solids d'btful
Aug. 5	Miss F. H. Hawks	Delafield	Alden Vin. Co., St. Louis...	Cider	3.69	.52	Traces	Condemned.
Aug. 5	Miss F. H. Hawks	Delafield	Alden Vin. Co., St. Louis...	Cider	3.06	.52	Traces	Condemned.
Aug. 16	Menominee Riv. Lum. Co	Menekaunee	Genesee Fruit Co., Lans'g, M	Cider	4.02	2.61	Large amt..	Passed.
Aug. 16	A. C. Nott & Son	Marinette		Cider	3.81	3.49	None	
Aug. 13	A. C. Nott & Son	Marinette		Cider	4.29	.....	Large amt..	Passed.
Aug. 16	H. Bowman	Genesee		Cider	3.12	.78	Present	Condemned.
Aug. 16	H. J. Newell	Galesville		Cider	3.81	1.90	Present	Condemned.
Aug. 16	J. A. Stratz	Woodhull	Barrett & Barrett, Chicago.	Cider	4.32	1.50	Present	Condemned.
Aug. 16	Bergoust Groc. Co.	La Crosse		Cider	4.98	2.98	Slight amt..	Passed.
Aug. 16	Bergoust Groc. Co.	La Crosse		Cider	4.74	3.11	Slight amt..	Passed.
Aug. 16	W. C. Jacobs	Neenah		Cider	4.56	3.30	Traces	Passed.
Aug. 16	W. C. Jacobs	Neenah	H. J. Heinz & Co., Pittsburg	Cider	4.38	.....	Large amt..	Passed.
Aug. 16	W. C. Jacobs	Neenah	H. J. Heinz & Co., Pittsburg	Distilled	5.52	.....	Large amt..	Passed.
Aug. 20	Amer. Vin. Wks	Milwaukee		Cider	4.35	4.13	Present	Passed.
Aug. 20	Elroy Mer. Co.	Elroy	C. E. Meyer & Co., Freeport.	"Seek-No-Further".	4.66	.32	None	Condemned.
Aug. 20	Elroy Mer. Co.	Elroy	C. E. Meyer & Co., Freeport.	Fruit	4.97	.30	None	Condemned.
Aug. 20	Vale & Britson	Deerfield	Barrett & Barrett, Chicago.	Cider	4.11	2.46	Present	Passed.
Aug. 20	M. Koch	Seymour	Amer. Vin. Wks. Mil	Cider	4.44	2.79	Small amt..	Passed.
Aug. 27	A. F. Chase & Co.			Cider	3.78	3.00	Present	Acid below.
Aug. 27	C. C. Olin	Florence		Cider	4.17	2.63	Present	Passed.
Aug. 27	Mulder Bros.	La Crosse		Cider	4.11	2.27	Slight amt..	Passed.
Aug. 27	Drew & Bullinger	Dale		Cider	4.23	2.70	Slight amt..	Passed.
Aug. 27	L. M. Larson	Menekaunee	Red Cross Vin Co., St. L. ...	Cider	4.11	2.97	Slight amt..	Passed.
Aug. 28	H. S. Johnson	Janesville	Sprague, Warner & Co., Chicago.	Steuben Co. Cider...	4.41	2.39	Large amt..	Passed.
Sept. 10	F. T. Gray	Antigo	Alden Vin. Wks., St. L. ...	Cider	2.94	.37	None	Condemned.
Sept. 10	Solon A. Davidson	Waupun	Dean Bros. & Lincoln, Chicago.	Cider	4.53	2.13	Large amt..	Passed.
Sept. 10	H. S. Clifford	Beloit	Reed, Walsh & Lange	Cider	4.56	1.15	Present	Condemned.
Sept. 10	H. Goedecke	Kilbourn City	F. C. Johnson, Kishwaukee.	Cider	2.55	3.00	Large amt..	Condemned.
Sept. 10	Walther & Fredericksen	Oconomowoc	Mich. Cider Co., Chicago...	Cider	3.96	1.28	Small amt..	Condemned.
Sept. 10	Geo. H. Persons & Co. ...	Tomah		Cider	4.59	1.56	None	Condemned.
Sept. 10	Emery & Searles	Evansville	Rosensteil & Son, Freeport.	Cider	4.56	.63	None	Condemned.

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Sept. 10	A. O. Wuensche	Berlin	Barrett & Barrett, Chicago	Cider	4.35	2.05	Large amt...	Passed.
Sept. 10	A. O. Wuensche	Berlin	C. E. Johnson, Kishwaukee	Cider	2.16	2.62	Large amt...	Condemned.
Sept. 10	H. S. Clifford	Beloit	Reed, Walsh & Lange	Distilled white	4.89			Passed.
Sept. 15	E. Richmond	Lodi	C. E. Meyer & Co., Freeport	Cider	4.62	.64	None	Condemned.
Sept. 15	E. Richmond	Lodi	Merriam, Collins & Co., Chicago	Cider	4.56	2.45	Large amt...	Passed.
Sept. 15	Rank Bros	Waupun		Cider	4.14	2.18	Small amt...	Passed.
Sept. 15	Eric Jacobson	Merrill	C. E. Meyers Co., Freeport	Cider	4.62	2.66	Present	Passed.
Sept. 15	Wellauer & Hoffmann Co	Milwaukee	Mich. Cider Co., Chicago	Cider	3.93	2.88	Present	Passed.
Sept. 15	Wallauer & Hoffmann Co	Milwaukee	Mich. Cider Co., Chicago	Cider	4.62	2.37		Passed.
Sept. 15	Geo. H. Persons	Tomah		Cider	4.02	.55		Condemned.
Sept. 17	O. F. Howen	Mondovi	Alden Vin. Co., St. L		3.18	.51		Condemned.
Sept. 23	G. Roemhild	Black Earth		Distilled white	4.23			
Sept. 23	G. Roemhild	Black Earth		Distilled brown	3.96			Passed.
Sept. 24	G. W. Benner	Darien	C. E. Meyer & Co., Freeport	Distilled brown	3.75	.27		Condemned.
Sept. 24	McAlpin Groc. Co	Beloit		Cider	4.50	2.57	Present	Passed.
Sept. 24	W. Hunter	Superior		Fruit vinegar	5.10	2.12	Large amt	Passed.
Sept. 23	F. N. Larson	Eau Claire	The P. Bechter Co., Mil	Cider	4.89	5.28	None	For sugars.
Sept. 23	H. S. Clifford	Beloit	Rui ³ , Walsh & Lange, Chi.	Holly cider vin	4.47	1.49	Large amt...	Condemned.
Sept. 23	A. C. Nott & Son	Marinette	Leroux Cider & V. Co., Tol.	Cider	4.27	3.35		Passed.
Sept. 23	Jac. Hahn	N. La Crosse	Bo't by W. W. Chadwick	Cider	4.08	2.64	Present	Passed.
Sept. 23	W. Doerflinger	La Crosse	Bo't by W. W. Chadwick	Cider	3.72	.24	None	Condemned.
Sept. 26	J. McLeod & Co.	Milwaukee	The P. Bechter Co., Mil	Retailed as cider	3.98	.29		Condemned.
Sept. 28	L. W. Holly	Oregon	Farmer's	Ci, der	2.70	1.14	Slight amt...	Condemned.
Sept. 28	Mrs. H. Giddings	Sheboygan F'lls		Cider	2.34	5.51	Very l'rge amt	Unfermented.
Sept. 28	J. J. Owsley	Sparta	Barrett & Barrett, Chi	Ci er	4.05	2.19	None	
Sept. 29	G. H. Persons	Tomah	Sprague, Warner & Co., Chi	Cider	3.79	3.12	None	
Sept. 29	La Crosse Grocery Co	La Crosse		Cider	4.46	2.32	Slight amt...	
Sept. 29	Elliott & Skougsted.	Beloit	Beal's vinegar	Cider	5.67	1.65	Present	Solids below.
Sept. 29	Elliott & Skougsted.	Beloit	Rosensteil & Sons, Freeport.	Cider	4.11	.81	Slight amt...	Condemned.
Sept. 29	L. M. Speer	Elroy		Cider	4.23	2.52	None	Doubtful s'ds
Sept. 29	L. M. Speer	Elroy		Cider	4.23	2.68	Large amt...	Passed.
Sept. 30	C. H. Shores	Osseo	The P. Bechter Co., Mil	Cider	4.86	6.29	None	For. sugars.
Sept. 30	C. H. Shores	Osseo	C. E. Meyers & Co., Freeprt	Cider	5.22	.46	None	Condemned.
Sept. 30	J. J. Carter	Menomonee	Red Cross Vin. Co., St. L.	Cider	4.76	2.80	Present	Passed.
Sept. 30	J. J. Carter	Menomonee	Sprague, Warner & Co., Chi	Cider	4.00	2.75		Passed.
Sept. 30	Durland & Valentine	N. La Crosse	Bo't by W. W. Chadwick	Cider	4.77	2.93	Present	Passed.
Sept. 30	M. B. Turnbull	N. La Crosse	Bo't by W. W. Chadwick	Cider	4.77	2.52		Passed.
Sept. 30	M. S. Boma	La Crosse	Bo't by W. W. Chadwick	Cider	4.70	2.14		Passed.
Sept. 30	C. H. Hestad & Son	La Crosse	Bo't by W. W. Chadwick	Cider	4.19	2.61		Passed.
Sept. 30	W. Grams	La Crosse	Bo't by W. W. Chadwick	Cider	4.80	1.40	Present	Passed.
Sept. 30	F. Gregory	La Crosse	Bo't by W. W. Chadwick	Cider	4.23	.47	None	Condemned.
Sept. 30	C. L. Borresen	La Crosse	Bo't by W. W. Chadwick	Cider	4.47	2.80		Passed.
Sept. 30	Carlton & Anderson	La Crosse	Bo't by W. W. Chadwick		4.29	2.01		
Oct. 6	J. W. Calkins	Evansville	Barrett & Barrett, Chi.	Cid'r	4.32	1.42		Condemned.
Oct. 6	Miles Rice	Milton		Cider	7.14	3.34	Present	Passed.
Oct. 6	Arthur Smith	Eau Claire	H. J. Heinz & Co., Pittsb'rg	Cider	4.47	2.60	Present	Passed.
Oct. 8	Arthur Smith	Eau Claire	Jas. Cushing & Son	Improved apple cider	5.46	.19	None	Condemned.

Analysis of Vinegar—Continued.

1897.	Sample sent by—	Postoffice.	Sold by—	Sold as—	Acetic acid per cent.	Solids per cent.	Malic acid.	Comments.
Oct. 8	Arthur Smith.....	Eau Claire.....	Sprague, W. & Co., Chicago.	Cider ..	3.75	3.18	.....	Acid below.
Oct. 8	F. L. Warner ..	Randolph ..	G. I. Robison, .. il.	Duffy's cider vin.	3.90	3.80	.....	Acid below.
Oct. 8	F. L. Warner ..	Randolph ..	Red Cross Vin. Co., St. Louis	Cider	3.99	3.19	Present	Passed.
Oct. 8	Miles Rice	Milton .....	.....	Cider	5.16	2.39	Present	Passed.
Oct. 8	Miles Rice	Mi ton .....	.....	Cider	6.15	2.75	Present	Passed.
Oct. 8	Bergoust Groc. Co	La rosse .....	.....	Cider	4.47	2.89	Present	Passed.
Oct. 8	H. Groves & Sons	Madison .....	.....	Cider	3.45	2.22	Present	Acid below.
Oct. 8	H. Groves & Sons	Madison .....	.....	Cider	4.59	2.73	Very slight	Foreign sug'rs.
Oct. 8	H. Groves & Sons	Madison .....	.....	Cider	5.34	7.73	Small amou't	Added sugar.
Oct. 8	H. Groves & Sons	Madison .....	.....	Cider	2.94	7.79	Present	Added sugar.
Oct. 8	H. Groves & Sons	Madison .....	.....	White distilled	8.56	.....	.....	Passed.
Oct. 8	H. A. Dierfield & Son	Whitewater .....	.....	Cider	5.40	2.41	Present	Passed.
Oct. 8	H. A. Dierfield & Son	Whitewater .....	.....	Cider	4.11	.89	Present	Condemned
Oct. 8	H. A. Dierfield & Son	Whitewater .....	.....	Cider	3.39	.....	Present	Condemned.
Oct. 8	H. A. Dierfield & Son	Whitewater .....	.....	Cider	2.21	5.19	Large amou't	Unfermented.
Oct. 8	F. S. Dhooge	Ashland	Alden Vin. Co., St. Louis....	Cider	2.85	.43	None	Condemned.
Oct. 8	Blume & Lodle Co.	Ashland .....	.....	Cider	2.85	.41	None	Condemned.
Oct. 8	W. B. Curtis	Shell Lake	Red Cross V. Co., St. Louis.	Cider	4.00	3.06	Slight amt.	Passed.
Oct. 8	W. B. Curtis	Shell Lake	Red Cross V. Co. St. Louis.	Cider	4.95	2.87	Slight amt.	Passed.
Oct. 8	F. S. Dhooge	Ashland	The P. Bechtner Co., Mil.	White distilled	7.63	.....	.....	Passed.
Oct. 21	F. N. Larson	Eau Claire	Franklin, McVeagh & Co., Chicago.	Cider	4.62	1.74	Large amt	Condemned.
Oct. 21	B. B. Borden & Son	Plainfield	C. E. Meyer & Co., Freeport	Cider	4.35	2.57	Slight amt.	Passed.
Oct. 21	Arthur Smith	Eau Claire	Sprague, Warner & Co., Chicago.	Cider	3.78	3.18	Small amt	Acid below.
Oct. 21	Schuller, Felix & Co.	Prairie du Sac	Red Cross V. Co., St. Louis	Cider	4.03	3.09	Present	Passed.
Oct. 21	F. G. Holtz	Columbus	American Vin. Works, Milw.	Cider	4.85	3.46	None	Foreign solids.
Oct. 21	R. Stafford Co.	Milwaukee	American Vin. Works, Milw.	Cider	3.90	2.25	Present	Acid below.
Oct. 21	J. P. Corry	Madison .....	.....	Cider	3.84	3.06	None	Condemned.
Oct. 21	F. G. Holtz	Columbus	John A. Tolman & Co., Chi-	Distilled	7.63	.....	.....	Passed.
Oct. 21	F. G. Holtz	Columbus	icago.	Distilled	3.85	.....	.....	Condemned.
Oct. 22	G. B. Winsor	Wonewoc .....	.....	Cider	2.82	1.85	Present	Condemned.
Oct. 22	F. L. Warner	Randolph	Alden Vin. Co., St. Louis ..	Cider	2.97	.41	None	Condemned.
Nov. 18	Fuller & Johnson Co.	Madison.....	Farmer's cider	Cider	4.20	2.27	Present	Passed.
Nov 18	Gould, Wells & Black-	Madison.....	Wm. Henning, Chicago.....	XXXX Cider	3.96	2.23	Present	Acid below.
Dec. 1	D. E. Richardson	Spooner.....	.....	Brown distilled	2.82	.40	.....	Condemned.

Dec. 1	D. E. Richardson	Spooner		Cider	3.09	.43		Condemned
Dec. 1	Brooks Bros.	Neeposha	Red Cross Vin. Co., St. L.	Cider	3.90	1.58	Large amt.	Condemned
Dec. 1	C. B. Phillips	Janesville	F. C. Johnson, Kishwaukee	Cider	4.47	1.60	Present	Condemned
Dec. 8	Elliott & Skougsted	Beloit	C. E. Meyer & Co., Freeport	Cider	4.26	3.91	Present	Passed
Dec. 8	C. N. Cramer & Co.	Ashland	The P. Bechtner Co., Mil.	Cider	4.44	2.73		Passed
Dec. 8	C. N. Cramer & Co.	Ashland	The P. Bechtner Co., Mil.	Brown distilled	7.41			Passed
Dec. 8	C. N. Cramer & Co.	Ashland	Amer Vin. Wks., Mil	White distilled	7.68			Passed
Dec. 8	A. C. Nott & Co.	Marinette	Leroux C. & V. Co., Toledo	Cider	3.33	2.90		
Dec. 8	A. C. Nott & Co.	Marinette	The P. Bechtner V. Co., Mil.	White distilled	8.46			Passed.
Dec. 8	Hanley Bros.	Racine	(Bo't by W. W. Chadwick)	Cider	4.62	2.07	Present	Passed.
Dec. 8	F. Harbridge	Racine	(Bo't by W. W. Chadwick)	Cider	4.29	.81	None	Condemned.
Dec. 8	E. H. Brill Estate	Racine	(Bo't by W. W. Chadwick)	Cider	4.14	4.03	Large amt	Passed.
Dec. 22	Wm. Weichert	Milwaukee	B't by N. J. Field	Sold as cider vin.	3.62	.59		Condemned.
Dec. 23	Mahnke & Mahnke	Manitowoc	A. M. Richter & Son (Bo't by N. J. Field)	White distilled	4.32			Passed.
Dec. 23	H. J. Meyer	Manitowoc	A. M. Richter & Sons (Bo't by N. J. Field)	White distilled	4.14			Passed.
Dec. 23	C. Reinke & Co.	Marinette	Miller, Pettingill & Foster (Bo't by N. J. Field)	Cider	3.45	.23	None	Condemned.
Dec. 23	Jos. Mlada	Manitowoc	A. M. Richter & Sons (Bo't by N. J. Field)	Cider	4.29	2.15	Present	Passed.
Dec. 23	Winegard & Co.	Green Bay	Leroux C. & V. Co., Toledo (B't by N. J. Field)	Cider	4.50	3.87		Passed.
Dec. 23	J. J. Halloin	Green Bay	Joannes Bros., Green Bay (Bo't by N. J. Field)	Cider	3.96	2.62		Passed.
Dec. 23	W. H. Gibson	Green Bay	Red Cross V. Co., St. Louis (Bo't by N. J. Field)	Cider	4.03	2.51		Passed.
Dec. 23	Otto Lanz	Marinette	Bo't by N. J. Field	Cider	3.72	2.67		Passed.
Dec. 24	F. Decremer			Cider	4.11	2.81		Passed.
Dec. 24	P. F. Temby	Mt. Horeb		Cider		1.95		Amt. insuf.
Dec. 24	H. A. Watson	Janesville		Cider	4.62	1.60		Condemned.
Dec. 24	A. E. Scholl	Whitewater	Farmer's cider	Cider	4.92	1.29		Condemned.
Dec. 24	A. E. Scholl	Whitewater	Rediske Vin. Co., Milw	Cider	2.88	3.02	Large amt	Condemned.
Dec. 27	J. Roehl	Whitewater	Bo't by N. J. Field, Milw	Crab vinegar	3.53	.40		Condemned.
1898								
Jan. 20	A. Halleritt	Milwaukee	The P. Bechtner Co. (Bo't by N. J. Field)	Cider	4.11	.33	None	Condemned.
Jan. 27	Nelson & Christianson	Deerfield		Cider	3.84	2.53		Passed.
Jan. 27	L. L. Olds	Clinton		Cider	3.06	.99	Present	Condemned.
Mar. 3	Gould, Wells & Blackburn Co.	Madison	Rediske Vin. Co., Milw	Cider	4.42	2.77	Present	Passed.
Mar. 3	Gould, Wells & Blackburn Co.	Madison	Rediske Vin. Co., Milw	White distilled	4.08			Passed.
Mar. 3	Gould, Wells & Blackburn Co.	Madison	H. J. Heinz Co., Pittsburgh.	Cider	4.38		Large amt	Passed.
Mar. 18	M. A. Garthus	Independence	Red Cross Vin. Co., St. L	Cider	4.08	2.13	Present	Passed.

Analysis of Vinegar — Continued.

1898.	Sample sent by —	Postoffice.	Sold by —	Sold as —	Acetic acid. per ct.	Solids. per ct.	Malic acid.	Comments.
Mar. 18	M. A. Garthus...	Independence..	Amazon V. & T. Co., Davenport, Ia.	Cider.....	4.29	.27	None	Condemned.
Mar. 18	M. A. Garthus.....	Independence..	Amazon V. & T. Co., Davenport, Ia.	White distilled	4.05	.....	.....	Passed.
Mar. 18	C. B. Button & Co.....	Rewey	Merriam, Collins & Co	Cider.....	3.84	.31	None	Condemned.
Mar. 18	C. B. Button & Co.....	Janesville	Merriam, Collins & Co	Cider.....	4.23	2.22	Present	Passed.
Mar. 24	C. B. Burton & Co.....	Rewey	Barrett & Barrett, Chic.	Cider.....	4.35	3.09	.....	Passed.
Mar. 24	H. W. Cramer	Janesville	Red Cross Vin. Co., St. L.	Cider.....	4.14	2.11	.....	Passed.
Mar. 24	H. W. Cramer	Janesville	Red Cross Vin. Co., St. L.	Cider.....	4.14	2.12	.....	Passed.
April 19	F. N. Larson	Eau Claire	M. A. Gedney P. Co. Min'ap.	Cider.....	4.35	2.75	.....	Present.
April 19	M. J. Regan & Bro	Eagle	Alden Vin. Co St. Louis.....	Red Apple	2.94	.52	None	Condemned.
April 25	W. C. Rosenhauer .....	.....	.....	Cider.....	3.57	2.03	.....	Condemned.
April 25	G. W. Leisman	Whitewater .....	.....	Cider.....	3.78	.92	.....	Condemned.
April 17	A. M. Reichter & Son	Manitowoc .....	.....	Cider.....	4.00	2.57	.....	Foreign sugar
May 26	A. Garthus.....	Independence .....	.....	Brown distilled	4.92	.29	.....	Passed.
May 26	A. Garthus.....	Independence .....	.....	White distilled	4.98	.....	.....	Passed.
May 26	Morissy Bros.....	Lodi .....	.....	Cider.....	4.44	.20	None	Not cider.
May 26	S. D. Neilson	Racine .....	.....	Cider.....	4.20	2.36	None	Not cider.
June 4	Mrs A. Charles.....	Mineral Point .....	.....	Cider.....	4.50	2.28	Present	Passed.
June 4	G. Landweer	Medford .....	.....	Brown distilled	8.73	.....	.....	Passed.
June 4	G. Landweer	Medford .....	.....	Brown distilled	8.55	.....	.....	Passed.
July 2	McAlpin Grocery Co.....	Beloit .....	.....	Cider.....	4.56	1.49	.....	Condemned.
July 8	J. A. Koltes.....	Dane	Alden Vin. Co., St. L.	.....	2.37	.90	None	Condemned.
Aug. 24	L. L. O ds	Clinton.....	Home made.....	Cider	4.23	2.41	Large am't	Passed.
Aug. 24	Engle Bros.....	Sun Prairie	Rediske Vin. Co., Mil.	Cider	4.29	4.58	None.....	Foreign sug's.
Sept. 6	J. Lukwitz	La Crosse .....	.....	Cider	4.00	2.20	None.....	Foreign sol's.
Sept. 6	Mills & Miner.....	Waukesha .....	.....	Cider .....	.54	1.46	.....	.....
Sept. 6	Mills & Miner.....	Waukesha .....	.....	Cider	5.91	1.51	.....	Fortified.
Sept. 6	Mills & Miner.....	Waukesha .....	.....	Cider	1.65	.....	.....	.....
Sept. 20	Birkmose & Wiberg Co.....	Hudson	H. J. Heinz Co., Pittsburg.	White distilled.....	5.52	.....	.....	Passed.
Sept. 20	Birkmose & Wiberg Co.....	Hudson	M. A. Gedney Pickle Co., Minneapolis	White distilled.....	4.38	.....	.....	Passed.

HONEY.

Strained honey has, perhaps, been more subject to adulteration than most articles of food.

Glucose.
adulterant.

The common adulterant is glucose syrup. As a rule jars or glasses holding from six to eight ounces of glucose are put up, containing in addition a small portion of buckwheat or other strongly flavored honey in the comb. This small piece of comb honey, with possible fragments of the bees, lends a genuine appearance and gives it its characteristic flavor.

Composition.

Natural honey is essentially a mixture of invert sugar, that is, consists of glucoses, dextrose and laevulose. The laevulose being stronger in rotatory power than dextrose at the ordinary temperature, pure honey turns the plane of polarized light to the left. After inversion honey should be but slightly more laevo-rotatory than originally. Glucose syrup consists largely of dextrin and dextrose, with varying smaller amounts of maltose. Commercial glucose syrup ordinarily has a dextro-rotatory power of from 150 to 170 degrees of the cane sugar scale when the normal weight is used.

Detection of
adulteration.

Glucose syrup then is shown to be present when the honey is strongly dextro-rotatory, and this property is not lost to any extent upon inversion. When cane sugar is added to honey, the sample will be dextro-rotatory according to the per cent. present, but after inversion will be laevo-rotatory. The per cent. of cane sugar can be approximately calculated from the difference.

Sulfuric acid
test for
glucose.

A ready test which gives valuable indications of the presence of large amounts of glucose syrup depends upon the fact that when concentrated sulphuric acid acts upon glucose sulphonation takes place, producing fluid products. When honey or cane sugar is similarly treated, a great amount of heat is evolved, and the mass swells to five or six times its volume, producing a spongy, charred, solid mass. This test may be readily performed by adding 15 cc. of concentrated sulphuric acid to an equal amount of honey in a tall beaker and rapidly mixing with a stirring rod. The test affords no quantitative results, however, and the presence of small amounts of honey or cane syrup are

sufficient to produce the swelling and carbonation. It will, however, under these circumstances, take place more slowly.

The results of the examination of eighteen samples of honey are here tabulated, three of which are shown to be adulterated, two containing glucose syrup.

Date.	Samples sent by	Post Office.	Polarization.		Remarks.
			Direct.	Indirect.	
1897.					
Feb'y 24	.....	Madison.....	-13.9	.....	Genuine.
Feb'y 24	Franklin, McVeagh & Co., "California White Clover Comb Honey"	Chicago	108.1	102.6	Glucose. Sent by N.E. France, Platteville, Adulterated.
Feb'y 24	.....	.....	31.1	.....	.....
April -	Herman Inse. (Sold by E. R. Pahl & Co.)	Milwaukee.....	-15.2	.....	Genuine.
May 26	John Haemann.....	Watertown.....	-24.6	-27.	Genuine.
Oct. 21	Fred Karnopp.....	Sheboygan.....	-11.5	-20.1	Genuine.
1898.					
March 11	I. Karger	Milwaukee.....	150.	136.	Glucose.
May 24	D. B. Bailey	Appleton .....	.....	.....	Genuine.
July 13	Bo't of Schacht Bros., "Pure Honey, J.A.Lamon, Chicago."	Racine	-18.	-22.6	Genuine.
Sept. 1	Ehrlich's Department Store.....	Fond du Lac.....	-6.8	-13.6	Genuine.
Sept. 21	E. R. Pahl & Co.....	Milwaukee.....	-6.5	-11.2	Genuine.

SYRUPS.

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. As properly-made glucose is a wholesome food, these syrups would be recognized as ordinary articles of food, but should then be labeled as "mixed" or "compound" syrups, in accordance with the law.

Coloring with aniline colors is sometimes practiced. Bleaching is also frequently resorted to, and soured syrups are neutralized and reboiled. The latter goods are unquestionably deleterious and their sale should be suppressed.

Doctored
syrup.

FLAVORING EXTRACTS.

After the passage of the pure-food law examination was made of the flavoring extracts then upon the market. In this work advantage was taken of the dextrorotation of lemon oil solutions in alcohol. A rough estimate of the amount of alcohol present was obtained from the specific gravity of the extracts. The presence of sugar or other solids in material amount would vitiate results obtained in this manner. Oil of lemon, having a specific gravity of .750, is sufficiently near that of alcohol not to materially affect these results where the oil is present in quantities of less than 5 per cent. The results obtained in the preliminary examination are set forth in the appended table, and show that the lemon flavoring extracts then on sale contained alcohol in amounts varying from 14 to 93 per cent., by weight, and amounts of lemon oil varying from zero to 8 per cent. The investigations, moreover, seemed to show that many of these extracts contained oils foreign to oil of lemon, but that these were used in exceedingly small amounts. Before proceeding further it was found desirable to formulate a systematic method for the examination of these extracts.

LEMON EXTRACTS.

Tabulated Results of Preliminary Examination of Lemon Extracts, made in May, 1898.

	Rotation.	Alcohol. Per. ct.	Per cent.
Wellauer & Hoffman (Acme).....	0.3	35.25	0.1— Oil lemon.
Puritan Standard	0.4	32.56	0.1 (Lemon grass.)
Acme.....	0.5	27.93	0.15 Oil lemon.
Gillett's.....	15.7		4.62 Oil lemon.
Souder's.....	0.6	41.80	0.2 Oil lemon.
Household.....	0.9		0.25 Oil lemon.
Van Duser's.....	15.4	91.18	4.53 Oil lemon.
Dr. Price's.....	20.8	83.9	5.90 Oil lemon.
Rival Extract (K. & D.).....	0.3	37.39	0.1 Oil lemon.
Drake Bros. (druggists).....	18.8	86.8	5.53 Oil lemon.
Economy.....	0.0	16.46	None Oil lemon (capsic.)
Fisher's (Hilbert's old).....	12.0	74.0	3.53 Oil lemon.
Meisner & B's Triple ext. bulk.....	1.6	58.27	0.47 Oil lemon.
Chapman's (C. S. & Co.).....	9.9	71.88	2.91 Oil lemon.
Souder's (new uncolored).....	0.4	44.64	0.1 Citral.
Burnett's.....	28.0	93.18	8.24
French Standard Lemon.....	0.4	39.30	0.1 Oil lemon?
Phoenix Extract.....	4.0	72.52	1.2 Lemon grass.
Bastine's.....	8.2	80.13	2.41 Oil lemon.
C. C. C. Favorite.....	0.0	13.92	None Citronella (nutmeg.)
Livesey's Lemon (Mil.).....	7.3	70.04	2.1
Chapman's.....	9.9	71.88	3.0

As no standard methods were in use for the examination of lemon flavoring extracts, it was thought desirable to make systematic examination of the oils used, to devise suitable methods for the examination of these extracts.

Properties of
lemon oil.

Optical methods have proved most satisfactory for this purpose. The following table gives the behavior of oil of lemon and of the various oils and substances used in the production of adulterated and sophisticated lemon extracts.

OPTICAL CONSTANTS OF ESSENTIAL OILS.

	ROTATION IN ALC.		Rotation of oil.	Defract. at 30C.
	5 per cent.	1 per cent.		
Oil of Lemon, (F. B.).....	16.4	3.3	64.	67-71
Oil of Lemon, (D. B.)	16.2	3.2	63.2	68-72
Oil of Lemon, (S.)				68-72
Oil of Lemon, (H.)	16.5	3.3	64.3	67-71
Oil of Limes, (E. & A.).....	9.2	1.8	36.	83-87
Limonene, (E. & A.).....	9.2	1.8	36.	87-95
"Soluble Oil Lemon," (F. B.).....	1.7	.3	7.	82-98
"Citral 80 per cent.," com.....	1.5	.3	5.9	80-86
Oil Lemon grass, (D. B.).....	-1.2	-.2	-4.7	80-90
Oil Lemon grass, (F. B.).....	-1.1	-.2	-4.3	83-95
Oil Lemon grass, (F. B. double rect.).....	-1.6	-.3	-6.3	82-90
Oil of Citronella, (D. B.).....	-2.8	-.6	-10.9	78-83
Citronella aldehyd., (F. B.).....	1.7	.3	6.6	36-38
Oil Turpentine				59-61

The rotation was determined in the Schmidt & Haench sugar polariscope upon the solution in a 200 mm. tube, using the cane sugar scale. The figures given in the column for the concentrated oil are recorded in circular degrees.

Refraction
of oils.

The refraction is given in degrees from the butyrorefractometer of Zeiss at a constant temperature of 30 degrees. It will be noticed that many of the oils exhibited wide dispersive power which later property proves a valuable aid in their detection in the precipitated oil obtained in small quantities from flavoring extracts in the process of examination.

Rotation of
oil lemon.

From these constants it will be seen that oil of lemon will produce a dextro-rotation of about 3.4 degrees for each per cent. of oil present in alcoholic solution when examined under above conditions.

Citral.

Soluble oil of lemon or commercial citral can only be used in amounts of 0.33 per cent. or less, owing to the pronounced flavor. Upon this basis, the largest quantity of these oils which could be used in an ex-

tract would produce an effect of 0.1 to 0.2 degrees, or about the same effect as 0.1 per cent of oil of lemon.

Lemon grass.

Oils of lemon grass, citronella and citronella aldehyde are used in much smaller amounts, so that while their tendency is to counteract the optical effects of oil of lemon, their actual effect is wholly insignificant. All are used in amounts less than 0.1 per cent.

Oil limes.

Oil of limes is slightly more expensive than lemon, and equally insoluble in weak alcohol. There is, therefore, no incentive to its use.

Limonene.

The same may be said of limonene, but if either of these were used they would be indicated by the greater refraction of the recovered oil.

Oil lemon, estimation.

In the absence of sugar, then, the oil of lemon may be readily determined in flavoring extracts by polarizing the extract in a 200 mm. tube, and dividing the results by 3.4. A ready check upon the quantity of oil thus found and a portion of the oil may be obtained for examination with the refractometer, by the following process. A flask similar to a Babcock skim-milk bottle is obtained. This bottle should have a capacity of approximately 80 cc., and have two necks, the larger tube entering at the side and passing almost to the bottom of the flask, and the smaller (used for measuring the precipitated oil) should be about 3 mm. internal diameter, and 14 cm. in length. Such a tube will contain 1 cc. between its extreme graduations. These should be divided into ten equal parts, and each tenth sub-divided into fifths. Each of the smallest divisions will then indicate 2 per cent. of oil when 10 cc. of extract is used. For the purpose of examination, 10 cc. of the extract is pipetted into the flask above described. About 10 drops of concentrated hydrochloric acid are added (sulphuric acid must not be used), together with 30 cc. of warm water. The flask is then placed in water at about 70 degrees c. with occasional shaking until the oil separates, which will usually take about 30 minutes. The flask is then filled with warm water by means of the side tube and whirled in the centrifuge, thus bringing the oil into the graduated neck. Fairly satisfactory results may be obtained with the ordinary Babcock bottle, but the precipitation is not as complete as when a larger proportion of water is used, and the measurement of the oil is unsatisfactory unless 20 cc. of the extract is

Correction
for solubility.

used. Recovery of the oil by the above process is most complete with extracts containing 5 per cent or more of oil. As a rule a 6 per cent. extract would yield 4.8 per cent. by precipitation; a 5 per cent. extract, 3.8 per cent., and a 2.5 per cent. extract, about 1.2 per cent. The results found by precipitation should then be corrected accordingly, after which the results should agree within .2 per cent. of those obtained by polarization, unless foreign optically active substances are present.

Soluble
oil lemon.

Soluble oil of lemon is recommended to be used in amounts of about 0.33 per cent. only, but if used in larger amount the greater proportion would be precipitated by this method. Three per cent. may be recovered from a 5 per cent. mixture in stronger alcohol.

Limonene
valuable.

The claim is frequently made that undesirable lemonene is all that is excluded by making an extract weak in alcohol, and subsequently clarifying with magnesia. This statement is misleading. With the limonene sample obtained from Eimer & Amend, 3.4 per cent. was recovered from a 5 per cent. solution by the above method, showing that in very weak alcohol (about 12 per cent.) it is even more soluble than pure oil of lemon.

Abnormal
refraction.

In recovering oil from extracts containing less than 2.5 per cent. of oil, and which are always weak in alcohol, 20 cc. may be used for precipitation. A portion of the precipitated oil may be removed with a 2 cc. pipette and examined with the refractometer. If pure oil of lemon has been used, the refraction will be normal, as given in the table.

Oil of limes, limonene, or citronella would be indicated by a higher refraction, as would soluble oil of lemon. Citronella aldehyde and oil of lemon grass would tend to lower the refraction, but neither could be used in an extract in quantities sufficient to greatly alter the refraction.

Alcohol.

For the accurate determination of alcohol 25 cc. pipetted into a 100-110 cc. sugar flask, about 2 cc. each of concentrated solution of $AlCl_3$ and Na_2HPO_4 are added and the flask is filled to 110 cc. with water, and the contents shaken. This is then filtered through a dry filter and 100 cc. of the filtrate, together with 25 cc. of water, are distilled to 100 cc. received

in the same sugar flask, and the alcohol found from the Sp. Gr. of the distillate. This figure plus 1-10 and multiplied by four will give the alcohol per cent. The precipitated AlPO_4 entangles the oils and facilitates their removal by filtration. In most cases, however, it is sufficient to prove the absence of sugar, glycerine or solid extract by evaporating 10 Gms. on the water bath. These substances being absent and the specific gravity of oil of lemon and stronger alcohol being nearly identical (oil of lemon .850 and stronger alcohol .820), when an extract does not contain over 5 per cent. of oil of lemon, the alcohol may be approximated to within less than 1 per cent. by estimating from the specific gravity of the extract itself.

(The liability of error decreases rapidly as the alcohol passes below 75 per cent., owing to the impossibility of there being sufficient oil of lemon to materially interfere.)

Methyl alcohol.

Methyl alcohol may be looked for by adding 10 cc. of a fresh 1 per cent. solution of sodium nitro-prusside to an equal volume of extract and then making the mixture strongly alkaline with ammonia. Within a few moments a red color will appear when wood alcohol is present. The oil of lemon does not interfere.

Unfortunately this test is valueless for detection of the more purified grades of methyl alcohol, such as "Columbian Spirits" and "synthetic alcohol." These can only be detected by the more complicated tests, as described in "Allen."

Vapor tension.

The presence of methyl alcohol is readily indicated by the increased vapor tension. If a solution of ethyl alcohol and water is prepared of the same specific gravity as the sample in question and portions of each are injected into sealed tubes having Torricellian vacua, the methyl alcohol will be indicated by a considerably greater fall of the mercury in the tube containing the suspected sample.

Coloring matters.

The lemon extracts on the markets are generally colored by aniline dyes. Curcuma is seldom used owing to its liability to fade. Indications of the coloring matter used are frequently yielded upon the addition of hydro-chloric acid to the extract in the process of precipitation of the oil. Sulphonated azo dyes (tropaeolins) are frequently used and react pink or red

upon the addition of hydro-chloric acid. Di-nitro-cresol is frequently used and indicated by the bleaching of the solution upon the addition of the acid. The coloring matters are best obtained by evaporating the alcohol and dyeing skeins of wool with the aqueous solution of the dye. Colors may then be identified as indicated in Weyl's "Sanitary Relations of the Coal Tar Colors."

LEMON EXTRACTS EXAMINED.

March 11, 1898.	Atwood & Steele. Alcohol 78.33, oil lemon 2.3 per cent. Refraction 60 to 65 degrees. Colored.
March 25, 1898.	"Chapman's Lemon." Polariscopes reading 14.9, oil lemon 4.4 per cent.
March 25, 1898.	"Challenge Lemon." Alcohol 75.2 per cent., polariscopes reading 11.3, oil lemon 4.2
April 6, 1898.	"Carnival Brand." Alcohol 61.5, polariscopes reading 6.9, oil lemon 2.1 per cent.
April 6, 1898.	Wright's Standard. Alcohol 16.45, polariscopes reading 0.2, oil lemon 0.1.
May 23, 1898.	Lemon Extract purchased from David Dickson, Milwaukee. Alcohol 21 per cent. by weight, polariscopes reading 0.2, oil of lemon 0.1. Coloring matter naphthol yellow.
May 26, 1898.	Lemon Extract. Modjeska, Roth & Co. Alcohol 59.2 oil lemon 0.4.
July 1, 1898.	Lemon extract bought of Charles Livingston, Kenosha. "Special Extract Lemon," Lakota Manfg. Co., Chicago. (Said to be made by Gillette & Co., Chicago.) Alcohol 20.6 per cent., polar. reading 4.6, cane sugar 1.31 per cent., rotation due to oil 0.6, equivalent to .2 per cent. oil of lemon. Colored.
July 5, 1898.	"White House Brand." sent by G., W. & B., Madison. Alcohol 72.74, polar. reading 13.5, equivalent to 4 per cent. oil lemon. Colored.
July 5, 1898.	"Union Triple Extract Lemon." Steele-Wedeles, Chicago. Alcohol 94.28 per cent., polar. reading 23.1, oil lemon 6.7 per cent. Color lemon peel only.
July 21, 1898.	Bot at Fair Store, Madison, July 6, "Globe Extract Lemon," Chicago. Alcohol 7.93 per cent., polar. reading 0.0, oil lemon none. Colored.
Aug. 22, 1898.	Grand Union Tea Co. Lemon. Alcohol 80.75 per cent., polar. reading 12.2, oil lemon 3.6 per cent.
Aug. 24, 1898.	Franklin, McVeagh & Co., "Mammoth" Lemon. Alcohol 35.05 per cent.
Aug. 24, 1898.	"Chapman's Ten Cent Lemon-New" Alcohol 71.7 per cent., polar. reading 21.5, equivalent to 6.3 per cent. oil. Precipitation with correction showed 5.6 per cent oil; difference due to presence of sugar. Color tropeolin.
Sept. 5, 1898.	"Standard Extract Lemon," Wisconsin Tea Co., Milwaukee. Alcohol 13.5 per cent., oil lemon traces. Aniline color.
Sept. 5, 1898.	"Monarch Brand Lemon," Reid, Murdock Co., Chicago. Alcohol 94.66 per cent., polar. reading 25.7, equivalent to 7.5 per cent. oil lemon. Precipitation yielded 7.3 per cent. oil lemon, refracton 65-69.
Sept. 5, 1898.	"Bon Ton Favorite Extract Lemon," sold by Wm. Grossman, Milwaukee, Bought of E. H. Welsh, Waukesha. Labeled "Bon Ton Chemical Works, Chicago." Alcohol 22.85 per cent., polar. reading 0.1, oil lemon trace. Color di-nitro-cresol.
Sept. 14, 1898.	Lemon Extract, bought of A. Lichtenberger, Oshkosh. Alcohol 22.8 per cent., polar. reading 0.0, oil lemon none.
Sept. 14, 1898.	"Fisher's Extract Lemon," manuf. by A. J. Hilbert & Co., Milwaukee. Alcohol 89.9 per cent., polar. reading 20.8, equivalent to 6.1 oil lemon. Precipitation yielded 6.2 per cent. oil, of refraction 63-68.
Sept. 15, 1898.	"Dr. Price's," bought of R. H. Seltzer, Waukesha. Alcohol 85.3, polar. reading 21.0, equivalent to 6.2 per cent oil lemon. Precipitation gave 6.5 per cent. oil, refraction 61-63.
Sept. 15, 1898.	Lemon Extract, manuf. by Ed. Dewey, Milwaukee. Alcohol 86.1, polar. reading 15.3, equivalent to 4.5 per cent. oil lemon. Precipitation showed 4.3 per cent. oil, refraction 64-68.
Sept. 15, 1898.	"Dieter's Double Strength Lemon," bought of A. Watterson Weyauwega. Alcohol 55.4 per cent., polar. reading 1.8, equivalent to 0.5 per cent. oil lemon. Color di-nitro-cresol.
Sept. 15, 1898.	Lemon Extract bought of H. F. Wilcox, druggist, Weyauwega. Alcohol 92 per cent., polar. reading 15.9, equivalent to 4.9 per cent. oil lemon. Precipitation gave 5 per cent. oil, refraction 64-68.
Sept. 30, 1898.	"Souder's New Cream of Fruit." Polar. reading 18., equivalent to 5.3 per cent. oil lemon. Precipitation gave 5.3 per cent. oil, refraction 64-67. Uncolored.
Sept. 30, 1898.	"Seely's Lemon." Alcohol 68.4, polar. reading 5.3, equivalent to 1. oil lemon.

VANILLA EXTRACTS.

The examination of vanilla extracts has until now proved a perplexing problem. The lower grades of vanilla extracts on the market were largely extracts of tonka with varying amounts of vanillin or of vanilla extract. Almost all of these were colored either with caramel or aniline dyes. The latter are coming into great favor. The separation of vanillin and cumarin and their quantitative determination has offered considerable difficulty to the analyst. This problem has probably been solved by the work of Messrs. Hess & Prescott, as published in the journal of the A. C. S.

Caramel.

The sodium-bi-sulphite method for the separation of vanillin is unsuited for the work of the ordinary food analyst, who is generally compelled to work upon an exceedingly small amount of the material. Where caramel is present in large quantity, it can generally be precipitated by the addition of paraldehyde and sufficient alcohol to effect solution. The caramel will form a sticky mass in the bottom of the tube upon standing over night. The coloring matter of vanilla is completely precipitated by liquor of sub-acetate of lead. While this re-agent precipitates the bitter principal, it does not remove the coloring matter from solution.

CREAM OF TARTAR.

Perhaps no substance has been more subject to adulteration and sophistication than cream of tartar. As a rule the cream of tartar purchased in the drug stores has been at least commercially pure, the only impurities being small amounts of tartrate of lime and sulphate of lime. Examination of the samples of cream of tartar purchased from the grocers show that true cream of tartar was seldom met with, but a substance sold as phosphatic cream of tartar was largely substituted for it.

Cream tartar
substitutes.

This substance consisted of calcium acid phosphate and starch and of calcium acid phosphate, alum and starch. In a few instances cream tartar in the commercially pure state was furnished.

The following are the results of examinations of cream tartar samples purchased:

CREAM OF TARTAR ANALYSES.

Date.	Samples sent by	Post Office.	Remarks.
1897.			
Nov. 3	Joannes Bros. (Sold by John Robinson)	Green Bay....	Nearly pure. Calcium tartrate small amount.
Nov. 3	Joannes Bros. (Sold by Apgar & Co., Chicago)	Green Bay....	Pure.
Aug. 4	G. A. Rickeman. (Sold by J. G. Flint, Milwaukee)	Racine	Pure.
1898.			
April 6	Wm. Kueha. (Sold by C. E. Andrews & Co.)	Milwaukee....	Composed of flour and calcium acid phosphate. Cream of tartar absent.
April 6	Paul Arndt. (Sold by Atlantic Tea Co., Milwaukee)	Milwaukee....	Flour & calcium acid phosphate.
April 18	Bought of S. P. Schadel.	Milwaukee....	Calcium acid phosphate, starch. Cream of tartar, none.
April 18	Latsch & Sons	Winona, Minn.	Cream of tartar, calcium acid phosphate and flour.
June 3	Guenther Carblerg. (Bought by W. W. Chadwick)	Neenah.....	Pure.
June 3	C. Paul & Co. (Bought by W. W. Chadwick)	Neenah.....	Pure.
June 3	H. Uvaas & Co. (Bought by W. W. Chadwick)	Neenah.....	Calcium acid phosphate, starch and cream of tartar.
June 3	B. B. Bailey. (Bought by W. W. Chadwick)	Appleton	Pure.

BAKING POWDER.

Baking powder branding.

The present law requires the branding of all baking powders containing alum in any form, with the words "THIS BAKING POWDER CONTAINS ALUM." The need of this law was very urgent, as at the time of its passage many brands of baking powder were on the market, varying in quality from the cheapest powders, composed of only bi-carbonate of soda and alum, together with filler (starch), the latter often amounting to as high as 50 per cent., to baking powders composed of better grades of soda alum, especially prepared, and mixed with acid phosphate of lime, bi-carbonate of soda and filler in necessary amount. All of these powders were placed on the market under claims of purity; many of them were apparently guaranteed to contain pure cream of tartar, and to be free from lime, alum, ammonia, etc. The cheaper and more inferior the powder the more extravagant were the claims made for it in most instances. The following quotation will show the evident intent to deceive on the part of these unscrupulous manufacturers:

"Delicatesso—Warranted Cream Tartar Baking

Powder Co., New York, U. S. A." (The foregoing being stamped upon the tin cover, without any punctuation whatever.) Mnfg. by "The Cream Tartar Baking Powder Co., New York, U. S. A." In two other places on this can apparent guarantees are given for the purity of this baking powder, and the formula is given for the manufacture of a pure cream tartar baking powder, as follows: "How to make a STRICTLY PURE CREAM TARTAR BAKING POWDER," (leaving the purchaser to presume that the formula referred to the contents of this package).

The facts in this instance were that no such company existed, and that the powder was said to be made in Ohio. The powder was one of the cheapest forms of alum baking powder, costing the manufacturer not over four cents per pound.

Claims of
manufacturers

The manufacturers of alum baking powders base their claims as to the injustice of this law upon statements that the alum used in these powders is precipitated and rendered insoluble into the bread by the heat used in baking, and that injury from its use has not been proven. They, therefore, claim that its use in baking powder should not be restricted. The weakness of this stand is readily seen when it is recalled that in all food legislation two objects are to be attained: First, the prohibition of the sale of injurious food products; and, second, the prevention of fraud.

Alum powders
suspected.

All baking powders are chemical compounds used for the leavening of foods. It is then but fair that those containing substances viewed with suspicion by the public should be so marked as to inform the purchasers of their true composition and character. The benefit from legislation of this kind can best be shown by citation of one of the points involved in a case prosecuted by this department.

Instance of
deception
practiced.

A tea merchant of Milwaukee, having several stores, sold, in conjunction with tea and coffee, two brands of baking powder. The one marked "Best" was sold at 50 cents a pound, and several prize tickets given with each of such sales. Under a different label a baking powder was retailed at 20 cents, with the price plainly printed upon the label. Upon examination, both of the powders were found to contain alum and to be exactly alike in composition. The facts

here demonstrated were that where parties wished to obtain a high-grade baking powder and were willing to pay the price necessary for the purchase of one manufactured from the most expensive materials, they actually did obtain in this instance the same baking powder as was retailed at 20 cents per pound, and which cost the manufacturer not to exceed seven cents per pound, and the only mitigating circumstances were that it was in that case furnished with several tickets for the prize.

Wholesomeness.

As to the wholesomeness of alum in baking powders, this is entirely a secondary matter, and one which is equally hard to prove or disprove. Certain experiments made by Sutton and Patrick have inclined them to the belief that the alum was largely, if not wholly, rendered insoluble in bread made by the use of alum in baking powder. On the other hand, an exhaustive series of experiments performed by W. D. Bigelow and C. C. Hamilton (*Journal A. C. S.*, Vol. 16, page 587) seemed to conclusively show that hydrate of alumina itself has the same hindering effect upon digestion as does alum through its solution in the acids of the gastric juices. (No gastric digestion can take place except in the presence of an excess of acid) and finally that aluminum phosphate seemed to have greater power in retarding digestion, both gastric and pancreatic, than either alum or hydrate of alumina. Under these circumstances, it is no more than just that every consumer should have the right of proof that a baking powder is manufactured free from such ingredients as he views with suspicion.

False list.

Advantage was taken at the time of the passage of this law by certain unscrupulous advertisers of cream of tartar baking powders, in issuing pamphlets purporting to come from this department and containing lists of baking powders said to contain alum. In that list were included several cream of tartar baking powders of undoubted purity, and which ranked as high, if not higher, than those of which the extravagant claims were made by the advertisers.

BAKING POWDERS.

1897.

- March 20. "Delicatessé" Baking powder. The label of this powder apparently guarantees the contents to be a pure cream of tartar baking powder. It contains no cream of tartar or acid phosphate, its acid ingredient being soda alum.

1897.

- June 3. Sent by Alex. Findlay Co., Madison. Supposed to be cream of tartar. Composed of calcium acid phosphate, soda alum and filler.
- Sept. 29. Sent by A Winegard & Co., Green Bay. Sold in bulk. Composed of soda alum, acid-phosphate and filler.
- Aug. 18. Sent by Vale & Brietson, Deerfield. "Pure Cream Baking Powder," Boston Baking Powder Co., Fairport, N. Y. Consists of soda alum, calcium acid phosphate and filler.

1898.

- May 26. "New York Tea Co.'s Best Baking Powder." Bought by N. J. Field. Price fifty cents. Contains soda alum, calcium acid phosphate, bi-carbonate of soda and filler. Cream of tartar absent.
- May 26. Baking Powder bought by N. J. Field of New York Tea Co., price paid twenty cents. Composition was apparently identical with the best, sold at fifty cents.
- June 28. Bought of Chas. Livingston, Kenosha. Seven Brothers' Baking Powder. H. H. & Co. Composed of soda alum, small amount of calcium acid phosphate, bi-carbonate of soda and filler. Not labeled as containing alum.
- June 28. Bought of Chas. Livingston, Kenosha. "Hotel Baking Powder." Randolph Manfg. Co., Chicago. Composed of soda alum, bi-carbonate of soda and filler. Not labeled as containing alum.
- July 15. Chicago Yeast Powder. Made by Chapman, Smith & Co., Chicago. Contains soda alum. Mr. Rose, agent, told Mr. Soren Nelson, grocer, of Racine, that this powder did not need an alum label. Labels were afterwards furnished by the company, which did not conform to the law.
- July 21. Sold by Kaiser Bros., Madison. Imperial Baking Powder. Composed of soda alum, calcium acid phosphate, bi-carbonate of soda and filler. Not labeled as containing alum.

FLOUR.

Compounding. 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. Buckwheat flour has been much adulterated in the past, but as the present price of wheat flour leaves but little incentive for its adulteration, it has greatly diminished. Several samples have been examined and found to contain wheat flour and middlings.

Photographic records made.

It has been found expedient to make photo-micrographs where prosecutions are brought for evidence of this form of adulteration. It is thus possible to offer in evidence and bring before the judge and jury

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photographs of the magnified buckwheat flour, the pure adulterant, and the mixture in question, each magnified the same number of times, thus enabling the jury to see for themselves the extent of the adulteration and the certainty of the presence of the adulterant.

FLOURS.

WHEAT FLOUR.

1898.

March 3. Brannan & Kirwan. Gratiot. Examined for corn or corn starch. None present. Pure.

BUCKWHEAT FLOUR.

1898

March 10 Sent by B. M. Minch, Madison. Pure.

Aug. 5. Sent by Bach, Kiewig & Poser Co., Kewaunee. Contains at least 25 per cent. wheat flour.

COFFEE.

The low price of coffee during the last few years has driven out of this market the fraudulent beans formerly manufactured, and during the last three years none of these have been met with.

Unground coffee is generally cheapened by the admixture of screenings and shrunken beans. The latter are black and bitter, and removed by hand picking from the better grades of coffee generally shipped here from the European markets.

Glazing of.

These are roasted, colored and glazed so as to be hardly noticeable when mixed with normal beans in amounts even as high as 50 per cent. The glazing of coffee has been excused on the ground that the glazing helped to retain its aroma and strength. It, however, proves to be a cloak for the sale of blighted, extracted and inferior material. All glazing and coloring should be absolutely prohibited.

MUSTARD.

Much of the dry mustard on the market at the beginning of 1897 was found to be reduced with wheat starch in the form of flour or middlings. The amount of adulterant present varied from 20 to 60 per cent.

Claims were made by the manufacturers and wholesalers that the addition of an adulterant was necessary, both for the proper milling of the mustard and for the purpose of making it palatable and suitable for food. Assertions were even made that no pure mustard in the dry form was for sale at that time. The better class of manufacturers, however, insisted that a large part of their sales were of the pure article and that they would be glad to see the sale of reduced dry mustard suppressed. No samples have been found so far which have been adulterated with gypsum or other mineral matter. The only forms of adulteration so far discovered have been the addition of starch and coloring matter. The coloring matter has generally proven to be curcuma. But two cases of aniline coloring have been met with.

The examination of mustard and of all ground spices has been largely microscopical. Photo-micrography will prove of much value in showing the extent of adulteration in mustard and spices for evidence in jury trials.

In the microscopic examination of spices adulterated with cocoanut shells or other dense substances, the best results are obtained by the examination of the "crude fiber" or of the finely powdered material which has been bleached in hypochlorite of soda or by means of chlorine while the substance is suspended in weak solution of an alkaline carbonate.

The following samples of mustard and spices have been examined:

MUSTARD.

1897.

- Aug. 4. Ground mustard sent by G. A. Rickenson, Racine. Sold by J. G. Flint, Milwaukee. Free from starch and coloring. Pure.

1898.

- July 20. Bought of D. C. Adams, Milwaukee. Durkee's mustard. Manufactured by E. R. Durkee & Co., N. Y. Contains no starch or coloring matter. Pure.
- Sept. 5. Dieter's mustard. Manufactured by the J. P. Dieter Co. Contains no starch or coloring. Pure.
- Sept. 5. Home Brand Mustard. Manufactured by Griggs, Cooper & Co., Minneapolis. Pure.
- Sept. 20. Ground mustard (bulk). Bought of B. Ehrlich, Fond du Lac. Adulterated by wheat, starch and colored with curcuma.
- Sept. 20. Ground mustard (bulk). Bought of Basmussen & Miller, Oshkosh. Pure.
- Sept. 20. Ground mustard (bulk). Bought of C. F. Voight, Oshkosh. Free from starch and coloring, but contains a large amount of mustard hulls.
- Sept. 20. Ground mustard (bulk). Bought of K. H. Seltzer, Waukesha. Commercially pure.

Photo-micrography used.

Preparation of samples.

- Sept. 20. Ground mustard (bulk). Bought of R. A. Watterson, Weyauwega. Contained much wheat middlings; highly colored.
- Sept. 20. Ground mustard (bulk). Bought of S. Frank. Colored with curcuma, otherwise pure.
- Sept. 29. Bulk mustard sent by C. C. Sniteman, Neillsville. Sold by Smith, Thorndyke & Co., Milwaukee, and guaranteed pure. This sample is suspected of containing mineral adulteration. Ash 5.60 per cent. Microscope showed no crystals, starch or coloring. Pure.

SPICES.

- 1897.
- Aug. 4. Powdered ginger, sent by G. A. Rickeman, Racine. Sold by J. G. Flint & Co., Milwaukee. Pure.
- 1898.
- July 15. Coffee sent by I. N. Coffmann, Marion. Sold by Frank VanDyke, Marion. Contains some screenings. Otherwise pure.
- 1897.
- March 18. Coffee sent by E. P. Arpin, Grand Rapids. Rio—whole. Genuine, but contained portion of undeveloped and shrunken beans.

DRUGS.

- 1898.
- March 10. Sent by E. B. Heimstreet, Janesville. "Favorite Hartshorn Ammonia," Bengal Mills, Chicago. Specific gravity .981, equal to 4.58 per cent. ammonia. Alkalinity equal to 4.50 per cent. ammonia. Salts of soda and potash absent.
- 1897.
- Aug. 18. Sent by Vale & Bricton, Deerfield. Saleratus in bulk. Consists of bi-carbonate of soda, free from starch and commercially pure.
- 1898.
- Aug. 20. Sent by E. B. Heimstreet, Janesville, Wis. "Pardoe's World-Renowned, Hand-weighed, Absolutely Pure Seidlitz Powders," Pardoe, Pindar & Co., New York.
- Careful re-weighing and averaging of six each of both blue and white papers, showed the blue paper to contain but 74 per cent. and the white papers but 75 per cent. of the required amount of salts.
- March 3. Sent by E. B. Heimstreet. "Standard Aqua Ammonia," Kenwood Manufacturing Co. Contained 2.30 per cent. ammonia. Contained no soda or potash.
- April 6. C. Pfeifer, Plymouth. Tannic acid. Gave a heavy precipitate of resins and a slight precipitate of dextrin. Was quite impure but not intentionally adulterated.

PRESERVATIVES.

Meat
preservatives.

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 color. Sausage preservatives also contain aniline coloring

matter. One sample examined was found to be composed of salt niter, borax and boracic acid and magenta coloring.

Fluorids used. Ammonium acid fluoride and the fluo silicates are also sold as meat preservatives. Boracic acid and borax are advocated for use in lard and dairy products.

Fruit preservatives. Compounds containing sodium salicylate and salicylic acid are sold under trade mark names, as canning processes. One of the most prominent manufacturers of these goods has been located in a booth at the state fair for several years, and has broadly advertised his wares, using a circular stating: "Remember this is not a salicylic acid, fumigating or anti-fermentive process." Notwithstanding this, the material furnished consisted of a mixture of sodium salicylate, salicylic acid and phosphate of sodium. The party in question promptly vacated the booth upon being threatened with arrest by this department. It has been stated that many so-called rights to use this process have been sold by him and his agents to fruit growers in the state.

PRESERVATIVES.

1898.

- June 3. "Cream Albuminoid." Manufactured by Preservaline Mfg. Co., Milwaukee. Bought by N. J. Field of the Chicago Creamery Package Co. Consisted of gelatin, boracic acid and borax.
- June 3. "XXX Meat Preservative." Manufactured by Preservaline Mfg. Co., New York. Consisted of sodium sulphite.
- June 3. "Special M. Preservaline." Manufactured by Preservaline Mfg Co. Sold by Chicago Creamery Package Co. Consisted of formic aldehyde.
- June 3. "New Method Meat Preserver." Sold by Dreyfoos & Sandels, Milwaukee. Consisted of sodium sulphite.

MISCELLANEOUS.

1898.

- Dec. 23. Canned corn ("Martha Washington" brand). Contained salicylic acid.
- Dec. 23. Canned tomatoes ("Monarch" brand). No coloring or preservative found. Pure.
- Dec. 23. "Non-intoxicating" liquors, bought by J. E. L. Smith, North Freedom. Sold by Barrett & Barrett, Chicago. Contained 3.18 per cent., by weight, alcohol.

WATERS.

A large number of waters have been submitted for examination by the State Board of Health and local health officers. The samples have been examined and reported upon as promptly as the work of this department would permit. The methods of examination are those previously used by this department, as described at length in *Leffman's Manual of Sanitary Water Analyses*.

Application
for lists.

The enforcement of the new food law has involved the department in tests so numerous and varying that it has been practically impossible to do work for private parties. But in all cases of suspected contamination of public or private water supplies, if samples are taken with proper precautions and are submitted by the local authorities, examinations will be made as promptly and carefully as possible. To facilitate this work suitable blanks have been prepared by Dr. U. O. B. Wingate, secretary of the State Board of Health, and application should be made to him or to the local health officers where sanitary examinations of water are desired.

State
supervision
of water
supplies.

The rapid settlement of the state makes a systematic examination of water supplies of villages and towns a growing necessity. A special appropriation has been made for that work in Massachusetts and Ohio and the location of all public water supplies and sewerage systems has been put in charge of the State Board of Health, with exceedingly gratifying results. The time will soon come when similar measures will need to be taken in this state.

WATER ANALYSES.

November 25, 1896.—Sent by Dr. H. D. Hardacker, Hortonville.

	Parts per 100,000.
Solid residue	47.00
Mineral residue	37.50
Volatile residue	9.50
Chlorine .....	.250
Saline ammonia .....	.002
Albuminoid ammonia .....	.009
Nitrites .....	.0000
Nitrates .....	.010

Considered pure.

December 4, 1896.—Sent by Dr. W. E. Hallock, Juneau.

	Parts per 100,000.
Solid residue	65.60
Mineral residue	41.20
Volatile residue	24.40
Chlorine	6.25
N. as nitrates .....	.030
N. as nitrites .....	.0000
Ammonia, saline .....	.024
Ammonia, albuminoid .....	.004

December 4, 1896.—Sent by The Geo. Reeder Brewing Co., Wausau, Wis.

	Parts per 100,000.
Total residue	39.50
Mineral residue	20.10
Volatile residue	9.40
Chlorine	6.35
N. as nitrates .....	.770
N. as nitrites .....	.0002
Ammonia, saline .....	.024
Ammonia, albuminoid .....	.006

This water appears to be quite badly contaminated.

December 17, 1896.—Sent by C. Larson, Lake Geneva.

Water No. 1.

	Parts per 100,000.
Solid residue	22.50
Mineral residue	13.30
Volatile residue	9.20
Chlorine .....	.575
Nitrogen as nitrites .....	.0003
Nitrogen as nitrates .....	.030
Saline ammonia .....	.028
Albuminoid ammonia .....	.010

Water of doubtful purity.

Water No. 2.

Solid residue	30.10
Mineral residue	19.70
Volatile residue	10.40
Chlorine .....	.225
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates008
Saline ammonia002
Albuminoid ammonia003

Considered pure.

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December 23, 1896.—Sent by Dr. O. E. Bailey, Waterloo.

Water No. 1.

	Parts per 100,000.
Solid residue	262.40
Mineral residue	151.00
Volatile residue	111.4
(Nitrous fumes were given off upon ignition.)	
Chlorine	46.450
Nitrogen as nitrates.....	very large amount.
Nitrogen as nitrites.....	trace only.
Ammonia, saline .....	.004
Ammonia, albuminoid .....	.016

Mineral impurities very large amount, organic comparatively small.

Water No. 2.

Solid residue	119.50
Mineral residue	72.00
Volatile residue	47.50
Chlorine	22.50
Nitrogen as nitrates	large amount.
Nitrogen as nitrites .....	.0002
Ammonia, saline .....	.001
Ammonia, albuminoid .....	.003

This water is similar to the other, only polluted to a much less degree.

January 22, 1897.—Sent by Dr. F. L. Hinman, Rhinelander.

	Parts per 100,000.
Chlorine .....	.175
Nitrates .....	.012
Nitrites .....	.0000
Free ammonia .....	.006
Albuminoid ammonia .....	.020
Color .....	.2 degrees

Free from sewage pollution.

February 12, 1897.—Water sample sent by Dr. Hartwig, Watertown.

	Parts per 100,000.
Chlorine	1.950
Saline ammonia .....	.001
Albuminoid ammonia .....	.006
N. as nitrites .....	.0000
N. as nitrates .....	.008

February 19, 1897.—Sent by F. O. Hunt, Fall River.

Water No. 1, Marked "Hobart's."

	Parts per 100,000.
Solid residue	34.40
Mineral residue	20.90
Volatile residue	3.50
Chlorine	1.150
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.350
Ammonia, saline	trace only.
Ammonia, albuminoid .....	.002

Contains little organic matter, but shows soil leaching.

Water No. 2, "Councilman's."

	Parts per 100,000.
Solid residue	116.10
Mineral residue	56.10
Volatile residue	60.0
Chlorine .....	.175
Nitrogen as nitrites .....	.0001
Nitrogen as nitrates	1.585
Ammonia, saline .....	.001
Ammonia, albuminoid .....	.005

February 24, 1897.—Sent by Dr. Chas. McDonald, Kewaunee.

	Parts per 100,000.
Solid residue	28.5
Mineral residue	19.8
Volatile residue	8.7
Chlorine	1.500
Nitrogen as nitrites .....	.0002
Nitrogen at nitrates .....	.020
Ammonia, saline .....	.068
Ammonia, albuminoid .....	.022

Condemned.

March 19, 1897.—Sent by W. E. Ground, West Superior.

	Parts per 100,000.
Solid residue	6.600
Mineral residue	3.400
Volatile residue	3.200
Chlorine .....	.140
Saline ammonia .....	.005
Albuminoid ammonia .....	.011
Nitrogen as nitrates .....	.025
Nitrogen as nitrites .....	.0001

April 30, 1897.—Sent by D. G. Morris, president village board, Sharon, Wis.

	Parts per 100,000.
Total residue	31.90
Mineral residue	24.50
Volatile residue	7.40
Chlorine .....	.300
Nitrogen as nitrites .....	.0004
Nitrogen as nitrates .....	.035
Ammonia, saline .....	.012
Ammonia, albuminoid .....	.004

May 6, 1897.—Sent by F. E. Waite, Oshkosh.

	Parts per 100,000.
Solid residue	29.00
Mineral residue	21.90
Chlorine .....	.250
Nitrogen as nitrates .....	.005
Nitrogen as nitrites0000
Ammonia, saline012
Ammonia, albuminoid002

Unusually pure.

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May 20, 1897.—Sent by E. M. Wright, Prairie du Chien.

Well Water.

	Parts per 100,000.
Total residue	29.90
Mineral residue	13.70
Volatile residue	16.20
Chlorine	1.575
Free ammonia .....	.006
Albuminoid ammonia .....	.005
N. as nitrites .....	.0000
N. as nitrates	1.700

Contained much "past pollution," and is of doubtful purity.

May 20, 1897.—Sent by Hon. E. I. Kidd, Prairie du Chien.

	Parts per 100,000.
Total residue	37.00
Mineral residue	24.80
Volatile residue	12.20
Chlorine	1.050
Ammonia, saline .....	.001
Ammonia, albuminoid .....	.003
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.450

"Past pollution," doubtful purity.

May 28, 1897.—Sent by W. W. Chadwick, Monroe City Well.

	Parts per 100,000.
Total residue	39.10
Mineral residue	27.30
Volatile residue	11.80
Chlorine	1.125
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.290
Ammonia, saline .....	.000
Ammonia, albuminoid .....	.002

May 28, 1897.—Sent by Hon. E. I. Kidd, Prairie du Chien Well.

	Parts per 100,000.
Total residue	37.60
Mineral residue	18.60
Volatile residue	19.00
Chlorine	1.700
Nitrogen as nitrites .....	.0001
Nitrogen as nitrates	1.571
Saline ammonia .....	.000
Albuminoid ammonia .....	.004

Past pollution, dangerous.

May 25, 1897.—Sent by Dr. J. C. Reynolds, Lake Geneva.

Water No. 1.

	Parts per 100,000.
Total residue	23.90
Mineral residue	11.10
Volatile residue	12.80
Chlorine .....	.150
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.005
Saline ammonia .....	.014
Albuminoid ammonia .....	.048

Free from sewage; contains vegetable impurities.

Water No. 2.

	Parts per 100,000.
Total residue	23.00
Mineral residue	11.30
Volatile residue	11.70
Chlorine .....	.175
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates	traces only.
Saline ammonia .....	.008
Albuminoid ammonia .....	.034

Water No. 3.

	Parts per 100,000.
Total residue	1.60
Mineral residue (about 1-20 grain to gallon) .....	.10
Volatile residue	1.50
Chlorine	traces only.
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates	Less than .005
Saline ammonia .....	.001
Albuminoid ammonia .....	.014

(Seems to be ice water.)

June 9, 1897.—Sent by Dr. B. F. Dobson, Berlin.
Sample of artesian water from the city supply.

	Parts per 100,000.
Total residue	38.60
Mineral residue	29.30
Volatile residue	9.30
Chlorine .....	.700
Sulphuric anhydride	3.021
Equivalent calcium sulphate	5.136
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.006
Ammonia, saline .....	.001
Ammonia, albuminoid	traces only.

Exceedingly pure.

Report of the Wisconsin

June 16, 1897.—Sent by A. M. Kersten, M. D., De Pere.

Ice Sample "A" from above Dam.

	Parts per 100,000.
Chlorine	trace only.
Nitrites .....	.0000
Nitrates .....	.0000
Ammonia, saline .....	.006
Ammonia, albuminoid .....	.009

Reasonably pure.

Ice Sample "B" from below the Dam.

	Parts per 100,000.
Chlorine	less than .050
Nitrites .....	.0000
Nitrates .....	.0000
Ammonia, saline .....	.008
Ammonia, albuminoid .....	.024

Not so pure as "A."

June 25, 1897.—Sent by A. F. Bloki, Health Officer, Sheboygan.

	Parts per 100,000.
Total residue	39.30
Mineral residue	31.40
Volatile residue	7.90
Chlorine	(quite high) .850
Nitrates .....	.005
Nitrites .....	.0000
Ammonia, saline .....	.012
Ammonia, albuminoid .....	.082

Condemned.

July 2, 1897.—Sent by Dr. J. C. Reynolds, Lake Geneva.

Water No. 3.

	Parts per 100,000.
Total residue	21.20
Mineral residue	11.40
Volatile residue	9.80
Chlorine .....	.225
Nitrogen as nitrates .....	.007
Nitrogen as nitrites .....	.0000
Ammonia, saline	none.
Ammonia, albuminoid .....	.022

Vegetable impurities.

July 15, 1897.—Water sample sent from Children's Fresh Air Home, Neshota.

	Parts per 100,000.
Total residue	36.10
Mineral residue	27.20
Volatile residue	8.90
Chlorine .....	.300
Nitrogen as nitrites .....	.0002
Nitrogen as nitrates .....	.010
Ammonia, saline .....	.038
Ammonia, albuminoid .....	.016

Impure from vegetable matter.

July 16, 1897.—Sent by E. I. Kidd, Prairie du Chien.

Sample No. 1, from Well of L. Case.

	Parts per 100,000.
Total residue	41.20
Mineral residue	26.60
Volatile residue	14.60
Chlorine	1.350
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates	1.250
Ammonia, albuminoid .....	.004
Ammonia, saline .....	.002

Suspicious.

Sample No. 2.

	Parts per 100,000.
Total residue	39.40
Mineral residue	22.20
Volatile residue	17.20
Chlorine .....	.600
Nitrogen as nitrites	traces.
Nitrogen as nitrates .....	.220
Ammonia, saline .....	.002
Ammonia, albuminoid .....	.008

Suspicious.

July 22, 1897.—Water from well at school district No. 7, Beaver Dam. Sent by Dr. Geo. E. Talbert.

	Parts per 100,000.
Total residue	60.60
Mineral residue	51.10
Volatile residue	9.50
Chlorine .....	.175
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.015
Ammonia, saline .....	.002
Ammonia, albuminoid .....	.014

This water contains no sewage pollution or contamination of a dangerous character. It contains some organic matter, however, probably of vegetable origin.

August 20, 1897.—Sent by L. T. Pare, Health Officer, Chippewa Falls. Taken from taps of city supply, August 11, 3 p. m.

Water No. 1.

	Parts per 100,000.
Total residue	10.90
Mineral residue	6.80
Volatile residue	4.10
Chlorine .....	.160
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates110
Ammonia, saline000
Ammonia, albuminoid002
Q consumed in 10 minutes015

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Water No. 2.

	Parts per 100,000.
Total residue	10.80
Mineral residue	6.90
Volatile residue	3.90
Chlorine .....	.160
Nitrogen as nitrites .....	.0004
Nitrogen as nitrates .....	.120
Ammonia, saline .....	.002
Ammonia, albuminoid .....	.003
0 consumed in ten minutes .....	.020

These waters are of exceptional purity.

September 17, 1897.—Sent by A. Cowell, Hartland.

	Parts per 100,000.
Chlorine	1.600
Ammonia, saline .....	.004
Ammonia, albuminoid .....	.008
Nitrogen as nitrites .....	.0001

Nitrates are unusually heavy.
Condemned.

October 7, 1897.—Sent by Dr. A. B. Rosenberry, Arbor Vitae.

	Parts per 100,000.
Total residue	9.10
Mineral residue	5.80
Volatile residue	3.30
Chlorine .....	.450
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.080
Ammonia, saline .....	.000
Ammonia, albuminoid .....	.003

Pure soft water.

October 21, 1897.—Sent by Dr. B. F. Dodson, Berlin. Taken from well of H. S. Sackett.

	Parts per 100,000.
Total solids	36.10
Mineral residue	19.70
Volatile residue	16.40
Chlorine	2.350
Nitrogen as nitrites .....	.0001
Nitrogen as nitrates .....	.055
Ammonia, saline .....	.002
Ammonia, albuminoid .....	.008

November 3, 1897.—Sent by Dr. Gillan, Oshkosh.

	Parts per 100,000.
Total residue	31.30
Mineral residue	23.80
Volatile residue	7.50
Chlorine .....	.425
Ammonia, saline .....	.008
Ammonia, albuminoid .....	.003
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.008

Considered pure.

November 5, 1897.—Sent by Dr. Chas. O. Cron, Health Officer, Camp Douglas.
Parts per 100,000.

Total residue	34.80
Mineral residue	20.60
Volatile residue	14.20
Chlorine	2.250
Nitrogen as nitrites .....	.0030
Nitrogen as nitrates .....	.550
Ammonia, saline .....	.088
Ammonia, albuminoid .....	.050

Badly contaminated.

November 18, 1897.—Sent by Health Officer, Superior. (Sent in corked bottle.)
Parts per 100,000.

Total residue	6.40
Mineral residue	4.00
Volatile residue	2.40
Chlorine .....	.160
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates	(doubt) .008
Ammonia, saline .....	.001
Ammonia, albuminoid .....	.007

November 30, 1897.—Elroy city water. Sent by Dr. C. S. Smith, Elroy.
Parts per 100,000.

Total residue	20.70
Mineral residue	14.50
Volatile residue	6.20
Chlorine .....	.850
Ammonia, saline .....	.000
Ammonia, albuminoid .....	.003
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.040

Pure.

November 30, 1897.—Sent by W. C. Schmitz, St. Nazianz, Wis.
Water No. 1, from Well.

Total residue	63.30
Mineral residue	35.40
Volatile residue	27.90
Chlorine	4.650
Saline ammonia	none.
Albuminoid ammonia .....	.008
Nitrogen as nitrites	none.
Nitrogen as nitrates .....	.300

Deemed unsafe.

December 1, 1897.—Sent by H. W. Morganroth, M. D., Kewaskum.

Total residue	36.90
Mineral residue	28.70
Volatile residue	8.20
Chlorine	1.050
Ammonia, saline .....	.000
Ammonia, albuminoid .....	.004
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.010

Report of the Wisconsin

December 1st, 1897.—C. E. Thayer, M. D., Markesan.
Water sample eight ounces only.

	Parts per 100,000.
Chlorine	2.50
Nitrites	none.
Nitrates .....	.035

Passed as probably pure.

January 12, 1898.—Sent by Dr. W. H. Budge, Marshfield.

	Parts per 100,000.
Total residue	40.30
Mineral residue	26.00
Volatile residue	13.70
Chlorine	9.40
Saline ammonia .....	.012
Albuminoid ammonia .....	.014
Nitrates	large amount.
Nitrites	trace only.

Impure.

January 13, 1898.—Sent by R. A. Girardin, Health Officer, Oconto Falls, school well No. 3.

	Parts per 100,000.
Total residue	25.80
Mineral residue	17.70
Volatile residue	8.10
Chlorine .....	.200
Saline ammonia .....	.000
Albuminoid ammonia .....	.004
Nitrates	traces.
Nitrites	none.

Pure.

Sent by Wm. Hipke from well in cheese factory at Hustisford, January 13.

	Parts per 100,000.
Total residue	86.00
Mineral residue	55.50
Volatile residue	30.50
Chlorine	21.400
Saline ammonia .....	.008
Albuminoid ammonia .....	.006
Nitrates	less than .010
Nitrites	none.

January 19, 1898.—Sent by Dr. A. B. Rosenberry, Health Officer, from Arbor Vitae, Vilas county.

	Parts per 100,000.
Total residue	34.20
Mineral residue	20.30
Volatile residue	13.90
Chlorine	3.500
Saline ammonia .....	.147
Albuminoid ammonia .....	.114
Nitrogen at nitrites	trace.
Nitrogen as nitrates	large amount.

Condemned.

January 20, 1898.—Well water sent by D. F. Bentley, M. D., Health Officer, Portage.

	Parts per 100,000.
Total residue	72.90
Mineral residue	54.30
Volatile residue	18.60
Chlorine	6.400
Saline ammonia .....	.006
Albuminoid ammonia .....	.042
Nitrogen as nitrates	very large amount.
Nitrogen as nitrites .....	.0010

The residue blackens considerably on ignition.
 Condemned.

January 20, 1898.—Water from tank of city water supply of Waupun. Sent by Dr. G. B. Durand.

	Parts per 100,000.
Solid residue	36.80
Mineral residue	27.80
Volatile residue	9.00
Chlorine	0.625
Ammonia saline	0.024
Ammonia albuminoid	0.002
Nitrogen as nitrites	0.0001
Nitrogen as nitrates	0.055

January 22, 1898.—Pumping station, Lake Geneva.

Water No. 1.

	Parts per 100,000.
Chlorine .....	.575
Free ammonia (saline) .....	.026
Albuminoid ammonia .....	.008
Nitrogen as nitrites .....	.0001
Nitrogen as nitrates .....	.055

Water No. 2.

	Parts per 100,000.
Chlorine .....	.225
Free ammonia (saline) .....	.016
Albuminoid ammonia .....	.018
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.005

May 18, 1898.—Sent by F. D. Bentley, M. D., Portage.

	Parts per 100,000.
Total residue	149.50
Mineral residue	119.10
Volatile residue	30.40
Chlorine .....	.14.150
Saline ammonia .....	.013
Albuminoid ammonia .....	.044
Nitrogen as nitrites .....	.0010
Nitrogen as nitrates	very large amount.

Condemned.

Report of the Wisconsin

July 29, 1898.—Water from the Wausau city water works. Sent by Dr. L. E. Spencer, H. O.

Water No. 1.

	Parts per 100,000.
Total residue	10.10
Mineral residue	4.40
Volatile residue	5.70
Chlorine .....	.150
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.020
Saline ammonia .....	.003
Albuminoid ammonia .....	.013

Water No. 2.

	Parts per 100,000.
Total residue	9.20
Mineral residue	4.50
Volatile residue	4.70
Chlorine .....	.150
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.020
Saline ammonia .....	.006
Albuminoid ammonia .....	.011

August 5, 1898.—Sent by Dr. G. L. Buland, Greenwood, Wis.

	Parts per 100,000.
Total residue	5.80
Mineral residue	2.80
Volatile residue	3.00
Chlorine .....	.140
Nitrogen as nitrites .....	.0000
Nitrogen as nitrates .....	.040
Saline ammonia	trace only.
Albuminoid ammonia .....	.001

Exceedingly pure.

FACTORY AND CITY MILK TESTS.

Blanchardville.

	Per cent. fat.
H. Hendrickson	4.2
C. Devoe	4.4
Peter Rood	4.5
Hiram Horner	4.4
Ole Moe	4.4
M. Corblin	4.1
Dan Kinze	4.0
Jos. Bernat	4.3
John Kinze	4.1
Levi Patridge	4.4
Ed. Daley	4.2
Jos. Gavigan	4.1

Burnett.

August Luck	3.8
Herman Luck	4.5
Otto Koch	4.2
August Schultz	4.1
Peter Young	4.0
Wm. Luck	3.4
Carl Pautsch	3.8
Carl Pautsch	3.8
Wm. Pautsch	4.2
Wm. Pautsch	4.4
M. Donovan	3.0
M. Donovan	3.3
Herman Gruetzmacher	3.8
John Gras	4.3

Silver Creek.

Mrs. Eugene Sweeny	4.7
Mrs. Eugene Sweeny	4.4
A. Kanndt	3.4
A. Frederick	3.9
F. Lange	4.2
F. Lange	4.3
Wm. Kresensky	4.4
Wm. Kresensky	4.2
A. Schlaue	5.0
F. Janke	4.8
Fred Kuehl	4.9
Fred Kuehl	5.0
Chas. Hoft	4.0

Per cent. fat.

Frank Krescine	4.8
Frank Krescine	4.6
F. Schleiwe	3.8
F. Schleiwe	4.3
C. Eiferd	4.2

Watertown.

E. O'Connors	4.6
E. O'Connors	4.1
W. Triplit	3.8
W. Triplit	3.9
John Buckley	4.8
E. Rodelaf	4.1
John Ryan	4.4
John Ryan	4.4
John Doarey	4.7
E. Neillite	4.6
C. Busch	4.4
M. Manning	4.4

Blanchardville.

Wm. Flint	4.6
D. McGrath	4.2
D. McGrath	4.7
D. McGrath	4.0
John Penniston	4.3
Nels Nelson	4.3
A. Flint	4.2
Theo. Vinger	3.8
Theo. Vinger	4.4
John Wyss	4.0
John Wyss	3.8
Geo. Flint	4.0
Gustav Vinger	4.2
Gustav Vinger	4.0

Hollindale.

Mrs. M. Gaylord	4.4
Mrs. M. Gaylord	3.6
Sever Disrud	4.4
Thos. Hendrickson	3.9
Ben Holland	4.0
K. Edmond	4.5

	Per ct. of fat.
John Weiss	4.4
Joshua Robison	4.0
E. Leonard	4.0
E. Leonard	4.6

Mill Creek.

Robt. Owens	4.1
John Davis	4.1
Mite Bros.	4.8
Mite Bros.	4.3
John Williams	4.8
O. Roberts	4.3
Elisha Dodge	4.5
Wm. Randall	4.2
Wm. Randall	4.1
J. Murray	3.8
Frank Stapleson	4.8
Wm. Ruggles	3.8
Peter Murphy	4.5
John Jager	6.9

Blanchardville.

(Sent by Bosshardt.)

Mrs. Wang	4.8
A. Emberson	4.5
E. Logeson	4.3
R. E. Blake	4.2
Wm. Blanchard	4.1
A. Anderson	4.4
Ole Oien	4.8

Crystal Spring.

John Closkin	5.2
R. Yapp	3.8
D. Doyle	4.5
John Morris	5.3
H. Jones	4.5
Mrs. Jas. Doyle	4.2
Wm. Thomas	4.1
H. Bomberry	4.8
Robt. Creigner	4.2
Lawrence Jones	4.8
H. Bomberry	4.8
F. Buesler	3.9
David Morris	4.4

Blanchardville.

(Rogers' Factory.)

Mrs. M. Cavanaugh	4.7
John O. Johnson	4.1
Chas. Jacobs	4.7
John Johnson	4.6
Louis Larson	4.4
Ole Paulson	4.4

	Per ct. of fat.
Peter Larson	4.1
Abe Johnson	4.0
H. D. Rodgers	3.8

Orfordville.

Geo. Bernath	5.6
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Yankee Hollow Factory.

John Kain	3.8
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Brighton.

Ferd. Seitz	2.60
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Arena.

J. Roethlisberger	4.45
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Richfield.

Carl Hilt	4.0
Wm. Weller	4.2
Henry Laudeneimer.....	below standard.
Henry Laudeneimer	4.4
Geo. Sauer	4.7
Conrad Schadt	4.1
Conrad Schadt	4.9
D. Abling	4.4
E. Conrad	4.6
Wm. Greesman	3.8
Wm. Greesman	4.3
Geo. Conrad	4.2
Mrs. Mary Dickel	4.4
Peter Miller	4.0
Peter Miller	4.0
J. Elmerman	3.9
A. Shank	3.9
J. Schuster	4.2
J. Schuster	3.8
Chris. Staser	4.3
Wm. Wolf	4.9
H. Thoma	4.5
H. Baumgardner	4.3
A. Nab	3.7
Peter Conrad	4.5
Fred Patchin	3.8

Oak Grove.

Theo. Omstedt	4.2
C. Mekelburg	3.8
John Flasch	4.4
Frank Ohmstedt	4.6
Albert Zimmerman	4.3
Herman Tesch	5.8
A. Horn	4.7
Aug. Zimmerman	4.2

	Per cent. of fat.		Per cent. of fat.
Aug. Neis	4.8	Spurbeck & White.....	4.2
Aug. Wegner	4.6	H. Jackson	4.2
A. Sumnicht	4.4	Charlie Waterberry	4.0
Aug. Sell	4.4	J. W. Bahey	4.7
Wm. Weinheimer	4.8	Baker Bros.	4.6
John Schraven	3.9	Ed. Ames	4.2
		E. Welsh	4.2
<i>Manitowoc.</i>		J. S. Blodgett	4.9
Mrs. Peck	3.6	E. Hand	3.2
F. Lipke	4.0	R. Mills	4.4
Mrs. Schumacher	2.9	Millard Mills	4.2
Mary Pieder	4.3	Frank Babcock	3.9
Mrs. Schumacher	3.3	J. Young	4.2
F. Lipke	3.9	Thos. Howard	4.3
T. J. McCarty	3.9	C. Boyce	3.4
T. J. McCarty	3.6	Robt. Lee	4.0
A. H. Heise	3.8	Robt. Whery	3.9
A. H. Heise	3.0	Frank Kinney	4.0
John Jaar	4.1	H. August	4.4
John Jaar	4.1	Rockwell Bros.	3.8
T. J. McCarty	4.1	Thos. Keefe	4.3
S. Herzog	4.2	J. A. Shepherd	4.3
J. E. Harris	4.1		
J. E. Harris	4.1	<i>Spring Prairie.</i>	
		J. H. Zigg	3.8
<i>Elkhorn.</i>		P. W. Houghton	4.3
Frank Finley	4.2	O. Pratt	3.7
W. Dunbar	4.5	O. Vaughn	4.4
Wm. Dunbar	4.6	Haslow & Co.....	4.3
David Crabtree	4.2	Mark Foot	5.2
H. Parks	4.8	E. Merrick	3.5
H. McKay	4.2	Ed. Weiners	4.2
A. D. Stanford.....	4.4	Frank Humbert	4.2
F. Baker	4.0	Belle & Co.	3.8
C. F. Flanders	5.6	Tom Découdres	4.2
E. H. Morgan	4.8	L. Humbert	3.5
John Roach	4.1	George Vaughn	3.9
J. H. Strong	3.7	George Camer	4.0
Wales & Goodrich	4.0	Nick Camer	3.8
C. S. Mills	4.4	Will Paulsen	4.1
Wm. Umness	3.8	J. Brierly	4.4
A. Murphy	3.8	A. Paulsen	4.4
John Slattery	3.8	O. H. Phelps	4.1
D. Harrington	4.2	Wm. Mitchell	4.2
Wm. Morrisey	5.4	Wm. Blount	4.6
I. Morehouse	3.5	H. Vaughn	3.8
C. Wilke	5.0	George Fratt	3.6
Pat. Morrisey	3.6	Merrick & Co.	3.4
Jos. Welsh	6.2	A. S. Wortman	4.1
P. Purdy	3.6	W. I. Loomis	4.1
John Finley	4.6	Tom Watson	3.2
Extra bottle from		Paulsen, Sr.	4.3
B. B. Taylor's herd.....	4.0	Mayhew & Co.	4.0
Frank Brooks	4.3	Jule Scheide	3.6
Ben Skiff	4.4	Wm. Falk	4.2
Arthur Wales	3.9	Forge & Son	4.1
		Fred Zabler	3.0

	Per cent. of fat.		Per cent. of fat.
G. Merrick	3.0	Ida Folson	3.6
Wm. Zabier	4.0	A. H. Rogers	4.5
Frank Miller	4.4	F. Lasher	3.8
Wm. Vaughn	4.8	Will Wright	3.6
Frank Patton	3.8	F. C. Barker	4.7
A. Clark	4.0	J. Keough	3.7
P. Nelson	4.6	O. C. Gates	4.4
Charley Meyers	4.1	C. S. Babcock	3.7
George Williams	3.7	L. Marks	3.8
Chas. Cadow	4.7	L. I. Olds	4.2
J. C. Greenman	4.3	James Black	3.8
Joseph Forge	3.3	Fred Wate	4.4
E. Whitmore	4.2	T. Krebs	3.4
Bert Whitmore	4.8	H. I. Krebs	3.5
Reik Bros.	4.6	Carl Krebs	3.8
Will Miller	4.1	Albert Krebs	4.2
Henry Neip	4.0	Fred Helmer	3.7
J. S. Whitmore	4.0	Sam Anderson	3.4
		Chris. Greedwood	4.1
		C. G. Hamilton	4.2
		T. Thorson	3.8
		Ed. E. Wesby	4.1
		F. W. Stoney	4.3
		Ben Wesby	4.1
		Erv. Bates	3.6
		Jim Murry	3.7
		Frank Hammond	4.8
		Will Dooley	4.4
		A. W. Shepard	3.8
		S. G. Lake	3.9
		S. S. Jones	3.6
		M. Hoov	4.0
		P. Sornsen	4.9
		P. G. Snyder	3.6
		G. B. Golbertson	3.6
		D. D. Winkley	3.8
		T. Nitz	4.3
		Will Minkey	3.8
		James Lorensen	4.2
		W. M. Smidt	3.7
		B. Hollenbeck	3.6
		August Kreb	4.2
		S. Brutelson	3.8
		J. M. Conroy	3.8
		H. Cooper	4.3
		E. Hogan	4.2
		Michael Tygue	4.0
		T. C. Conroy	3.9
		August Hahn	4.0
		W. P. Woolston	4.4
		Peter Swenson	3.5
		C. Loomis	3.8
		M. Riegort	4.5
		C. A. Salisbury	3.8
		L. R. Christman	3.4
		Parley Isham	4.6
		Will Hamilton	4.4
		E. L. Benedict	4.0
<i>Whitewater.</i>			
Mrs. James Pollard	3.6		
James Hackett	3.6		
Warner & Freeman	3.7		
Solomon Taft	4.1		
John Peacock	4.2		
Floyd Vail	4.0		
Hull & Crumb	4.4		
Doubleday, Wilber & Co.	3.6		
Mrs. Ed. Smith	3.8		
Fred Doubleday	4.0		
Herman Wegnar	4.4		
Ed. Simonson	4.4		
Truman Taft	3.8		
Taylor Pieck	3.9		
Peter Williams	3.5		
H. J. Roe	4.3		
<i>Clinton.</i>			
C. Griswold	3.8		
C. Nelson	4.0		
A. Peterson	3.7		
C. J. Furset	3.8		
W. F. Christman	3.6		
Thomas Olson	3.25		
Carl Christofferson	3.8		
F. Simmons	6.8		
A. Reddin	4.2		
N. P. Lawson	3.4		
T. L. Johnson	3.2		
J. Nelson	3.6		
S. C. Jensen	4.1		
E. P. Babcock	4.3		
H. Cheesman	4.0		
J. Henning	4.0		
C. Zick	5.1		
A. B. Rogers	4.2		

	Per cent. of fat.		Per cent. of fat.
H. Baling	3.5	L. E. Hildreth	watered.
T. Fonda	4.1	James Carrison	3.7
Fred Frank	4.5	Sorem Peterson	4.4
Harry Griswold	4.4	B. Johnson	3.5
C. L. Tuttle	4.0	W. Larmer	4.1
J. Kelley	3.8	A. Asterhiem	4.0
Ed. Merriman	4.1	E. Amundson	4.1
Skim milk, No. 1.....	0.1	S. Stockton	4.2
Skim milk, No. 2.....	0.05	Ole Otterson	4.0
Buttermilk	0.1	W. R. Galley	4.6
H. W. Christman.....	4.0	William Careson	4.0

Deerfield.

Mrs. O. Borgerud.....	4.2	E. Gilbertson	4.0
H. Bjoen	3.8	Hans Peterson	3.7
H. Huge	3.8	W. H. Leary	4.2
E. Bjoen	3.9	Sam Miles	3.9
H. A. Bjoen	3.8	Utter & Gilbertson	4.2
K. Odde	4.0	Mrs. N. C. Lee	4.2
P. Nordle	4.6	H. H. Emery	5.0
T. Kingland	4.8	Ole Beadle	4.1
A. Swan	4.6	Bossingham & Ourud	4.2
B. Berge	4.3	W. Bossingham	5.0
A. Lee	4.8	W. J. Bossingham	4.2
Johnson Company	4.4	J. Richardson	5.0
O. Houghton	4.1	T. Jehn	5.0
E. Golleckson	4.0	Chris Hanson	3.6
T. Smithback	3.8	John Strain	3.3
C. Hanson	4.8	H. Hanson	3.6
P. Longhill	3.8	C. Hanan	4.2
Roplan Bros.	4.0	G. Hanan	3.4
G. Bosben	4.0	Morrison Bros.	3.6
E. Johnson	4.6	A. Thorson	4.3
H. Howe	3.6	S. O. Swim	4.2
J. Lenaas	3.8	O. Paulson	3.6
P. Paulson	4.0	H. Bowin	4.7
N. G. Nelson	5.0	G. Jehm	4.0
H. Rothe	3.8	R. Larson	3.6
A. N. Lee	4.0	G. Huber	3.4
N. Williams	3.8	S. L. Graves	4.0
M. Berge	4.1	C. Nelson	3.6
Ole Tetllone	3.6	F. Guinup	4.0
L. Tellong	3.6	C. A. Peterson	4.0
T. Larson	4.1		
N. Soberg	3.5		
J. Lee	3.8		
M. Erdal	4.6		
Mrs. A. Koste	4.2		
Ole Flom	4.4		
Ole Havey	4.2		
Skim milk	0.1		
Skim milk	0.05		

Auroraville.

Charles Hildreth	3.7	O. Austract	3.7
J. W. Hunt	3.7	Thos. Jones	3.4
Sam Hogan	4.2	C. A. Davenport	3.6
		Jasin Shead	3.4
		N. W. Herrington	3.7
		Chas. Bower	4.1
		D. W. Cate	3.6
		John Rodencl	3.4
		H. Blaze	3.8
		Jos. Seaman	4.0
		E. Rodencl	3.4
		Chas. Bradley	4.4

Report of the Wisconsin

Per cent. of fat.		Per cent. of fat.	
P. Dobbins	3.4	C. Rasch	3.6
F. Williams	3.7	N. Hahn	4.1
E. G. Walker	3.5	John Swenson	3.8
Mrs. A. F. Clark	3.9	A. McCafferty	4.0
F. D. Mitchel	3.6	G. Koppish	3.7
Will Hall	4.2	John Memler	3.5
E. M. Jones	4.0	Wm. Davis & Son	3.7
Rob. Mitchel	4.0		
B. T. Davenport	3.6		

Appleton.

John Carey	3.4
John Carey	3.7
Silas Kolmer	3.2
C. Rohl, mixed	3.3
Geo. Schroeder, mixed	4.0
O. Carey	3.9
O. Carey	3.3
J. Meltz	3.0
Pasteurized milk	3.6

Sent by L. E. Hildreth, Stoughton.

	a. m.	p. m.
1.	3.3	3.6
2.	2.8	3.0
3.	3.0	3.0
4.	2.4	3.8
5.	3.0	3.2
6.	3.2	3.2
7.	2.75	3.3
8.	3.6	4.0
9.	3.5	3.8
10.	3.2	2.8
11.	3.7	3.8
12.	2.9	3.0
13.	3.1	3.3

Wilmot.

F. Hasselman	4.8
O. Liedtke	3.0
W. Schmidt	3.7
John Kenis	3.9
F. Pagel	4.3
John Hasselman	bottle broken.
Charlie Fronk	3.8
John Gauger	4.4
Mrs. C. Gauger	4.4
Chas. Dowel	3.8
M. Koppish	3.6
D. F. Vincent	3.5
Frank Scott	3.8
Wm. Albrecht	3.8
H. Brinkham	4.0
A. Scherf	4.4
Wm. Folbrecht	3.7
J. R. Hyde	4.0

Wilmot.

D. Vincent	3.3
J. R. Hyde	3.6
William Schmidt	3.2
C. Frank	3.8
N. Hahn	3.9
John Memler	4.05
A. Scherf	4.75
A. McDougal	3.6
C. Rasch	3.8
William Albright	3.8
William Brenckman	3.6
A. McCafferty	4.15
J. Swinson	4.0
A. Liedke	3.6
F. Hasselman	3.5
John Kenis	4.1
C. Dowell	3.9
William Davis & Son	3.2
G. Coppish	3.8
John Gauger	4.2
F. Scott	3.6
John Hasselman	3.4
M. Dugan	3.2
William Schultz	3.6
Fred Pagel	3.6
William Folbright	3.8
M. Coppish	3.4

Amos.

Martha Lindy	3.5
E. J. Nasset	4.0
L. C. Kravick	3.4
Jens Peterson	3.7
S. E. Anderson	4.2
J. J. Nasset	3.6
I. J. Nasset	4.2
Paul Jensen	4.4
S. P. Saunders	4.0
Walt Wicken	3.6
L. Marsden	4.2
Sam Marsden	4.2
Ben Cooper	4.2
Sam. Hall	3.8
A. P. Grandall	4.4
Peter Paulsen	3.7
C. Nelson	4.1

	Per ct. of fat.
O. I. Wicksman	3.8
Ole O. Oss	3.6
O. M. Nelson	below standard.
L. Carpenter	4.0
H. H. Omry	4.0
M. P. Balga	3.9
J. J. Homly	4.2
H. H. Gunderson	3.0
Ole Johnson	3.6
A. Nasset	3.4
Mrs. Wiseman	4.1
J. O. Lee	4.5
H. Jacobs	3.7
O. O. Lee	4.3
Mrs. A. Simons	4.8
Mrs. T. Lien	4.5
H. Christianson	4.6
John Simons	4.2
M. Olson	4.4
N. Anderson	3.7

Fairfield.

Fred Seaver	3.6
B. Monroe	3.6
A. G. Clowes	3.7
E. Wetmore	4.1
J. C. Putnam	3.3
R. More	3.4
W. More	3.5
A. D. Clark	4.0
S. W. Gage	3.4
Geo. Christie	3.4
Jas. Cutter	4.0
Jane Terwilliger	3.7
Geo. Mayer	4.0
H. Wilkins	3.2
M. J. McCarthy	4.0
A. Merrell	4.2
Levi Inman	3.1
C. Hoffman	4.3
O. P. Schwartz	3.7
C. E. McCarthy	3.1
J. Wofran	3.8
A. P. Wilkins	4.0
A. E. Monroe	4.4
S. D. Serl	3.7
M. D. Edrige	3.8
F. Chamberlain	4.0
V. Skuse	3.1
W. Finster	4.5
L. Larson	3.4
D. Nelson	3.6
V. Arnold	3.8
F. Wilkins	below standard.
Jas. Stewart	3.6
P. E. Olson	3.9
A. Johnson	3.8
C. Borklund	4.0

	Per ct. of fat.
W. Cheney	3.6
A. Chamberlain	3.8
J. D. Clowes	4.0
A. Randall	3.95
J. Cheesbro	4.9
A. Thompson	4.2
Skim milk from separator	0.1
M. J. McCarthy	4.6
A. D. Clark	4.6
Buttermilk	0.1

Amos.

A. Anderson	4.5
E. J. Nasset	4.4
E. E. Smithback	3.4
J. M. Jacobs	4.6
Martin Lindy	4.0
S. E. Anderson	4.5
O. S. Ralson	3.8
Gus Ralson	4.0
L. C. Garrick	4.0
Gus Peterson	4.2
H. O. Lee	4.1
T. Johnson	4.3
K. E. Monaas	4.4
Otto Anderson	3.7
Isaac Dickinson	3.8
Isaac Dickinson	3.9
Sam Larson	4.2
A. H. Lee	4.0
Ole Ellingson	4.2
L. O. Lien, Jr.	3.6
P. N. Johnson	3.8
P. N. Johnson	4.1
J. J. Nasset	4.3
A. P. Crandall	4.4
C. Nelson	4.4
O. L. Wicksman	4.3
O. M. Nelson	4.1
Peter Paulson	4.0
Ole O. Oos	4.1
L. Carpenter	5.1
H. H. Homry	4.5
N. P. Bally	4.1
J. J. Homry	4.3
H. H. Gunderson	3.4
Ole Johnson	4.4
A. Nasset	3.7
Paul Jensen	5.0
S. P. Saunders	4.2
Walt Wickers	3.6
L. Manersdon	4.6
Sam Manersdon	4.8
Ben Cooper	4.2

*Sold to be composite tests from factory samples.

Report of the Wisconsin

	Per ct. of fat.
Sam Hall	4.3
M. Carlson	4.6
M. Carlson	3.6
Sam Kump	3.5
L. Kump	4.4
L. Kump	4.2
Mrs. Wiseman	4.9
L. O. Lien	4.2
O. O. Lien	3.9
H. Jacobs	4.2
Mrs. A. Simondson	4.8
Mrs. T. Lien	4.2
John Simondson	4.4
Hans Christianson	4.8
M. Olson	3.6
N. Anderson	4.5

Waterloo.

P. Byrns	4.0
G. Cane	4.0
M. Gaffney	3.5
F. Henning	4.0
M. Joice	4.0
J. Joice	4.0
F. Hanky	4.3
E. Klecker	3.8
F. Kreger	4.0
F. Kittlehorn .....	...
W. Lang	4.0
W. Beitz	4.2
J. Murray	3.6
N. Mudvany	3.8
G. Porter	3.8
M. Powers .....	...
N. Roth	4.7
A. Schuber	3.8
P. Sullivan	3.4
F. Stark	4.0
M. Torpey	3.8
J. Thud .....	...
M. Wittee	4.0
M. Wickhem	3.4
H. Schultz	4.3
Ferd. Keger	3.8
W. Giese	4.0
C. Zeich	4.0
T. McCormas	3.5
Drager & Bertinn	4.0
Ferd. Keger .....	...
P. Doyle	3.3
J. Leahy	4.0
H. Deter .....	...
W. Blank	3.4
E. Powers	3.6
F. Schultz .....	...
Jas. Bolger	3.8
John Powers	3.6

	Per ct. of fat.
E. J. Bolger
J. Lacy

Monroe.

Albert Utiger	3.8
Albert Utiger	3.6
Peter Jenny	3.7
John Gygle	3.6
L. Feldman	3.7
Jake Tuescher	3.4
John Fazier	3.8
Rudolph Hoesli	3.4
Wm. Pickett	3.8
A. Beyer	4.2
J. Kennison	3.6
Ed. Underwood	3.4
Wm. Holmes	3.6
Fred Keen	3.7
G. M. Morris	3.4
G. M. Morris	4.0
Fred Ainsworth	3.8

Montfort.

C. Waves	3.6
G. Holsetter	3.3
Thos. Sullivan	3.6
Ole Melham	3.4
Sam Nelson	3.4
John Draves	3.2
John Draves	3.2
Christian Neuroth	3.7
Andrew Moon	3.8
A. P. Chandler	3.6
C. T. Rodolf	3.7
I. G. Everson	3.3

Waterloo.

Albert Yale	3.9
Mrs. Bertha Haberman	3.0
August Haberman	3.2
Gotfrit Ortwich	4.6
Fred Rager	3.6
Gus Cord	3.3
E. Ratzlow	3.8
Fred Helman	3.0
August Peshea	4.0
E. Draeger	3.6
Herman Kruegger	3.4
Karl Swanke	3.2
August Rader	3.7
Karl Kezof	3.8
H. Krukenberg	4.2
Albert Goshadish	4.1
Karl Bohn	3.6
Herman Goshadish	4.6
Aug. Steinhost	3.2

Report of the Wisconsin

	Per ct. of fat.		Per ct. of fat.
A. Voight	3.4	Jas. Christianson	3.9
A. Voight	3.2	Peter Gerdon	3.8
F. M. Voight	3.7	Peter Gerdon	3.8
B. Fairbanks	3.6	Jacob Johnson	3.6
Isaac Duer	3.1	Albert Kirchoff	3.6
H. Duer	3.4	Jas. Campbell	3.7
H. Duer	3.9	Geo. Hams	3.4
S. Leeman	3.6	N. Klink	3.8
S. Leeman	3.2	Guy Young	3.2
F. Ohm	3.6	Guy Young	3.4
H. Boardman	3.4	Barringer Bros.	3.6
H. Boardman	3.5	John Sullivan	3.8
H. Boardman	3.5	Fred Darling	3.8
F. Burmaster	4.2	Albert Bublitz	3.5
F. Burmaster	3.8	Albert Bublitz	3.6
H. Greenwald	3.0	A. Harter	4.0
H. Greenwald	3.3	A. Harter	3.5
Fielstadt & Hollinder	3.9	Peter Webber	3.7
Fielstadt & Hollinder	4.2	Peter Webber	3.2
Fielstadt & Hollinder	3.4		
Fielstadt & Hollinder	4.1		

Milton.

<i>Hartford.</i>			
Wm. Kenealy	3.9	Albert Klug	3.2
John Buckley	3.7	Albert Klug	4.4
John Buckley	4.0	C. W. Fox	3.8
Richard Monroe	3.6	Wm. Vickiman	3.7
Thos. Manning	3.1	J. Schultz	below standard.
D. W. Mountain	3.3	J. Schultz	4.5
D. W. Mountain	3.8	Jas. Godfrey	3.4
Albert Kostdorf	3.4	Jas. Sprackling	3.5
Jas. O'Connor	4.1	Jas. Sprackling	4.1
David Mountain	4.2	Wm. Dixon	...
Jas. McNamara	3.9	Chas. Hackbarth	3.0
Henry Brus	3.4	E. Brown	3.1
Ed. Walsh	3.9	E. Brown	3.2
Jos. Russell	3.4	D. Harris	3.4
Dan Courtney	3.4	D. Harris	4.0
Thos. Jeffores	3.8	W. Fuder	3.8
Jas. Kenealy	3.6	H. Newton	3.8
John Hanrahan	3.7	H. Newton	3.6
Dan Hanrahan	3.6	F. Windorff	3.8
Peter Gulyfyl	4.0	A. Garbredgth	3.6
J. T. Gary	3.5	A. Garbredgth	4.0
J. T. Gary	3.4	A. Marquardt	3.2
T. B. Manning	3.2	A. Marquardt	4.1
John Jeffords	3.8	H. Asborn	3.4
H. A. Malloy	3.6	G. Shumway	4.2
		H. Tooker	4.0
		H. Tooker	4.2
		Q. Warnke	3.4
		O. Warnke	3.2
		A. Warnke	3.2
		F. Roloff	3.3
		F. Roloff	4.6
		Wm. Frank	3.6
		Wm. Frank	3.6
		Wm. Frank	4.6
		W. Thomes	3.1
		W. Thomes	4.3

Neosho.

Thos. Halverson	3.8
Louis Young	4.0
Louis Young	4.0
Adam Bertz	below standard.
Thos. Nelson	4.0
Jas. Christoferson	3.8
P. Christianson	3.6

	Per ct. of fat.
H. Krantz	3.3
H. Clarke	3.4
H. Clarke	3.1
Wm. Harris	3.0
Wm. Harris	3.8
Chas. Hunt	3.5
Chas. Hunt	3.4
T. J. Oakley	3.6
T. J. Oakley	3.2
Geo. Bacon	3.0
Geo. Bacon	4.2
Geo. Church	3.6
C. Palmer	4.1
F. Westrick	3.8

	Per ct. of fat.
R. Kubli	3.8
J. Thomas	3.3
J. Thomas	4.0
Nelson Rust	below standard.
Nelson Rust	4.2
G. Lenharr	3.5
G. Lenharr	4.4
Wm. Wood	3.8
Wm. Wood	3.9
J. Klassy	3.8
J. Klassy	3.8
J. Klassy	3.5
J. Klassy	4.3
A. J. Kean	3.3
A. J. Kean	4.2
Mrs. K. Alleman	3.6
Mrs. K. Alleman	3.6
Henry Brown	3.4
Henry Brown	4.3
H. Baebler	4.0
H. Baebler	4.1
G. Nafzger	3.2
G. Nafzger	4.3
O'Connor Bros.	3.4
O'Connor Bros.	3.7
F. Kremer	3.6
G. Griffith	3.2
G. Griffith	3.9
J. Elmer	3.6
J. Elmer	3.8
H. Elmer	3.0
H. Elmer	4.4
J. Dougherty	3.9
J. Dougherty	4.9
C. Griffith	3.8
C. Griffith	4.2
A. L. Berryman	4.0
J. Regez	4.0
J. Regez	3.9
J. Regez, (mixed)	5.2

Seven Oaks Dairy.

No. of cow.	a. m.	p. m.
10	1.9	4.3
25	3.6	...
8	3.4	3.8
19	3.2	...
18	2.9	3.8
3	3.1	...
20	2.8	4.0
4	3.2	4.1
5	2.4	...
7	3.5	...
16	3.3	4.9
11	3.8	...
12	3.2	3.8
15	2.8	...
1	3.1	...
28	2.1	...
23	3.2	...
24	3.3	4.2
6	4.2	5.4
2	4.	...
21	3.4	...
14	3.2	3.8
22	3.8	4.4
13	3.5	...
17	2.5	...
27	2.7	...
29	2.2	...
31	3.8	...
40	3.8	...
26	3.4	4.1

Monroe.

P. Dolan	3.4
P. Dolan	4.0
F. Benkert (2 cans)	3.6
C. Goddard	3.6
Geo. Garwell	3.4
Geo. Garwell	4.2
S. Jackson	3.5
S. Jackson	4.2
R. Kubli	3.6

Watertown.

Herman Graining	3.6
Herman Graining	5.0
Wm. Graining	3.8
Wm. Bishoff	3.8
Jos. Holstein	3.6
Wm. Eickstadt, (mixed)	3.9
Wm. Eickstadt, (mixed)	3.4
Wm. Eickstadt, (mixed)	3.8
Aug. Thoma	3.8
Peter Thauer	3.9
Peter Thauer	3.2
Peter Thauer	4.6
John Neis	3.8
Geo. Meyer	3.8
John Sullivan	3.4
John Sullivan	5.2

Report of the Wisconsin

	Per ct. of fat.
G. Astrick	4.6
C. Britzman	3.4
C. Britzman	4.1
C. Fisher	3.6
C. Fisher	4.2
Ed. McAdams	3.9
Ed. McAdams	3.3
Ed. McAdams	3.0
J. Lehman	3.4
J. Lehman	4.0
Peter Klingler	3.8
J. Barger	3.1
J. Barger	4.2

Watertown Welsh Road Creamery.

H. Weihert	3.5
John Huss	3.2
John Huss	4.8
Henry Burmaster	3.4
V. Doby	3.8
T. Wedenmeyer	3.3
T. Wedenmeyer, (mixed)	3.0
T. Wedenmeyer	4.0
W. Schultz	4.0
W. Schultz	3.6
A. Stuber	3.0
A. Stuber	3.6
A. Stuber	4.2
M. Bock	3.3
M. Bock	3.7
F. Kreitziger	4.2
M. McGulre	3.5
H. Last	3.8
H. Last	3.6
H. Last	4.2
J. Jones	3.5
J. Jones	3.2
J. Jones	3.4
J. Jones	3.4
A. Kramer	3.7
H. Kugath	3.8
H. Kugath	4.4
T. Donahoe	3.7
T. Donahoe	4.0
Fred Westenberg	3.6
M. Solon	3.9
M. Solon	sour.
M. Solon	4.0
K. Donahue	3.4
K. Donahue	3.8
W. Rhodes	4.0
W. Rhodes	4.0
T. Rhodes	4.2
T. Rhodes	4.2
J. Roller	3.0
J. Roller	4.2
Skimmed milk .....	.2

Jackson.

	Per ct. of fat.
Henry Baumgartner	3.3
Henry Baumgartner	4.1
Louis Babbing	3.6
Louis Babbing	3.7
Rudolph Miller	3.5
Rudolph Miller	4.7
Peter Weber	3.8
Peter Weber	4.3
Otto Neno	below standard.
Otto Neno	broken bottle.
John Rice	3.0
John Rice	5.2
Phillip Schowalter	3.8
Phillip Schowalter	4.5
A. Schowalter	4.0
A. Schowalter	4.3
Chris. Brenner	4.7
Chris. Brenner	5.0
Chris. Brenner	3.5
Phillip Brenner	4.5
Phillip Brenner	4.3
Fritz Neperbas	3.9
Fritz Neperbas	4.3
M. Bower	3.9
M. Bower	4.3
Henry Thoma	4.3
Henry Thoma	3.8
Henry Thoma	4.2
C. Pickart	4.4
P. Lohr	3.8
John Yagle	4.0
Chris. Yagle	3.9
Phillip Nesbass	3.8
Henry Showalter	4.8
Henry Showalter	4.0
Herman Tesch	3.2
Herman Tesch	4.4
John Nerbass	3.7
John Nerbass	5.0
Mrs. C. Nerbass	3.8
C. Kertz	3.2
C. Kertz	4.0
H. Schmidt	3.6
H. Schmidt	4.4
A. Schmidt	4.0
A. Schmidt	below standard.
H. Thoma	3.8

Monroe.

Neuenschwander Bros.	4.1
E. Bechtold	3.3
Joseph Ginner	3.8
G. Maley	4.4
Ashford Mourtou	4.6
Neuenschwander Bros.	3.9
Chris. Zabel	4.0
Chris. Zabel	4.5

	Per ct. of fat.
J. W. West	3.0
F. Buehler	4.2
F. Leopold	4.1
Carl Schreiber	4.0
L. Williams	3.8
John Hasse	4.4
John Hasse	4.0
Fred Dieckhoff	4.0

Monroe.

George Kelley	3.9
John Martin	3.7
Peter Reger	below standard.
Wm. Tonkin	below standard.
Wm. Tonkin	3.0
Steve Tonkin	3.4
Wm. Jewell, Sr.	3.5
Wm. Jewell, Jr.	3.3
Jos. Bennett	3.2
Frank Vivian	3.8
Will Vivian	3.6
John Vivian	3.6
John Vivian	3.4

Linden Factory.

Albert Hellery	3.9
Charley Tremain	3.6
C. Goldmann	3.6
John Brewer	3.9
Wm. Batten	4.0
C. Dolphin	3.8
Henry Reynolds	4.4
Wm. Tremain	4.6
J. Bailey	3.8
Wm. Buckett	4.0
Wm. Landauer	3.8
John Corell	3.6
Jas. Batten	4.3
Jas. Batten	4.2
Jas. Wasley	3.9
Holman Bros.	4.0
Jas. Harvey	3.5
Charlie Williams	3.5

Monroe.

E. Trevitt	4.6
E. Trevitt	4.4
Charlie Goddard	4.2
Fred Tschudy	3.7
V. Morton	4.4
V. Morton	3.8
Geo. Stauffucher	3.8

Fox Lake.

	Per ct. of fat.
F. Schultz	3.2
A. Bort	3.0
F. Brunn	3.7
John Walter	bottle broken.
Wm. Manto	3.4
F. Blossfeld	3.2
W. Doering	3.4
S. Machkovech	3.4
W. Baucer	3.0
W. Yarn	3.5
W. Ludwich	3.9
A. Machkovech	3.7
S. Zemlo	3.8
E. Hoffman	3.8
C. Hass	3.4
R. Kolell	3.2
C. S. Porter	3.6
M. Hueblein	3.8

Monroe.

Geo. Steltz	3.3
Geo. Steltz	3.1
Geo. Steltz	below standard.
Henry Sweney	3.6
Henry Sweney	4.0
Jas. VanMeter	3.1
Jas. VanMeter	3.2
Newton Baker	3.1
Newton Baker	3.2
Fritz Woolf	3.6
G. Hebner	below standard.
G. Hebner	below standard.
Mrs. M. Brasian	3.5
Gus. Morman	3.9
Gus. Morman	3.1
A. Neiffnicker	3.0
Geo. Drel	3.0
Geo. Drel	3.1
Geo. Drel	below standard.
G. Guddman	below standard.
G. Guddman	below standard.
G. Guddman	below standard.
Henry Rudy	3.1
Henry Rudy	3.3
G. Augsberger	3.5

Marshall.

E. A. Sanders	3.6
Wm. Porter	3.7
C. Beiterman	3.8
H. Streichd	3.6
O. Schultz	3.6
A. Radke	5.2
J. Blaskie	3.6
F. Kersten	4.2
C. Rothnc	4.2

Report of the Wisconsin

Per ct. of fat.	Per cent. of fat.
J. Kernsten	3.9
A. Dewey	3.4
J. Muzzy	3.8
L. Aurich	3.5
A. Burr	4.0
C. Streicht	3.6
H. Calkins	4.6
E. Martin	4.5
Geo. Offord, Jr.	3.7
T. Hart	3.5
Mrs. E. Jager	4.0
Wm. Coleman	3.8
Wm. Radkie	3.8
Chas. Cooper	3.8
D. G. Thomas	5.5
A. Clipsman	3.8
J. Heble	3.7
Wm. Shimble	4.4
W. Worst	3.4
Mrs. Pershack	4.6
J. Hampshire	4.5
A. Steinhorst	3.8
H. Lackie	4.1
J. Knapton	3.4
A. Klecker	3.6
M. Porter	4.2
J. Vollner	4.2
H. D. Walters	3.3
O. Sorenson, No. 1. . .	5.2
O. Sorenson, No. 2. . .	4.8
G. Baker	3.2
F. Langer	3.8
H. Beebe	3.2
F. Radis	4.4
F. Pribbenow	3.5
F. Skalitsky	4.0
C. Battist	4.1
E. Langer	3.5
John Lutz	4.0
A. Wedeward	4.0
H. Meyers	3.8
Geo. Orfford	3.9
Will Dochadis	3.5
H. Kuether	4.2
Wm. Sliciner	3.6
Frank Skella	4.5
W. Benisch	4.4
F. J. Lander	3.7
V. Johnson	4.0
Mrs. T. B. Wakeman. .	4.0
P. Furlong	4.2
Wm. Agnew, No. 1. . .	3.7
Wm. Agnew, No. 2. . .	4.2
John White	4.2
H. Cone	4.1
J. Porter	4.0
V. Shappe	3.9
C. Brussl	3.6
Wm. Kuhl	4.1
F. Sellnow	4.0
F. Battist	4.2
Wm. Radkie	4.0
A. Chadwick	3.6
Wm. Ladwig	4.3
J. W. Smith	3.9
Z. T. Brooks	3.2
G. Biglow	4.4
T. Dowd	4.4
J. Hart	5.2
O. Radis	4.8
Skimmed milk, separator, No. 1. . .	0.1
Skimmed milk, separator, No. 2. . .	0.1
Butter milk	0.2
<i>Myra.</i>	
F. Devidek	3.3
C. Deitrich	3.5
John Shafer	5.0
John Shafer	5.0
John Smith	3.5
M. Fisher	3.2
G. Toubier	3.8
G. Toubier	4.9
F. Wollendorf	3.0
F. Wollendorf	4.8
M. Gaedon	3.6
M. Gaedon	3.7
Nick Engler	3.8
Nick Engler	4.6
W. Kregice	3.4
J. Kregice	3.0
H. Meyer	3.8
L. Essleman	below standard.
L. Essleman	4.1
Jas. Klinka	below standard.
Jas. Klinka	3.8
Mrs. Anna Hemmie	3.0
Mrs. Anna Hemmie	5.2
I. Chesak	3.1
J. Chesak	3.2
John Mrazik	4.2
J. Shafer	3.4
J. Shafer	4.0
F. Kimla	3.7
J. Riordan	3.3
P. Walter	3.5
Wm. Coughlin	below standard.
Wm. Coughlin	4.4
Peter Golden	3.4
Peter Golden	3.8
I. Procinger	3.1
M. Salter	3.5
M. Salter	3.8
Wm. Cotter	3.0
E. O. Tool	3.5
E. O. Tool	3.0
Peter Behrens	3.4
Peter Behrens	4.0

	Per cent. of fat.
N. Zeldinger	3.6
Wm. Unger	3.8
Sam Boldt	3.5
Sam Boldt	4.4
Prochinger & Fechter	3.5
Prochinger & Fechter	3.8
Jas. Kowanda	4.7
Albert Brown	3.0

Beaver Dam.

Frank Krandle	4.4
Henry Baer	4.2
J. Krandle	4.2
John Frank	4.1
David Evans	4.0
Frank Frank	4.3
Valentine Smith	4.8
Joseph Hupf	4.0
Amos Wise	5.0
J. Groft	4.0
John Banas	4.2
Wm. Banas	3.9
Thos. Glassman	3.4
Geo. Heimler	3.6
Christian Krebs	3.2
Christian Krebs	4.2
Chris. Leitche	3.6
Chris. Leitche	4.6
J. R. Finney (mixed)	5.3
Wm. Prescott	4.2
Wm. Prescott	5.2
Henry Gabathuler	3.6
Ferd. Derge	3.8

Woodford.

M. Miller	3.8
Pahl	3.8
E. Mahlkop	4.0
John Johnson	4.1
Wm. Blazing	4.3
Miss M. Johnson	3.8
G. Butt	4.4
Charlie Wells	3.5
C. Rouske	4.2
C. Rouske	3.9
Wm. Gutsmer	3.7
Wm. Gutsmer	4.6
Gus. Miller	3.7
Gus. Miller	3.8
John S. Wells	4.5
D. D. Sawin	4.2
John Stubbs	4.0

Seymour.

John Wendt	3.7
August Sax (mixed)	3.7
Henry Brockman	3.6

	Per cent. of fat.
Aug. Voigt	3.5
Fred Smith	3.8
Fred Smith	4.6
Charley Mielke	3.0
Charley Mielke (mixed)	4.6
Fred Schultz	below standard.
Fred Schultz	5.0
Chas. Miller	3.6
Chas. Miller	4.5
Charley Rohm	below standard
Charley Rohm	4.4
Wm. Schultz	4.1
Henry Wendt	4.0
Wm. Zeigenbein	3.8
Chancey Daniels	4.0
Anton Lotter	4.1
Anton Lotter	4.2
Fred Nagle	4.8
Fred Nagle	3.7
Fred Nagle	4.0
Herman Schultz	3.8
Herman Schultz	4.7
Wm. Sherman	3.8
Fred Prelipp	4.3
Peter McDonough	3.9
Aug. Mallahm	4.2
Wm. Martin	3.5
Wm. Martin	4.2
A. Pollex	4.3
Chas. Teck	4.0
Chas. Teck	3.7
Julius Hintz	3.7
Mrs. H. Sipler	3.8
Aug. Krahn	3.7
Aug. Krahn	4.7
Aug. Goldensdt	4.0
John Hurst	3.6
John Hurst	4.6
Albert Brugger	3.6
Albert Brugger	3.9
Caas. Kollath	3.5
Chas. Kollath	4.5
Wm. Eick (2 cans)	3.0
Wm. Eick	4.6
Fred Beckman	3.6
Fred Beckman	4.2
Henry Spoude	4.1
Henry Spoude	4.6
Sam Knox	3.7
Sam Knox	4.2
John Knox	3.8
John Knox	4.0
John Knox	4.0

Platteville.

Dick Miles	3.8
Jas. Condon	3.2
Jas. Condon	2.8

Report of the Wisconsin

	Per cent. of fat.
Henry Steinhoffer	3.8
Joseph Edge	3.4
Joseph Edge	4.8
Adolph Kuehl	3.2
Adolph Kuel	5.0
John Callaway	4.0
Sam Poland	below standard.
Sam. Poland	4.6
Charley Dickinson	3.6
Warren Johnson	3.5
Warren Johnson	4.4
Thomas Kenny, Jr.	3.9
John Kenny	below standard
John Kenny	5.2
Thos. Kenny, Sr.	4.2
Peter Klingsmith	3.2
Edward Bride	4.0
Robert Hale	3.5
Henry Winke	4.0
Fred Byer	3.6
David Condry	3.9
David Condry	4.6
Jay Rewey	below standard
Jay Rewey	4.2
G. S. Whitcher	3.4
G. S. Whitcher	4.2
Isalah Butson	below standard
John Billings	3.2
Wm. Craven	3.8
Henry Snyder	3.8
John Billings	3.2
John Billings	4.0
G. S. Whitcher	4.6
Lee Whitcher	3.3
Lee Whitcher	4.5
Jas. McClurg	3.5
Jas. McClurg	5.4

Monroe.

Jeremiah Goodman	3.7
Jeremiah Goodman No. 2	3.6
J. VanMeter	3.4
A. Neiffnicker	3.4
H. Sweeney	4.3
Mrs. O. Busjahn	4.4
Fred Woolf	3.7
Geo. Steitz	3.0
Geo. Steitz	2.9
Geo. Steitz	3.1
Fred Augsberger	4.0
Newton Baker	3.9
Newton Baker	4.0
Gus. Morman	3.6
Gus. Morman	4.0
Geo. Drye	3.4
Geo. Drye	3.2

	Per cent. of fat.
Henry Rohde	3.8
Henry Rohde	3.6
Fred Huebener	3.8

Tess Corners.

R. Wolmer	4.5
Sam Bass	4.2
Wm. Ludwig	3.7
Wm. Ludwig	4.5
Charlie Kurth	4.1
L. Pellman	3.5
L. Pellman	4.1
R. Holz	3.4
R. Holz	3.5
R. Holz	5.2
A. Laughney	3.2
A. Laughney	3.9
A. Riese	3.0
A. Riese	3.9
R. Kurth	4.2
R. Kurth	3.4
R. Kurth	3.7
John Nieman (mixed)	4.2
John Nieman	4.5
Otto Kripline	3.6
Henry Muehl	3.4
Henry Muehl	5.0
John Smith	3.1
John Smith	4.2
Charlie Smith	3.4
Charlie Smith	4.8
Charlie Martin	3.2
Charlie Martin	4.8
Wm. Martin	3.4
Wm. Martin	4.6
Barney Phillips	3.6
Barney Phillips	3.6
Mrs. Anna Goff	3.5
Mrs. Anna Goff	4.0
Julius Ruehl	4.4
Julius Ruehle	4.7
John Burns	below standard.
John Burns	4.0
Charlie Dougherty	below standard.
Charlie Dougherty	5.1
Henry Boldt	3.2
Henry Boldt	3.8
Henry Boldt	4.0
Ed. Holz	4.4
P. Weinhoff	3.4
P. Weinhoff	4.5
F. Repke	3.7
F. Repke	4.6
I. Cobb	3.7
I. Cobb	4.4
I. Cobb	4.0
Phillip Gross	bottle broken.

	Per cent. of fat.
Phillip Gross	3.8
Phillip Gross	3.6
Phillip Gross	4.2
Phillip Gross	4.2

Monroe.

Mrs. Louisa Losberger.....	4.0
Wm. Chambers	4.0
Wm. Koepnick	3.8
South Bros.	3.6
Abraham Hefty	3.4
Frank Albright	3.6
W. F. Glese	3.4
John Becker	3.4

Hawthorn.

Perry Divan	5.2
Jas. Hoffman	4.4
Fred Dahms	4.4
Dan Haren	4.2
Zimri Beach	4.8
Geo. Bailey	4.5
Abner Drake	4.3
Anton Jenny	3.9
Turner Whitehead	5.0
Jacob Hoffman	4.0
John Hawthorn	4.0
Americas Adams	4.4
Gustav Schadewald	4.0
Peter Gnagi	3.6
Geo. Eaton	3.8
Ed. Wells	5.0
C. Wells	4.4
John Vogle	3.7
Harrison Campbell	4.4

Monroe.

Frank Dye	below standard.
Frank Dye	5.2
John Thomas	3.6
John Thomas	4.5
Alvin Kean	3.5
Alvin Kean	4.2
Gard Griffith	3.5
Gard Griffith	3.5
Cal. Griffith	3.2
Cal. Griffith	4.5
J. Klassy	4.0
G. Garwell	3.7
G. Garwell	4.7
Dick Thom	3.4
Dick Thom	4.3
O'Connor Bros	4.3
O'Connor Bros	3.6
Fritz Kramer	4.3
J. Klassy	3.4

	Per cent. of fat.
Paul Disch	3.7
Paul Disch	3.8
Henry Elmer	3.0
Henry Elmer	4.0
Jos. Elmer	3.0
Jos. Elmer	3.0

Fennimore.

Henry McLimans	3.7
John Yunek	3.7
Geo. Finnegan	3.2
P. H. Finnegan	3.0
Fred Wehrle	4.1
Fred Wehrle	5.5
Dan Streder	4.0
Al. Barnum	3.9
Abe Howell	3.6
Lou Doeringsfeld.....	below standard
Lou Doeringsfeld	4.2
Aug. Kress	3.4
Aug. Kress	4.7
Dick Kruel	3.5
Dick Kruel	4.8
Henry Vesperman	3.4
Charlie Napp	4.0
Jos. Edge	3.1
Jos. Edge	4.8
Lou Myer	3.8
Jay Morse	3.6
D. Doris	3.5
Isaac Keys	3.3
Isaac Keys	4.0
Eugene McDonald	4.0
Eugene McDonald	5.0
Harry Dragg	3.3
Thos. Edge	3.7
Thos. Edge	4.3
E. Baxter	3.6
E. Baxter	4.2
R. J. Jones	4.2
John Napp	4.0
Fred Rechter	3.2
Fred Rechter	3.4
F. Walker	3.2
R. J. Cohen	3.1
R. J. Cohen.....	4.8
Charlie Horton	3.4
Henry Roth	3.2
Henry Roth	4.0
A Swer	3.5
A. Wuepking (soured).....	...
A. Wuepking	4.6
Thos. Marisden	3.4
Thos. Marisden	4.5
C. Vesperman	3.5
C. Vesperman	4.2
John Steinfort.....	4.2
Taeo. Fisher	5.0

	Per cent. of fat.
Robt. Montgomery	3.8
F. Miller	4.3
F. Miller	4.2
John Swan	3.8

Black Creek.

Louis Duhm	below standard
Louis Lake	3.6
Louis Lake	4.0
Geo. Sasman	3.3
Geo. Sasman	4.6
W. H. Randall	4.6
Fred Wichman	3.5
Fred Wichman	3.9
Fred Sasman	4.0
Fred Sasman	4.4
Thos. McNich	4.0
Thos. McNich	4.8
Pat Devlin	3.9
Pat Devlin	4.2
John Hawthorn	4.6
John Hawthorn	3.8
Henry Krull	4.6
Aug. Krull	4.8
Charlie Michael	3.8
Charlie Michael	4.2
Charlie Michael	3.5
Henry Demand	4.0
Henry Demand	4.8
John Sasman	3.2
John Sasman	4.5
Henry Sasman	3.5
Henry Sasman	4.8
Wm. Gamm	below standard.
Finley Grandy	3.6
Finley Grandy	5.0
David Fitzgerald	4.2
Timothy Magansen	3.1
Timothy Magansen	4.2
Charley Hause	3.0
Jos. Krong	3.0
Jos. Krong	4.2
Martin Tischhauser	4.0
Martin Tischhauser	4.7
Marke Harty	4.9
Wm. Missling	4.6
Wm. Missling	4.4
Wm. Missling	3.9
Charlie Gerhard	4.5

Fond du Lac City Milk.

Ogi Bros.	3.1
Diver's Dairy	4.2
Diyer's Dairy	4.6
R. A. McCormick	4.9
B. Brown	3.1

	Per cent. of fat.
B. Brown	3.6
Lakeside Dairy	3.6
Lakeside Dairy	3.8
R. A. McCormick	3.4
Fitzsimmons	5.2
Wm Brush	3.6
C. W. Nast	4.4
S. C. Stauchfield	3.6
Boland Bros	4.1
Boland Bros	4.4
G. S. Radliff	4.4
S. B. Stauchfield	4.0
S. C. Stauchfield	4.5
H. Kintzler & Bros.	3.4

Greenleaf.

A. J. Cronk	3.8
Henry Hespe	5.0
R. P. Russell	4.6
John Krueger	4.0
Herman Maede	3.7
Herman Maede	4.0
P. Mass	3.2
Geo. Baeten	3.8
G. Feldt	3.8
G. Feldt	5.2
Henry Baum	3.9
Henry Baum	4.6
Henry Vanderwort	4.3
Henry Vanderwort	4.4
Jule Wuerger	3.8
Jule Wuerger	4.2
S. Cornell	4.1
Peter Hahn	4.2
Peter Hahn	4.0
A. Manders	4.2
A. Manders	4.6
F. Spitz	4.4
F. Spitz	4.8
Henry Santze	4.1
Henry Santze	4.3
W. Bushmann	4.5
John Bushman	3.4
Albert Vanderwiter	3.2
Albert Vanderwiter	4.8
B. Day	3.4
O. Christian	3.8
O. Christian	4.0
John Hespe	4.6
C. Chase	4.1
Aug. Staben	4.1
Aug. Staben	4.2
Jac. Vandeusen	3.5
Wm. Spitz	3.6
Mike Somers	3.9
Jac. Brittnacher	4.2
John Brittnacher	4.2
John Clancy	3.9

Report of the Wisconsin

	Per cent. of fat.		Per cent. of fat.
John Clancy	4.2	John Miller	3.0
Martin Krueger	4.0	John Miller	5.2
Martin Krueger	4.5	Charlie Wenslof	3.5
John Etton	4.1	Fred Muehl	3.6
John Etton	3.8	Fred Muehl	4.4
C. W. Day	4.2	Harry Felio	3.8
C. W. Day	4.1		
A. Gilson	3.6		
A. Ellis	4.3		

Seymour.

A. Doersch	3.6
Aug. Peotter	3.4
Aug. Peotter	5.2
John Rusch	3.3
John Rusch	4.5
H. Flint	3.7
H. Flint	3.4
H. Flint	4.4
Charlie Brinkmann	3.4
Aug. Miller	3.4
Aug. Miller	4.6
Albert Haegle	4.0
Wm. Sievert	3.4
Wm. Sievert	5.1
Charlie Miller	4.0
Charlie Miller	5.0
Frank Culbertson	3.9
O. Johnson	4.2
Charlie Willis	4.3
Elisha Thompson	4.4
Charlie Henkins	4.0
Frank Dunst	3.0
Frank Dunst	4.7
Gustav Weinke	4.0
John Melter	3.4
John Melter	4.0
Fred Hussman	3.0
Fred Hussman	3.4
Fred Hussman	4.0
Fred Krancusch	3.0
Fred Krancusch	4.9
Charlie Krancusch	4.3
Charlie Grazen	3.8
Mrs. N. Ness	below standard.
Mrs. N. Ness	4.4
G. L. Grandy	3.6
Julius Smith	3.6
Julius Smith	4.9
John Hughes	3.6
Gustav Hussman	4.4
A. Shepherd	4.0
A. Shepherd	4.4
Albert Miller	4.4
Aug. Wenslof	4.2
F. Laursch	4.2
F. Laursch	5.0

Silver Lake.

Chris. Even	3.7
Jake Teny	3.7
Jas. Rafferty	3.6
Herman Kapplehoff	3.6
Nick Brick	4.4
Jas. Brook	4.3
Frank Swartz	3.8
John Hahn	4.0
H. Shepstone	3.8
Jas. Welsh	4.6
Thos. Martin	3.4
Chas. Kohler	3.8
Peter Stahl	4.0
Thos. Miller	5.2
John Terry	4.8
G. Vanwyke	4.1
Thos. Hartnell	4.2
Lou Miller	4.3
B. H. Stocker	4.0
John Engelhardt	4.3
Peter Hotz	4.0
C. Miner	4.8
Charlie Peterson	3.9
D. Broderick	4.8
P. C. Stahl	4.1
E. C. Benson	3.8
Phil Babe	4.2
B. O'Brien	3.9
Jas. Martin	4.0
Albert Miller	3.8
Jos. Smith	4.2
Nick Arnold	3.6
B. Osweller	3.9
Andrew Riggs	4.9
A. Gehrand	3.7
B. Schultz	4.5
Matt Hotz	4.0
Lou Sherman	4.7
M. DeBell	3.7
H. Mooney	4.6
Frank Werd	3.8
Ellis Moulding	4.0
Matt Bohr	3.8
H. Volkaring	5.1
A. Daniel	3.7
Wm. Schultz	3.4
F. W. Smith	3.8
I. G. Wheeler	4.2
Charley Miller	5.0

Report of the Wisconsin

	Per cent. of fat.
Albert Durkee	4.3
Mrs. Anna Dorn	3.2
Fred Schweizer	5.1
Anton Nenise	4.9

Burnett Junction.

August Luck	4.2
Wm. Luck	4.2
Theodore Young	3.9
August Schultz	4.3
Herman Gruetzmacher	3.6
Carl Pautsch	4.6
Carl Pautsch	4.0
Wm. Pautsch	3.8
Wm. Pautsch	4.0
Herman Luck	5.0

Blanchardville.

Dan McKillip	4.4
Patrick Darragh	4.5
John McKillip	4.2
Thos. Hanson	4.2
Wm. Darragh	4.3
Hans Carlson	4.2
Jas. McIlhatton	4.6

E. Regez's Factory—Blanchardville.

Mike Coffy	4.7
Tom Durkin	4.2
Andrew Dorren	4.6
Jane Rowe	4.1
Pat Downey	4.2
Mike Brennen	4.5

Johnson's Creek.

John Hase	4.0
Albert Schattdthneider	3.9
Louis Schumacher	4.0
Henry Kottke	3.6
Albert Krueger	milk watered.
Henry Stiehn	4.0
Herman Brunk	3.8
Dick Livingston	4.8
Gus Stände	4.2
Gus Marks	4.3
Wm. Lindstedt	3.8
W. Becker	4.0
Charley Hamberscheld	4.1
Deidrich Mantz	4.1
Jule Nelson	4.6
Charley Tabbert	5.0
Gus Rissman	5.0
Wille Stiehm	4.8
Geo. Baars	3.6
John Klauch	5.1
John Tich	5.1

	Per cent. of fat.
Henry Hintz	4.0
Jule Else	4.9
R. Boise	3.6
Otto Wagner	4.6
F. Frank	3.6
John Wandersee	4.1
A. Kopp	4.1
Wm. Kelling	4.6
Charley Moldenhauer	3.8
Mrs. W. Gossert	4.1
Joseph Walters	5.2
Aug. Gohr	4.0
Fred Krause	5.0
Henry Knack	5.5
George Seitz	4.1
John Pirkle	4.3
John Waber	4.4
John Werner	3.4
Charley Schloesser	4.3
August Kruegger	3.8
John Banker	4.0
Aug. Baars	4.3
T. Baars	3.5
Aug. Bauman	4.5
Zeitler Bros.	4.4
John Rogers	4.9
Charley Schroeder	4.6
Albert Zeitler	5.2
F. Brunk	3.5
Aug. Naatz	3.3

Binghamton.

Albert Huse	4.4
Charley Baker	4.0
John Tischauer	4.2
Charley Benning	4.0
August Duhm	4.8
Wm. Genske	4.4
John F. Hinz	4.4
Geo. Leisgang	4.4
Geo. Leisgang	5.2
Louis Sasman	4.6
Fred Korth	4.0
John Casey	4.3
John Casey	5.0
Wm. Wehrman	3.8
August Schmidt	4.0
Charles Wolf	4.4
Wm. Riehl	4.7
Andrew Fries	4.6
Adam Cloos	4.2
Lewis Mailahn	4.7
Mrs. E. Briedenfeld	4.2
F. Wisthoff	4.2
Lyman Smolk	4.6
W. Ruwoldt	4.6
Wm. Behl	4.6
Aug. Roll	4.0
Wm. Czoschke	4.8

	Per ct. of fat.
Henry Lillge	4.4
Louis Breidenfeld	4.2
John Hoerning	5.0
Chas. Hoerning	4.2
Herman Wolf	4.2
Geo. Boser	3.5
Frank Van Doren	3.4
Albert Endtor	4.0
Mike Griesbach	4.5
James Wing	4.4
Aug. Kollath	4.5
Wm. Rusch	4.0
John Elckhoff	4.2
Aug. Wehrman	3.2
Conrad Sellberg	4.3
B. Griese	3.9
John Kennedy	4.0
Mrs. Jacob Scutt	4.2
Mrs. Jacob Scutt	4.2

Kenosha.

Richard Kirch	3.8
Blackman & Sons	3.6
J. A. Wells	3.4
J. A. Wells	4.7
J. Bentz	3.6
J. Bentz	4.2
Chas. Hansis	4.3
Piper & Thomas	4.3
Piper & Thomas	5.2
P. Barth	5.2
Blackman & Sons	4.2
Thos. Wallis	4.2
E. F. Falk	3.8
E. A. Jensen	4.2
John Hartung	4.1
A. Sorenson	4.9
T. J. Irwin	4.2
L. H. French	5.0
A. Terry	3.6
Phil. Johannis	4.8

Juneau.

Aug. Ladwig	4.5
Louis Rupke	4.8
Aug. Swenzow	4.6
Henry Heihert	4.1
Aug. Affald	5.0
Herman Badle	4.6
Albert Swanz	5.4
Julius Kepsol	4.5
Chas. Tena	5.2

Brodhead.

L. O. Knudson	4.5
L. I. Fairman	5.0
Leslie Fairman	5.1

	Per ct. of fat.
G. M. Warner	3.9
Thos. Douglas	4.2
W. Rushiser	4.8
Wm. Engebritson	4.2
John Swain	5.3
J. McNair	4.3
P. L. Deldrick	4.2
A. Lunde	5.0
O. Knudson	5.2
O. Dixon	5.2
Mrs. E. Dixon	4.9
Henry Hendrickson	4.8
S. Swenson	4.4
P. Bye	4.5
H. Wendlandt	4.7
Will Benjamin	4.9
W. Springstead	5.4
Henry Benjamin	5.0
S. Sorrensen	5.3
M. Jackson	4.0
M. L. Karney	4.0
B. N. Larson	4.4
G. H. Rosteigen	4.1
C. Gardner	4.0
Roy Stabler	4.2
David Austin	3.9
John Randall	3.9
Walter Douglas	4.9
Robert Stahlnecker	5.0
Wm. Stabler	4.0
August Glese	4.3
Manley Douglas	4.0
Wm. Coldren	4.7
Herman Giese	4.3
John Stahlnecker	4.7
M. L. Karney	4.0
Skim milk, Sept., No. 2	0.02
Skim milk, Sept., No. 1	0.03

Union Grove.

H. Olson	4.2
P. Larson	3.3
G. Hardy	4.2
H. C. Hanson	4.2
Mrs. J. Milldrum	4.2
Frank Adams	3.7
H. Rosendale	3.6
P. DeGroot	4.0
J. Meekma	3.5
C. DeGroot	3.8
J. DeGroot	3.7
H. Swantz	3.5
O. Esmond	3.1
John Beyer	4.0
J. Maurice	3.6
John Dextra	3.9
E. Barrows	4.0
C. Motley	3.5

	Per ct. of fat.
E. Kiddle	3.8
P. Hanson	4.2
J. Martin	3.8
A. Minton	4.4
W. Roberts	4.0
J. Zulauf	3.5
P. Maurice	3.7
H. Monroe	3.4
F. Swantz	3.7

Elkhorn.

J. H. Zigg	3.8
F. W. Houghton	4.3
O. Pratt	3.7
O. Vaughn	4.4
Haslow & Co.	4.3
Mark Foot	5.2
E. Merick	3.5
Ed. Weiners	4.2
Frank Humbert	4.2
Belle & Co.	3.8
Tom Decoudres	4.2
L. Humbert	3.5
George Vaughn	3.9
George Camer	4.0
Nick Camer	3.8
Will Paulsen	4.1
J. Brierly	4.4
A. Paulson	4.4
C. H. Phelps	4.1
Wm. Mitchell	4.2
Wm. Blout	4.6
H. Vaughn	3.8
George Fratt	3.6
Merrick & Co.	3.4
A. S. Wortman	4.1
W. I. Loomis	4.1
Tom Matson	3.2
Paulsen, Sr.	4.3
Mayhew & Co.	4.0
Jule Schiede	3.6
Wm. Falk	4.2
Forge & Son	4.1
Fred Zabler	3.0
G. Merrick	3.6
Wm. Zabler	4.0
Frank Miller	4.4
Wm. Vaughn	4.8
Frank Patton	3.8
A. Clark	4.0
P. Nelson	4.6
Charley Meyers	4.1
George Williams	3.7
Chas. Kadow	4.7
J. C. Greenman	4.3
Joseph Forge	3.3
E. Whitmore	4.2
Bert Whitmore	4.8
Reick Bros.	4.6

	Per ct. of fat.
Will Miller	4.1
Henry Neip	4.0
J. S. Whitmore	4.0

Green Bay.

August Giese	4.0
W. Wilson	3.7
W. Wilson	3.5
M. McGuire	3.8
H. Armstrong	4.4
N. Anderson	4.3
H. Williamson	4.2
H. E. Wilson	4.2
N. Anderson	4.5
J. Mickelson	4.0
H. J. Kuehl	3.8
J. Lan & Sons	4.0
Henry Vandenheuvuel	4.1

Eau Claire.

L. Tower	3.6
J. C. Barland	3.8
Amos Goff	3.0
J. Johnson	3.6
Phillip Fitzpatrick	3.5
C. H. Johnson	3.3
B. R. Barland	4.6
Geo. D. Wood	4.1
S. M. Olin	3.4
Samuel Guthrie	4.4
S. R. Dunham	3.7
D. Neuser	4.1

Oconomowoc.

E. S. Stone	3.8
W. B. Fay	3.8
W. S. Bibble	3.6
W. M. Jones	4.1
Isaac Denton	4.0
Fred Fidler	4.2
E. W. Barnard	3.5
Bartlett Estate	4.2
P. Henriksen	4.2
Gus Voght	3.8
N. M. Hill	4.0
A. Stone	4.4
W. A. Jones	3.7
W. E. Balley	3.5
Frank Rohloff	4.5
O. P. Chubb	4.0

Camdria.

John Shepp	3.5
Charlie Martin	3.3
Gust. Schatz	3.6
Henry Richter	3.8

	Per ct. of fat.
Henry Huffman	3.5
Herman Lueptow	3.7
Conrad Weisel	3.3
John Bender	3.8
Chris. Umbreit	3.5
Phillip Probst	3.6
August Schatz	3.8
Peter Kumba	3.5
Godfrey Winne	3.4
Casper Weisel	4.0
L. H. Koepf	3.8
Jacob Heinz	3.9
John Liphite	3.8
Charlie Schatz	4.0
Conrad Shepp	4.4

Palmyra.

Robert Charley	4.0
Geo. Mann	3.3
Charley Perry	4.3
Henry Buths	3.5
Henry Buths	3.4
Thos. Hitch	3.3
Ed. Hooper	3.6
Ed. Peardon	3.6
Ed. Peardon	3.9
M. Piper	3.5
John Stacy	4.0
W. Gilbert	4.4
F. Rodgers	3.1
F. Vonruedon	below standard.
John Stacy	4.2
J. French	3.9
W. P. Gates	3.6
W. Pluis	3.9
W. Pluis	3.9
W. Burton	4.3
J. Lean	4.4
G. Spaulding	4.1
W. Richardson	3.8
R. H. Turner	below standard.
R. H. Turner	3.8
F. Rodgers	3.8
J. Stinhoff	3.6

Skimmed milk, small trace of butter fat, not to exceed one-tenth of one per cent.

Johnson's Creek.

F. Ruske	3.2
Chas. Barmann	3.8
Jim Schlasner	3.8
W. Patratz	3.6
H. Buske	3.9
C. Dunning	3.6
Mrs. W. Buske	4.2
Adam Ridelbauch	3.5
F. Schumacher	3.1

	Per ct. of fat.
J. Spletstoesser	3.0
Aug. Sydow	3.5
F. Thornticke	3.2
Ed. Frank	3.1
Otto Sydow	3.3
C. F. Reese	3.3
John Rees	3.2
John Reese	3.9
Mrs. F. Bartelt	4.2
F. Keipert	3.6
E. Staude	3.6
T. Knaack	3.8
H. Rhadams	3.6
H. Rhadams	4.0
H. Rhaabe	3.5
H. Vogt	3.8
R. Wolff	3.6
C. Heine	3.4
John Mohr	4.3
John Schlasner	4.0
Charley Buke	3.7
H. Jahnke	3.8
John Wolfgram	3.3
John Wolfgram	4.2
Fred Reibe	4.0
Geo. Keoppel	3.0
Aug. Grunert	3.6
W. Pautz	3.2
Herman Klepert	3.7
G. Kothlow	3.8
W. Zindars	3.7
R. Stinke	3.0
Aug. Tilka	3.8
E. Voss	3.6
Mrs. N. Nutting	3.8
C. N. Nutting	3.9
Mike Dehnest	3.4
Louis Wolfgram	3.8
Aug. Borchardt	3.9
W. B. Mathews	4.0
Mrs. Borchardt	4.1
Charley Borchardt	4.4
John Heine	4.1
W. Borchardt	3.9
Thos. Peny	4.5
C. F. Schultz	3.7

Simply a trace of butter fat in each sample of skimmed milk taken, not to exceed one-tenth of one per cent.

Red Rock.

John Kil Kelly	below standard.
J. T. Morgan	3.3
Wm. Wilson	3.5
John Wilson	3.6
Frank Steel	3.4
J. McGettigan	3.8
Jas. Sanders	4.0

	Per ct. of fat.
Henry Kinneman	3.4
R. M. Thompson	3.5
Sample of skimmed milk contained two-tenths of 1 per cent.	

Juneau.

Henry Rueger	3.8
Herman Bottle	3.6
Aug. Dukerscheim	3.8
Aug. Dukerscheim	3.5
Louis Luebke	3.9
Charlie Thieme, Jr.	3.6
Aug. Schwensow	3.3
Gustave Ladwig	3.4
Gustave Ladwig	3.9
Julius Kiepsel	3.5
Julius Kiepsel	2.9
Fred Luk	3.2
Godfrit Schultz	3.6
Godfrit Schultz	2.0
Frank Thieme	3.3
Chas. Thieme, Sr.	3.2
Chas. Thieme, Sr.	3.3
Albert Schwantz	3.4

Sullivan.

J. Hinzmann	3.5
C. Vinz	4.2
John Georgeon	3.4
W. Friday	3.6
H. Krohn, Jr.	3.6
Pat. Schollard	4.3
L. Raiser	3.9
M. Brannon	3.7
A. Vinz	3.7
H. Will, Jr.	3.2
W. Myer	3.5
W. Graeszel	3.7
G. Rummel	4.0
C. Wenner	3.5
J. Carrol	3.8
H. Newton	4.2
W. Krueger	3.9
W. Lee	4.2
Gus Neitmann	3.8
A. C. Ecker	sour.
S. Lee	3.8
A. Notbom	3.3
Geo. L. Garity	4.3
Humboldt Bros.	3.3
H. Wenzel	3.8
F. Wenzel	3.7
Wm. Tohn	4.3
H. Kitzmann	3.5
John Boetcher	4.4

Per ct. of fat.

J. Gleighman	3.8
E. Hensley	3.4
H. Zeddies	3.2
A. Zastrow	4.3
H. Krohn, Sr.	3.6
D. Higbie	3.6
Frank Newton	3.3
Mrs. Rora Mistely	3.3
J. Trader	3.9
W. Yaugert	3.7
G. Bentría	3.6
D. Marsch	3.3
H. Grobb	sour.
Fred Lee	3.9
A. Halbrader	4.0
H. Will, Sr.	3.8
T. Burrow	sour.
F. Raiser	3.5
Pat Garity	4.3
Thos. Scollard	sour.

Orfordville.

S. B. Gilbert	3.7
John Richmond	4.1
H. Vinger	3.6
Peter Foss	3.9
H. Anderson	4.2
Geo. Olson	3.7
Nels Larson	3.5
Ole Storlie	3.9
Chris. Paulson	3.3
Andrew Shirley	3.1
Ole Staverdahl	3.4
Andrew Sveom	3.4
Hans Gilbert	3.9
Mrs. T. E. Myhre	3.9
Jas. Ward	4.0
H. Overlande	3.9
G. T. Hanson	4.3

Cambridge.

John Davis	3.8
E. H. Behm	3.5
C. Birkrem	4.3
Otto Rumpf	3.7
A. Eshke	4.3
A. G. Johnson	3.3
O. C. Larson	3.7
W. Pofflow	4.4
F. Lewis	4.4
C. Becker	3.9
John Nettum	4.2
R. Schmidt	3.7
John A. Johnson	3.6
John Krippner	4.3

	Per ct. of fat.
C. Lespewske	3.6
M. Ramsey	3.7
H. J. West	4.4
John Geerke	3.9
E. Jaeger	4.3
H. B. Prescott	3.7
C. Simdon	3.5
W. Simdon	3.9
A. Ottow	3.8
Geo. Green	3.7
Geo. Armstrong	4.1
A. Plum	4.0
A. Surms	4.3
M. Anderson	4.3
C. M. Larson	4.1
Peter Larson	3.5
Betsy Anderson	3.5
G. C. Larson	4.5
O. Asje	4.2
O. Askin	3.7
Matt Larson	4.2
J. B. Lind	4.1
Gus. Retzlof	3.8
T. Gehrke	4.0
W. Krause	3.7
A. Drager	4.0
Mrs. Ole Fjhelstad	4.0
Sam Brounty	4.0
Pet Swanson	3.7

Tustin.

Robert Winter	3.8
Wm. Winter	3.5
Henry Teska	3.8
John Hartfield	3.5
John Hartfield	3.5
Ed. Zempel	3.2
Ed. Zempel	4.0
Gus Berlin	3.6
Gus Berlin	3.8
Wm. Folendorf	3.0
Wm. Folendorf	4.1
Wm. Gruening	3.3
Fred Munding	3.1
Fred Munding	4.2
Robt. Winter	3.8
Geo. Kopitzke	3.3
Geo. Kopitzke	3.7
Gotlieb Socheska	3.4
Gotlieb Socheska	4.0
Wm. Munding	3.9
Wm. Munding	4.6
Albert Radichel	3.2
Albert Radichel	4.5
Aug. Abraham	3.2
Aug. Abraham	3.6
Aug. Strey	3.2
Aug. Strey	3.0

Verona.

	Per ct. of fat.
Mrs. Mary Messer	below standard.
Lewis Kittleson	4.7
Knudt Boa	4.0
W. Lust	4.2
John Kittleson	4.2
John Way	3.8
Karl Kolb	4.2
Albert Herring	3.4
Sam Wittwer	3.4
Herman Hankel	4.3
Mike Hobbs	4.5
Martin Hobbs	4.0
Henry Regge	4.1

Tustin.

Fred Gruening	2.5
Fred Gruening	3.9
Wm. Klotsbicker	2.6
Wm. Klotsbicker	3.4

West Bend.

F. Schneider	3.2
F. Schneider	4.2
Geo. McCormack	3.0
Geo. McCormack	3.5
Mrs. Nick Schneider	3.9
M. J. Morawetz	3.5
M. J. Morawetz	4.0
Nick Bales	3.6
Chas. Gomber	3.4
Chas. Gomber	4.2
Geo. Arnet	4.0
B. W. Barber	4.0
Henry Thill	4.0
John Krell	3.7
John Krell	4.0
Don Cameron	3.3
E. M. Nash	4.0
A. Debeno	3.8
A. Debeno	3.8

Madison.

Karl Stahl	3.7
David Martin	3.7
Will Krueger	3.8
Delos Wells	4.0
Jacob Long	3.4
James Blaine	3.7
Jeremiah Caton	3.8
C. Bayerhoffer	3.2
W. Rosenthal	3.6
Will Schneider	3.6
David Stauffer	4.0
Chris. Tochtorman, Jr.	3.4

Report of the Wisconsin

<i>Waupun.</i>				<i>Per ct. of fat.</i>	
	<i>Per ct. of fat.</i>				
Geo. Galland	3.2	Arthur Davis	4.7		
B. Finnegan	3.8	John Fritch	4.0		
J. Schmidt	3.0	E. Grenzow	4.7		
J. Gunther	4.0	Will Pick	4.1		
A. Chase	3.5	Will Guinter	4.2		
F. Chase	3.5	Jos. Miller	4.1		
F. Chase	4.3				
W. Gallon	3.2	<i>Ripon.</i>			
W. Gallon	4.3	1. Herman Thiel	3.0		
E. A. Lang	3.4	2. Herman Thiel	2.65		
Geo. Lang	4.0				
Geo. Lang	4.7	<i>Mt. Horeb.</i>			
A. Morehouse	3.0	Peter Husath	4.0		
A. Morehouse	4.3	Sever Veum	3.6		
F. Block	below standard.	H. A. Husath	3.8		
F. Block	below standard.	Henry Ottum	3.7		
O. Wustrack	3.8	Hans Haakenass	4.0		
O. Wustrack	4.8	H. Grannum (spec. grav. 1.030)	3.2		
A. Wustrack	3.7	T. Peterson	3.4		
E. Emigh	3.5	Michael Johnson	3.4		
E. Emigh	4.6				
E. Winke	3.2	<i>Monroe.</i>			
E. Winke	3.8	A. Kryder	3.3		
G. Higgins	3.8	John Alexander	3.8		
G. Higgins	3.6	Geo. Davis	3.7		
E. Ringenfelter	below standard.	Fraustchy Bros.	4.0		
E. Ringenfelter	3.4	Jos. Mattress	3.8		
		J. Hofmaister	3.5		
<i>Aurora.</i>		H. L. Davis	3.5		
Jos. Boden	3.9	S. Bradley	3.5		
Peter Boden	3.4	Geo. Williams	4.1		
Peter Boden	4.1	W. H. Zimmerman	3.2		
Mike Mennier	3.2	Ben Davis	3.7		
Henry Dellenbach	below standard.	Nick White	3.2		
Paul Seyfert	3.9	Jos. Bradley	3.7		
Henry Treutel	4.5	Eli Shook	3.6		
Henry Treutel	4.5	John Zimmermann	3.1		
John Weber	4.5	John Kryder	3.7		
John Hosp	3.7	Charlie Kryder	3.6		
Eilert Peters	3.8				
Nick Lahr	3.7	<i>Monroe.</i>			
Nick Lahr	4.8	Eddie Brannen	3.4		
Lewis Paff	4.0	John Winters	3.8		
Lewis Paff	3.8	H. W. True	3.1		
Peter Luis	3.7	Chris Winters	3.7		
Adam Mennier	3.6	Chris Bush	4.4		
Chas. Becker	below standard.	Frank Brannen	3.8		
Chas. Becker	3.6	Charlie Winters	3.4		
		Frank Van Matra	3.5		
<i>Polk.</i>		J. Dornedan	4.0		
John Bridge	4.2	R. D. Blubaugh	3.8		
John Royer	4.1	John D. Brannen	3.3		
Robt. Rufi	3.9	L. Ganshirt	3.5		
M. L. Schoeder	5.1				
Mike Kruegger	4.6				
Jack Schwartz	4.6				
Herman Mauerman	3.7				

Brodhead.

	Per ct. of fat.
Andrew Laube	4.2
Frank Mitchell	4.0
Will Evans	4.4
W. H. Mann	4.1
Leroy McKinley	3.2
Joan Keaster	4.0
Orrin Clark	4.1
Geo. Zimmermann	3.5
Aug. Kohn	4.0
Frank Green	4.2

Lake Mills.

Christ. Wollin	3.2
Christ. Wollin	5.0
Robt. Wollin	4.2
Ed. Roehl	watered.
A. Rughardt	4.4
Albert Schneider	3.7
John Bohnsack	4.0
A. Brodow	3.6
A. Brodow	4.5
Frank Woolitz	4.0
Wm. Yandre	3.8
Chris Heitz	3.6
Henry Miller	3.6
Henry Miller	4.3
F. Kuger	3.9
F. Kuger	5.2
Aug. Hein	3.1
Aug. Hein	4.6
Fred Heller	3.8
Fred Heller	4.6

Per ct. of fat.

John Heiden	3.2
Fred Miller	3.4
Fred Miller	4.8
Mary Broetzman	3.4
Mary Broetzman	3.6
Herman Schaeffer	3.6
Otto Detteman	watered.
Wm. Troleff	3.6
Chas. Miller	3.8
Chas. Miller	4.4
Fred Richerdts	below standard.
Fred Richerdts	4.4
Chas. Schultz	4.0
H. D. Spitzer	3.6
Chas. Wollin	3.5
Chas. Wollin	4.2
Lu Hornickel	3.8
Fred Schmidt	3.8
Fred Schmidt	4.4
Albert Menzel	3.8
C. E. Gallup	4.0
C. A. Gallup	4.4

Juda.

Geo. Nix	4.2
D. Vance	4.5
Fred Miller	4.1
H. Barmore	3.7
W. W. Baird	4.5
Phillip Burns	4.2
Geo. Hemstreet	4.3
A. Keller	3.9
W. M. Kafer	4.4
T. Barmore	3.7

REPORT OF DAIRY INSPECTOR, N. J. FIELD.

- Fred Leichtfass, 36th and Fond du Lac Sts., Wauwatosa; number of cows, 2; condition of stock, good; stables, fairly clean; feed, bran, middlings and hay; well water. Inspected June 11th, 1897.
- Herman Becker, 37th and Fond du Lac Sts., Wauwatosa; number of cows, 3; stables and utensils, clean; feed, middlings, bran, hay and brewery grains; well water. Inspected June 11th, 1897.
- J. F. Painter, Fond du Lac Road, Milwaukee; number of cows, 27; condition of stock, first class; stables, clean and well ventilated; utensils, clean; feed, brewers' grains, middlings and clover hay; well water. This is a first-class dairy. Inspected June 12th, 1897.
- Conrad Paster, South City Limits, Milwaukee; number of cows, 65; condition of stock, good; stables, clean; utensils, clean; feed, corn meal, brewery grains and middlings; well and city water. Inspected June 14th, 1897.
- Frank Freutz, Newcomb Road, Toll Gate, Milwaukee; number of cows, 14; condition of stock, good; stables, not clean; utensils, fairly clean; feed, middlings and bran; well water. Inspected June 14, 1897.
- J. W. Becker, Cudahy; number of cows, 19; condition of stock, good; stables, clean; utensils, clean; feed, pasture grass; well water. Inspected June 14, 1897.
- Albert Meesick, near Sercomb Road, Milwaukee; number of cows, 4; condition of stock, good; stables, not clean; utensils, clean; well water. Inspected June 14, 1897.
- John Wooster, Layton Park, Milwaukee; number of cows, 3; condition of stock, good; condition of stables, good; utensils, clean; feed, bran, middlings and pasture grass; well water. Inspected June 14, 1897.
- Chris Guenther, Greenfield; number of cows, 13; condition of stock, good; stables, clean; utensils, clean; feed, bran, middlings and pasture grass; well water. Inspected June 14, 1897.
- W. C. Freutz, Toll Gate Road, Milwaukee; number of cows, 17; condition of stock, good; stables, clean; utensils, clean and bright; feed, bran, middlings and pasture grass; well water. Inspected June 14, 1897.
- Nicolas Schmidt, 2713 Walnut St., Milwaukee; number of cows, 7; condition of stock, ———; stables, in fairly good condition; utensils, clean; feed, middlings, brewery grains, linseed meal and hay; well water. Inspected June 16, 1897.
- Gustav Kaun, 37th and Fond du Lac Sts., Milwaukee; number of cows, 6; condition of stock, good; stables, well kept; utensils, clean; feed, brewery grains, middlings and hay; well water. Inspected June 11, 1897.
- Hadler & Webster, Greenfield; number of cows, 36; condition of stock, good; stables, in excellent condition; utensils, clean; feed, middlings, bran and corn meal; well water. Inspected June 11, 1897.
- Chas. Dana, Greenfield; number of cows, 39; condition of stock, excellent; stables, very clean; utensils, clean; feed, corn stalks, corn meal, brewery grain; well water. Inspected June 11, 1897.
- Jac. Meyer, Fond du Lac Road, Milwaukee; number of cows, 12; condition of stock, clean and healthy; stables, clean; utensils, clean; feed, middlings, brewers' grain and pasture grass; well water. Inspected June 12, 1897.

- Albert Court, Toll Gate Road; number of cows, 23; stables in filthy condition; feed, middlings, brewers' grains, badly fermented, and pasture grass.
- Fred Nepo, Sercomb Road; number of cows, 5; condition of stock, good; stables, fair; utensils, clean; feed, pasture; spring water. Inspected July 12, 1897.
- Herman F. Luscher, Hopkins Road; number of cows, 24; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, bran and pasture; well water. Inspected July 12, 1897.
- F. A. Zautke, County Road; number of cows, 44; condition of stock, good; stables, clean; utensils, clean; feed, clover grass and ensilage; well water. A most excellently kept establishment. Inspected July 13, 1897.
- I. Keller, Hopkins Road; number of cows, 24; condition of stock, good; stables, clean; utensils, clean; feed, middlings, bran and hay, pasture; well water. Inspected July 13, 1897.
- N. Smith & Co., Oakland Ave.; number of cows, 36; condition of stock, good; stables, clean; utensils, clean; well water. Nursing milk establishment; excellent. Inspected July 14, 1897.
- Otto Ianhuke, Mineral Spring Crossing; number of cows, 18; condition of stock, good; stables, fair; utensils, not clean; feed, pasture; well water. Milk not kept in clean places; warned to clean up; will visit again. Inspected July 14, 1897.
- Julius Lockstead, White Fish Bay Road; number of cows, 3; condition of stock, good; stables, good; utensils, clean; feed, bran, middlings and pasture; well water. Inspected July 14, 1897.
- Chas. Lochstead, Oakland Ave.; number of cows, 6; condition of stock, good; stables, clean; utensils, clean; feed, bran, middlings and pasture; well water. Inspected July 14, 1897.
- Wm. Grenhardt, 29th St. and Lincoln Ave.; number of cows, 22; condition of stock, good; stables, clean; utensils, clean; feed, vinegar slops, middlings and pasture; well water. Requested discontinuance of vinegar slops. Inspected July 15, 1897.
- Wm. Finger, Holley Road; number of cows, 30; condition of stock, good; stables, good; utensils, clean; feed, brewers' grains, middlings and pasture; well water. Excellent dairy. Inspected July 15, 1897.
- Gotlieb Pasbut, Lincoln Av., Wauwatosa; number of cows, 16; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains; well water. Inspected July 15, 1897.
- H. Rahn, Holley Road; number of cows, 7; condition of stock, good; stables, good; utensils, clean; feed, brewers' grains, cornmeal and pasture; well water. Inspected July 15, 1897.
- Edward Harmon, Lake Road, Wauwatosa; number of cows, 28; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Gustave Cobhardt, Wauwatosa; number of cows, 10; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Herman Daunenber, Burleigh Road; number of cows, 16; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Ferdinand Schultz, Burleigh Road; number of cows, 23; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Fred Becker, Burleigh Road; number of cows, 9; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Gustave Kann, Burleigh Road; number of cows, 11; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 16, 1897.
- Peter Bonerz, Lisbon Road, Wauwatosa; number of cows, 15; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 20, 1897.

- Albert Sieverts, North Avenue Road, Wauwatosa; number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 20, 1897.
- Wm. Lubratz, North Avenue Road, Wauwatosa; number of cows, 16; condition of stock, good; stables, good; utensils, clean; feed, pasture; well water. Inspected July 20, 1897.
- Frank H. Nichols, Vliet Street Road, Wauwatosa; number of cows, 6; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 20, 1897.
- Adolph Siedo, North Avenue Road, Wauwatosa; number of cows, 8; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 20, 1897.
- John Hupher, 44th Street, West Wauwatosa; number of cows, 8; condition of stock, good; stables, clean; utensils, clean; feed, corn meal, middlings, brewers' grains and pasture; well water. Inspected July 20, 1897.
- Fred Schrub, Watertown Plank Road, Wauwatosa; number of cows, 40; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 21, 1897.
- Andrew Slotman, Second Avenue Road, Town Lake; number of cows, 7; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains; well water. Inspected July 23, 1897.
- John Miller, 8th Avenue Road, Town Lake; number of cows, 9; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, some vinegar slops and corn meal; well water. Requested discontinuance of vinegar slops. Inspected July 23, 1897.
- Adolph Gritner, 8th Avenue Road, Town Lake; number of cows, 35; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, middlings, bran and pasture; well water. Excellent dairy. Inspected July 23, 1897.
- John Prozy, 5th Ave., Town Lake; number of cows, 6; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 23, 1897.
- Wm. Froeming, 8th Ave., Town Lake; number of cows, 14; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 23, 1897.
- William Kilps, 11th Ave., Town Lake; number of cows, 3; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 23, 1897.
- Winston Brand, 11th Ave., Town Lake; number of cows, 23; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, vinegar slops, half and half; well water. Requested discontinuance of vinegar slops. Inspected July 23, 1897.
- M. Malecki, 11th Ave., Town Lake; number of cows, 6; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, vinegar slops, corn meal and pasture; well water. Requested discontinuance of vinegar slops. Inspected July 23, 1897.
- Frank A. Zoebel, Lake Road, Cudahy; number of cows, 3; condition of stock, good; stables, clean; utensils, clean; feed, bran and pasture; well water. Inspected July 26, 1897.
- Chas. Siegel, Chicago Road; number of cows, 52; condition of stock, good; stables, clean; utensils, clean; feed, bran, middlings and pasture; well water. Inspected July 26, 1897.
- Chas. Loss, Lake Road, Town Lake; number of cows, 11; condition of stock, good; stables, clean; utensils, clean; feed, corn meal, oats, pasture and ensilage; well water. Inspected July 26, 1897.
- John Vaukafski, 8th Ave., Town Lake; number of cows, 1; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 27, 1897.
- Chas. Uhlenberg, 8th Ave., Town Lake; number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; well water. Inspected July 27, 1897.

- Laurence Smith, 8th Ave., Town Lake; number of cows, 7; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains and pasture; city water. Inspected July 27, 1897.
- I. Karth, Okianoma Road, Town Lake; number of cows, 35; condition of stock, good; stables, clean; utensils, clean; feed, brewers' grains, corn meal and pasture; well water. Inspected July 27, 1897.
- Christ Speicht, Janesville Plank Road, Town Greenfield; number of cows, 20; condition of stock, good; stables, clean; utensils, clean; feed, corn meal and pasture; well water. Inspected July 28, 1897.
- B. Jungbluth, Janesville Plank Road, Root Creek; number of cows, 19; condition of stock, good; stables, clean; utensils, clean; feed, bran and pasture; well water. Inspected July 28, 1897.
- Irwin Cabb, plank road half mile south of Hale's Corners; number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, pasture; spring water. Inspected July 28, 1897.
- A. F. Repgke, plank road, one mile southwest of Hale's Corners; number of cows, 10; condition of stock, good; stables, clean; utensils, clean; feed, pasture; well water. Inspected July 28, 1897.
- Horlick's Food Co., post office, Racine, Rapids Road; number of cows, 120; condition of stock, good; stables, very clean; utensils, perfectly clean; well water. Inspected November 6, 1897.
- Jacob M. Brown, Racine post office, Milwaukee Road; number of cows, 4; condition of stock, good; stables, O. K.; utensils, clean; feed, hay, corn meal and corn stalks; well water. Inspected November 6, 1897.
- Wm. Koefford, Racine post office, Milwaukee Road; number of cows, 20; condition of stock, good; stables, clean; utensils, clean; feed, corn and hay; well water. Inspected November 6, 1897.
- S. Knutson, Racine post office, Milwaukee Road; number of cows, 20; condition of stock, good; stables, clean; utensils, clean; feed, oats, cornstalks and hay; well water. Inspected November 6, 1897.
- Hans Iverson, Racine post office, Milwaukee Road; number of cows, 13; condition of stock, good; stables, clean; utensils, clean; feed, barley and oats mixed, corn meal and hay; well water. Inspected November 6, 1897.
- Joseph Rowley, Middle Road, post office, Racine, Wis.; number of cows, 30; condition of stock, very good; stables, whitewashed and floor sprinkled with lime; utensils, very clean; feed, hay, corn stalks, corn and oats ground; well water; milk house, very clean; yards, clean. Inspected November 9, 1897.
- Joseph Rowley, Middle Road, post office, Racine, Wis.; number of cows, 33; condition of stock, very good; stables, whitewashed, floor sprinkled with lime; utensils, very clean; feed, hay, corn stalks, corn and oats ground; well water; milk house, very clean; yards, clean. Inspected November 9, 1897.
- H. Y. Troutwain, Middle Road, post office, Racine, Wis.; number of cows, 32; condition of stock, very good; stables, whitewashed, floor sprinkled with lime; utensils, very clean; feed, hay, corn stalks, corn and oats ground; well water. Stable yard paved with pine blocks; a first-class establishment. Inspected November 9, 1897.
- Evan J. Jones, Franksville Road, post office, Racine, Wis.; number of cows, 38; condition of stock, very good; stables, whitewashed walls, very clean; utensils, very clean; feed, hay, corn, corn stalks, bran and middlings; well water. Most excellent dairy. Inspected November 9, 1897.
- Soren Hansen, Franksville Road, post office, Racine, Wis.; number of cows, 30; condition of stock, excellent; stables, clean; utensils, clean; good milkhouse; feed, hay, bran, oats, middlings and corn meal; well water. Good dairy. Inspected November 9, 1897.
- C. A. Werstern, Rapids Road, post office, Racine; number of cows, 65; condition of stock, excellent; stables, clean, whitewashed walls, lime on floor; utensils, perfectly clean; feed, oats, bran and hay; well water. A most excellent dairy; everything in the best of order. Inspected November 9, 1897.
- J. French, Franksville Road, post office, Racine; number of cows, 46; condition of stock, good; stables, very clean; utensils, clean; feed, hay, corn and corn stalks; well water. Clean dairy. Inspected November 10, 1897.

- Chris. Banks, Middle Road, post office, Racine; number of cows, 10; condition of cows, good; stables, whitewashed and clean; utensils, clean; feed, hay, corn and corn stalks; well water. Inspected November 10, 1897.
- E. H. Perkins, Middle Road, post office, Racine; number of cows, 37; condition of stock, good; stables, very clean; utensils, clean; feed, hay, corn and corn stalks; well water. Very good barn. Inspected November 10, 1897.
- Wm. Peterson, Franksville Road, post office, Racine; number of cows, 16; condition of stock, good; stables, clean; utensils, clean; feed, hay and corn stalks; well water. Clean dairy. Inspected November 10, 1897.
- Jacob Stamness, Stage Road, post office, Franksville; number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn, bran and corn stalks; well water. Inspected November 12, 1897.
- Henry Houch, Old Stage Road, post office, Racine; number of cows, 26; condition of stock, very good; stables, good; utensils, clean; feed, hay, bran, mill feed, corn and oats; well water. Very clean dairy. Inspected November 12, 1897.
- P. J. Williams, Old Stage Road, post office, Racine; number of cows, 26; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn, bran and ground feed; well water. Good barn; very clean dairy. Inspected November 12, 1897.
- J. O. Thomas, Town Caledonia, post office, Linwood; number of cows, 32; condition of stock, very good; stables, very clean; utensils, clean; feed, hay, bran, corn and corn stalks; water, well in winter, Root river in summer. Very clean dairy. Inspected November 12, 1897.
- Walter Mann, Old Stage Road, post office, Racine; number of cows, 25; condition of stock, good; stables, clean, whitewashed; utensils, clean; feed, hay, corn, cut feed, corn meal and bran; well water. Excellent dairy. Inspected November 12, 1897.
- Geo. Kattenschnee, Old Stage Road, post office, Racine; number of cows, 17; condition of stock, good; stables, very clean; utensils, clean; feed, hay, corn, oats and corn stalks; well water. Clean dairy. Inspected November 12, 1897.
- E. E. Gifford, Old Stage Road, post office, Racine; number of cows, 28; condition of stock, good; stables, very clean; utensils, very clean; feed, hay, corn and oats, cut feed and corn stalks; well water. Very clean dairy. Inspected November 12, 1897.
- Isaac Mann, Franksville post office; number of cattle, 30; condition of stock, good; stables, clean; utensils, clean; feed, hay, cut feed, bran and corn; well water. A clean dairy. Inspected November 16, 1897.
- John J. Jones, post office, Racine; number of cows, 15; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn and cut feed; well water. Clean dairy. Inspected November 16, 1897.
- E. E. Giddings, post office, Franksville; number of cows, 18; condition of stock, good; stables, clean; utensils, clean; feed, cut feed, hay, bran and meal; well water. Very clean dairy. Inspected November 16, 1897.
- John M. Roberts, Franksville post office; number of cows, 50; condition of stock, good; stables, clean, whitewashed; utensils, clean; feed, hay, bran, cut feed and barley sprouts; well water. Clean dairy. Inspected November 16, 1897.
- Jackson I. Case, post office, Racine; number of cows, 20; condition of stock, very good; stables, clean; utensils, clean; feed, hay, bran and corn stalks; well water. Fine herd of Jerseys. Inspected November 17, 1897.
- John Streweller, post office, Racine; number of cows, 11; condition of stock, good; stables, clean; utensils, clean; feed, hay, cut feed, bran and ground feed; well water. Good stable. Inspected November 17, 1897.
- Wm. H. Uelrick, Racine post office; number of cows, 12; condition of stock, good; stables, fair; utensils, clean; feed, corn stalks, hay, bran and cut feed; well water. Inspected November 17, 1897.
- N. P. Hansen, Racine post office; number of cows, 5; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn stalks and bran; well water. Inspected November 17, 1897.
- C. P. Hansen, Racine post office; number of cows, 10; condition of stock, good; stables, clean; utensils, clean; feed, hay, corn stalks and cut feed; well water. Inspected November 17, 1897.

- F. Johnson, Racine post office; number of cows, 13; condition of stock, good; stables, clean; whitewashed; utensils, clean; feed, hay, corn meal, bran and corn stalks; well water. Inspected November 17, 1897.
- C. C. Beebe, Racine post office; number of cows, 35; condition of stock, very good; stables, clean; utensils, clean; feed, hay, corn and bran; well water. Excellent dairy. Inspected November 17, 1898.
- Olaf Winglav, Plank Road, post office, Racine; number of cows, 17; condition of stock, good; stables, clean; utensils, clean; feed, hay, cut feed, corn meal and bran; well water. Inspected November 18, 1897.
- J. W. Pearce, Plank Road, Racine post office; number of cows, 4; condition of stock, good; stables, fair; utensils, clean; feed, cut feed, hay and corn; well water. Inspected November 17, 1897.
- M. Sewell, Plank Road, post office, Racine; number of cows, 40; condition of stock, good; stables, clean, whitewashed; utensils, clean; feed, oat meal, corn and cut feed; well water. Very good dairy. Inspected November 18, 1897.
- Griffith Bros., Mount Pleasant, post office, Racine; number of cows, 49; condition of stock, good; stables, clean; feed, hay, cut feed and corn; well water. Very good dairy. Inspected November 18, 1897.
- C. Nelson, Plank Road, Racine post office, number of cows, 12; condition of stock, good; stables, clean; utensils, clean; feed, hay, cut feed, bran, oats and corn; well water. Inspected November 18, 1897.
- H. Newman, Mount Pleasant, Racine post office; number of cows, 35; condition of stock, very good; stables, clean, whitewashed; utensils, clean; feed, oats, corn meal and cut feed; well water. Excellent dairy. Inspected November 18, 1897.
- W. H. Lewis, Plank Road, Racine post office; number of cows, 12; condition of stock, good; stables, very good; utensils, clean; feed, hay, cut feed, corn and bran; well water. Inspected November 18, 1897.
- I. Rutez, Old Rapids Road, post office, Racine; number of cows, 8; condition of stock, good; stables, clean, whitewashed; utensils, clean; feed, hay, bran and cut feed; well water. An excellent dairy. Inspected November 19, 1897.
- Rassmusson Bros., Caledonia, post office, Racine; number of cows, 8; condition of stock, good; stables, fair; utensils, clean; feed, oats, corn, cut feed and hay; well water. Inspected November 19, 1897.
- Henry Peehn, Caledonia, post office, Racine; number of cows, 26; condition of stock, good; stables, very good; utensils, clean; feed, oats and corn, cut feed and hay; well water. An excellent dairy. Inspected November 19, 1897.
- I. Blessinger, Caledonia, post office, Racine; number of cows, 4; condition of stock, good; stables, clean; utensils, clean; feed, corn stalks, beets and hay; well water. Inspected November 19, 1897.
- John Fiest, Caledonia, post office, Racine; number of cows, 5; condition of stock, good; stables, good; utensils, clean; feed, hay, corn and cut feed; well water. Inspected November 19, 1897.
- Geo. P. Herchen, Old Rapids Road, post office, Racine; number of cows, 12; condition of stock, good; stables, not clean; utensils, clean; feed, hay and corn; well water. Notified to clean stables at once. Inspected November 19, 1897.
- Wm. Loose, 30th St., Milwaukee, near C. M. & St. P. tracks; number of cows, 7; condition of stock, dirty; stables, dirty; utensils, 2 cans, not very clean; feed, distillery slops, hay, bran and corn; well water. Ventilation poor; a dirty place. Inspected January 5, 1898.
- A. Sahr, 30th St., near C. M. & St. P. tracks, Milwaukee; number of cows, 11; condition of stock, dirty; condition of stables, dirty; utensils, 2 cans, clean; feed, distillery slops, middlings and hay; well water. Ventilation poor. Inspected January 5, 1898.
- Aug. Pritzloff, 947 20th St., Milwaukee; number of cows, 5; condition of stock, dirty; bedding, shavings; stables, fair; utensils, clean; feed, brewers' grains, middlings, vinegar slops, claimed for cows for own use; well and city water. Fair ventilation. Inspected January 5, 1898.

- Aug. Iahuke, 895 20th St., Milwaukee; number of cows, 11; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains (sweet), barley sweet, barley malt sprouts, middlings and bran; well water. Good ventilation. Inspected January 5, 1898.
- Albert Erdman, 925 20th St.; number of cows, 4 (1 cow calving); condition of stock, not clean; stables, dirty; feed, brewers' grains; city water. No one on premises. Inspected January 5, 1898.
- Aug. Erdman, 944 20th St., Milwaukee; number of cows, 7; condition of stock, fairly clean, hay bedding; stables, fair; utensils, clean. Feed, hay, brewers' grains, corn, ground feed, distillery slops occasionally; city water. Ventilation good. Inspected January 5, 1898.
- R. Goerke, 1154 18th St., Milwaukee; number of cows, 9; condition of stock, not clean; stables, fairly clean, bedding, shavings; utensils, clean (2 cans used); feed, corn meal, brewers' grains, hay and corn stalks; city water. Ventilation sufficient. Inspected January 5, 1898.
- Henry Goerke, 1180 18th St., Milwaukee; number of cows, 6; condition of stock, not clean; stables, clean, no bedding; utensils, clean; feed, middlings, hay and brewers' grains; city water. Ventilation sufficient; does not peddle by wagon; only to those who call for milk; makes butter. Inspected January 5, 1898.
- H. Blank, 1915 Brown St., Milwaukee; number of cows, 14; condition of stock, fairly clean; stables, very good; utensils, clean; feed, brewers' grains, ground feed, middlings and hay; city water. Doesn't peddle by wagon; customers call; ventilated; cows cleanest so far found. Inspected January 6, 1898.
- E. Schmidt, 2713 Walnut St., Milwaukee; number of cows, 9; condition of stock, not clean; stables, fair; utensils, clean (2 cans); feed, middlings, ground feed, brewers' grains and hay; well water. Ventilation sufficient. Inspected January 6, 1898.
- John Schmechel, 2522 Vliet St., Milwaukee; number of cows, 7; condition of stock, not clean; stables, fairly clean; utensils (2 cans), clean; feed, brewers' grains, distillery slops, middlings, ground feed and hay; city water. Three small windows; ventilating shaft small. Inspected January 6, 1898.
- Mrs. Sachert, 2530 Vliet St., Milwaukee; number of cows, 4; condition of stock, not clean; feed; middlings, hay, brewers' grains and hay; well water. Ventilation poor; going out of business. Inspected January 6, 1898.
- Paul Engleman, 2401 Brown St., Milwaukee; number of cows, 6; condition of stock, fair; stables, fair; utensils, clean; feed, hay, brewers' grains and ground feed; well water. Ventilation sufficient. Inspected January 6, 1898.
- Adolph Poo, 1334 Humboldt Av., Milwaukee; number of cows, 10; condition of stock, not clean; stables, fair, straw bedding; utensils, (2 cans), clean, delivers to calling customers, peddles one can; feed, brewers' grains, middlings and hay; well water. Ventilation sufficient. Inspected January 6, 1898.
- H. Voss, 920 Richard St., Milwaukee; number of cows, 8; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, hay and middlings; city water. People call for milk; ventilated. Inspected January 6, 1898.
- Martin Unter, 1439 Humboldt Ave., Milwaukee; number of cows, 6; condition of stock, not clean; stables, fairly clean, leaves for bedding; utensils, 2 cans; feed, brewers' grains, hay, middlings and ground feed; water from large pond. Ventilation poor. Inspected January 6, 1898.
- Frank Wolschek, 1189 Weil St., Milwaukee; number of cows, 9; condition of stock, not clean; stables, not very clean; utensils, 2 cans daily; feed, middlings, hay and brewers' grains; well water. Ventilation poor. Inspected January 6, 1898.
- I. Richard, 2220 Lloyd St., Milwaukee; number of cows, 5; condition of stock, not clean; stables, fair; feed, brewers' grains, hay and middlings; city water. Ventilated. Inspected January 7, 1898.
- John Lench, 1450 10th St., Milwaukee; number of cows, 16; condition of stock, clean, neat; stables, clean; bedding, shavings; utensils (5 cans), clean; feed, brewers' grains, middlings and some oat meal; city and well water.

- Well ventilated; whitewashed walls; a good clean dairy; an exception so far. Inspected January 7, 1898.
- Fred Dobbiehell, 1054 9th St., Milwaukee; number of cows, 3; condition of stock, not clean; stables, not clean; feed, brewers' grains, hay and middlings; well water. Ventilated; customers call for milk. Inspected January 7, 1898.
- Jos. Kunaske, corner Weil and Chambers Sts., Milwaukee; number of cows, 3; condition of stock, not clean; stables, fairly clean, bedding; utensils, cans not present; feed, brewers' grains, hay and middlings; well water. Ventilation, one small opening, 10x10; customers call for milk. Inspected January 7, 1898.
- August Endas, corner Chambers St. and Island Ave., Milwaukee; number of cows, 8; condition of stock, not clean; stables, not clean; utensils, cans out; feed, brewers' grains, hay and middlings; well water. Ventilated. Inspected January 7, 1898.
- Thos. Lyons, 921 Sobreske St., Milwaukee; number of cows, 24; condition of stock, not clean; stables, not very clean; feed, brewers' grains, bran, middlings and cut feed; city and well water. Whitewashed walls and ceilings; ventilated. Inspected January 7, 1898.
- Carl Warrod, 1311 Louis Ave., Milwaukee; number of cows, 4; condition of stock, not clean; stables; fairly clean; feed, brewers' grains, distillery slops and hay; well water. Ventilated. Inspected January 8, 1898.
- A. Shenper, 1185 24th St., Milwaukee; number of cows, 8; condition of stock, not clean; stables, not clean; utensils, two; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 8, 1898.
- August Dreblow, 1220 Washington Ave., Milwaukee; number of cows, 12; condition of stock, not clean; feed, brewers' grains, middlings, cut feed and hay; well water. Ventilated. Inspected January 8, 1898.
- H. Brown, 1209 25th St., Milwaukee; number of cows, 3; condition of stock, not clean; stables, fairly clean; feed, brewers' grains and hay; well water. Ventilated by one window. Inspected January 8, 1898.
- Louis Radman, 735 22d St., Milwaukee; number of cows, 6; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and distillery slops; city water. Ventilation sufficient. Inspected January 8, 1898.
- John Bergman, 786 22d St., Milwaukee; number of cows, 6; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings, hay, corn and distillery slops; well water. Ventilation sufficient. Inspected January 8, 1898.
- C. Bast, 1022 25th St., Milwaukee; number of cows, 11; condition of stock, very dirty; stables, fairly clean; utensils, clean; feed, distillery slops, brewers' grains and hay; well water. Ventilated. Inspected January 10, 1898.
- H. Lucknous, 1239 Buffham St., Milwaukee; number of cows, 8; condition of stock, not clean, no bedding; stables, not clean; utensils, clean; feed, brewers' grains, hay and corn meal; well water. Ventilated. Inspected January 10, 1898.
- H. Rogge, 547 24½ St., Milwaukee; number of cows, 8; condition of stock, O. K.; stables O. K.. Sold cows this day and goes out of business. Inspected January 10, 1898.
- I. Wenlopske, 946 Pulaski St., Milwaukee; number of cows, 3; condition of stock, not clean; stables, not clean; feed, brewers' grains, hay and middlings; city water. Ventilated. Inspected January 11, 1898.
- Aug. Holst, 299 Bellevue Place, Milwaukee; number of cows, 7; condition of stock, not clean; stables, fair; feed, brewers' grains, hay and middlings. Poor ventilation. Inspected January 11, 1898.
- A. Hildebrandt, 333 Pulaski St., Milwaukee; number of cows, 4; condition of stock, not as clean as should be; stables, fair; utensils, clean; feed, brewers' grains, middlings and hay; city water. Ventilated. Inspected January 11, 1898.
- Mrs. L. Secons, 1109 North Water St., Milwaukee; number of cows, 3; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, brewers' grains, hay and middlings; city water. Ventilated. Inspected January 11, 1898.

- W. Janskeshi, 493 Bartlett St., Milwaukee; number of cows, 6; condition of stock, fairly clean; stables, quite clean; feed, brewers' grains, middlings and hay; city water. Ventilated. Does not peddle by wagon. Inspected January 11, 1898.
- Martin Koleski, 1150 Bremer St., Milwaukee; number of cows, 12; condition of stock, not clean; stables, not very clean; utensils, clean; feed, brewers' grains, middlings and hay; city water. Ventilated. Inspected January 11, 1898.
- Jas. Korpai, 749 5th Ave., Milwaukee; number of cows, 7; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, brewers' grains, hay and middlings; well water. Ventilated. Inspected January 12, 1898.
- A. Dreyes, 710 8th Ave., Milwaukee; number of cows, 15; condition of stock, not clean; stables, fairly clean; utensils (2 cans), clean, people also call for milk; feed, brewers' grains, middlings and hay; well water. Whitewashed ceiling and walls; ventilated. Inspected January 12, 1898.
- Jas. Turbach, 737 6th Ave., Milwaukee; number of cows, 9; condition of stock, not clean; stables, fair; feed, brewers' grains, middlings and hay; city water. Ventilated. Inspected January 12, 1898.
- Anton Korzenske, 1005 11th Ave., Milwaukee; number of cows, 3; condition of stock, fairly clean; stables, clean; utensils, clean; feed, brewers' grains, middlings, hay and corn meal; well water. Ventilated. Inspected January 13, 1898.
- John Pleske, 911 10th Ave., Milwaukee; number of cows, 8; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings, corn meal and hay; well water. Ventilated. Inspected January 13, 1898.
- Wm. Schweder, 670 12th Ave., Milwaukee; number of cows, 9; condition of stock, 4 clean, 5 not clean; stables, fair; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated by windows. Inspected January 13, 1898.
- C. Rebatski, 897 10th Ave., Milwaukee; number of cows, 6; condition of stock, fair; stables, clean; feed, brewers' grains, middlings, distillery slops and hay; well water. Ventilated. Inspected January 13, 1898.
- M. Bahrend, 722 13th Ave., Milwaukee; number of cows, 2; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 13, 1898.
- John Mekowske, 822 Lincoln Ave., Milwaukee; number of cows, 11; condition of stock, quite clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 13, 1898.
- John Yojaka, 673 Grove St., Milwaukee; number of cows, 13; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 13, 1898.
- John Wiescha, 511 Maple St., Milwaukee; number of cows, 7; condition of stock, not clean; stables, not clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 13, 1898.
- Anton Woski, 709 4th Ave., Milwaukee; number of cows, 3; condition of stock, not clean; feed, brewers' grains, middlings and hay; well water. Not ventilated. Inspected January 13, 1898.
- C. Schultze, 479 17th Ave., Milwaukee; number of cows, 5; condition of stock, not clean; stables not clean; feed, brewers' grains, distillery slops, middlings and hay; well water. Ventilated. Inspected January 14, 1898.
- C. Raster, corner Oklahoma and Clement Aves., Milwaukee; number of cows, 65; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, brewers' grains, distillery slops, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- I. Welchsteck, 985 Pratt St., Milwaukee; number of cows, 2; condition of stock, not clean; stables, not clean; feed, brewers' grains, distillery slops, middlings and hay; well water. Ventilated. Inspected January 14, 1898.
- W. Kevanke, 626 Greenbush St., Milwaukee; number of cows, 2; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 15, 1898.

- M. Kuyana, 513 Maple St., Milwaukee; number of cows, 3; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, distillery slops, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- I. Limpki, 634 Grove St., Milwaukee; number of cows, 4; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, distillery slops, brewers' grains, corn, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- P. Hoyeck, 638 6th Ave., Milwaukee; number of cows, 5; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- Thomas Baleski, 733 13th Ave., Milwaukee; number of cows, 2; condition of stock, fairly clean; stables, fairly clean; feed, distillery slop, brewers' grains and middlings; well water. Ventilated. Boy said: "Don't give cows any water." Inspected January 15, 1898.
- Fred Liefert, corner Forest Home and 13th Aves., Milwaukee; number of cows, 7; condition of stock, not very clean; stables, not very clean; utensils, clean; feed, brewers' grains, distillery slops (on Saturdays), middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- I. Rozenski, 612 Greenbush St., Milwaukee; number of cows, 2; condition of stock, clean; stables, clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 15, 1898.
- Milwaukee Nursing Milk Establishment, N. Shil & Co., Oakland Ave., post office box 209, Milwaukee; number of cows, 35; condition of stock, excellent; stables, clean; utensils, clean; feed, corn meal, corn and oats ground, cut fodder and hay; well water. Well conducted dairy. Inspected January 17, 1898.
- Julius Voelz, 700 Oakland Ave., Milwaukee; number of cows, 25; condition of stock, fairly clean; stables, and old stable, not well ventilated; utensils, clean; feed, middlings, barley, chaff and hay; well and river water. Some cows cleaned and some not. Inspected January 17, 1898.
- C. Tenier, 447 Bishop St., Milwaukee; number of cows, 1; condition of stock, not clean; stables, not clean; feed, hay and middlings; well water. Inspected January 17, 1898.
- P. Justin, 640 Superior St., Milwaukee; number of cows, 4; condition of stock, fairly clean; stables, fairly clean; feed, hay, middlings and cut fodder; well water. Going out of business. Inspected January 17, 1898.
- I. Krause, 414 20th Avenue, Milwaukee; 1 cow, condition of stock, not clean; stables, fair; feed, brewers' grains and middlings; well water. Ventilated. Inspected January 18, 1898.
- Michael Kujawa, 1007 Garden St., Milwaukee; number of cows, 5; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated. Inspected January 18, 1898.
- A. Ostrowesik, 887 Franklin St., Milwaukee; number of cows, 3; condition of stock, two clean, one not clean; stables, not clean; feed, brewers' grains, middlings and hay; well water. Ventilation poor. Inspected January 18, 1898.
- A. Ceilowski, 746 19th Ave., Milwaukee; number of cows, 3; condition of stock, not very clean; stables, fair; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilated by windows; going out of business in April. Inspected January 18, 1898.
- Loren Cyeska, 1104 8th Ave., Milwaukee; number of cows, 6; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilation poor. Inspected January 18, 1898.
- W. Mathews and Julius Mathews, corner Burleigh and 27th Sts., Milwaukee; number of cows, 24; condition of stock, not clean; condition of stables, fair; utensils, not present; feed, distillery slops, brewers' grains, hay and cut feed; well water. Ventilated. "Don't clean cattle; nobody does." "Don't water them." Inspected January 19, 1898.
- Gottlieb Goll, 774 21st St., Milwaukee; number of cows, 5; condition of stock, very dirty; stables, very dirty; utensils, not seen; feed, distillery slops,

- brewers' grains; city water. Ventilation poor. Nobody at home when I called. Inspected January 19, 1898.
- Jas. Keller, Hopkins Ave., outside city limits, Milwaukee; number of cows, 32; condition of stock, not clean; stables, clean, bedding; utensils, clean; feed, middlings, hay and cut fodder; well water. Ventilated by windows. "Don't clean cows." Inspected January 19, 1898.
- W. Rungee, 426 19th St., Milwaukee; number of cows, 2; condition of stock, clean; stables, clean; utensils, clean; feed, middlings and hay; city water. Ventilated. Inspected January 19, 1898.
- C. Engleman, 1332 Fond du Lac Ave., Milwaukee; number of cows, 3 (2 sold January 21); condition of stock, fairly clean; condition of stables, fair; feed, middlings and hay; city water. Ventilated. Inspected January 21, 1898.
- E. Tesch, 1141 24th St., Milwaukee; number of cows, 4; condition of stock, not clean, dirty; stables, not clean; feed, brewers' grains, middlings and hay; well water. Ventilation poor. Inspected January 21, 1898.
- C. Arndt, 1028 24½ St., Milwaukee; number of cows, 2; condition of stock, not clean (dirty); stables, not clean; feed, middlings and hay; well water. Ventilation poor. Inspected January 21, 1898.
- E. Muchleoder, 1151 21st St., Milwaukee; number of cows, 10; condition of stock, fairly clean; stables, fair; utensils, clean; feed, brewers' grains, hay and distillery slops; city water. Ventilated. Inspected January 22, 1898.
- Frank Sapanske, 1201 Well St., Milwaukee; number of cows, 3; condition of stock, not clean; stables, not clean; feed, distillery slops, middlings and hay; well water. Ventilation poor. Inspected January 22, 1898.
- John Lovinska, 1148 Bremen St., Milwaukee; number of cows, 3; condition of stock, fair; stables, fair; utensils, clean; feed, brewers' grains, middlings and hay; city and well water. Ventilated. Inspected January 22, 1898.
- Aug. Menski, 1211 Bremen St., Milwaukee; number of cows, 2; condition of stock, not clean; stables, not clean; feed, distillery slops, middlings and hay; well water. Ventilated. Inspected January 22, 1898.
- H. Krazoska, 1136 Bremen St., Milwaukee; number of cows, 8; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, middlings, hay and distillery slops; city water. Ventilated. Inspected January 22, 1898.
- G. Loopnow, 1014 North Pierce St., Milwaukee; number of cows, 3; condition of stock, fairly clean; stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay and distillery slops (small quantity); city water. Well ventilated. Inspected January 22, 1898.
- Thos. Lyons, 921 Sobeske St., Milwaukee; number of cows, 24; condition of stock, not clean; stables, not very clean; feed, brewers' grains, bran, middlings, cut corn stalks; city water. Whitewashed walls and ceilings; cleaner than first visit, with A. S. Mitchell, state chemist. Inspected (second visit) January 25, 1898.
- A. Helberstadt, 333 Pulaski St., Milwaukee; number of cows, 4; condition of stock, not as clean as should be; stables, fair; feed, brewery grains, middlings and hay; city water. Ventilated. With A. S. Mitchell, state chemist. Inspected (second visit) January 25, 1898.
- A. Sahr, 30th St., Milwaukee; number of cows, 11; condition of stock, dirty; stable, dirty; utensils, not seen; feed, distillery slops, middlings and hay; well water. Ventilation poor. Boy said, didn't give water only in slops and feed; 2 barrels each day and a half of slops. Inspected (second visit) February 2, 1898.
- Wm. Loose, 30th St., Milwaukee; number of cows, 7; condition of stock, dirty; stables, dirty; utensils, not seen; feed, distillery slops, hay, bran and corn; well water. Dirty place; ventilation poor; 2 barrels slops per week. Give water only in slops and feed. Inspected (second visit) February 2, 1898.
- Gottlieb Gall, 774 21st St., Milwaukee; number of cows, 5; condition of stock, dirty; 1 cow apparently not well; stables, dirty; feed, distillery slops, brewers' grains and hay; city water. Ventilation poor. Inspected (second visit) February 2, 1898.

- W. Mathews, corner Burleigh and 27th Sts., Milwaukee; number of cows, 22; condition of stock, not clean; stables, fair; feed, distillery slops, brewers' grains, hay and cut feed; well water. Ventilated. "Don't give water to cows," only that given in slops; two or three loads of slops per week; wagon holds seven barrels. Inspected (second visit) February 2, 1898.
- C. Bast, 1022 25th St., Milwaukee; number of cows, 9; condition of stock, dirty; stables, fairly clean; feed, distillery slops, brewers' grains and hay; well water. Two barrels distillery slops per week. Ventilated. Inspected (second visit) February 2, 1898.
- Aug. Treblow, 1220 27th St., Milwaukee; number of cows, 11; condition of stock, not clean; stables, not clean; feed, brewer's grains, middlings, barley sprouts and hay; well water. Ventilated. Better than first visit. Inspected (second visit) February 2, 1898.
- Frank Sopanski, 1201 Weil St., Milwaukee; number of cows, 3; condition of stock, clean; stables, clean; utensils, not seen; feed, distillery slops, middlings and hay; well water. Ventilation poor. Cows and stable cleaned up since inspected January 22, 1898. Inspected (second visit) March 11, 1898.
- Frank Wolschek, 1189 Weil St., Milwaukee; number of cows, 7; condition of stock, fairly clean; stables, not as clean as should be, floor wet, no bedding; utensils, not seen; feed, middlings, brewers' grains and distillery slops; well water. Ventilation poor. Much better appearance than when inspected January 8, 1898. Inspected (second visit) March 11, 1898.
- John Lenck, 1450 10th St., Milwaukee; number of cows, 16; condition of stock, clean, fine stock; stables, clean, bedding; utensils, 5 cans, clean; feed, brewers' grains, middlings, some oat meal; city and well water. Whitewashed walls; ventilation good. A neat dairy. Inspected (second visit) March 11, 1898.
- Aug. Holst, 299 Bellvue St., Milwaukee; number of cows, 6; condition of stock, fairly clean, bedding; stables, fairly clean; utensils, not seen, doesn't deliver milk by wagon; feed, brewers' grains, clover hay and middlings; river and well water. Great improvement in looks of cattle since inspected January 11, 1898. Inspected (second visit) March 11, 1898.
- Martin Koleski, 1150 Bremen St., Milwaukee; number of cows, 12; condition of stock, clean; stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings and hay; city water. Cows and stable in better shape than when inspected January 11, 1898; quite an improvement shown. Inspected (second visit) March 11, 1898.
- Th. Krazoska, 1136 Bremen St., Milwaukee; number of cows, 10; condition of stock, clean; stables, clean; utensils, not seen; feed, brewers' grains, middlings, distillery slops and hay; city water. Very much improved since inspected January 22, 1898. Inspected (second visit) March 11, 1898.
- Thos. Lyons, 921 Sobeski St., Milwaukee; number of cows, 22; condition of stock, not clean; stables, not very clean; utensils, not seen; feed, brewers' grains, bran, middlings and cut corn stalks; city and well water. Walls whitewashed, but need a new coat. Cobwebs on ceilings. Ventilated. Not greatly improved since former visits. Yard dirty. Inspected March 11, 1898.
- August Gudes, 148 Chambers St., corner Chambers St. and Island Ave., Milwaukee; number of cows, 9; condition of stock, very dirty; utensils, not seen; stables, forward part stalls clean, with some bedding, rear dirty; utensils, not seen; feed, brewers' grains, hay and middlings; well water. No improvement since inspected January 7, 1898. Cows to be tested by Dr. Clute; one cow could hardly stand. Inspected (second visit) March 11, 1898.
- C. Bast, 1022 25th St., Milwaukee; number of cows, 11; condition of stock, dirty, one cow lousy, 1 condemned by Dr. Clute; stables, dirty; utensils, not seen; feed, distillery slops, brewers' grains, hay and middlings; well water. Ventilation poor. Dr. Clute ordered cow quarantined by Board of Health. Conditions worse than on January 10, 1898, and February 2, 1898. Inspected (third visit) March 12, 1898.
- Julius Voltz, 700 Oakland Ave., Milwaukee; number of cows, 25; condition of stock, clean; stables, clean, old buildings; utensils, not seen; feed, middlings, barley chaff and brewers' grains; well and river water. Great improvement

since inspected January 17. Wall and ceilings lately whitewashed. Inspected (second visit) March 11, 1898.

- A. Dreyes, 710 8th Ave., Milwaukee; number of cows, 15; condition of stock, clean; stables, fair, bedding, shavings; utensils, clean; feed, brewers' grains, middlings and hay; city water. Whitewashed walls. Ventilated. Improved since visit of January 12, 1898. Inspected (second visit) March 12, 1898.
- Leon Cjeska, 1104 8th Ave., Milwaukee; number of cows, 6; condition of stock, not clean; stables, not clean; utensils, clean; feed, brewers' grains, middlings and hay; well water. Ventilation not good; sour smell in barn. Better condition than on January 18, 1898. Inspected (second visit) March 12, 1898.
- C. Raster, corner Oklahoma and Clement Aves., Milwaukee; number of cows, 6; condition of stock, fairly clean; stable, fairly clean; utensils, clean; good milkhouse; feed, brewers' grains, distillery slops, middlings and hay; well water. Main part of barn ventilated; shed with nine cows not ventilated. Better condition than since visit of January 14, 1898. Inspected (second visit) March 12, 1898.
- Wm. Matheus, corner Burling and 27th Sts., Milwaukee; number of cows, 24; condition of stock, not clean; stables, fair, no bedding, floors damp; utensils, not seen; feed, distillery slops, brewers' grains and cut feed; well water. Ventilation not sufficient; ceilings very low; barn an old one. Give no water. Inspected (third visit) March 12, 1898.
- Albert Erdman, 925 20th St., Milwaukee; number of cows, 4; condition of stock, fairly clean; utensils, not seen; feed, brewers' grains, hay middlings; city water. Ventilated. Since inspection of January 5, 1898, appearance of stock and stable improved. Inspected (second visit) March 24, 1898.
- Henry Goerke, 1180 20th St., Milwaukee; number of cows, 6; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, hay, brewers' grains; city water. Ventilated. No peddling by wagon. Improved since inspection January 5, 1898. Inspected (second visit) March 24, 1898.
- R. Goerke, 1154 18th St., Milwaukee; number of cows, 9; condition of stock, clean; condition of stables, fairly clean; bedding, shavings; utensils, clean; feed, corn meal, brewers' grains, corn stalks, hay; city water. Ventilation fair. Improved since January 5, 1898. Inspected (second visit) March 24, 1898.
- E. Muehlender, 1151 21st St., Milwaukee; number of cows, 10; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, hay, distillery slops; city water. General appearance much improved since January 21st, 1898. Inspected (second visit) March 24, 1898.
- August Jahnke, 895 20th St., Milwaukee; number of cows, 11; condition of stock, clean; condition of stables, clean; bedding, shavings; utensils, clean; feed, brewers' grains, barley sprouts, middlings, bran, hay; well water. Good ventilation. Inspected January 5, 1898. Inspected (second visit) March 24, 1898.
- August Pritzloff, 927 20th St., Milwaukee; number of cows, 5; condition of stock, 3 clean, 2 dirty; condition of stables, clean; bedding, shavings; utensils, clean; feed, brewers' grains, vinegar slops, middlings; well and city water. Fair ventilation. Since inspected on January 5, 1898, there has been a slight improvement. Inspected (second visit) March 24, 1898.
- Aug. Erdman, 944 20th St., Milwaukee; number of cows, 8; condition of stock, clean; condition of stables, clean, bedding; utensils, not seen; feed, hay, brewers' grains, corn, ground feed, distillery slops; city and well water. Ventilation good. Since inspected on January 5, 1898, the general appearance has been better. Inspected (second visit) March 24, 1898.
- H. Voss, 920 Richards St., Milwaukee; number of cows, 8; condition of stock, 7 clean, 1 lousy; condition of stables, clean; utensils, clean; feed, brewers' grains, hay, middlings, hay; city water. Ventilated. Is doctoring lousy cow. Has had her but 2 weeks. Appearance of stock and stable greatly improved since January 6, 1898. Inspected (second visit) March 26, 1898.
- John Bergman, 786 22d St., Milwaukee; number of cows, 6; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay, corn, distillery slops; well water. Ventilated. Better appear-

- ance generally than January 8, 1898. Inspected (second visit) March 26, 1898.
- Louis Radwan, 735 22d St., Milwaukee; number of cows, 6; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, distillery slops, hay; city water. Ventilated. Quite good January 8, 1898, but better now. Inspected (second visit) March 26, 1898.
- John Schmachel, 2522 Vliet St., Milwaukee; number of cows, 7; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, ground feed, hay, distillery slops; city water. Ventilation not good. Much improved since visit of January 6, 1898. Inspected (second visit) March 26, 1898.
- Mrs. F. Siefert, corner Forest Home and 13th Ave., Milwaukee; number of cows, 8; condition of stock, not clean; condition of stables, not clean, drainage poor, ordered to raise floor by Board of Health; utensils, clean; feed, brewers' grains, some distillery slops, middlings, hay; well water. Ventilated. Going out of business; "too much trouble with officers." Inspected (second visit) March 25, 1898.
- Herman Schwab, 1053 20th St., Milwaukee; number of cows, 5; condition of stock, cows very dirty; condition of stables, not clean, drainage poor, some bedding; utensils, not seen; feed, brewers' grains, hay, corn meal, cut feed; well water. Ventilation poor. Milk license should be taken from Schwab. Inspected March 25, 1898.
- E. Schmidt, 2713 Walnut St., Milwaukee; number of cows, 7; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, ground feed, brewers' grains, hay; well water. Ventilated. Improved since January 6, 1898. Inspected (second visit) March 26, 1898.
- Mrs. Seachert, 2530 Vliet St., Milwaukee; number of cows, 4; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, hay, brewers' grains; well water. Ventilation not good. Stock and stable improved since January 6, 1898. Inspected (second visit) March 26, 1898.
- John Mekaski, 822 Lincoln Ave., Milwaukee; number of cows, 11; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilated. Quite a clean dairy. Inspected January 13, 1898. Inspected (second visit) March 28, 1898.
- Jas. Tierback, 737 6th Ave., Milwaukee; number of cows, 9; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay; city water. Ventilated. Much improved since inspection of January 12, 1898. Inspected (second visit) March 28, 1898.
- John Pleske, 911 10th Ave., Milwaukee; number of cows, 8; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, corn meal, hay; well water. Ventilation good. Very clean and stock well taken care of. Inspected January 13, 1898. Inspected (second visit) March 28, 1898.
- C. Rebtske, 897 10th Ave., Milwaukee; number of cows, 8; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, distillery slops, hay; well water. Ventilated. Quite a neat dairy. Improved since visit on January 13, 1898. Inspected (second visit) March 28, 1898.
- Wm. Schroeder, 670 12th Ave., Milwaukee; number of cows, 9; condition of stock, clean; condition of stables, clean; utensils, 1 can clean; feed brewers' grains, middlings, hay; well water. Ventilation fair. Much improved since inspection on January 13, 1898. Inspected (second visit) March 28, 1898.
- Fred Arndt, 1513 Teutonia St., Milwaukee; number of cows, 9; condition of stock, fairly clean; condition of stables, quite clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Quite clean. Inspected (first visit) March 29, 1898.
- A. Shenper, 1185 24th St., Milwaukee; number of cows, 9; condition of stock, not clean; condition of stables, not clean; utensils, not seen; feed, brewers' grains, oats and barley, hay; well water. Fair ventilation. But slight improvement since January 8, 1898. Inspected (second visit) March 29, 1898.
- H. Werner, 1801 Keefe Ave. (extreme north), Milwaukee; number of cows, 8;

- condition of stock, not clean; condition of stables, not clean; utensils, not seen; feed, brewers' grains, distillery slops, middlings, hay; well water. Old barn, drainage poor. Inspected (first visit) March 29, 1898.
- II. Lucknow, 1239 Buffham St., Milwaukee; number of cows, 8; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, hay, corn; well water. Ventilated. Great improvement since January 10, 1898. Inspected (second visit) March 31, 1898.
- Adolph Siede, 45th and Lisbon road, Milwaukee; number of cows, 9; condition of stock, dirty; condition of stables, not clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Poorly ventilated. Inspected April 1, 1898.
- Vincent Snyder, North Avenue road, Milwaukee; number of cows, 3; condition of stock, clean, good; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Fair condition. Inspected April 1st, 1898.
- John Hopper, corner Elm and 44th Sts. (outside limits), Milwaukee; number of cows, 9; condition of stock, good and clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, middlings, hay; well water. Quite good. Inspected April 1st, 1898.
- Anton Gourski, 709 4th Ave., Milwaukee; number of cows, 3; condition of stock, clean; condition of stables, clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilation poor. Clean dairy. Inspected (first visit) April 1st, 1898.
- John Wiescha, 511 Maple St., Milwaukee; number of cows, 7; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Some improvement since January 13, 1898. Inspected (second visit) April 1st, 1898.
- John Yajaka, 673 Grove St., Milwaukee; number of cows, 13; condition of stock, clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Drainage not what it should be. Some better than when inspected on January 13, 1898. Inspected (second visit) April 1st, 1898.
- P. Hoyeck, 638 6th Ave., Milwaukee; number of cows, 5; condition of stock, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilated. Quite clean. Better than when inspected on January 15, 1898. Inspected (second visit) April 1st, 1898.
- Mrs. C. Schultz, 479 17th Ave., Milwaukee; number of cows, 5; condition of stock, not clean; condition of stables, not clean; utensils, not seen; feed, brewery grains, distillery slops, middlings, hay; well water. One cow apparently not well and so informed Mrs. Schultz, and requested that cow be examined by veterinary surgeon. Inspected (second visit) April 1st, 1898.
- Paul Engleman, 2401 Brown St., Milwaukee; number of cows, 7; condition of stock, clean; condition of stables, clean; utensils, not seen; feed, brewers' grain, hay, bran; well and city water. Ventilated. Better than when inspected on January 6, 1898. Inspected (second visit) April 2, 1898.
- II. Blank, 1915 Brown St., Milwaukee; number of cows, 7; condition of stock, clean; condition of stables, clean; utensils, not seen; feed, brewers' grains, ground feed, middlings, hay; city water. Ventilated. Inspected January 6, 1898. Inspected (second visit) April 2, 1898.
- J. Richard, 2220 Lloyd St., Milwaukee; number of cows, 5; condition of stock, clean; condition of stables, clean; utensils, not seen; feed, brewers' grains, hay, middlings; city water. Ventilated. Much better than when inspected on January 7, 1898. Inspected (second visit) April 2, 1898.
- J. Siecakwitz, 18 Auer Ave., Milwaukee; number of cows, 8; condition of stock, fairly clean; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilation poor. Inspected (first visit) April 4, 1898.
- Adolph Foas, 1334 Humbolt Ave., Milwaukee; number of cows, 10; condition of stock, clean; condition of stables, clean, bedding; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilated. Improved since January 6, 1898. Inspected (second visit) April 4, 1898.

- Martin Foas, 1439 Humbolt Ave., Milwaukee; number of cows, 6; condition of stock, clean; condition of stables, clean, bedding; utensils, not seen; feed, hay, middlings, ground feed; pond (large) water. Ventilation poor. Improved since January 6, 1898. Inspected (second visit) April 4, 1898.
- P. Kemmling, Fond du Lac road, Milwaukee; number of cows, 13; condition of stock, good, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay, corn stalks; well water. Ventilated. Inspected April 7, 1898.
- Fred Leechfoos, Fond du Lac road (36th St.), Milwaukee; number of cows, 2; condition of stock, dirty; condition of stables, not clean; utensils, not seen; feed, brewers' grains, corn stalks, middlings, hay; well water. Ventilated. Inspected April 7th, 1898.
- Gustave Kahn, Fond du Lac road (37th St.), Milwaukee; number of cows, 3; condition of stock, good, clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, corn stalks, middlings, hay; well water. Good ventilation. Inspected (second visit) April 7, 1898.
- A. Kurth, Fond du Lac road (north toll gate), Milwaukee; number of cows, 25; condition of stock, good, fairly clean; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilation good. Inspected April 7, 1898.
- A. J. Painter, Fond du Lac road, Milwaukee; number of cows, 32; condition of stock, good, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, corn feed, clover hay; well water. A good, clean dairy. Inspected (second visit) April 7th, 1898.
- Fred Mepo, Sercomb road, Milwaukee; number of cows, 7; condition of stock, all good but 1 (that one lousy), others clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, hay, middlings; well water. Ventilated. Inspected April 7, 1898.
- Frank Trenz, Sercomb road, Milwaukee; number of cows, 26; condition of stock, good, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilation good. Inspected April 7, 1898.
- Louis Trenz, Sercomb road, Milwaukee; number of cows, 22; condition of stock, good, clean; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay; well water. Ventilated. Inspected April 7, 1898.
- L. Dittman, Sercomb road, Milwaukee; number of cows, 11; condition of stock, good, clean; condition of stables, clean; utensils, clean; feed, brewers' grains, middlings, hay, corn stalks; well water. Ventilated. Inspected April 7, 1898.
- Thos. Lyons, 921 Sobeeski St., Milwaukee; number of cows, 21; condition of stock, not clean; condition of stables, not clean, no bedding; utensils, not seen; feed, brewers' grains, bran, middlings, cut corn stalks; city and well water. No improvement since March 11, 1898. Inspected (fourth visit) April 8, 1898.
- Thos. Krzoska, 1136 Bremen St., Milwaukee; number of cows, 10; condition of stock, quite clean; condition of stables, cleaner than March 11, 1898; utensils, not seen; feed, brewers' grains, middlings, hay, distillery slops; city water. Quite an improvement since January 22, 1898. Inspected (third visit) April 8, 1898.
- Martin Kaleski, 1150 Bremen St., Milwaukee; number of cows, 12; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; city water. Better than January 11, 1898. Inspected (third visit) April 8, 1898.
- Frank Wolschek, 1189 Well St., Milwaukee; number of cows, 7; condition of stock, quite clean; condition of stables, fairly clean, no bedding; utensils, not seen; feed, brewers' grains, middlings, distillery slops; well water. Ventilation poor. Great improvement since January 8, 1898. Inspected (third visit) April 8, 1898.
- John Leuck, 1450 10th St., Milwaukee; number of cows, 16; condition of stock, clean, fine stock; condition of stables, clean, bedding; utensils, 5 cans, clean; feed, brewers' grains, middlings, some oat meal; city and well water. White-washed walls. The cleanest dairy in the city of Milwaukee. Inspected (third visit) April 8, 1898.

- W. Mathews, corner Burleigh and 29th Sts., Milwaukee; number of cows, 22; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, distillery slops, cut feed, middlings, hay; well water. Ventilation good, floors dry. Much improved since inspection. Inspected (fourth visit) April 11, 1898.
- L. Uecker, Kilbourn road, Town of Lake, Milwaukee; number of cows, 20, condition of stock, fairly clean; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings, hay, cut corn stalks, distillery slops; well water. Ventilation good. Inspected April 11, 1898.
- A. Doeblow, 1220 Washington Ave., Milwaukee; number of cows, 12; condition of stock, fairly clean, 1 cow with lumpy jaw; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Notified Board of Health to quarantine one cow with bad case of lumpy jaw. Not using milk from this cow. Inspected (third visit) April 11, 1898.
- Wm. Slactley, Kilbourn road, Town of Lake, Milwaukee; number of cows, 11; condition of stock, good, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay, corn stalks; well water. Quite fair stable. Inspected April 11, 1898.
- Gus. Mathews, Kilbourn road, Town of Lake, Milwaukee; number of cows, 17; condition of stock, fairly good and clean; condition of stables, clean; utensils, clean; feed, brewers' grains, distillery slops, hay, middlings; well water. Ventilation good. Inspected April 11, 1898.
- Joseph L. Thiede, Kilbourn road, Town of Lake, Milwaukee; number of cows, 19; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, hay, middlings, corn stalks; well water. Fairly good ventilation. Inspected April 11, 1898.
- Henry Lodde, Kilbourn road, Town of Lake, Milwaukee; number of cows, 24; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. First refused admission to stable, but gave way on threatened arrest. Inspected April 11, 1898.
- C. Schultz, 479 17th Ave., Milwaukee; number of cows, 5; condition of stock, 1 sick; condition of stables, clean, recently whitewashed; utensils, not seen. Dr. Leech to test this herd for tuberculosis on Monday, April 18, 1898. Inspected (with Dr. Leech) April 14, 1898.
- A. Doeblow, 1220 Washington Ave., Milwaukee; number of cows, 12; condition of stock, 1 with lumpy jaw; condition of stables, fair; utensils, not seen. Dr. Clute to order the cow with lumpy jaw disposed of. Killed April 16, 1898. Inspected (with Dr. Clute) April 14, 1898.
- C. Raster, cor. Oklahoma and Clement Aves., Milwaukee; number of cows, 64; condition of stock, fair; condition of stables, fair, bedding; utensils, clean; feed, distillery slops, brewers' grains, hay and middlings; well water. Better than last visit with Dr. Clute. Inspected (fourth visit) April 15, 1898.
- Fred. Zweifel, Hopkins road, Milwaukee; number of cows, 31; condition of stock, good; condition of stables, very fair, bedding; utensils, clean; feed, brewers' grains, hay, middlings, corn stalks cut; well water. Much better than January 19, 1898. Formerly owned by J. Keller. Inspected (second visit) April 20, 1898.
- Jacob Kords, Kilbourn road, Town of Lake, Milwaukee; number of cows, 40; condition of cows, clean, except 2; condition of stables, very good, bedding; utensils, clean; feed, distillery slops, hay, middlings; well water. Plenty of ventilation. Inspected April 21, 1898.
- John C. Miller, Town of Lake, 8th Ave., Milwaukee; number of cows, 8; condition of stock, not clean; condition of stables, not clean; utensils, not seen; feed, distillery slops, middlings, hay; well water. Will soon go to pasture. Inspected April 21, 1898.
- Adolph Gruether, Town of Lake, 8th Ave. (new road), Milwaukee; number of cows, 50; condition of stock, good; condition of stables, very good, fine barn; utensils, clean; feed, brewers' grains, middlings, hay, cut feed; well water. Good dairy. Inspected April 21, 1898.

- Henry Schroucke, Town of Lake, 8th Ave., Milwaukee; number of cows, 3; condition of stock, not clean; condition of stables, fairly clean, bedding; utensils, not seen; feed, distillery slops, middlings, corn stalks, hay; well water. Inspected April 21, 1898.
- H. Grunewald, Kilbourn road, Town of Lake, Milwaukee; number of cows, 15; condition of stock, fairly clean; condition of stables, fairly clean; utensils, not seen; feed, brewers' grains, middlings, hay; well water. Ventilation good. Inspected April 21, 1898.
- Spleuter Bros., Hawley road, Wauwatosa; number of cows, 29; condition of stock, good, clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, middlings, hay; well water. Good ventilation. Inspected April 29, 1898.
- Christian Pries, Koot Creek, Hawley road, Greenfield; number of cows, 18; condition of stock, very good, clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, hay, middlings, cut feed; well water. Clean dairy. Inspected April 29, 1898.
- Wm. Stellock, Root Creek, Hawley road, Greenfield; number of cows, 27; condition of stock, very good, clean; condition of stables, clean, bedding; feed, brewers' grains, hay, middlings, cut feed; well water. Clean dairy. Inspected April 29, 1898.
- Adam Nottle, Root Creek, Hawley road, Greenfield; number of cows, 28; condition of stock, very good, clean; condition of stables, clean, bedding; utensils, clean; feed, brewers' grains, middlings, hay, cut feed; well water. Excellent dairy. Inspected April 29, 1898.
- C. L. Dana, North Greenfield; number of cows, 30; condition of stock, good; condition of stables, good. Samples of milk taken by A. S. Mitchell and self at Camp Harvey. Freezine found in milk-house, also in samples of milk. Arrested C. L. Dana, May 16, 1898. Pleaded guilty before Justice McClintock, Wauwatosa, May 17, 1898. Fined \$25.00 and costs, \$4.25. Inspected May 10th, 1898.
- H. Meyer, Highland, near county line, Racine Co.; number of cows, 15; condition of stock, 1 cow sick with tuberculosis; condition of stables, clean; feed, pasture. Registered cow No. 33, Patton. Notified Dr. Clute, state veterinary surgeon. Cow died July 20, 1898. Inspected July 17, 1898.
- Boyd & West, Waukesha, Wis.; number of cows, 18; condition of stock, not examined; utensils, clean; feed, cows in pasture; well water. Found prevaline in box in milk-house. Complaint sworn out October 14, 1898. Inspected September 26, 1898.
- Jos. Liss, 1149 Bremen St., Milwaukee; number of cows, 7; condition of stock, 4 clean, 3 dirty; condition of stables, not clean; utensils, not seen; feed, distillery slops, brewers' grains and middlings; city water. Inspected March 9, 1899.
- Morris Knaak, 79 Keefe Ave., Milwaukee; number of cows, 7; condition of stock, fairly clean; condition of stables, not very clean; utensils, clean; feed, distillery slops, hay and middlings; well water. Small stable. Inspected March 9, 1899.
- I. Braunkski, 1215 Well St., Milwaukee; number of cows, 4; condition of stock, unclean; condition of stables, unclean; utensils, not seen; feed, distillery slops, middlings and hay; city water. Photograph taken. Inspected March 8, 1899.
- F. Wolschack, 1189 Weil St., Milwaukee; number of cows, 8; condition of stock, unclean; condition of stables, unclean; utensils, not seen; feed, distillery slops, middlings and hay; city water. Photograph taken, 2:30 p. m. Inspected March 8, 1899.
- I. Scerakowicz, 965 Weil St., Milwaukee; number of cows, 5; condition of stock, dirty; condition of stables, dirty; utensils, not seen; feed, distillery slops, middlings and brewers' grains; city water. Unclean place; photograph taken, 3:20 p. m. Inspected March 8, 1898.
- Frank Gulske, 899 Falney St., Milwaukee; number of cows, 4; condition of stock, very dirty; condition of stables, very dirty; utensils, not seen; feed, distillery slops and middlings; city water. A dirty dairy. Inspected March 8, 1898.

- John Zdrojewski, 936 Bremen St., Milwaukee; number of cows, 5; condition of stock, filthy; condition of stables, very unclean; utensils, not seen; feed, distillery slops, middlings and hay; city water. Dirty place. Inspected March 8, 1899.
- F. Slopanski, 1201 Weil St., Milwaukee; number of cows, 4; condition of stock, unclean; condition of stables, unclean; utensils, not seen; feed, distillery slops and middlings; city water. Photograph taken, 3 p. m. Inspected March 8, 1899.
- L. Klamann, 916 Dousman St., Milwaukee; number of cows, 5; condition of stock, dirty; condition of stables, dirty; feed, distillery slops, middlings and hay; city water. Inspected March 8, 1899.
- Aug. Juedes, 154 Chambers St., Milwaukee; number of cows, 10; condition of stock, in fair condition, all clean but 2; condition of stables, quite clean; utensils, not seen; feed, brewers' grains, hay and middlings; city water. Ventilated. Inspected March 9, 1899.
- Stanislaus Zaworski, 1315 Booth St., Milwaukee; number of cows, 3; condition of stock, 2 dirty, 1 clean; condition of stables, not clean; utensils, not seen; feed, distillery slops, brewers' grains and hay; water, well in cellar, has been condemned. Inspected March 9, 1899.
- Martin Kaleski, 1150 Bremen St., Milwaukee; number of cows, 12; condition of stock, fairly clean; condition of stables, not very clean; utensils, not seen; feed, brewers' grains, distillery slops, middlings and hay; city water. Ventilated. Inspected March 8, 1899.
- John Lavinski, 1148 Bremen St., Milwaukee; number of cows, 13; condition of stock, fairly clean; condition of stables, fair; utensils, clean; feed, brewers' grains, distillery slops, middlings and hay; city and well water. Ventilated. Inspected March 8, 1899.
- Herman Voss, 920 Richards St., Milwaukee; number of cows, 10; condition of stock, fairly clean, all but 3; condition of stables, fairly clean; utensils, clean; feed, brewers' grains, middlings and hay; city water. Inspected March 8, 1899.
- Chas. Dohmer, Oakland Ave., Milwaukee; number of cows, 4; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, cut fodder and hay; well water. Inspected February 28, 1899.
- Mrs. Dohmen, Oakland Ave., Milwaukee; number of cows, 4; condition of stock, clean; condition of stables, clean; utensils, clean; feed, middlings, cut fodder and hay; well water. Inspected February 28, 1899.
- N. Schmit & Co., nursing milk dairy, Oakland Ave., Milwaukee; number of cows, 8; condition of stock, very good; condition of stables, clean; feed, middlings, corn, cut fodder. Twenty-five cows belonging to this herd taken on February 20th to Granville, Wis. The 8 left will be sold to butchers. Inspected February 28, 1899.
- C. Best, 1022 25th St., Milwaukee; number of cows, 8; condition of stock, very fair; condition of stables, clean, bedding; utensils, clean; feed, distillery slops, brewers' grains, middlings and hay; city water. Much better than on March 12, 1898. Inspected February 27, 1899.
- A. Shenper, 1185 24th St., Milwaukee; number of cows, 9; condition of stock, very dirty, manure on hips and belly; condition of stables, dirty; utensils, not seen; feed, brewers' grains, middlings and hay; city water. Sickness prevented proper care; so informed by proprietor. No improvement since March 29, 1898. Drainage poor. Inspected February 27, 1899.

LIST OF CREAMERIES AND CHEESE FACTORIES IN
WISCONSIN, 1898.

Creameries.....	951
Cheese Factories	1,571
Total number of creameries and factories....	2,522

CHEESE FACTORIES.

Post-Office.

ADAMS COUNTY—

Davis Corners Cheese and Butter Co.....	Little Rock
Friendship Cheese Factory.....	Friendship
G. W. Fletcher.....	Grand Marsh
L. E. Cristenson	Big Flats
C. J. Foot	Oxford
J. J. Zwicky	Point Bluff
N. H. Westman	Spring Creek

BARRON COUNTY—

Gratton Dairy Co.....	Gratton
Pecose Bros. Cheese Factory.....	Dallas

BROWN COUNTY—

H. F. Meyer	Greenleaf
John Conrad	Poland
D. Benecke	Fontenoy
F. Wittig	Fontenoy
A. C. Arndt	Fontenoy
New Denmark Farmers' Co-op. Ass'n.....	Fontenoy
P. Lyons	Fontenoy
East Wrightstown Cheese Factory.....	East Wrightstown
Anton Naughtaway	Glenmore
William Folk	Glenmore
Tel. Charlier	Schiller
Henry Naughtaway & Co.....	Pine Grove
Ph. Falch	Shirley
F. H. Lange	Pine Grove
H. Buchaus	Askeaton
F. C. Saenger	Lark
H. S. Beyer	Denmark
Theo. Vanroy	Lodgeville
A. T. Saenger	Lodgeville
Dan. Falck	Morrison
Excelsior Cheese Factory	Morrison
Maurice Brennan	Morrison
Louis Falck	Morrison
Borchardt Bros.	Wayside
Chas. F. Mason	Suamico

BROWN COUNTY—Continued.

Wisconsin Butter & Cheese Co.....	Wrightstown
Frank Huyters	Wrightstown
Victor Soetch	New Franken
Silver Van Drew	New Franken
Botis Orlas	New Franken
Mike Brunner	New Franken
Lewis Goodchild	Mills Center
J. H. Osterloh.....	Henrysville
John Conrad	Henrysville
Albert Uecker	Kunesh
J. R. Meyers	Forks
Geo. Drexler	Holland
Jacob Reistacker	Midway

BUFFALO COUNTY—

Mondovi Creamery and Cheese Co.....	Mondovi
Seyforth Bros.	Mondovi
Cochrane Cheese Co.	Cochrane
Brinkham & Tasson Cheese Co.....	Cochrane
Rohrer Bros.	Cochrane
Mill Creek Cheese Factory.....	Alma
Belvidere Cheese Factory	Alma
John Eberle Cheese Factory	Alma
Pine Creek Cheese Factory	Alma
Tell Creek Cheese Factory	Alma
August J. Herold Cheese Factory.....	Herold
Eberle & Moser Cheese Factory.....	Gilmanton
Farmers' Cheese Factory	Gilmanton
A. R. Pierce Cheese Factory	Gilmanton
Rudolph Pfund Cheese Factory	Gilmanton
Herman Schultz Cheese Factory	Gilmanton
Henry Deerkopf Cheese Factory	Gilmanton
John Jost Cheese Factory	Gilmanton
Levi Deets Cheese Factory	Gilmanton
Trout Creek Cheese Factory	Tell
Lookout Cheese Factory	Lookout

CALUMET COUNTY—

Peter Schumacker & Co.....	Jericho
John Aetor	Jericho
Nic. Orth	Darboy
John Snyder	Brant
Heckert & Albert	Chilton
John R. McCabe	Chilton
J. & D. Ryan	Chilton
H. A. Albes	Chilton
E. C. Pingel	Chilton
Jake Kalb	Chilton
John Piper	Chilton
John P. Weins	Chilton
T. J. Harder	Chilton
John Minard	Chilton
Chas. Birk	Chilton
Pat McCole	Brant
Maedke & Junker	Brillion
J. B. Junker	Brillion
Wm. Lintner	Brillion
Chas. Feustenberg	Brillion
Jos. Wolfmeyer	Brillion
Kasson Creamery	Brillion
Dundas Butter & Cheese Factory.....	Dundas
Mrs. Theo. Runte	Hibbert

CALUMET COUNTY—Continued.

L. P. Schumacker	Hibbert
J. A. Hernke	Hibbert
August Brandes	Hibbert
Phillip Reis	Hibbert
John A. Horst	Hayton
Wm. Lintner	Forest Junction
John Wolfmeyer	Forest Junction
Fred. Lindow	Forest Junction
Henry Schley	Forest Junction
Otto Freud	Gravesville
J. P. Wems	Chilton
F. W. Riedel	Potter
Herman Voight	Potter
Wm. Becker	Potter
F. W. Biedel	Potter
Peter Meyer	New Holstein
Wendel Burg	New Holstein
Math. Kraemer	Charlesburg
Reis & Maddler	St. John
J. J. Holzschut	Sherwood
Carl Medenwold	Brillion
John Amken	Brillion
Phillip Meyer	Brillion
Henry Achter	Brothertown
Phillip Kies	Lake Park
Joe. Bodine	Lake Park
Christ. Hargard	Lake Park
John Heiner	Stockbridge
Fred. Bauer	St. John
John W. Bruker	St. John
John Holshue	St. John

CHIPPewa COUNTY—

S. E. Cass	Anson
A. Butscher	Boyd
F. L. Monroe	Cadott
Snyder Bros.	Cook's Valley
H. G. St. Louis	Cook's Valley
John Bates	Eagle Point
Albertville Butter and Cheese Co.	Albertville
Kelley & Cass	Liddell
Snyder Bros.	Bloomer
H. D. Cummings	Bloomer
Fagen Bros.	Stanley

CLARK COUNTY—

Ira Somerfeld	Colby
Steinwand Cheese Co.	Colby
L. A. Hirsh	Lynn
Otto Decker	Hemlock
Henry Jacobi	Abbotsford
S. R. Davis	Granton
Farmers' Cheese Co.	Dorchester
Distelhorst & Co.	Dorchester
Dorchester Cheese Co.	Dorchester
Sherman Dairy Co.	Veefkind
Delamater & Palms	Greenwood
Herman Laabs	Green Grove
S. D. Gibson	Wilcox
Holzhauser Cheese Factory	Reseburg
H. F. Thiel	Snow
Joseph Frame	Unity

COLUMBIA COUNTY—

Chivers & Kuse.....	Columbus
G. W. Scott.....	Columbus
E. E. Brigham.....	Columbus
Lodi Creamery Co.....	Lodi
Simons & Hutson.....	Lodi
M. W. Spear.....	Wyocena
Wyocena Cheese Factory.....	Wyocena
A. J. Baker.....	Thurman
L. H. Dates.....	Thurman
H. R. Moldenhauer & Bro.....	Cambria
F. Grossman.....	Lewiston
Port Hope Butter and Cheese Association.....	Port Hope
John Woolsey.....	Lewiston
Fred. Manthy.....	Pacific
R. J. Russell.....	Portage City
Gust. Schurber.....	Randolph Center

CRAWFORD COUNTY—

Coldsprings Cheese Co.....	Millett
B. Opprecht.....	Seneca
Kingsbury & Patterson.....	Prairie du Chien
Gay's Mills Creamery Co.....	Gay's Mills

DANE COUNTY—

Myrland & Co.....	Primrose
G. S. Enger & Co.....	Primrose
C. England & Co.....	Primrose
Holland & Co.....	Primrose
Wallen & Co.....	Primrose
Standard Cheese Co.....	Primrose
Lyle Cheese Factory.....	Lyle
Thomas Kundred.....	Lyle
Connor Co.....	Lyle
Basco Cheese Factory Association.....	Basco
Montrose Cheese Factory Association.....	Montrose
Primrose Cheese Factory Association.....	Montrose
Sand Hill Cheese Factory.....	Forward
Engen Cheese Factory.....	Forward
Perry Center Cheese Factory.....	Forward
Pleasant Valley Cheese Factory.....	Forward
Perry Southern Cheese Factory.....	Elders
Kelliher Cheese Factory.....	Elders
M. Michelson Cheese Factory.....	Elders
P. Lynch Cheese Factory.....	Elders
Stucky Bros.....	Elders
Sunnyside Cheese Factory.....	Perry
Perry Cheese Factory.....	Perry
North Perry Cheese Factory.....	Perry
Indian Hill Cheese Factory.....	Perry
Spring Valley Cheese Factory.....	Spring
Allengrove Cheese Factory.....	Grit
Central Cheese Factory.....	Paoli
Old Mount Horeb Cheese Factory.....	Mount Horeb
Swanson Cheese Factory.....	Mount Horeb
Bangs.....	Mount Horeb
German Valley.....	Mount Horeb
Erbey.....	Mount Horeb
Diamond Cheese Factory.....	Black Earth
Vernon Cheese Factory.....	Black Earth
Schied Cheese Factory.....	Blue Mounds
Barber Cheese Co.....	Blue Mounds
South Blue Mounds.....	Blue Mounds
C. Zwicky.....	Belleville

DANE COUNTY—Continued.

J. Voegley	Belleville
H. Klassie	Belleville
E. Schaller	Verona
Town Hall Factory	Mount Vernon
Fasher Factory	Mount Vernon
Connor Factory	Mount Vernon
Beaver Creek Cheese Co.....	Arnsburg
Basco Cheese Co.....	Basco

DODGE COUNTY—

Town Line Dairy Association.....	Lowell
Indian Garden Cheese Factory.....	Richwood
Shields Butter and Cheese Co.....	Richwood
Home Cheese Factory.....	Richwood
Baeler Bros.	Randolph
Orth Bros.	Rolling Prairie
Second Ward Cheese Factory.....	Mayville
Maple Grove Cheese Factory.....	Mayville
Rock River Cheese Factory	Mayville
Northwestern Cheese Factory.....	Mayville
Koepsel Cheese Factory.....	Mayville
Fred. Baertschy Cheese Factory.....	Mayville
Portland Cheese and Butter Association.....	Reeseville
Leader Cheese and Butter Association.....	Reeseville
F. Sette (3).....	Iron Ridge
H. Billgran (4).....	Iron Ridge
Chas Henplein.....	Iron Ridge
Imobersteg Bros.....	Knowles
Boehmer & Meyer Cheese and Creamery.....	Lomira
Jonely Bros. Cheese and Creamery.....	Lomira
Swartz & Hoffman Cheese and Creamery.....	Lomira
Jonely Bros. Cheese and Creamery	Brownsville
J. N. Wigginton.....	Fox Lake
Martin Huebelien	Fox Lake
Amel Dermel	Fox Lake
Herman Lefeld.....	Theresa
Michael Murphy	Neosha
Lime Ledge Cheese Factory.....	Neosha
Mike Fitzgerald (4).....	Neosha
John Peters Cheese Factory.....	Neosha
John Ivey Cheese Factory	Hullsburg
F. O. Schujahn Cheese Factory.....	Hullsburg
Thomas Carmody Cheese Factory.....	Alderley
Amiel Kunzi Cheese Factory.....	Alderley
Amiel Winkelman Cheese Factory.....	Alderley
Ashippun Cheese Co.....	Ashippun
North Star Cheese Co.....	Ashippun
Cherry Hill Cheese Co.....	Ashippun
Sugar Island Cheese Association.....	Ashippun
Lime Ledge Cheese Association.....	Ashippun
J. T. Peters.....	Woodland
Chrls. Gassner	Woodland
Peter Peters	Woodland
Dukeschlen Cheese Factory.....	Juneau
Shaw Creek Cheese Factory.....	Beaver Dam
Chrls. Kohll.....	Kekoskee
Thomas Cheese Factory.....	Beaver Dam
Emil Roll	Kekoskee
Rock Cheese Factory.....	Herman
Chas. Christian	Herman
Herman Koepsel, Jr.....	Herman
Jos. Aufdermann	Herman

DODGE COUNTY—Continued.

Christian Indermuehl	Oak Grove
Westside Factory	Oak Grove
Oak Grove Village Factory.....	Oak Grove
Union Cheese Factory Co.....	Hustisford
Ryder Cheese Co.....	Hustisford
F. Thirlke & Co.....	Hustisford
White Oak Cheese Factory Co.....	Hustisford
August Koehler & Co.....	Hustisford
Gust. Garcke & Co.....	Hustisford
John Jossi	Hustisford
C. T. Nehls.....	Hustisford
Gottlieb Klossner	Hustisford
Max Radloff	Hustisford
J. F. Leitzke & Co.....	Hustisford
Wege & Co.....	Hustisford
J. E. Dorfeld.....	Hustisford
Ernest Brammer	Hustisford
Newton Cheese Factory	Hustisford
Rubicon River Factory.....	Hustisford
Walsh & Laffy (2).....	Clyman
P. Callaghan.....	Clyman
Clyman Center	Clyman
Orth Bros.	Juneau
S. Schneider	Juneau
Martin Volmar	Juneau
Union Cheese Factory.....	Juneau
Essmann Cheese Factory.....	Juneau
Essmann Cheese Factory.....	Juneau
Dukeschein Cheese Factory	Juneau
Prairie View Cheese Factory.....	Beaver Dam
Calamas Cheese Factory.....	Beaver Dam
Westford Cheese Factory	Beaver Dam
Lake Shore Inc. Cheese Factory.....	Beaver Dam
Rock River	Horicon
Gottlieb Gassner	Horicon
White Oak	Horicon
Brown's Corners	Horicon
Burnet German Swiss Cheese Factory.....	Horicon
Jacob Baehler	Minnesota Junction
H. R. Holdenbauer (5).....	Lebanon
E. Briesemeter	Lebanon
Jacob Jossi	Lebanon
Indermuehle Bros. (2).....	Le Roy
Charles Miller	Le Roy
Chris. Kohli, Sr.....	Le Roy
North Elba Cheese Factory.....	Danville
Northwest Cheese Factory	Danville
Chas. Reichow Factory	Rubicon

DOOR COUNTY—

R. F. Buchols	Forestville
August Busse.....	Forestville
Wm. Stoneman Bros. Co.....	Forestville
H. J. Teske.....	Carnot
Erskine & Lemine	Jacksonport
Weiterman & Vokes.....	Voseville
A. Weltse	Sister Bay
Wenzel Bunda.....	Sister Bay
A. Anderson	Ephraim
Torgor Torgerson	Bailey's Harbor
Albert Icke	Ellison Bay
Mathew Nygard	Vignes

DOOR COUNTY—Continued.

Chas. Jenquinne	Little Sturgeon
Jos. Neusse	Sturgeon Bay
Emil Limpert	Sturgeon Bay
F. A. Krueger	Sawyer
Alec. Pierre	Namur
Evrard Bros.	Namur
G. Guth & Son	Kolberg
Ernst Haegele	Kolberg
Herman Schussell	Kolberg
Pierre Verlee Co.	Brussels
John Henquinet	Gardner
Madoche & McDermott	Solona
John Shugton	Stokes
William Stoneman	Stokes
Herman Nimus	Stokes
William Goetz	Stokes
Wm. Kraeger	Stokes
John Barrman	Maplewood
Wm. M. Goetz	Maplewood
Herman Ninice	Tornado
Conrad Guth	Stevenson's Pier
Chas. Bassford	Sevastopol
L. M. Washburn	Sevastopol
John W. Worachek	Egg Harbor
Chas. Jess & Co.	Washington Harbor
B. J. Anderson	Detroit Harbor

DUNN COUNTY—

Downing Manufacturing Co. Cheese Factory	Downing
Rusk Co-op. Creamery Co.	Rusk
L. E. Schuare	Red Cedar

EAU CLAIRE COUNTY—

Garfield Cheese Factory	Augusta
Seidel Bros.	Augusta
Star Butter and Cheese Factory	Augusta
Beaver Creek Co.	Amesburg
Thomas Johnston	Boaz
F. J. Bender	Boaz
C. B. Cornwall	Boaz
C. W. Davis	Ithaca
Henry Schaup	Neptune
Maple Grove Factory	Viola
C. L. Stausburgh	Loyal
Hull Bros.	Viola
G. E. Miles	Twin Bluffs
Waddell & Flamme	Twin Bluffs
James Walden	Yuba or Hub City
C. B. Cornwall	Yuba
Westford Cheese Factory	Cazenovia
G. E. Miller	Sextonville
J. P. Fulmer	Byrd's Creek
Buck Horn Cheese Factory	Balmoral
Eagle Cheese Factory	Balmoral
Fred. Bender	Basswood
H. J. Noyes	Basswood
John Donner	Basswood
Charles Berritt	Tavera
Union Factory	Keyesville
Arnold Yenenbeck	Bear Valley
Frank Wertzell	Bear Valley
Frank Hessler	Eagle Corners
C. L. Jones	Eagle Corners

FOND DU LAC COUNTY—

Central Creamery Co.....	Farmer
Beaver Creek Cheese Factory.....	Armstrong
L. E. McFarlen	Armstrong
Mr. Rice	Armstrong
John Morgan	Armstrong
Bentley Van Blarcon.....	New Prospect
James Gilboy	Dundee
R. J. Romain	Dundee
Zwicky & Schmidt	Vandyne
Albert Schmidt	Vandyne
C. Pfeiffer & Son.....	Vandyne
C. Schiller	Vandyne
Aug. Hebener	New Fane
John Aupperle	New Fane
Behle Bros.	Calvary
Perrin Bros.	Mount Calvary
Mathias Wagner	Mount Calvary
Joseph Wagner	Mount Calvary
C. Heustegen	Mount Calvary
T. J. Kelley	Eden
Geo. Gorjde	Eden
N. P. Kellogg.....	Eden
P. O'Brien	Eden
H. F. Sacket.....	Waucoaster
C. Pieper & Sons.....	Waucoaster
Dennis Daley	Waucoaster
Behle Bros.....	Summit Station
J. W. Dillon.....	Dotyville
M. M. Dillon.....	Dotyville
Baldorf Carty Leonard and heirs.....	Dotyville
Woolfgram (W. W.).....	Dotyville
John Bast	Dotyville
E. A. Galloway	Dotyville
Simon Steffes	Wolf Lake
George Hinn	Banner
C. F. G. Wernicke	Banner
Bohlman	Banner
A. Leonard, Jr.....	Banner
Frank McKinney	Kirkwood
Leith Brothers	Kirkwood
Theodore Fick	New Cassel
John Krebsch	Johnsburg
Lewis Loehr	Johnsburg
Peter Weinkliss	Johnsburg
Chas. Fleishmann	Elmore
John Welchlie	Elmore
Orth Bros.	Elmore
H. Pfenenger	Rosendale
Henry Sacket	Campbellsport
Peter Ammon	Brandon
Peter Stephany	Peebles
T. H. Koepka	Peebles
Peter Weinreis	Peebles
F. Goessling.....	St. Cloud
S. Steffes.....	St. Cloud
Henry Blonien.....	St. Cloud
John Kohlman.....	St. Cloud
C. M. Knowels.....	St. Cloud
Perrien Bros.	Marytown
Michael Pikart	Malone
Matt Moersch	Calumet Harbor
M. J. Michaels	Calumet Harbor

FOND DU LAC COUNTY—Continued.

Farmers' Co.	Ladoga
Ennlsson Bros.	Rogersville
Mrs. Brayton	Fond du Lac
Amel Warnkee	Fond du Lac
M. Michels Butter and Cheese Co.	Calumetville
Gulig Bros.	Calvary
Ennlsson Bros.	Eldorado
H. Estabrooks	Fond du Lac
Jacob Stellabacker	Byron
Jonely	Byron
M. Fleischmann Cheese Co.	Saint Kellian
Feeber Bros.	New Prospect
E. Korb	Marytown
Jos. Statz	Lamartine
J. H. Quick	Lamartine
C. S. Nash	Lamartine
Bacont Roberts	Waupun
C. A. Atwood	Waupun
James Erwin	Waupun
L. A. Stratz	Woodhull

GRANT COUNTY—

Moore Bros.	Montfort
Blake's Prairie Cheese Factory	Glen Haven
Witcher's Cheese Factory	Platteville
Lima Cheese Factory	Platteville
Swiss Cheese Factory	Montfort
Oak Grove Factory	Montfort
Wm. Warne	Livingston
Platte Cheese Factory	Stitzer
Ira W. Griswold	Stitzer
Jacob Regez	Annaton
Castle Rock Dairy Association	Castle Rock
Fennimore Branch Dairy Association	Castle Rock
Wanek & Dieter Co.	Castle Rock
Marion Cheese Factory	Boscobel
Richwood Cheese Factory	Boscobel
Sander's Creek Cheese Factory	Boscobel
Oak Ridge Cheese Factory	Boscobel
Boscobel Factory	Boscobel
John Clemons	Cuba City
H. J. Noyes	Muscoda
Muscoda Butter and Cheese Association	Muscoda
Orth, Berau & Lampher	Muscoda
Oak Grove Cheese Factory	Muscoda
Buckhorn Cheese Factory (Richland Co.)	Muscoda
Walnut Grove Cheese Factory	Muscoda
Badge City Cheese Factory	Muscoda
Dimock Cheese Factory (Iowa Co.)	Muscoda
Star A Star Cheese Factory (Iowa Co.)	Muscoda
Carl Sohlman	Cassville
Homer Cheese Co.	Homer
A. R. Allen	Patch Grove

GREEN COUNTY—

Flanagan Cheese Factory	Farmer's Grove
Blumer & Co.	Farmer's Grove
Anton NyCrotten	Farmer's Grove
H. Wild	Farmer's Grove
John Barry	Farmer's Grove
Thos. Duerst	Farmer's Grove
Mrs. W. Monteith	Farmer's Grove

GREEN COUNTY—Continued.

M. S. Casey	Farmer's Grove
James Scott	Farmer's Grove
Pat McHugh	Farmer's Grove
Syver Moen	Farmer's Grove
John Conway	Farmer's Grove
Christ Bleiler	Farmer's Grove
Spring Valley Cheese Co.	New Glarus
Kubley Bros.	New Glarus
Poplar Grove Cheese Co.	New Glarus
Zimmerman Cheese Manufacturing Co.	New Glarus
Henry Aultman Cheese Co.	New Glarus
New Glarus Cheese Manufacturing Co.	New Glarus
Deurst Bros. Cheese Co.	New Glarus
Conrad Babler	New Glarus
Ward Cheese Factory	New Glarus
Huster Cheese Co.	New Glarus
Wm. Engler	New Glarus
J. N. Babler	New Glarus
J. L. Streussy	New Glarus
Matt. Elmer	New Glarus
Fred. Legler & Co.	New Glarus
Paul Kundert	New Glarus
David Hefty	New Glarus
John Legler	New Glarus
Samuel Christian	New Glarus
Con. Staffacher	New Glarus
Pedee Cheese Factory	Pedee
James Alexander	Pedee
A. Pulman	Pedee
Farmers' Stock Co.	Pedee
Zweifel Bros.	Pedee
Herman Geise	Pedee
Jos. Mathers	Pedee
Jacob Kundert	Jordan
J. Voegeli	Jordan
Bottle Tollefson	Jordan
Abraham Staffacher	Jordan
Matt. Hoffmeister	Jordan
Baltz Schindler	Jordan
Jacob Greenwald	Jordan
C. L. Beyerhoffer	Jordan
Barbara Elmer	Jordan
Gibbon & Co.	Jordan
Twin Grove Cheese Co.	Twin Grove
J. M. Berry	Twin Grove
J. C. Ula & Co.	Ula
York Center Cheese Factory	Ula
Saw Mill Cheese Factory	Ula
Hoosher's Grove Farmers' Co.	Tyrone
Jacob Karlen	Cadiz
Mary A. Dinan	Cadiz
Henry Elmer	Cadiz
Geo. Lawrence	Cadiz
Fred Blum Cheese Co.	Monticello
Rhimer & Clark	Monticello
D. Stauffacher	Monticello
Wittenwyler & Berry Cheese Co.	Monticello
T. O. Silver	Monticello
Rudy Freitag	Monticello
Jacob Stauffer	Monticello
Martin Geigel	Monticello
J. & J. Marty	Monticello

GREEN COUNTY—Continued.

Wm. Heines	Monticello
M. Moser	Monticello
J. Stillter	Oakley
H. Dayer	Oakley
Farmers' Grove Cheese Factory.....	Stewart
Marks Hoesly	Stewart
Conrad E. Elmer	Stewart
Fred Kundert	Stewart
Ezra Wild	Stewart
Vinger	Stewart
Nyfrater	Stewart
Jacob Hoesley	Stewart
Jacob Blum	Stewart
Nels Nessa	Stewart
T. Hermonson	Stewart
Chris. Journeby	Stewart
Arne A. Barger	Stewart
Marianna Strahm	Stewart
Hans Emberson	Stewart
Henry Legler	Stewart
Anton Eidsmore	Stewart
G. F. Lehnherr	Dayton
Exeter Cheese Co.	Dayton
Ross Cheese Factory Co.....	Dayton
Casper Zwickey	Dayton
Henry Klossy	Dayton
Matt Schmid	Dayton
Henry Freitag	Dayton
Gottlieb Lehnherr	Dayton
Jost Voegley	Dayton
Henry Rusti	Martintown
Clisey Factory	Martintown
William Lang	Martintown
Munger Factory	Brodhead
Centre Factory	Brodhead
Zweifel Bros.	Brodhead
August Crause	Brodhead
H. C. Atherton	Brodhead
August Zenlow	Brodhead
P. Wohlwend	Juda
Jos. Huber & Co.....	Woodford
John Ruble	Clarno
F. Lichtenwaller	Clarno
Eugene White	Clarno
David Karlen	Clarno
Wm. Beckman, Sr.	Clarno
Wm. Timm	Clarno
Geo. Pfiffer	Clarno
Samuel Raymer	Clarno
Henry Kleckner	Clarno
Austin Davis	Clarno
David Haren	Clarno
Otis Schaffer	Clarno
Polk Cheese Factory	Polk
John Schultz	Polk
F. Grunert & Co.....	Monroe
Jacob Regez	Monroe
Jacob Karlen & Son.....	Monroe
John C. Wenger & Co.....	Monroe
Chris. Stauffer	Monroe
John Boos	Monroe
Roth & Stauffacher	Monroe

GREEN COUNTY—Continued.

John A. Fraeser	Monroe
John G. Faeser	Monroe
John Bantell	Monroe
Anton Tochtermann	Monroe
R. Benkert	Monroe
Joshua Klassy	Monroe
J. Speich	Albany
Fred Kundert	Albany
Stauffacher Bros.	Albany
Conrad Elmer	Albany
Fred Stauffacher	Alband
Chris. Elmer	Albany
Jacob Reiman	Albany
Fred Speich	Sylvester
Chris. Marti	Albany
Sylvester Cheese Factory	Sylvester
J. Speich	Sylvester
E. & J. Stauffacher	Sylvester
Peter Stauffacher	Sylvester
J. J. Stauffacher	Sylvester
M. W. Sylvester	Sylvester
Adam Luchsinger	Sylvester
James Martin	Sylvester
S. H. Haman	Sylvester
M. M. Hulbert	Sylvester
A. Edwards	Sylvester
David Mani	Browntown
John Leiderman	Browntown
Henry Johnson	Browntown
Jacob Templer	Browntown
Jos. Ackerman	Browntown
Daniel Keen	Juda
G. H. & W. A. Pengra	Juda
George Dawson	Juda
S. Hutzl	Juda
J. W. Blackford	Juda
F. F. Matzke	Juda
A. Preston	Juda
Davis	Juda
Frisbee	Juda
Wm. Matzke	Juda
John Deininger	Monroe
H. Babler	Monroe
E. South	Monroe
M. T. Gapen	Monroe
John Pfund	Monroe
Thieler Bros.	Monticello
Jas. Weismiller	Monticello
J. C. Marty (2)	Monticello
Karlen Bros.	Monticello
J. H. Theiler	Monticello
Fred. Blum, Jr.	Monticello
M. Beddlingmeyer	Monticello
James Dolan	Monroe
M. Zumbrunner	Monroe
G. Woeffler	Monroe
David Hefty	Monroe
John Benkert	Monroe
Andrew Harper	Monroe
John Wittenvogler	Monticello
Mel. Schlitter	Monticello
N. & H. Freitag	Monticello

GREEN COUNTY—Continued.

John Moritz	Monticello
G. Wittwer	Monticello
Warner Bloom	Monticello
John Becker	Monticello
Jos. Schwarzenberger	Brooklyn
S. Freitag	Brooklyn
Wm. Crouse, Sr.	Brooklyn

GREEN LAKE COUNTY—

J. J. Clark	Berlin
Town Line Cheese Factory	Berlin
Page Bros.	Berlin
Seneca Cheese Factory	Berlin
Black Creek Cheese Factory	St. Marie
Hunter Factory	Standart

IOWA COUNTY—

Big Springs	Union Mills
Union Mills Cheese Factory	Union Mills
Hollenbeck Cheese Co.	Clyde
Bigelow Cheese Factory	Clyde
Middlebury Cheese Co.	Middlebury
Theobald Cheese Co.	Middlebury
Adamsoller Cheese Co.	Middlebury
Jacob Urben	Middlebury
John Riker	Middlebury
Walter Thomas	Middlebury
John Ingold	Middlebury
Robert Scheid	Middlebury
Zim. Zimmerman	Middlebury
John Havley	Middlebury
Archer Campbell	Middlebury
Syvert Chestleson	Middlebury
John J. Morris	Middlebury
J. M. Ostrander	Waldwick
Waldwick	Waldwick
Dorman	Waldwick
Uren	Waldwick
Oak Park Cheese Co.	Mineral Point
Buck Grove Cheese Factory Co.	Mineral Point
Barrelton Cheese Factory Co.	Mineral Point
Forest Glen Cheese Factory Co.	Mineral Point
Laverly Cheese Factory Co.	Mineral Point
Jewell's Cheese Factory Co.	Mineral Point
Rosedale Cheese Factory Co.	Mineral Point
Mount Hope	Mineral Point
G. Klootgla	Mineral Point
E. C. Spooner	Mineral Point
Jacob Roth (2)	Mineral Point
John Deitrich	Mineral Point
W. Hastings	Mineral Point
Henry Tucker	Mineral Point
Schindler Cheese Factory	Moscow
Edward Berg's Cheese Factory	Moscow
Brager Cheese Factory	Moscow
Rettrum Cheese Factory	Moscow
Barber Cheese Mfg. Co.	Barber
High Point Factory	Highland
Wall Cheese Factory	Highland
L. E. Jones	Hillsdale
E. Zweifel	Avoca
Myron McIntyre	Avoca

IOWA COUNTY—Continued.

H. O. Delaney	Avoca
H. Hansalter	Avoca
Frank Stork	Avoca
Star Factory	Avoca
Mound Valley	Barneveld
Mitchell & Griffiths	Barneveld
Blue Grass Valley Cheese Factory	Barneveld
Rockwell Mills	Barneveld
Barneveld Creamery & Factory	Barneveld
Jones Valley Cheese Factory	Barneveld
Scheid's Cheese Factory	Barneveld
Ridgeway Cheese Factory	Ridgeway
Garrison Grove Cheese Factory	Ridgeway
Mill Creek Cheese Factory	Ridgeway
Crystal Spring Cheese Factory	Ridgeway
Arena Cheese Factory	Arena
John G. Vogal	Arena
Theodore Hottman	Arena
Mill Creek Cheese Factory	Arena
S. W. Wigming	Wyoming
Cold Spring Cheese Factory	Jonesdale
Jonesdale Cheese Factory	Jonesdale
Banner Cheese Factory	Jonesdale
Glen Cheese Factory Co.	Hollandale
Long Valley Cheese Co.	Hollandale
Bonner Cheese Co.	Hollandale
Adamsville Cheese Co.	Hollandale
Pecatonica Cheese Co.	Hollandale
H. Ballerud Cheese Co.	Hollandale
River Forks Cheese Factory	Hollandale
John Ashelman Cheese Factory	Hollandale
John Silberger Cheese Factory	Hollandale
J. L. Leutenegger Cheese Factory	Hollandale
Casper Meyer Cheese Factory	Hollandale
Jacob Leggea Cheese Factory	Hollandale
North Hill Cheese Factory	Hollandale
J. Regez	Rewey
J. Regez No. 7 Cheese Factory	Linden
Thomas & Co.	Linden
Jacob Regez Cheese Factory (3)	Mifflin
The Johnston Cheese Co.	Mifflin
Drybone Cheese Factory	Drybone
Pine Knob Cheese Factory	Pine Knob
Hyde's Mill Cheese Factory	Hyde's Mill
North Hill Cheese Factory	Adamsville
K. Knutson	Adamsville
Sandy Rock Cheese Factory	Adamsville
Rosendale Cheese Factory	Powell

JACKSON COUNTY—

Garfield Cheese Factory Ass'n	Price
Houghtonburg Cheese Factory	Merrillan
W. G. Hyslop	Alma Center

JEFFERSON COUNTY—

Ames Factory	Watertown
Tilden Cheese Factory	Watertown
Globe Cheese Factory	Watertown
Emmet Grove Cheese Factory	Watertown
Rock Cheese Factory	Watertown
John Stangler Cheese Factory	Watertown
G. Kuenzi Cheese Factory	Watertown

JEFFERSON COUNTY—Continued.

County Line Cheese Factory	Watertown
Gopher Hill Cheese Factory	Watertown
Main Street Cheese Factory	Watertown
Hancock Cheese Factory	Watertown
Sam. Kuenzi Cheese Factory	Watertown
Schlieve Factory	Watertown
Shields' Butter and Cheese Factory	Hubbleton
Cold Spring Butter and Cheese Factory.....	Waterloo

JUNEAU COUNTY—

Warren, Kimball & Co.	Union Center
H. L. Ashdown	Elroy
Farmers' Company	Elroy
J. K. Rowell	New Lisbon
Twin Bluff Cheese and Butter Co.	New Lisbon
Lone Rock Cheese and Butter Co.	New Lisbon
H. E. Elmer Cheese and Butter Co.	Hustler
Lone Rock Cheese Co.	Camp Douglas
J. W. Cross	Mauston
Geo. Winsor North Valley Creamery.....	Mauston
John Steiner	Mauston
August Steiner	Mauston
Frank Steiner	Mauston
J. W. Post	Camp Douglas
James Larson	Wonewoc
John Froelich	Wonewoc

KENOSHA COUNTY—

Nick. Spartz	Paris
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KEWAUNEE COUNTY—

Jos. Dellain	Casco
Jos. Adams	Casco
F. W. Ouradnick	Casco
A. Kirchman	Rio Creek
Wenzel Slab	Rio Creek
A. & J. Ripley	Slovan
Jos. F. Adams	Slovan
Fred. Plinke	Rankin
Joseph Werg	Darbellay
Chas. Rubens	Rosiere
Eugene Naze	Rosiere
Victor Braus	Rosiere
Brussels Farmers' Co.	Rosiere
G. Paul	Kodan
W. Ullsperger	Kodan
F. Geischow	Kodan
Farmers' Cheese Co.	Lincoln
Armand Noel	Lincoln
Jos. Dellain	Lincoln
P. J. Walicka	Krok
Geo. Bankall	Thiry Daems
Jos. Dellain	Thiry Daems
Frank Storzner	Curran
Geo. Kozina	Stangelville
Albert Kutzmacher	Stangelville
Bach, Kiewig & Poser Co.	Carlton
Frank A. Plansky	Carlton
Carlton Farmers' Dairy Ass'n.....	Carlton
John Waegll	Carlton
Anton Bourll	Carlton
A. W. Teske	Alaska

KEWAUNEE COUNTY—Continued.

Andrew Roth	Alaska
Peter Altmeyer	Alaska
Albert Kretsmacher	Ellisville
Jos. Roth	Ellisville
Bernhart Lost	Ellisville
Matt Schlis	Ellisville
Andrew Mahlek	Pilsen
Jacob Gasche	Pilsen
Vogal Bros.	Sandy Bay
Chas. Rubens	Duvall
D. Boulanger	Duvall
Barrett & Son	Duvall
M. Mueller	Norman
W. Ulsperger	Kodan
John Sipple	Norman
Wenzel Sipple	Norman
Frank A. Plausky	Norman
Ahnapee Farmers' Co.	Ahnapee
Fred. Walter, Jr.	Ahnapee
Geo. Paul	Ahnapee
John Bush	Ahnapee
J. G. Paolat	Ryan
Kozina Factory	Bolt
P. Lyons	Bolt
John Gosin	Luxembourg
Vick Bongean	Tonet
Halvers' Factory	Tonet
Fred. Heavers	Walhain
Geo. Kuekel	Walhain
Jos. Filz	Walhain
Victor Goodsoul	Tonet
Alvan Stahl	Luxembourg
Antoine Bredael	Dykesville
August Noel	Dykesville
John Gullickson	Algoma
F. L. Walter	Algoma

LA CROSSE—

Casper Andregg (Greenfield Cheese Factory)	Sigel
Bangor Swiss Cheese Co.	Bangor
Eathan Roberts	Burr Oak

LA FAYETTE COUNTY—

J. P. Rockwell & Co.	South Wayne
O. B. Ellis	South Wayne
Johnson Cheese Factory	South Wayne
S. Murphy & Co.	South Wayne
Hall Cheese Factory	South Wayne
Graham Cheese Factory	South Wayne
Truman Cheese Factory	Truman
Success Cheese Factory	Truman
Light House Cheese Factory	Truman
Union Cheese Factory	Calamine
Palace Cheese & Butter Co.	Darlington
O'Connor Cheese Factory	Darlington
Otter Creek Cheese Factory	Darlington
Lamont Central Cheese Factory	Darlington
Fraternal Cheese Factory	Darlington
A. Hershbrunner	Darlington
Alex. Rolle	Darlington
Thos. Vickers	Darlington
Fred. Leicht	Darlington

LA FAYETTE COUNTY—Continued.

P. F. McQuaid	Darlington
Yellowstone Factory	Yellowstone
Lyons Factory	Yellowstone
McClintock Factory	Yellowstone
John Dredinger	Argyle
Jake Hahlen	Argyle
John Theiler	Argyle
Jake Burkhart	Argyle
Fred. Toman	Argyle
Fred. Bengrigger	Argyle
Henry Peterson	Argyle
Emil Armititz	Argyle
Samuel Ubert	Argyle
Peter Olson	Argyle
Chris. Marty	Argyle
Samuel Armititz	Argyle
Puddle Dock Cheese Factory.....	Argyle
Wm. Carey	Argyle
J. S. Wells	Woodford
A. S. Hansen	Woodford
Miller Cheese Factory	Woodford
Shellitts Factory	Fayette
Cook Factory	Fayette
Conley Factory	Fayette
Olsen Factory	Fayette
Springbrook	Wiota
Cherry Branch	Wiota
Wiota Factory	Wiota
Scisson Factory	Wiota
Sposer Factory	Wiota
E. Regez	Blanchardville
J. Brunwald	Blanchardville
Bokkard	Blanchardville
J. Marty	Blanchardville
Co-operative	Blanchardville
Stromann Cheese Co.	Blanchardville
East Lamont Cheese Co.....	Lamont
M. Hefty Cheese Co.....	Lamont
Sanderson Cheese Co.	Lamont
Lamont Central Cheese Co.....	Lamont
Dake's Prairie	Calamine
Mount Pleasant	Calamine
Peter Meich	Calamine
Willow Springs	Calamine
Defiance No. 11 Factory.....	Defiance

LANGLADE COUNTY—

W. J. Mattek	Deerbrook
Albert Borth	Antigo
Roolding Cheese Manufacturing Co.	Elmhurst

MANITOWOC COUNTY—

John Hertel	Meeme
Q. A. Danforth	Meeme
F. Simers	Meeme
M. Wideman	Cato
Adolph Milhaus	Reedsville
C. M. Krueger	Reedsville
E. C. Schwanke	Reedsville
Aug. A. Schley	Reedsville
Henry H. Meyer	Reedsville
Wm. Huese	Reedsville

MANITOWOC COUNTY—Continued.

Albert Beilke	Reedsburg
Chas. Dickert	Reedsburg
John Schmelter	Reedsburg
Fred. Bauch	Reedsburg
Robert Manke	Reedsburg
Wm. Fedding	Newtonburg
H. Bargaenbruch	Newtonburg
Lewis Keelhurst	Newtonburg
Albert Weger	Newtonburg
Jacob Behringer	Newtonburg
Martin Rhode	Newtonburg
H. Schulz	Newtonburg
Jos. Heinzen	Whitelaw
J. D. Nate	Maple Grove
Wm. Meyers	Maple Grove
Maltzke	Maple Grove
Moedke Junker	Maple Grove
F. Britzel	Maple Grove
William Rodewald	Timothy
Robert Nauman	Manitowoc
Herman Ackerman	Manitowoc
Peter Bleser	Manitowoc
Henry Meyer	Manitowoc
Chas. F. Meinert	Manitowoc
Henry Pluess	Manitowoc
J. Mallmann	St. Nazianz
Herm. Speclit	Manitowoc
Chas. Lutzky	St. Nazianz
Wm. Karstaedt	St. Nazianz
Chas. Weinfarther	Michicott
John Bachhaus (Butter and Cheese)	Michicott
Aug. Fehrman	Michicott
Wm. England	Michicott
Chas. Fleutge	Michicott
Fred. Wude	Michicott
Adolph Zeddies	Michicott
Chas. Mendenwald	Kasson
Fred. Fetter	Alverno
S. Bremer	Alverno
H. Pleus	Alverno
Herman Risch	Larrabee
Frank Fenner & Bro.	Larrabee
Peter Griemer	East Gibson
Fred. Wilde	Shoto
Robert Waumann	Shoto
Anton Natjonitz	Shoto
Jos. Haverlick	Shoto
Gibson Farmers' Co.	Shoto
Herman Schroeder	Melik
Jos. Froelich	Rosecrans
Fred. G. Meyer	Rosecrans
H. Barneubrush	School Hill
E. Wehausen	Rube
J. Kasbaum	Rube
Otto Korstedt	Rube
Louis Volght	Louis' Corners
Frank F. Thielke	Louis' Corners
Aug. Schleunes	Louis' Corners
Joseph Rappel	Millhome
Rockland Dairy Ass'n	Clark's Mills
Chas. Swerting	Clark's Mills
M. Sabel	Clark's Mills

MANITOWOC COUNTY—Continued.

	Range Line
Victor Vogle	Eaton
Ole E. Gigstad	Eaton
Wm. Bushe	Eaton
John B. Johnson	Oslo
Farmers' Dairy Ass'n	Tisch Mills
Strangel & Mawhalen	Niles
Herm. Olm	Niles
Chas. Schwalbe	Niles
Wm. Buscher	Niles
Albert Karsted	Kiel
F. H. Wageuknecht	Kiel
William Zillman	Stark
James Smith	Nero
W. A. Koch	Nero
A. P. Erdmann	Taus
Albert Svacina	Taus
Wm. Damm	Taus
J. J. Havlichek	Francis Creek
Francis Creek Farmers' Cheese Co.	Francis Creek
John Steber	Francis Creek
P. C. Bleiser	Francis Creek
Kellner & Polifka	Kellnersville
Michael Sobel	Kellnersville
S. Mazauce	Kellnersville
R. C. Behnke	Wells
Peter Blaser	King's Bridge
J. B. Johnson	Clark's Mills
Mike Kelley	Clarks' Mills
Henry Hinges	Hika
Oscar Barthel	Hika
Jos. Schuber	Cooperstown
Herman Specht	Branch
Adolph Klemm	Branch
H. Wilharms	Northheim
H. Strodthoff	Northheim
Gustave Klemm	Two Rivers
Chas. Fleutje	Two Rivers
Henry Redker	Two Rivers
Robert Newman	Two Rivers
Klessig Bros.	St. Wendell

MARATHON COUNTY—

Fred. Michler	Wein
Herman Hahn	Nutterville
Henry Jacobi	Denny
Jacob Keehl	Abbottsford
Ferdinand Olm	Rozellville
Joseph Frane	Unity
Brighton Cheese Factory	Unity
Wm. B. McPherson	Spencer
Anton Log	Stettin
Ed. O. Pleisch	Naugart
Andrew Flaig	Colby
Adolph Hintze	Hogarty
Julius Kodi	McMillan

MARQUETTE COUNTY—

Neshkoro Cheese and Butter Co.	Neshkoro
Lake View Creamery Co.	Briggsville

MILWAUKEE COUNTY—

John Mehl	South Side
N. Simon	Milwaukee

MONROE COUNTY—

Valley Junction Cheese Factory	Valley Junction
Martin Pfyfe	St. Mary's
L. J. Schubert	Clifton
E. Kimball	Glendale
J. K. Powell	Oakdale
Kokon Anderson	Melvina
Fred. Luther	Norwalk

MARINETTE COUNTY—

Jos. Brooks	Peshtigo
John Hoganson	Porterfield

OCONTO COUNTY—

School Section Cheese Factory	Oconto
Warner & Moody	Brookside
R. H. Birr (Butter and Cheese)	Morgan
John Schrader	Linwood

OUTAGAMIE COUNTY—

Wasson & Cannon	Dale
Albert Drews	Dale
Birdell Nelson	Dale
P. Miller	Dale
H. Boyer	Dale
A. Nelson	Dale
A. Brickman	Dale
C. Holzschuh & Griener	Erb
P. Zonne	Appleton
D. W. Dean & Co.	Appleton
Nick Hass	Appleton
Nick. Simon	Appleton
W. H. Verity	Appleton
A. L. Murphy	Hortonville
P. Oik	Hortonville
M. L. O'Reilly	Hortonville
Chas. Westgate	Hortonville
Chas. Schanck	Hortonville
C. Wilton	Black Creek
Missling Bros.	Black Creek
W. N. Bergman	Black Creek
G. Schinkee	Black Creek
Albert Carter	Black Creek
E. P. Strassburger	Black Creek
Fred. Lachal	Black Creek
D. S. Crosby & Co. (3)	Seymour
Ed. Kliest	Seymour
Anton Kolb	Seymour
A. W. Reitz	Seymour
H. C. Burmeister	Seymour
Peter Dooley	Shiocton
Frank Henry	Shiocton
E. A. Huebner	Shiocton
C. W. Staeffler	Wittlin
P. G. Berry	Mackville
J. H. Steffen	Mackville
C. Freidt	Mackville
Jos. Schmidt	Mackville
Callan, Grant & Smith Co.	Stephensville

OUTAGAMIE COUNTY—Continued.

Will H. Manley	Stephensville
Peter Dooley	Stephensville
A. F. Decker	Stephensville
Peter Fastbinder	Stephensville
Wisconsin Butter and Cheese Co.	Medina
W. L. Root	Medina
Co-op. Cheese Factory	Medina
Chas. Breitrick (2)	Sagole
H. T. Nabbefelt	Sagole
Navarino Dairy Ass'n	Leeman
Town of Maine Dairy Co.	Leeman
C. A. Johnson	Sugar Bush
Crosby & Falley	Lawrenceville
C. Hahn & Co.	Lawrenceville
G. Lightfoot	Lawrenceville
L. C. Ovitt	Binghamton
Chas. Staefler	Binghamton
B. Griese	Binghamton
Nick Orth	Little Chute
K. Hoffman	Bear Creek
Theo. Wisler	Bear Creek
T. Young	Bear Creek
John Armstrong	Bear Creek
John Grube (2)	Greenville
C. Schneider	Greenville
John Fastbinder	Greenville
James Truck	Greenville
E. Huber	New London
Schmall Bros.	New London
C. J. Broderich	South Osborn
Henry Greb	South Osborn
Peter Fasbender	Bungert

OZAUKEE COUNTY—

H. Schellenberg	Horn's Corners
Jacob Merz	Holy Cross
Melchior Wester	Holy Cross
Chas. Mintzaff	Grafton
Gustave Schroeder	Grafton
G. Kohlwey	Grafton
August Loech	Grafton
August Hadler	Grafton
Alfred Lange	Druecker
John Ternes (4)	Belgium
H. P. Mueller (2)	Belgium
A. Antoine	Belgium
Gautner & Antoine	Belgium
Joseph Yantner	Belgium
Nick Porth	Lake Church
Henry Wester	Lake Church
Jno. Ternes	Lake Church
Frank Wellenstein	Lake Church
A. Antoine	Lake Church
Antoine & Gartner	Lake Church
J. S. Klessig (2)	Fredonia
C. H. Witt (3)	Fredonia Station
Al. Pens	Fredonia
John De Presse	Fredonia
F. Kuepper	Saukville
Chas. Laufer	Saukville
P. Miller	Saukville
Daniel Wittleriger	Kohler
Phil Pfeifer	Cedarburg

OZAUKEE COUNTY—Continued.

J. P. Fleschinger	Port Washington
John Pauley	Port Washington
Albert Koopman	Port Washington
Isaac Smith	Port Washington
Alfred Large	Port Washington

PEPIN COUNTY—

Chamberlain, Hakes & Co.	East Pepin
Adam Erickson	Durand

PIERCE COUNTY—

L. Ginser	Martell
Alois Grupfer	Plum City
Trimbelle Butter and Cheese Co.	Trimbelle
S. Sampson	Olivet
Grastie Creamery Co.	Olivet
Geo. Hoessly	Herbert
Ed. Kopp	Ono
Hans P. Tanberg	Viking
Rock Elm Creamery and Cheese Co.	Rock Elm
Aug. F. Falk	Rock Elm
L. A. Hess	Spring Valley
Lawton Cheese Co.	Rock Elm

POLK COUNTY—

Wm. F. Koch	East Farmington
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PORTAGE COUNTY—

F. S. Holman	Amherst
Joseph O. Esterly	Polonia
G. T. Rowland & Co.	Buena Vista

RACINE COUNTY—

N. Spurtz	Union Grove
Fred. Jacquith	Burlington
Norway Butter and Cheese Co.	Union Church

RICHLAND COUNTY—

Westford Cheese Co.	Cazenovia
John Damer	Balmoral
F. E. Hissler	Balmoral
Chas. H. Brentel	Tavera
Mr. Pool	Buck Creek
Thos. Johnson	Boaz
A. & D. Beckwith	Dixon
W. J. Davis	Dixon
Walter Greenbeck	Dixon
E. F. Hamilton	Excelsior
E. O. Dorsh	Excelsior
H. J. Noyes	Richland Center
E. Kepler	Richland Center
Maple Grove Cheese Factory.	Viola
Twin Bluff Creamery and Cheese Co.	Twin Bluff
Ithaca Union	Ithaca

ROCK COUNTY—

Western Newark Creamery Co.	Beloit
Star Creamery	Beloit
Thompson & Rasey	Beloit
A. Engebretson	Beloit
Leo. Williams	Beloit
J. Speich	Orfordville

ST. CROIX COUNTY—Continued.

Geo. Bernath	Orfordville
H. J. Bullock	Milton
G. Augsberger	Evansville
A. Woodward	Clinton
J. & F. Newhall	Johnstown
C. B. Palmer	Lima Center
Harvey & Godfrey	Lima Center
Godfrey & Kurtz	Lima Center
James Newhall	Lima Center
Edgerton Creamery Co.	Milton
Avon Cheese Factory Co.	Avon

ST. CROIX COUNTY—

Spencer & Davis	New Richmond
Spencer & Teal	New Richmond
Hersey Cheese Co.	Hersey
Pine Lake Cheese Co.	Baldwin
Grasslie Cream & Cheese Co.	Baldwin
Henderson & Johnston	Boardman
J. A. Henderberg Cheese Factory	Pleasant Valley
Roberts Creamery Co.	Hammond
Julius Beer	Houlton
E. T. Jepson	Emerald
Cylon Cheese Factory	Cylon

SAUK COUNTY—

A. Schoenman	Plain
John Anderson	Plain
Farmers' Cheese Co.	Plain
Poplar Grove Cheese Factory	Plain
James O'Malley	White Mounds
Henry Poole	Lime Ridge
Chas. Schumatz	Black Hawk
Geo. H. Holmes	Loganville
J. K. Powell	Ironton
Hutchins & Yunk	Valton
Sherwood Factory	Spring Green
Ellefson Factory	Spring Green
Maxwell Factory	Spring Green
Wm. Drake	Spring Green
E. & H. Staples	Mercer
Edward C. Sweet	Ableman
W. H. Fish	Reedsburg
John Diehl	Spring Grove
Wm. Meade	Sandusky

SHAWANO COUNTY—

P. R. Wilson	Whitcomb
F. Koenig	Leopolls
Pella Cheese Factory	Pella
Henry Grab	Caroline
Herman Mevis Co.	Caroline
Belle Plaine Cheese Factory (E. S. Hilchnam)	Belle Plain
John Krickanmiths	Rose Lawn
Edward Rohen	South Osborn
J. S. Brummel	Pulcifer
James Dickson	Pulcifer
Fred Zuehlke	Bonduel
Mike Felton	Bonduel
F. Jaske	Briarton
Navarino Dalry Ass'n	Galesburg
Werner Creamery & Cheese Factory	Galesburg

SHAWANO COUNTY—Continued.

John Leonard	Laney
A. Thompson	Laney
Johnson Bros. & Co.	Frazer
Anton Siglinskie	Wellhaven
F. Croning	Tilleda
P. Johnson	Hofa Park

SHEBOYGAN COUNTY—

J. E. Curtis	Plymouth
H. A. Chaplin	Plymouth
John Stecker	Plymouth
H. Roehrig	Plymouth
H. Scheibe	Plymouth
H. Schulz	Plymouth
Wm. Edler	Plymouth
Louis Helmer	Plymouth
Frank Gowin	Plymouth
Ferdinand Siemers	Plymouth
Wm. Joslin	Plymouth
John Devine	Parnell
J. F. Burke	Parnell
L. Goering	Parnell
J. F. Murray	Parnell
Aug. Wolff	Cascade
Albert Suemnicht-Winooski	Cascade
G. B. Glover	Cascade
C. H. Buohen	Cascade
Frank Hughes	Cascade
E. J. Keyes	Cascade
Mugan Bros. (2)	Cascade
Michelke Bros.	Cascade
Henry P. Mitts	Dacada
John Ternes	Dacada
H. A. Rehm	Franklin
Aug. Reineking	Franklin
Wm. F. Gartmann	Saint George
Chas. Gartmann (Six Corners' Cheese Factory)	Saint George
J. H. Thackray	Glenbeulah
Albert & Garling	Glenbeulah
C. F. F. Karstiedt	Mosel
H. E. Buechel	Mosel
Schreiber & Co.	Mosel
Wm. Ochs	Mosel
Frank Theman	Erdman
Emil Wilder	Erdman
F. Olm & Co.	Edwards
H. Kamann	Edwards
Frank Hughes	Cascade
F. Boldt	Gibbsville
John Rowerdink	Gibbsville
Christ. Strassburger	Howard
Ed. Schneider	Howard
Ed. Erlstoesser	Howard
Wm. Ochs	Howard
Wm. Siemers	Howard
Wm. Kohl & Co.	Howard
Geo. Horneck	Rhine
Henry Horneck	Rhine
I. De Snide	Cedar Grove
Garret Grotenhaus	Cedar Grove

SHEBOYGAN COUNTY—Continued.

T. Walvoord	Cedar Grove
E. Hemer	Cedar Grove
Grotenhaus & Wissink	Cedar Grove
C. E. Dana	Cedar Grove
A. C. Koehler	Waldo
Lemkuehl & Mentenk.....	Waldo
Ber Te Hennepe	Waldo
C. W. Gates	Waldo
Geo. Brickbauer	Elkhart
Henry Reineck	Elkhart
Jac. Strub	Elkhart
F. A. Mehlos	Adell
E. Spieker	Adell
W. Grashorn	Adell
Frank Kuepper	Random Lake
Albert Penz	Random Lake
Phillip Pfeiffer	Random Lake
Emil Spercker	Random Lake
J. L. Magrit	Random Lake
Carl Britton	Sheboygan
Frank Themar	Sheboygan
Emil Wilder	Sheboygan
J. F. Moehrl	Silver Creek
Frank Straus	Silver Creek
F. J. Mulvey	Hingham
Mentink & Semkiel	Hingham
Robt. Donath	Scott
Chris. Spreth	Scott
Geo. Baum	Scott
A. M. Buchman	Saint Anna
Wendel Burg	Saint Anna
Peter Meyer	Saint Anna
G. C. Mayhew.....	Greenbush
Geo. Webb	Greenbush
Thos. H. Lamb.....	Hoard
E. Ven Dewall.....	Hoard
John Cosgrove	Rathbun
F. McNicholas	Pius
Tier Mais	Johnsonville
H. Schulz	Johnsonville
J. Gessert	Johnsonville
E. B. Melindy	Sheboygan Falls
John Dassow	Sheboygan Falls
Hugh Aloes	Sheboygan Falls
Kohl & Fenner.....	Sheboygan Falls
J. H. Dassow	Sheboygan Falls
Chris. Reinecke	Sheboygan Falls
August Habeghorst	Sheboygan Falls
Geo. Back	Sheboygan Falls
Dassow & Widder	Sheboygan Falls
Humphrey & Te Hennepe.....	Sheboygan Falls
U. Swann	Random Lake
John L. Magritz	Adell
Kunz & Co.	Oostburg
Frank Meyer	Oostburg
Fred. Gartmann	Oostburg
F. W. Gartmann	Oostburg
Wm. Huening	Oostburg
O'Connell Bros.	Scott
John Auppelle	Scott
Jos. Lensenk	Dacador
Anton Driefurst	Greenbush

SHEBOYGAN COUNTY—Continued.

C. M. Knowles	Greenbush
R. Rickmier	Glenbeulah
G. Krutkorasmer	Ada
Jacob Spindler	Edwards
J. Hersdorf	Edwards
Fred. Lucker	Edwards
Wm. Huenink	Ootsburg
Jacob Danne	Ootsburg
J. B. Huenink & Bro.	Dacada
Evan D. Wall	Cedar Grove
G. J. Dulmes	Cedar Grove
John Le Ronde	Cedar Grove
J. Pehren	St. George
H. Tuttschell	St. George
E. B. Melendy	Gibbsville
Otto Boldt	Gibbsville
Otto Ehrlich	Gibbsville
A. Humphrey	Gibbsville
John Dasson	Winooski
A. Blenke	Winooski
W. Zelms	Rathbun
L. Goehring	Parnell
Joseph Hemmes	Mosel
Arthur Vater	Plymouth
C. H. Leecke	Plymouth
Jack Wolff	Plymouth
Spring Factory	Plymouth
J. G. Gessert	Rhine
August Bartete	Scott

TAYLOR COUNTY—

Farmers' Cheese Co.	Medford
Browning Cheese Co.	Medford

TREMPEALEAU COUNTY—

Fuller & Johnson	Osseo
Little Elk Cheese Factory ..	Independence
Chimney Rock Cheese Factory ..	Chimney Rock

VERNON COUNTY—

Edward Liple	Manning
Adams & Mills	Dell
Avalanche Cheese Factory	Avalanche
Davison Rankingmot	Newton
Newton Butter and Cheese Factory ..	Esofea
Jos. H. M. Lees	Springville
C. C. Olson	Retreat
Fortune Bros.	Brestow

WALWORTH COUNTY—

Otto Scherer	Little Prairie
A. Woodard	Allen's Grove
Elgin Creamery Co.	Sharon
Sharon Dairy Co.	Sharon
State Line Factory	Sharon
C. H. Stubbs	Lyons
Marlatt & Kachel	Heart Prairie
Troy Co-operative Cheese and Creamery Association ..	Troy

WALWORTH COUNTY—Continued.

E. Malcomson (3).....	Whitewater
Wm. Wright	Whitewater
J. G. Smith	Whitewater
Elkhorn Dairy Co.	Elkhorn
Adams Cheese Factory	Troy
Little Prairie Cheese Factory.....	Troy

WASHINGTON COUNTY—

J. H. Steiner	Mecker
E. Teschendorf	Saint Michaels
John Aupperle	Boltonville
Jos. Endress	Schleisingserville
L. Guth & Co.....	Ackerville
Edward Knife	Ackerville
P. G. Hamahan	Kewaskum
John Dengel	Kewaskum
R. S. Demerest	Kewaskum
Chas. A. McCormick.....	West Bend
Geo. Kopp	West Bend
L. A. Landvotre.....	West Bend
Ernest von Gruenegan	Richfield
Ed. Kuenzi	Richfield
C. F. Richman.....	Hartford
Jos. Auftermann	Hartford
Myra Cheese Factory	Myra
Wendel Petri Estate	Wayne
Jack Hahn	Wayne
Wayne & Addison	Kohlsville
T. H. Jordan	Rockfield
Ph. Kuhn	Rockfield
P. P. Bast	Rockfield
R. Tice & Son.....	Aurora
Geo. C. Grasse.....	Aurora
Chas. Stanske & Co.....	Salter
Herman Gruhle	Fillmore
E. W. Wittig & Co.....	Fillmore
Reinhold Gerner	Fillmore
The Newburgh Creamery Co.....	Newburgh
Augustin Cheese Factory	Newburgh
Erin Cheese Factory	Thompson
Thompson Butter and Cheese Association	Thompson
Fred. Settle	Addison
Geo. W. Tice	St. Lawrence
Jos. Aufdermann	St. Lawrence
John Jackel	Jackson
Jac. Hamm	Kohlsville

WAUKESHA COUNTY—

Wisconsin Butter and Cheese Co.....	Mukwanago
Wisconsin Butter and Cheese Co.....	New Berlin

WAUPACA COUNTY—

Otto Kronke	Readfield
Jake Verholst	Readfield
Anton Portman	Readfield
Wm. Schneider	Readfield
Fred. Munding	Manawa
C. Rickmann	Readfield
Silver Lake Co-operative Creamery Association.....	Scandinavia
Mrs. F. L. Gibson.....	Lind

WAUPACA COUNTY—Continued.

Baldwin Creamery Co.....	Weyauwega
Henry Pope	Weyauwega
Nick Zern	Clintonville
Chas. Bronnschwege	Clintonville
C. T. Wilda	Clintonville
Robert Roloff	Clintonville
John Zehren	Clintonville
Chas. Hackman	Bear Creek
Chas. Delo	Symco
P. H. Casper	Nicholson
Ruhsman & Co.....	New London
E. L. Aderhold	New London
C. A. Johnson	New London
A. R. Hills	New London
E. A. Huebner	New London
Schmal Bros.	New London
Chas. Schoenrock	New London
Iola Cheese Factory	Iola
J. H. Raloff	Symco
J. J. Sleiger	Fremont
J. M. Hickman	Fremont
Albert Boheen	Fremont
J. M. Hickman	Fremont
E. Roman & Co.....	Baldwins Mills
Fleece Bros.	Ostrander
Phil. Kissinger	Waupaca

WAUSHARA COUNTY—

Borth Cheese Factory	Borth
Elgin Creamery Co.....	Borth
Fountain Valley Factory	Poysippi
Moffat & Dewey Factory	Poysippi
Warren Cheese and Butter Co.	Fargoville
Saxville Cheese Factory	West Bloomfield
Herman Koehler	West Bloomfield
John N. Seaver	West Bloomfield
Terrill Cheese Factory	Terrill
Oasis Cheese Factory	Plainfield
P. M. Doerrlitz	Plainfield
Mount Morris Cheese and Butter Co.....	Mount Morris
Waushara Dairymen's Association.....	Waushara
White Clover Cheese Factory	Tustin
C. J. Waters	Brushville
John Lind	Tustin
Marion Cheese and Butter Co.....	Spring Lake
Springbrook Cheese Factory	Spring Lake
W. Wallers	Auroraville
J. J. Clark	Auroraville
Pine River Association	Pine River

WINNEBAGO COUNTY—

Wm. Pribbernow	Zittan
Ed. Newman	Zittan
Fred Spiegelberg	Zittan
Adolph Grimm	Zittan
Christ. Boss	Clemansville
Sam Boss	Clemansville
C. Rutler	Clemansville
Elder Creek Cheese Factory	Orihula
Wolf Hill Cheese Factory	Orihula
Krenke & Co. Cheese Factory	Orihula
Adolph Grimm Cheese Factory	Buttes des Morts

WINNEBAGO COUNTY—Continued.

Chas. Kuettel	Buttes des Morts
D. Steiner	Buttes des Morts
Clemens Reuteler	Buttes des Morts
Sam Boss	Winnebago
Angus & Humphrey	Oshkosh
R. E. Abrams	Oshkosh
John Ryf	Oshkosh
Chas. Perrin	Oshkosh
Wm. Greenwald	Oshkosh
M. Kuttell	Oshkosh
Robert Smilie, Sr.	Oshkosh
Henry Scheller	Oshkosh
Casper Pfeiffer	Oshkosh
Wm. Schmitt	Oshkosh
Wm. L. Jones	Winchester
Rasmus Hanson	Winchester
Ed. Newmann	Winchester
Winchester Cheese and Butter Co.	Winchester
Isaac McKinley	Winchester
Jos. Schneider	Winneconne
Chas. Marin	Winneconne
Winneconne Butter and Cheese Co.	Winneconne
G. Shultz	Winneconne
Chas. Marris	Winneconne
G. Shultz (2)	Poygan
G. W. Washburn	mro
Wm. McKinley	Neenah
Wm. Eide	Neenah
N. Simon & Co.	Neenah
Coldsprings Cheese and Butter Co.	Menasha
Dempardt Miller	Menasha
Benjamin Ablard	Nekimi
Jacob Nohld	Nekimi
W. P. Greenman	Nekimi
Lambert & Scanlar	Fisk
Allenville Cheese Factory	Allenville
Vasburger Cheese Factory	Allenville
Adolph Grimm	Allenville
Rabie Cheese Factory	Vinland
Dewhard & Mills.	Vinland
Faber Cheese Factory	Clemensvills
Vinland Cheese Factory	Clemensville
Jacob Schmaker	Winneconne
L. Miller	Winneconne
J. W. Jeffers	Winneconne
J. J. Tucker	Winneconne

WOOD COUNTY—

Anton Hensler	Bakersvills
John Rothenberger	Bakersville
Grand Rapids Cheese Factory	Smyrna
Hewitt Co-operative Co.	Hewitt
Four Mile Creek Cheese Factory.	Grand Rapids
Sherry Lumber Co. Cheese Factory.	Sherry
Geo. Koenig	Centralia
Farmers' Cheese Factory	Auburndale
Sickles Co. Cheese Factory.	Pittsville
A. J. Empey	Milladore
Herman Hassler	Vesper
Herman Theel	Granite
John Blenker	Blenker
Amiel Nacht	Altdorf
J. J. Armstrong	Welcome Creek

CREAMERIES.

Post Office.

ADAMS COUNTY—

Spring Creek Creamery.....	Spring Creek
Monroe and Strong's Prairie Creamery Association.....	Monroe Center

ASHLAND COUNTY—

Ashland County Creamery	Butternut
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BARRON COUNTY—

Barron Co-operative Creamery Co.....	Barron
S. W. Hines & Co.....	Cumberland
Cumberland Creamery Co.	Cumberland

BROWN COUNTY—

Green Bay Creamery Co.	Green Bay
John Corneleson	De Pere
Martin Klipstine	Little Rapids
Jacob Law & Sons	Green Bay
William Deohue	Green Bay
August Mutzke	Wayside
C. F. Griese	Wayside
Morris Braemeau	Wayside
August Kickhaefer	Wayside

BUFFALO COUNTY—

Mondovi Creamery and Cheese Co.....	Mondovi
Holmes Landing Creamery.....	Fountain City
Clover Leaf Creamery	Alma
Burnside Co-operative Creamery Co.....	Misha Mokwa
Geo. Tarrant & Son Skimming Station.....	Urne
A. O. Lee.....	Modena
F. Tritsch & Bro.....	Cream
John Haigh	Cream

BURNETT COUNTY—

Trade Lake Creamery	Trade Lake
Grantsburg Creamery Co.....	Grantsburg

CALUMET COUNTY—

Heckert & Albert	Chilton
A. F. Decker	Chilton
Nagle & Geiger	Brillion
A. N. Zelke	Brillion
Dundas Butter & Cheese Co.....	Dundas
Grashorn & Albert	New Holstein
Matt. Moersch	Brothertown
J. D. Grandine	Sherwood
Edwin Fenton Co.....	Sherwood
Henry Skidmore	Stockbridge
H. U. Reiff.....	Stockbridge
John L. Wermer.....	Stockbridge
Holstein Creamery Co.	New Holstein

CHIPPewa COUNTY—

Snyder Bros.	Cooks Valley
Snyder Bros.	Bloomer
H. G. St. Louis.....	Cooks Valley
D. J. Cartwright.....	Cooks Valley

CLARK COUNTY—

Colby Creamery Co.....	Colby
A. Albert	Thorp
Clark County Creamery Co.....	Globe
Granton Co-operative Creamery Association.....	Granton
Neillsville Creamery Co.....	Neillsville
Clark County Butter Co.....	Neillsville
Geo. A. Austin.....	Neillsville
W. G. Hyslop	Neillsville
Loyal Separator Creamery Association.....	Loyal
J. C. Marsh	Loyal
Christie Creamery Co.....	Christie
Longwood Co-operative Creamery Co.....	Longwood
J. C. Marsh	Spokeville
W. F. Meyer.....	Greenwood
W. F. Irving, Agent.....	Longwood
Solon Davis	Wilcox
John Kubat	Wilcox

COLUMBIA COUNTY—

Mrs. Wm. Cuff.....	Rocky Run
F. W. Henry	Rocky Run
F. C. Curtis	Rocky Run
Portage Creamery Co.....	Portage
Port Hope	Portage
Keyeser Creamery Co.....	Keyeser
S. Sampson	Otsego
Simmons & Hutson.....	Arlington
H. R. Moldenhauer & Bro.	Cambria
Wm. Meilkie	Rio
S. Sampson	Rio
Dodge & Campbell	Fall River
Ernest Britzman	Fall River
Bussard, R. M., & Co.....	Poynette
Highland Grove Creamery	Poynette
Columbus Cheese Factory	Columbus
O. A. Trowbridge	Columbus
Wm. Hamann	Columbus
Fred. Hamann	Columbus
A. E. Chievers	Columbus
Spring Brook Creamery	Columbus
Henry Lang, Jr.	Columbus
John E. Hanson	Columbus
G. W. Scott	Columbus
Lodi Creamery Co.....	Lodi
Simons and Hutson	Lodi
Spring Valley Cheese and Butter Co.....	Lodi
Crystal Lake Creamery Co.	Lodi
George L. Chaffin.....	Lodi
Wm. Milkie	Corinne
G. A. Kimball.....	Arlington
Mr. Worth—Skimming Station.....	Cambria
South Hampden Creamery Co.....	Hampden
Ford & Ohler, House & Co.....	Hampden
F. A. Fields.....	Kilbourn City
Leeds' Creamery	Leeds Center
H. H. Smith.....	Marcellon
Holcomb Bros.	Pardeeville
Eugene Taylor	Randolph Center
Simons & Hutson	West Point
Englewood Creamery	Fall River

CRAWFORD COUNTY—

Eastman Butter Manufacturing Co.....	Eastman
Star Valley Creamery	Towerville
Seneca Dairy Association	Seneca
Kickapoo Valley Creamery Co.....	Stuben
Barnum Creamery Co.	Barnum
Wauzeka Butter Co.....	Wauzeka
Belle Center Creamery Co.....	Belle Center
Soldiers' Grove Creamery Co.....	Soldiers' Grove
Gay's Mill Creamery Co.....	Gay's Mill
Mt. Sterling Creamery Co.	Mt. Sterling
Prairie du Chien Creamery Co.....	Prairie du Chien
J. L. E. Wunsch	Belle Center

DANE COUNTY—

Roach & Seeber (2).....	Sun Prairie
J. V. Starker	Sun Prairie
Roach & Seeber Co.....	Burke
Burke Creamery	Burke
Nelson Creamery Co.	Burke
Ruben Hiney	Sauk City
D. E. Wood & Co.....	Elgin, Ill.
J. L. Colby, Sec.....	Story
Hillside Creamery Co.....	Amos
Farmers' Butter Factory	Hanerville
Dodge & Dodge	Token
J. F. Neefe & Co.....	Cottage Grove
A. C. Kretlow	Cottage Grove
Green, Wood & Co.....	Cottage Grove
W. Blair	Cottage Grove
Kalschens Bros.	Pine Bluff
Oak Hall Creamery Co.....	Floyd
M. Lindas, Sec.....	Adsit
Dodge & Drake.....	Pierceville
C. Graak	Springfield Corners
Crystal Lake Creamery Co.....	Roxbury
Henry Ruben	Roxbury
Henderson Creamery	Henderson
Hoard's Creamery	Cambridge
Christiana Cheese and Butter Co.....	L. Cambridge
Daleyville Creamery Association	Perry
Indian Hill Creamery	Perry
Dahlby & Co.	Perry
H. B. Dahle Creamery	Elvers
Blue Valley Creamery (Dahle & Meyers).....	Grit
Paoli Creamery Co.	Paoli
Dahle Bros.	Mt. Horeb
Black Earth Co-operative Dairy Association.....	Black Earth
Maple Grove Creamery	Black Earth
Blue Mounds Creamery	Blue Mounds
D. E. Wood & Co.....	Belleville
Chas. Vernon	Verona
Maslott & Clark Creamery	Mt. Vernon
Chas. German	Middleton
Parman & Hunt	Middleton
House & Tyler	Middleton
Perry Center Cheese Factory.....	Forward
Spring Valley Creamery	Spring
Hopkins Bros.	Middleton
Utica Creamery Co.	Utica
Prairie Queen Creamery	Cambridge
Crystal Creamery	Verona
Dodge & Dodge	Windsor

DANE COUNTY—Continued.

Deansville Farmers' Creamery Association.....	Deansville
Wheeler Prairie Creamery Co.....	Stoughton
Frank Rider	Middleton
H. Berktoiz	Middleton
Chaffee & Ziegler	Dane
W. F. Febock	Mendota
Rockdale Creamery Association	Rockdale
Chas. Tellofson	Rockdale
Oddland Factory	Rockdale
J. R. Ellis & Sons	Oregon
Oak Hall	Oregon
Christina Cheese and Butter Co.....	Utica
Utica Co-operative Creamery	Utica
Edgerton Creamery Co.....	McFarland
Marxville Creamery Co.....	Marxville
Roach & Seeber Co.....	Nora
Eclipse Creamery	Windsor
Ideal Creamery Co.	Windsor
J. Vischon	Windsor
C. J. Dodge	Windsor
Marshall & Steel	Waunakee
Spring Valley Creamery	Waunakee
Karow Bros. & Strehlow	De Forest
North Windsor Creamery Co.....	De Forest
Edgerton Creamery Co.....	Albion
Jno. Brown	Riley
Robt. Marshall	Marshall
Mendina Butter and Cheese Co.....	Marshall
Karow Bros. & Strehlow.....	Stoughton
Edgerton Creamery Co.....	Stoughton
Roach & Seeber	London
Roach & Seeber	Deerfield
Dodge & Crump	Deerfield
Deansville Creamery Co.....	Deansville
H. S. Ripp & Bros.....	Cross Plains
Hy. Scheele & Sons.....	Cross Plains
Mazomanie Creamery Co.....	Mazomanie
Mounds Creek Creamery Co.....	Mazomanie
Halfway Prairie Creamery Co.....	Mazomanie
John Stark	East Bristol
Edgerton Creamery Co.....	Clarkson
August Soper	Roxbury
Hutson & Simons	Roxbury
C. J. Browne	Roxbury
S. Hutson (2)	Mt. Vernon
P. Horst	Ashton
W. A. Strasburg	Ashton
York Center Creamery Co.....	Norway Grove
Ernest Karow	Hamlin
Mansfield & Orvold	De Forest
	Clarkson

DODGE COUNTY—

Hatcher & Co.	Atwater
Christian & Puerner (4 Factories).....	Atwater
W. F. Jones (3 Factories).....	Burnett Junction
Toland Creamery Co.....	Toland
Clearwater Springs Dairy Factory	Lowell
North Lowell Center Butter and Cheese Factory	Lowell
Welsh Road Factory	Richwood
Posey Creamery	Richwood
Lean Bros. Creamery.....	Randolph
L. G. Woodworth	Randolph

DODGE COUNTY—Continued.

Rolling Prairie Jersey Creamery	Rolling Prairie
Riverside Creamery	Mayville
Upland Creamery	Mayville
Ward & Laffey	Randolph
Mr. George Hansen	Knowles
Gold Medal Creamery	Reeseville
H. Heck & Co.	Iron Ridge
M. & D. Ehrhardt Butter and Cheese Factory.....	Knowles
Fox Lake Creamery.....	Fox Lake
Frank Downey	Fox Lake
A. Graham	Fox Lake
A. W. Lehman Creamery	Neosha
Highland Creamery	Theresa
Rock River Creamery	Theresa
Rock Island Creamery	Theresa
Upland Creamery	Theresa
Beaver Dam Creamery	Beaver Dam
Lake Shore Creamery	Beaver Dam
Trenton Creamery	Beaver Dam
Hatcher Creamery	Beaver Dam
C. Grashon	Beaver Dam
Lost Lake Creamery	Lost Lake
Ohrmundt & Gronoedt	Lost Lake
The G. C. Mansfield Co.....	Juneau
Baehler & Homlein Creamery.....	Juneau
G. W. Ohrmundt	Reeseville

DOOR COUNTY—

Fred. Hanson	Jacksonport
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DUNN COUNTY—

Rusk Co-operative Creamery Co.....	Rusk
O. W. Massee Creamery Co.....	Louisville
Colfax Creamery Association	Colfax
Geo. Tarrant & Sons.....	Eau Galle
Hudson Road Creamery	Menomonie
The Roberts Creamery Co.	Knapp
Downing Manufacturing Co.	Downing
Meridian Creamery Co.	Meridian

EAU CLAIRE COUNTY—

Victory Dairy Co.	Augusta
Rosedale Creamery	Augusta
Fairchild Creamery Co.	Fairchild
Fall Creek Creamery Co.	Fall Creek

FOND DU LAC COUNTY—

Mathew Michael	Calumetville
J. H. Quick	Lamartine
A. J. Amend	West Rosendale
H. Friday	Fairwater
Hobbs Bros. (2 Factories).....	Metomen
A. J. Amend	Metomen
J. E. Amend	Ripon
Democrat Prairie Cheese and Butter Co.....	Ripon
Oheler & House	Alto
B. Kloosterboer	Alto
Gus. Keeseman	Alto
H. C. Downy	Alto
H. D. Stetsel	Alto
Frank Meyers	Bling
W. J. Stahlbury	South Byron

FOND DU LAC COUNTY—Continued.

Louis Loehr	Johnsburg
Anton Blonien	Johnsburg
Highland Creamery Co.	Kinwood
Alto Creamery	Alto
M. J. Michels	Johnsburg
Frank March	Elmore
R. D. Sill	Waupun
C. A. Atwood	Waupun
W. Hatcher & Co.	Waupun
Bristol & Morgan	Waupun
A. E. Hill	Rosendale
H. Grell Butter Co.	Rosendale
Geo. Kreitzinger	Campbellsport
Hobbs Bros.	Brandon
S. B. Friday	Brandon
Fountain Creamery Co.	Peebles
Anton Dreifuerst & Co.	St. Cloud
Ed. Kosb	Marytown
A. Stephany	Malone
Louis Loehr	Malone
Matt. Michels	Calumet Harbor
C. A. Atwood	Ladoga
J. A. Stratz	Woodhull
D. S. Crosby	Rogersville
Rock River Co.	Oak Center
Cebell & Kottenberg	Oak Center
Boemer & Meuer	Ashford
D. D. Jones	Byron
Amel Warnkee	Fond du Lac
J. E. Knott & Co.	Fond du Lac
J. A. Emerson	Lamartine
C. E. Nash	Lamartine
Arnold Petri	Calvary
Anton Boelin	Calvary
Bristol, Morgan & Co.	Oakfield
Highland Creamery Co.	Oakfield
J. E. Neef	Ladago
E. Parsons	Ladago

GRANT COUNTY—

Mount Lion Creamery Co.	Cornelia
Dyer & Co. (2 Factories)	Cornelia
Richland & Vannatti	Cornelia
Platteville C. & P. Co.	Cornelia
Kieler Butter and Cheese Factory	Kieler
Georgetown Creamery Co.	Georgetown
Hazel Green Creamery Co.	Hazel Green
Ellenboro Creamery Co.	Ellenboro
Elgin Creamery Co.	Lancaster
W. H. Hunt	Potosi
Northwestern Creamery Co.	Elmo
Elgin Creamery Co.	Preston
F. A. Chandler	Preston
Hinn, Hildebrand Co. (Limited)	Fennimore
F. A. Chandler	Fennimore
Big Patch Skimming Station	Big Patch
Thompson Butter Co.	Big Patch
Louisburg Butter and Cheese Co.	Louisburg
H. F. Stagman & Co.	Bagley
W. H. Hunt	Burton

GRANT COUNTY—Continued.

Mt. Hope Dairy Association	Mt. Hope
Hinn, Hildebrand Co.	Mt. Hope
Millville Creamery Co.	Millville
J. W. Horsfall & Co.	Millville
Brodsville Creamery Co.	Brodsville
Bloomington Creamery Co.	Bloomington
A. R. Allen	Patch Grove
Platteville Cheese and Produce Factory	Platteville
H. J. Noyes	Muscoda
Lancaster Creamery Co.	Lancaster
Platteville Ridge No. 2.....	Platteville
Bunker Hill Creamery Co.	Platteville
Whitchers' Creamery	Platteville
Elgin Creamery Co.	Montford
Elgin Creamery Co.	Livingston
Elgin Creamery Co.	Stitzer
Klindt Geiger & Co.	Cassville
Geo. E. Groom	Cassville
Chas. Stephens	Ellenboro
Mrs. Geo. Springer (2 Factories) (Ellenboro Creamery Co.).....	Ellenboro
North Andover Dairy Association.....	North Andover
Cuba City Butter and Cheese Co.....	Cuba City
Richwood Creamery	Boscobel
Hinn, Hildebrand Co.	Hickory Grove
W. H. Hunt	Hurricane
Wyalusing Co-op.	Wyalusing

GREEN COUNTY—

Monticello Creamery Co.	Attica
G. A. Trepp	Brooklyn
J. R. Ellis & Co.	Brooklyn
R. Zimmerman	Brooklyn
J. Specks & J. Marty	Sylvester
A. Specks	Sylvester
Juda Creamery	Juda
A. Speich	Juda
D. E. Wood & Co.	Browntown
Stearns Creamery Co.	Stearns
D. E. Wood & Co.	Albany
Frank Gesser	Monroe
Jacob Spech	Monroe
D. E. Wood & Co.	Monroe
Polk Creamery	Polk
H. Trumpy & Son.....	Clarno
A. Notting & L. O. Knudsen	Brodhead
C. W. Singlehurst	Brodhead
John Newman Co.	Martintown
Fred. Hefty	Schultz
John Newman	Schultz
Dayton Dairy Association	Dayton
John Newman Co.	Stewart
W. H. Manser	Oakley
Monticello Creamery Co. (2 Factories).....	Monticello
E. South Creamery	Polk
James P. Younger	Polk
Fred. Knudert Creamery	New Glarus
F. R. Moles Creamery	Jordan
Robt. Steele	Albany
The D. E. Wood Butter Co.....	Albany

GREEN LAKE COUNTY—

Groose & Haas	Kingston
H. P. Friday	Markesan
Mackford Prairie Co.	Markesan
Berlin Creamery Co.	Berlin
Wohlwend Bros.	Berlin
Wohlwend Bros.	Princeton
Hadgson's Creek Butter and Cheese Co.	Berlin
Seneca Butter and Cheese Co.	Berlin
J. F. Goose	Manchester
Amend Co.	Dartford
Lake Emily	Stanford
Henry Friday	Green Lake
F. Haar	Markesan
J. L. Clark	Berlin

IOWA COUNTY—

Otter Creek Creamery Co.	Union Mills
Union Mills Creamery Co.	Union Mills
J. P. Younger	Union Mills
Mitchell & Griffith's Creamery Co.	Hyde
Blue Mounds Valley Creamery Co.	Mazomanie
Spensley & Co.	Mineral Point
Highland Creamery Co.	Highland
J. P. Younger Factory	Highland
Ridgeway Creamery Co.	Ridgeway
J. P. Younger	Cobb
Otter Creek Creamery	Edmund
J. P. Younger Creamery	Edmund
Dry Bone Creamery	Dry Bone
P. J. Kobstrop	Jonesdale
C. J. Heim	Jonesdale
Hollandale Co-op. Creamery Co.	Hollandale
Mitchell & Griffiths' Creamery Co.	Dodgeville
Dodgeville Co-op. Creamery Co.	Dodgeville
Spenseley & Co., Creamery	Linden
Mound Creek Creamery	Arena
Dry Bone Creamery	Dry Bone

JACKSON COUNTY—

J. R. Sechler & Son	Sechlerville
W. G. Hyslop	Melrose
North Bend Co-op. Creamery Co.	North Bend
W. G. Hyslop	Alma Center
Schmidt, Cailan & Grant	Stephensville
W. G. Hyslop	Melrose

JEFFERSON COUNTY—

Bollman & Co.	Bernhard
Albert Teich	Navan
Alfred Willman	Navan
W. M. Dawe	Welner
Hintz & McCrider Co.	Pipersville
Roberts & Reese	Pipersville
A. R. Hoard	Oakland
Oakhill Co-op. Cheese and Butter Co.	Oakhill
Wm. Dawe	Oakhill
Karow Bros. & Co.	Ebenezer
E. C. Dodge	Lake Mills
G. J. Millard	Lake Mills
Greenwood & Strasburg	Lake Mills

JEFFERSON COUNTY—Continued.

Haberman & Breitzman	Lake Mills
Union Creamery Co.	Lake Mills
Louis Woelfler	Lake Mills
Favill Grove Creamery	Lake Mills
Rock Lake Creamery	Lake Mills
Rome Dairy Co-op. Creamery	Rome
C. L. Calkins	Palmyra
Albert Koch	Palmyra
Fountain City Creamery	Palmyra
Tom. Sanders	Palmyra
Corner Grove Creamery Co.	Palmyra
Wilbe & Cook Creamery Co.	Palmyra
A. G. Haag Factory	Helenville
C. F. Pohlman	Helenville
A. R. Hoard	Koshkonong
Maple Leaf Creamery Co.	Jefferson Junction
B. Oestrich	Sullivan
Miller & Zahn	Sullivan
C. F. Greenwood & Co.	Milford
Milford Creamery Ass'n	Milford
Herman Teich	Milford
James Campbell	Jefferson
Harvey Creamery Co.	Jefferson
Riverside Creamery Co.	Jefferson
Maple Leaf Creamery Co.	Jefferson
Henry Schemp	Sumner
Hoard's Creamery	Hebron
Billet & Marshall	Hebron
Schempf & Godfrey (2 Factories)	Hebron
Bark River Cheese Co.	Hebron
H. C. Christians Co.	Aztalan
Jahnke Bros.	Aliceton
Roberts & Reese	Concord
C. Kaulaf	Concord
Wm. Yandery	Cold Springs
Schimp, Kuiz & Godfrey	Cold Springs
The D. E. Wood Butter Co.	Cold Springs
Fairview Creamery Co.	Harvey
Elgin Butter Co.	Ixonia
Ixonia Butter and Cheese Co.	Ixonia
Watertown Creamery Co.	Watertown
May's Creamery Co.	Watertown
North Road Factory	Watertown
West Road Creamery Co.	Watertown
Jos. Brooks Creamery	Watertown
South Road Creamery Co.	Watertown
Lake View Creamery Co.	Watertown
Bleecker Grove Creamery	Hubbleton
Union Creamery	Hubbleton
Rypkie Grove Creamery	Hubbleton
Roach & Seeber Co.	Waterloo
York Center Creamery Co.	Waterloo
Waterloo Butter and Cheese Co.	Waterloo
Geo. C. Mansfield Co. (7 Factories in the county)	Johnson's Creek
H. C. Christians Co. (4 Factories)	Johnson's Creek
Johnson's Creek (H. J. Grell Butter & Egg Co.)	Johnson's Creek
Grellton (H. J. Grell Butter & Egg Co.)	Watertown
Manz & Holenberg	Johnson's Creek
A. R. Hoard (5 Factories)	L. Ft. Atkinson
H. Schempf (3 Factories)	Ft. Atkinson
Geo. Hartel	Ft. Atkinson

JEFFERSON COUNTY—Continued.

South Koshkonong	Ft Atkinson
C. Kohloff	Farmington
L. Palman	Farmington
Duck Creek Creamery	Jefferson
J. P. Galloway	Koshkonong

JUNEAU COUNTY—

W. P. Donnett	Wonewoc
Union Center Creamery Co.	Union Center
Arbor Creamery Co.	Union Center
C. F. Mutch	Elroy
J. K. Rounds	New Lisbon
G. B. Winsor (N. Valley Creamery).....	Mauston
Necedah Creamery	Necedah

KENOSHA COUNTY—

Oatman Bros.' Factory	Salem
Cyrus Benedict	Brighton
Wm. Klosmeyer	Brighton
Oatman Bros.	Wilmot
Farmers' Wilmot Creamery	Wilmot
Meane Creamery	Burlington
S. D. Slade (Slade's Corners Creamery).....	Slade's Corners
Karnes' Corners Creameries	Woodworth
Woodworth Creamery	Woodworth
North Creamery	Woodworth
Farmers' Dairy Association	Basset
H. B. Kellogg.....	Ranney
Oatman Bros. (2 Factories).....	Bristol
Truesdell Creamery Co.	Pleasant Prairie
F. R. Snyder	Pleasant Prairie
Wm. Peterson	Wheatland
Trevor Creamery Ass'n	Trevor
Brighton Star Creamery	Silver Lake
Truesdell Creamery Co.	Truesdell
Mt. Pleasant Butter Co.	Somers
Kenosha County Star Creamery.....	Somers
Somers' Creamery	Somers
Farr Corners Creamery	Paris
Kenosha County Star Creamery	Paris
C. B. McKanna	Wheatland
Wm. Peterson	Wheatland

KEWAUNEE COUNTY—

Albert Hoppe	Rio Creek
Green Bay Creamery (Skimming Station).....	Casco

LA CROSSE COUNTY—

H. H. Bosshard	Burns
Holman Creamery Association	Holman
West Salem Co-op. Creamery Ass'n.....	West Salem
A. C. Hanson (Mindoro Creamery Co.).....	Mindoro
James Barclay	Mindoro
John H. Dable	Burr Oak
Bangor Co-op. Dairy Association.....	Bangor
Mrs. Samuels	Barre Mills
Rockland Creamery	Rockland

LA FAYETTE COUNTY—

Whiteoak Dairy and Feed Ass'n.....	Whiteoak
T. Isaac Vickers (Skimming Station).....	Meeker's Grove
Elk Grove Creamery	Elk Grove
Geo. Meyers	Red Rock
Wardsville Separating Creamery Co.....	Shullsburg
Shullsburg Creamery Co.....	Shullsburg
Jos. Backstone	Shullsburg
Dodge Grove Creamery	Leadmine
Columbia Creamery	Benton
Rudolph Miller	Dumbarton
D. E. Wood Butter Co.....	Graiot
Krogg & Dettimer	Belmont
The D. E. Wood Butter Co.....	Graiot
Town Line Creamery	Graiot
New Diggings' Dairy and Feed Ass'n.....	New Diggings
D. E. Wood & Co.....	South Wayne
J. Newman	South Wayne
Avon Creamery Co.	Darlington
Wardsville Creamery Co.	Darlington
Pleasant View Creamery Co.	Darlington
Otter Creek Creamery Co.....	Darlington
R. H. Driver (2 Creameries).....	Darlington
R. T. Scott & Co.....	Yellowstone
Argyle Creamery (Jno. Newman Co.).....	Argyle
J. Newman Co.....	Yellowstone
F. R. Moler	Woodford
Fayette Creamery Co.	Fayette
Wiota Creamery	Wiota
John Newman	Blanchardville
Bethel Grove Creamery	Truman
Albert Pool	Lamont
John Newcomb Co.	Lamont
J. H. Clarkson	New Diggings
D. E. Wood Butter Co.	Wiota
Dodge Grove Creamery	Leadmine

LANGLADE COUNTY—

Antigo Cheese and Creamery Co.....	Antigo
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LINCOLN COUNTY—

The Russell Creamery Co.	Dudley
J. A. Young	Merrill
Chas. Dickert	Corning

MANITOWOC COUNTY—

Adolph Klessig	Osman
Martin Rhode	Northelm
Klessig Bros.	St. Wendel
Henry Hingiss	St. Wendel
P. H. Peacock	East Gibson
Jas. Mallman	Rube
H. Bargaenbusch	Rube
F. Simers	Meeme
Chas. Weinfather	Tisch Mills
John Backhaus	Mishicott
Cleveland Creamery Co.	Cleveland
Oscar Bartel	Cleveland
Frank Fenner & Bro.....	Larrabee
H. Strathoff	Alverno
R. C. Belnke	Wells

MANITOWOC COUNTY—Continued.

Simon Geger	Kasson
E. Bruckschew & Co.	Timothy
H. Werner	Maple Grove
Frank Kelbeck	Whitelaw
Herman Strodhoff	Newtonberg
Wisconsin Butter and Cheese Co.	Reedsville
Manitowoc Creamery Co.	Cato
Herman S. Schultz	Manitowoc
Manitowoc Creamery Co.	Manitowoc
Jacob Behringer	Manitowoc
Fred. Bremer	Manitowoc
Alex. McAdam	Manitowoc

MARATHON COUNTY—

Anton Braun	Poinatowski
Aug. Ritger & Co.	Marathon
Gottlieb Koehler	Hamburg
Ludwig Mootz	Barney
Henry Belke	Stettin
Andrew Flaig	Colby

MARINETTE COUNTY—

John Hoganson	Posterfield
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MARQUETTE COUNTY—

Germania Creamery Co.	Germania
John Ellis	Moundville
Lakeview	Briggsville
B. D. Brigham	Westfield
W. N. Johnson	Oxford
Stockholders' Creamery Co.	Douglas Center

MILWAUKEE COUNTY—

Oatman Bros.	Stargard
Cornelius Taylor	Wauwatosa

MONROE COUNTY—

T. L. Martin (Wilton Creamery Co.)	Wilton
Cold Spring Co-op. Creamery	Wilton
F. J. Kraknabuhl	Milvina
Melvina Creamery Co.	Melvina
Alex. Roof	Norwalk
Tunnel City Creamery Co.	Tunnel City
Cashton Creamery Co.	Cashton
Elgin Creamery Co.	St. Mary's
Kendall Creamery Co.	Kendall
Leon Creamery Association	Leon
B. Drowatzky	Tomah
The Warrens Creamery Co.	Warrens
A. C. Cole & Son	Cataract
A. I. Sensee & Son	Cataract
Angelo Creamery Co.	Angelo
Wm. Huntzinger	St. Mary's
Elgin Creamery Co.	Cashton
J. J. Menn	Oil City

OCONTO COUNTY—

Little River Creamery	Oconto
Maple Valley Creamery Co.	Maple Valley
Anson Eldred Co.	Stiles
John F. Schultz	Abrams
Lena Creamery Co. (Henry Grab)	Lena
Gillett Co-operative Co.	Gillett
John Theade	Brookside
Maple Valley Creamery Co.	Claywood

OUTAGAMIE COUNTY—

Welcome Creamery Co.	Welcome
Kaukauna Creamery Co.	Kaukauna
Bungert Creamery Co.	Bungert
Bear Creek Corners Creamery.....	Bear Creek
Welcome Creamery	Bear Creek
Aug. Gerlack	Apple Creek
John Cannon	Dale
Dale Cheese and Butter Co.	Dale
Koehn & Potter	Appleton
Dengler & Son	Appleton
Johnston's Creamery	Appleton
Peter Zomer	Appleton
Philip Greimer	Erb
L. Dabareiner & Co.	Hortonville
Hogaboom Bros.	Black Creek
Loubenhimer & Stein	Black Creek
Seymour Creamery Co.	Seymour
Black Creek Butter and Cheese Co.	Black Creek
John W. Gruppe Butter & Cheese Co.....	Greenville
Chas. Baker	Seymour
H. Greb	Seymour
Black Creek Butter & Cheese Co.....	Black Creek
Theo. Marks	Black Creek

OZAUKEE COUNTY—

E. L. Eastman (Riverside Creamery)	Saukville
Arthur Beger	Kohler
George Minz	Kohler
Wm. Schoessow	Freistadt
Five Corners Creamery Co.	Cedarburg
John Paulus	Belgium
Nick. Knepper	Fredonia
Chas. Gerlach	Grafton
The Grafton Creamery Co.	Grafton

PEPIN COUNTY—

Plummer Mercantile Co.	Arkansaw
Geo. Tarrant & Son (3 Factories).....	Tarrant
V. W. Dorwin Mill Co., Cheese and Creamery.....	Tarrant
George Tarrant & Son	Durand
W. V. Dorwin Mill Co.	Durand
Bear Creek Co-op. Creamery Co.	Durand

PIERCE COUNTY—

Martell Creamery Co.	Martell
Rock Elm Creamery Association	Rock Elm
Trimbelle Butter & Cheese Co.	Trimbelle
Crescent Creamery Co.	Ellsworth
Johnson & Larson	River Falls
Rock Elm Butter & Cheese Ass'n.....	Exile

POLK COUNTY—

A. C. Roonholdt	Patterson
Cushing Co-operative Creamery	Cushing
H. J. Hjost	West Denmark
Balsam Lake Co-operative Creamery Co.	Balsam Lake
Clear Lake Co-operative Creamery Co.	Clear Lake
Wm. Kent & Co. Creamery	Osceola Mills
Hjort Bros.	West Sweden
Laketown Creamery	Alabama
W. Matteson & Son	Jensen
Atlas Creamery Co.	Atlas
Anthony Johnson and Co.	North Valley
Creamery	Richardson

PRICE COUNTY—

Christian Mayer	Phillips
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RACINE COUNTY—

McCanna, Frasier Co.	Waterford
McCanna, Frasier Co.	Caldwell
McCanna, Frasier Co.	Burlington
Burlington Farmers' Creamery	Burlington
Cyrus Benedict	Union Grove
McCanna, Frasier Co.	Kansasville
McCanna, Frasier Co.	Rochester
McCanna, Frasier Co.	Beaumont
Karney & Wurterling	Kneeland
Mt. Pleasant Butter Co.	Sylvania
W. V. Creamery	Sylvania
Spellum & Thompson	North Cape
Thompsonville Creamery	Thompsonville
Raymond Creamery Co.	Raymond
C. Otto	
Clumlie Creamery	Union Grove
Cyrus Benedict	Union
N. Spartz	Union Grove
Husher Creamery	Caledonia

RICHLAND COUNTY—

Carswell Bros.	Dixon
Martin & Harter	Richland Center
J. R. Mansfield	Richland Center
Henry Flemme	Richland Center
Sylvan Creamery Co.	Sylvan
Ithaca Union Cheese Co.	Ithaca
Richwood Creamery Co.	Westport
Bloom City Creamery Co.	Bloom City
Elgin Creamery Co.	Bear Valley
Andrew Harter	Lone Rock

ROCK COUNTY—

Courtland Lackner	Indian Ford
Chas. D. Fitch	Emerald Grove
M. C. Uehling	Shopiere
F. O. Uehling & Co.	Hanover
R. R. Carlston	Hanover
Eagle Creamery Co.	Fulton
Taylor & Marston	Beloit
Egbert Starr	Beloit
W. S. Thompson	
Edgerton Creamery Co. (G. C. Mansfield & Co.) ..	Edgerton
Elgin Creamery Co.	Clinton
Nora Creamery Co.	Clinton

ROCK COUNTY—Continued.

F. O. Uehling & Co.	Orfordville
E. H. Skinner	Orfordville
Wm. Brinkman	Afton
Tiffany Co-operative Creamery Ass'n.....	Tiffany
Rice & Carlson	Footville
Chas. Hatton	Footville
D. E. Wood & Co.	Magnolia
D. E. Wood & Co.	Cooksville
Conley & Conry.....	Fairfield
G. D. Hall	Johnstown Center
"Harmony"—J. C. Hohn, Prop.....	Janesville
"Janesville"—F. W. Boetcher, Prop.....	Janesville
"Willowdale"—E. Brinkman, Prop.....	Janesville
La Prairie Creamery Co.	Janesville
Henry Schump	Milton
Godfrey & McComb	Lima Center
Kachel & Marlett	Whitewater
A. D. Conkey	Milton Junction
Geo. K. Nelson	Milton Junction
D. E. Wood & Co.	Evansville
Johnstown Creamery Co.	Johnstown
Fred Vankirk	Center
Sands & Co.	Clinton
I. J. Fletcher	Johnstown
Ehler Brinkman	Willowdale
Western Newark Creamery Co.	Newark

ST. CROIX COUNTY—

Rush River Creamery Co.	Baldwin
T. E. Hawkins	Baldwin
Roberts Creamery Co.	Baldwin
Roberts Creamery Co.	Wilson
Roberts Creamery & Cheese Co.	Roberts
C. F. Freeman & Co.	Roberts
James J. Graslie	New Centreville
Deer Park Co-operative Co.	Deer Park
Glenwood Creamery Co.	Glenwood
Otto Jensen Creamery Co.	Brookville
Cylon Creamery Co.	Cylon
Woodville Butter & Cheese Co.	Woodville
Star Prairie Creamery Co.	Star Prairie
Haugen & Grasslie	Palmer
Nels Lorenson	Brookville
Hill & Hawkins	Hammond
Graslie Creamery Co.	Hammond

SAUK COUNTY—

Troy and Honey Creek Factory.....	Wilton
Durward & Querhammer	Black Hawk
Sumpter Creamery Co.	Prairie du Sac
Wisconsin Co-operative Creamery Co.....	Sauk City
Riverside Creamery	Sauk City
Barker Bros.	Baraboo
W. P. Dennett	Reedsburg
Dell Sanborn	La Valle
Loganville Butter & Cheese Manufacturing Co.....	Loganville
Merrimack & Caledonia Creamery Co.....	Merrimack

SAUK COUNTY—Continued.

Co-operative Creamery Co.	Spring Green
Drew & Schmidt	Leland
J. E. Ward	Sandusky
Clover Creamery Co.	Sandusky
Sumpter Creamery Co.	King's Corners

SHAWANO COUNTY—

O. A. Risum	Pulcifer
Anton von Heimbürg	Bonduel
Anton von Heimbürg	Cecil

SHEBOYGAN COUNTY—

Garling & Co.	Glenbeulah
Wunch Bros.	Mosel
A. Suemnicht	Winooski
Andrus Bros.	Winooski
O'Connell Bros.	Beechwood
Haenenke Bros.	Cedar Grove
J. E. Doane	Cedar Grove
Dulmes & Kremmer	Oostburg
P. Spravgers	Oostburg
Lemkuel & Sufeling	Oostburg
J. P. Ehren	Oostburg
Jos. Lensenk	Oostburg
William Reineck	Oostburg
O'Connell Bros.	Adell
Frank Bartzter	Sheboygan
Herbert Bliss	Sheboygan
C. H. Pape	Sheboygan
Sheboygan Milk Co.	Sheboygan
T. M. Champeny	Plymouth
C. H. Lencke	Plymouth
Wm. Skelton	Parnell
Geo. Krautkraemer	Franklin
C. F. G. Wernicke	Greenbush
Thos. Allan	Adell
Z. Holden	Sheboygan Falls
M. McKinnon	Sheboygan Falls
McGran & Evans	Sheboygan Falls
J. F. Mohri	Silver Creek

ST. CROIX COUNTY—

Rush River Creamery Co.	Palmer
Graslie & Bonninger New Creamery	Hammond

TREMPEALEAU COUNTY—

Wernick & Hammer	Hillsboro
Ontario Creamery Ass'n	Ontario
C. M. Levis	Osseo
Arctic Springs Creamery Co.	Galesville
N. I. Gilbert	Eleva
Unity Co-operative Creamery Co.	Strun
P. Ekem	Pigeon Falls
Blair Trading Ass'n	Blair
W. G. Hyslop	Blair
Jno. Ziegler	Valley
Arcadia Creamery Co.	Arcadia
Independence Creamery Co.	Independence
Burnside Butter & Cheese Factory	Trempealeau
Whitehall Creamery Ass'n	Whitehall
Elk Creek Creamery Ass'n	Elk Creek
Dodge Creamery	Dodge

VERNON COUNTY—

Dilly Creamery Co.	Dilly
Coon Valley Creamery	Coon Valley
A. E. Eide	Chaseburg
Arbor Creamery Co.	Dilly
Thompson Bros. & Co.	Bristow
C. C. Olson	Bristow
Fortun Bros.	Bristow
Thompson Bros.	Purdy
Hoken, Anderson, Butter & Cheese	Westby
A. E. Mutch	Hillsboro
Wernick & Hammer	Hillsboro
C. V. Wernick	Hillsboro
John Warner	Ross
Ontario Creamery Ass'n	Ontario
Newton Creamery Co.	Newton
Elgin Creamery Co.	Westby
La Farge Creamery	La Farge

WALWORTH COUNTY—

J. Watts	Richmond
Wisconsin Butter & Cheese Co.	Millard
Farmers' Creamery Co.	Walworth
Columbia Creamery Co.	Allen's Grove
Harris & West	Darien
Wisconsin Butter & Cheese Co.	Fayetteville
Conley & Conroy	Darien
Alvin Stone	Darien
Union Produce Co.	Whitewater
C. R. Gibbs	Whitewater
H. Judke	Whitewater
John Kachel Co., Creamery and Cheese.....	Whitewater
George Cowles	Whitewater
C. Q. Bench	Whitewater
Thos. Dryer Cheese Factory and Creamery.....	Whitewater
Harvey Godfrey	Whitewater
Clover Valley Creamery Co.	Whitewater
J. P. Galloway.....	Whitewater
Elkhorn Dairy Co.	Elkhorn
Wisconsin Butter & Cheese Co.	Elkhorn
Lake Town Creamery	Elkhorn
South Sugar Creek, Butter & Cheese	Elkhorn
East Troy Co-operative Butter & Cheese Ass'n.....	Hilburn
Adams Butter & Cheese Co.....	Adams
Co-operative Troy Creamery Co.	Mayhew
Silver Lake Creamery Co.	Tibbets
Oatman Bros.	Spring Prairie
Hilburn Creamery Co.	Lake Buelah
McCanna & Frasier	Lake Buelah
Metlowee Butter Co.	East Delavan
East Delavan Creamery Co.	East Delavan
Murphy & Wenkleman	East Delavan
Honey Creek Co-operative Creamery.....	Honey Creek
McCanna, Frasier & Co.	Honey Creek
Spring Creek Creamery Ass'n.....	Bissell
Oatman Bros.	Genoa Junction
J. B. Vosburg	Genoa Junction
Elgin Butter Co.	Genoa Junction
Lake View Creamery Co.	Lake Geneva
North Bloomfield Farmers' Factory.....	Lake Geneva
Maple Ridge Creamery	Lake Geneva
Kayes Park Creamery Co.	Lake Geneva
Geneva Center Creamery	Como

WALWORTH COUNTY—Continued.

Meltowe Butter Factory—Island	Delavan
Delavan Prairie Co-operative Creamery.....	Delavan
H. Marr	La Grange
La Grange Butter and Cheese Factory.....	La Grange
Harris Bros.	Troy Center
Oatman Bros.	Springfield
Wisconsin Butter & Cheese Factory	Springfield
McAdam Bros.	East Troy
East Troy Butter & Cheese Ass'n.....	East Troy
Troy Cheese & Creamery Ass'n.....	Troy
Newhall Bros.	Richmond
Elgin Dairy Co.	Sharon
Sharon Dairy Co.	Sharon
C. H. Stubbs	Lyons

WASHINGTON COUNTY—

Boltonville S. & C. Association	Boltonville
M. N. Gehl	South Germantown
Dow Maxon & Co.	Schleisingerville
L. Rosenheimer	Kewaskum
West Bend Creamery Co.	West Bend
Jackson Butter & Cheese Co.....	Jackson
Dow Maxon	Cedar Creek
J. B. A. Kern & Son.....	Allentown
John Replinger & Co.	Allentown
M. Stoffel	Rio
Gilt Edge Butter Co.	Barton
Newburg Creamery Co.	Newburg
Jackson Butter & Cheese Co.	Kirchhayn
Thompson Creamery	Thompson
J. L. Bertscher	Clear Lake
Michael Gehl	Aurora

WAUKESHA COUNTY—

C. J. Bente	Golden Lake
Menomonee Fall Co-operative Creamery Co.....	Menomonee Falls
Harris Bros.	Calhoun
Prince of Wales Creamery	Wales
Wisconsin Butter & Cheese Co.	Mukwonago
Perry Schuchart	Merton
T. M. Champeny	Monches
Hartland Creamery	Hartland
Saylesville Creamery	Genessee
North Prairie Butter and Cheese Co.....	North Prairie
Delafield Co-operative Creamery Co.....	Delafield
Marcy Elgin Co.	Marcy
Claser & Claser	Marcy
Roach & Seeber.....	Summit Center
Herman Bente	Summit Center
Miller & Zahn	Summit Center
H. Dames	Monterey
Wisconsin Butter and Cheese Co.....	Vernon
Vernon Co-operative Factory	Vernon
T. M. Champeny	Sussex
Wisconsin Butter and Cheese Co.....	Waukesha
Wm. Miller & Co.....	Dousman
Flynn & Whelan	Merton
Wm. Miller	Waterville
Pewaukee Creamery Co.....	Pewaukee
T. M. Champeny	Colgate
Chris. Glans, Creamery and Hand Cheese.....	Tess Corners
Vernon Co-operative Creamery	Prospect

WAUKESHA COUNTY—Continued.

McCanna & Frasier Co.....	Prospect
McCanna's Butter and Cheese Factory.....	Big Bend
Ottawa Co-operative Cheese and Butter Co.....	Ottawa
H. J. Roberts.....	Oconomowoc
H. C. Patrick.....	Oconomowoc
Summit Creamery.....	Oconomowoc
Muskego Creamery.....	Burlington

WAUPACA COUNTY—

Spring Lake Co-operative Creamery Association.....	Waupaca
Ed. R. Traeger.....	Clintonville
Baldwin Creamery Co.....	Weyauwega

WAUSHARA COUNTY—

Eureka Creamery Co.....	Borth
D. J. Jenne & Son.....	Auroraville
Crystal Fountain Creamery.....	Auroraville
Fountain Valley Creamery.....	Auroraville
Ruly Heale Bros.....	Auroraville
Poysippi Creamery Co.....	Poysippi
D. J. Jenne & Co.....	Fargo
Plainfield Butter Factory.....	Plainfield
Pine River Dairy Association.....	Auroraville
C. S. Walter, Butter and Cheese.....	Brushville
Star Creamery Co.....	Tustin
Ernest Mathews.....	Terrill
Hale Bros.....	Terrill
Poysippi Creamery.....	Poysippi

WINNEBAGO COUNTY—

Allenville Spring Creamery Co.....	Allenville
Rush Lake Creamery Co.....	Rush Lake
Chas. Lambert.....	Pickett
Lambert & Sconlan.....	Fisk
Eureka Creamery.....	Oshkosh
C. Natteman.....	Oshkosh
Koro Co-operative Creamery Co.....	Koro
Floral Creamery Association.....	Zion
Floral Co-operative Creamery.....	Waukan
Floral Creamery.....	Omro
Oak Hill Creamery Co.....	Larsen
Guss Kreptke.....	Neenah
Wm. M. Robinson.....	Neenah
J. W. Jeffers.....	Winneconne
Chris. Velte.....	Zitlan

WOOD COUNTY—

Hiles Bros.....	Dexterville
M. A. Sickels & Co.....	Pittsville
Grand Rapids Creamery.....	Smyrna
Hewitt Co-operative Creamery Co.....	Hewitt
Farmer's Creamery Co.....	Grand Rapids

MICHIGAN SUPREME COURT OPINION.

PEOPLE VS. THE WORDEN GROCER CO. FILED DECEMBER 6, 1898.

LONG, J. The complaint in this case charges that the defendant: "On February 5, 1898, did unlawfully sell and deliver to John T. Owen, of Benton Harbor, Michigan, a large quantity, to-wit: One barrel of vinegar which was not then and there in compliance with the provisions of act No. 71, Public Acts of 1897, in this, viz.: That said vinegar was sold as fermented cider vinegar, and branded as such; that said vinegar contained less than one and three-fourths per cent. by weight, upon full evaporation (at the temperature of boiling water) of solids contained in the fruit from which said vinegar is fermented, to-wit: One and fifty one-hundredths per cent. of solids; and said vinegar contained less than two and a half-tenths of one per cent. ash or mineral matter, the same being the product of the material from which said vinegar was manufactured, to-wit: eight one-hundredths of one per cent. of ash or mineral matter, against the form of the statute in such case made and provided," etc.

The cause was commenced in the police court, and, being removed to the circuit, came on to be heard before a jury. The defendant refused to plead, and counsel for defendant thereupon made a motion to quash the complaint and summons for several reasons, which will be hereafter discussed. The court upon the trial directed a verdict of guilty, and the cause comes to this court by writ of error.

The title of the act reads: "An act in relation to the manufacture and sale of vinegar, and to repeal act No. 224 of the Public Acts of 1889, approved," etc. Sections one and two of the act, being the sections in question, provide:

"Section 1. The People of the State of Michigan enact: That "no person shall manufacture for sale, offer or expose for sale, sell or deliver, or have in his possession with intent to sell or deliver, any vinegar not in compliance with the provisions of this act. No vinegar shall be sold as apple, orchard or cider vinegar which is not the legitimate product of pure apple juice, known as apple cider or vinegar not made exclusively of said apple cider or vinegar into which foreign substance, drugs or acids have been introduced, as may appear upon proper tests, and upon said test, shall contain not less than one and three-fourths per cent., by weight, of cider vinegar solids upon full evaporation at the temperature of boiling water.

"Section 2. All vinegar made by fermentation and oxidation without the intervention of distillation, shall be branded 'fermented vinegar,' with the name of the fruit or substance from which the same is made. And all vinegar made wholly or in part from distilled liquor shall be branded 'distilled vinegar,' and all of such distilled vinegar shall be free from coloring matter added during or after distillation, and from color other than imparted to it by distillation. And all fermented vinegar not distilled shall contain not less than one and three-fourths per cent., by weight, upon full evaporation (at the temperature of boiling water) of solids, contained in the fruit or grain from which said vinegar is fermented, and said vinegar shall contain not less than two and a half-tenths of one per cent. ash or mineral matter, the same being the product of the material from which said vinegar is manufactured. And all vinegar shall be made wholly from the fruit or grain from which it purports to be or is represented to be made, and shall contain no foreign substance, and shall contain not less than four per cent., by weight, of absolute acetic acid."

It appears by the testimony that the defendant, a Michigan corporation doing business at Grand Rapids, on February 5, 1898, sold a barrel of vinegar to one John T. Owen, of Benton Harbor. The sale is admitted. A sample of the vinegar

was taken from this barrel and analyzed by the state analyst, Mr. Fred A. Bordaile. The correctness of this analysis is not disputed. This analysis showed that the vinegar did not comply with the requirements of the statute, in that it did not contain the amount of solids nor the amount of ash or mineral matter required.

The contentions made by the counsel for defendant mostly relate to the validity of the act.

1. It is contended that the title to the act does not express any object; that the act was intended to prevent deception in the sale of vinegar, or to prevent adulteration of vinegar, but that no such object is expressed in the title; and that the title is therefore in conflict with section 20, article 4, of the constitution of this state, which provides that: "No law shall embrace more than one object, which shall be expressed in its title."

We think this contention is sufficiently answered by what was said by this court in *Soukup v. Van Dyke*, 109 Mich., 681. There the title was: "An act relative to justice courts in the city of Grand Rapids." It was said: "The title is sufficient if it fairly and reasonably announces the object, and that it is a single one. If this requirement be observed, the legislature must determine for itself how broad and comprehensive shall be the object of a statute, and how much particularity shall be employed in the title in defining it."

In *People v. Kelly*, 99 Mich., 82, the title under discussion was: "An act relative to disorderly persons, and to repeal," etc. See also:

State v. County Judges, 2 Iowa, 281.

McAulich v. The Miss. & Mo. R. R. Co., 20 Iowa, 342.

2. Counsel contends that the complaint being drawn under section 2 of the act, no conviction can follow; that if any violation of the law be found, it is of section 1, and not of section 2 of the act; that therefore the complaint was drawn under the wrong section.

This contention cannot be sustained. It is plain from the reading of these sections that the legislature intended that all fermented vinegar should come up to the required standard, whether made from fruit or grain.

3. The defendant contends that the act is unreasonable, and therefore void as beyond the police power of the state, in that the test for cider vinegar in regard to solids is arbitrary, unscientific and not calculated to accomplish the end sought by the legislature, viz: To protect the public health against spurious vinegar; that such test is no test, because:

(a.) Said solids and ash are indefinite ingredients of vinegar from a hygienic standpoint.

(b.) Their comparative absence or presence is not an essential ingredient of pure apple cider vinegar.

(c.) A vinegar can be manufactured which will satisfy the requirements of the statute and yet contain no materials from apples or the product of apples.

(d.) A pure apple cider vinegar is frequently made which is below the requirements of the statute in solids and ash.

(e.) The less proportion of solids is a proof of greater purity in the vinegar and of its better keeping qualities.

These questions might very properly be addressed to the legislature, but are matters with which the court has nothing to do. It is not a part of the functions of the court to investigate the facts entering into questions of public policy merely. Under our system that power is lodged in the legislative branch of the government. It belongs to that branch to determine primarily what measures are appropriate or needful for the protection of the public morals, the public health or the public safety.

Barton v. McWhinney, 85 Ind., 481;

Mugler v. Kansas, 123 U. S., 660;

Com. v. Powell, 127 U. S., 685.

In *People v. Snowberger*, 71 N. W. R., 499, it was said by this court: "The act may work hardship in many cases, but the question is one to be addressed to the legislature—not to the court."

The question of the reasonableness of the acts found in many states relative to the sale of milk below a certain standard has been frequently raised in the courts, and the acts upheld.

In *Com. v. Evans*, 132 Mass., 11, the court passing upon such a statute said: "The intention of the legislature and the practical operation of this section

in connection with the third section is to provide that it shall be unlawful to sell milk containing not less than thirteen per cent. of milk solids. This belongs to the class of police regulations designated to prevent fraud and to protect the health of the people which is within the constitutional power of the legislature to enact."

In *State v. Smyth*, 14 R. I., 100, the court said: "It was the purpose of the statute to prohibit, not only the dealing in milk which had been adulterated, but also in milk of such an inferior quality as to fall below the standard named in section three. It is equally a fraud upon the buyer, whether the milk which he buys was originally good and has been deteriorated by the addition of water, or whether in its natural state it is so poor as to contain the same proportion of water as that which has been adulterated." See also:

State v. Newton, 45 N. J. L., 469;

Bertholf v. O'Reilly, 74 N. Y., 509;

State v. Campbell, 64 N. H., 403.

But counsel contends that the reasonableness of this act is a question of fact for the jury to determine from the expert chemical evidence.

This question is neither for the court nor the jury to determine. In *People v. Cipperly*, 101 N. Y., 634, that very question was discussed and decided adversely to the claim here. It was said: "The defendant takes the broader ground that the legislature cannot, under the constitution, prohibit the sale of milk 'drawn from healthy cows which in its natural state falls below the standard fixed by the act, unless such milk or the articles made from it are in fact unwholesome or dangerous to the public health. How is that question of fact to be determined? The court cannot take judicial notice whether the milk below the standard is or is not unwholesome or dangerous to the public health. Is that to be a question for the jury? If so, the court must charge a jury in each case that if they find milk below that standard to be unwholesome, then the statute is unconstitutional. Evidently the constitutional question cannot be settled, or rather settled in that way. The constitutionality would vary with the varying judgment of jurors.

In the emery wheel case before us, in *People v. Smith*, 108 Mich., p. 534, a somewhat similar question was discussed. It was said: "If the court find the plain provisions of the constitution violated, or if it can be said that the act is not within the rule of necessity in view of facts of which judicial notice may be taken, then the act must fall; otherwise it should stand." See also:

People v. Girard, 145 N. Y., p. 109.

Counsel also contends that defendant was not allowed, nor could it obtain, a sample of the vinegar in question for analysis, and was deprived of the right to produce evidence as to the amount of solids in the vinegar; and was thus deprived of property without due process of law.

The record shows that the defendant was not prevented from getting a sample of the vinegar by any person interested in the prosecution of the suit. The records show that the only effort it made to get such sample was a letter written to Mr. Owen, who had bought and paid for the vinegar, requesting him to return it, to which the defendant received no reply; and it does not appear that Mr. Owen had any of the vinegar left at that time. No sample was left with the defendant by the prosecution; nor was this necessary.

Com. v. Coleman, 157 Mass., 460.

This statute forbids the manufacture and sale of vinegar not in compliance therewith; and persons manufacturing or selling vinegar below the standard do so at their peril. It is no defense that the person so manufacturing or selling vinegar below the standard has no knowledge that it is not within the standard prescribed.

People v. Snowberger, 71 N. W. R., 497.

We have examined the other questions raised, but do not deem it necessary to discuss them. They relate mostly to offers of testimony which the court below ruled out; and, we think, properly.

The testimony was uncontradicted that the vinegar sold was not in compliance with the statute. The sale was admitted.

The court was not in error in directing the verdict. The conviction must be affirmed.

Grant, C. J., did not sit.

The other justices concurred.

ABSTRACT OF THE DAIRY AND FOOD LAWS OF THE UNITED STATES.

The following abstract of the dairy and food laws of the United States, and of the several states, was made by the dairy division of the Department of Agriculture at Washington, and is reprinted as being of interest to all friends of pure food legislation, and of value to all in authority in this state who are charged with the enactment and execution of laws of this character.

In the following abstracts it is aimed to state briefly the principal features of the dairy laws, omitting matters of minor interest, as references to penalties, details of enforcement, disposition of fines, etc.

States having dairy commissioners or other officers specially charged with the enforcement of dairy laws, usually give such officers necessary authority for securing evidence, having analyses made, and conducting prosecutions; it is also customary to allow them necessary traveling expenses in addition to the regular salary.

When a subject is followed by the words "No law" it should be understood there is no special law on that subject. It may, however, be covered by a pure-food law, an abstract of which is given in another place.

UNITED STATES.

MILK.—Import duty on fresh milk, 2 cents per gallon. *Condensed Milk.*—Import duty on preserved, condensed, or sterilized milk, 2 cents per pound.

BUTTER.—Butter is defined as the food product usually known as butter and made exclusively from milk or cream, with or without salt or color. Import duty, 6 cents per pound.

CHEESE.—Cheese is defined as the food product known as cheese and made exclusively from milk or cream, with or without coloring matter. Import duty, 6 cents per pound.

OLEOMARGARINE AND FILLED CHEESE.—Special taxes are imposed upon manufacturers, wholesale dealers, and retail dealers. Each original package must bear a prescribed label. Regulations concerning reports, etc., of manufacturers and branding of all packages not provided for by the law are made by the commissioner of internal revenue. *Oleomargarine.*—Oleomargarine is defined as certain (enumerated) manufactured substances, extracts, mixtures, and compounds, including such mixtures and compounds with butter, made in imitation of butter and intended to be sold for butter. Taxed 2 cents per pound. Import duty 6 cents, and internal-revenue tax on imported oleomargarine, 15 cents per pound. *Filled Cheese.*—Filled cheese is defined as substances made from milk or skimmed milk with admixture of butter, oils, or compounds foreign to such milk, and made in imitation of cheese. Taxed 1 cent per pound. Import duty, 6 cents, and internal-revenue tax on imported filled cheese, 8 cents per pound. Original packages shall be plainly branded "Filled cheese," and signs must be displayed where sales are made.

MISCELLANEOUS.—Import duty on sugar of milk, 5 cents per pound.

ALABAMA.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—No article which is in imitation of pure yellow butter and is not made wholly from pure milk and cream shall be manufactured, sold, or

used in any public eating place, hospital, or penal institution, etc.; but oleo-margarine, free from color or other ingredient to cause it to look like butter, and made in such manner as will advise the consumer of its real character, is permitted. It must be stamped with its name.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—(No law.)

ARIZONA.

(No dairy laws.)

ARKANSAS.

MILK.—(No law.)

BUTTER.—Butter is defined as a product manufactured exclusively from milk and cream.

CHEESE.—(No law.)

IMITATION BUTTER.—Substitutes for butter, whether in wholesale or retail packages, shall be plainly labeled "Adulterated butter," "Oleo-margarine," or such other name as shall properly describe them. In hotels, etc., dishes containing said articles must be plainly marked in same manner.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—(No law.)

CALIFORNIA.

DAIRY BUREAU.—Three resident citizens, experienced in manufacture of dairy produce, constitute a state dairy bureau. Period of office four years; no compensation. Issue and record cheese brands. Their agent receives \$1,200 salary and is allowed assistants and chemists when necessary. Annual appropriation for bureau, \$5,000.

MILK.—(No law.)

BUTTER.—Roll butter when sold must be full weight.

CHEESE.—All cheese must be branded "California full cream cheese," if it is made from pure whole milk and contains at least 30 per cent. fat; "California half-skim cheese," if made from pure milk and has at least 15 per cent. fat; "California skim cheese," if made from pure skim milk. Fancy cheeses are excepted.

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese is defined as any article not produced from pure milk or cream, salt, rennet, and harmless coloring matter, which is in semblance of butter or cheese and designed as a substitute for such. Shall not be colored to imitate butter or cheese, and must be in such form as will advise consumer of its real character. Every package must be plainly marked "Substitute for butter," or "Substitute for cheese," and accompanied by a statement giving name of manufacturer, ingredients, etc., a copy of which must be given to each purchaser, with verbal notice, at the time of sale, in connection with which words like "creamery," "dairy," etc., are prohibited. Patrons of eating places shall be notified if substitutes of butter or cheese are used. Prohibited in state charitable institutions.

MISCELLANEOUS.—(No law.)

COLORADO.

DAIRY COMMISSIONER.—The dairy commissioner, appointed by the governor, shall be a practicable dairyman; period of office, two years; salary, \$1,200. May employ a deputy at salary of \$1,000 per year and a chemist at \$10 per day. Issues cheese brands. State appropriation \$2,000 per annum for 1895 and 1896.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—All cheese must be branded "Colorado full cream cheese," if not less than 35 per cent. of total solids consists of butter fat; all containing less than this amount of fat, "Skim cheese."

IMITATION BUTTER AND CHEESE.—All articles not produced from pure milk or cream, in imitation of pure cheese or yellow butter, are prohibited; but oleo-

margarine and filled cheese are permitted if free from color or other ingredient to cause them to look like butter or cheese; they must be made in such form and sold in such manner as will advise the consumer of their real character. Cheese containing any foreign fats, oleaginous substances, rancid butter, etc., shall be branded "Imitation cheese."

MISCELLANEOUS.—(No law.)

CONNECTICUT.

DAIRY COMMISSIONER.—The dairy commissioner is appointed by the governor; period of office, two years; salary, \$1,500 per year. He may appoint a deputy at salary of \$1,200 per year. Issues signs to dealers in imitation butter. Office expenses limited to \$900 per year. Two thousand five hundred dollars annually appropriated to the Connecticut Agricultural Experiment Station to carry out the provisions of the pure-food act.

MILK.—The Connecticut Agricultural Experiment Station may fix standard. *Skimmed milk*.—Skimmed milk must be plainly labeled. *Adulterated milk*.—The sale or delivery of adulterated, tainted, or diseased milk to a butter or cheese factory is prohibited.

BUTTER.—Tub butter in prints, pats, etc., must be labeled "Tub butter."

CHEESE.—(No law.)

IMITATION BUTTER.—Imitation butter, defined as any article resembling butter in appearance and not made wholly, salt and coloring matter excepted, from cow's milk, is prohibited; but oleomargarine or imitation butter, free from color or other ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise consumer of its real character, is permitted. Words like "butter," "dairy," etc., shall not form a part of its name or appear on its package. Imitation butter shall be sold only in labeled packages, or registered places which display signs, and purchasers shall be informed orally of the character of the article at the time of sale. Use of imitation butter in public eating places, bakeries, etc., must be made known by signs.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—(No law.)

PURE FOOD.—Any article of food or drink is deemed adulterated if any inferior or injurious substance has been added to it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is colored to conceal inferiority, if it contains any preservative not known to the purchaser, if it is decomposed or diseased, or the product of a diseased animal, etc., with certain exceptions, such articles are prohibited.

DELAWARE.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER AND CHEESE.—The manufacture or sale of any article not produced from unadulterated milk or cream, which is in imitation of pure yellow butter or designed to take the place of pure cheese, is prohibited; but oleomargarine is permitted if in a distinct form, free from butter color and sold in such manner as to show its real character; it shall be plainly marked "Oleomargarine."

MISCELLANEOUS.—(No law.)

DISTRICT OF COLUMBIA.

MILK.—Milk standard, 9 per cent. solids not fat, 3½ per cent. fat. Permit to sell milk must be obtained from health officer. *Skimmed milk*.—Skim milk standard, 9.3 per cent. total solids. Must be plainly marked "Skim milk." *Adulterated milk*.—Diseased and unwholesome milk is prohibited. *Cream*.—Cream standard, 20 per cent. fat.

BUTTER AND CHEESE.—Butter and cheese shall be made exclusively of milk or

cream, with or without common salt. Butter standard, 83 per cent. fat and not more than 12 per cent. water or 5 per cent. salt.

IMITATION BUTTER AND CHEESE.—Substances in semblance of butter or cheese, not made exclusively of milk or cream, but with the addition of melted butter or any oil, shall be plainly branded on each package "Oleomargarine," and a label, similarly printed, must accompany each retail sale.

MISCELLANEOUS.—Health officer's regulations govern dairies and sale of milk.

PURE FOOD.—Any food or drink is deemed adulterated if any inferior or injurious substance has been mixed with it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is decomposed or diseased, if it is colored to conceal inferiority, etc.; with certain exceptions, which shall be made known to the purchaser, such articles are prohibited.

FLORIDA.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

MILK.—(No law.)

MILK.—(No law.)

IMITATION BUTTER.—The sale of any spurious preparation, purporting to be butter, is prohibited. Guests at hotels, etc., must be notified if oleomargarine or other spurious butter is used.

IMITATION CHEESE.—(No law.)

GEORGIA.

MILK.—Milk standard, 3½ per cent. fat, 8½ per cent. solids not fat. *Skimmed milk.*—Skimmed milk is defined as milk below the standard. *Adulterated milk.*—The sale of adulterated, impure, or diseased milk is prohibited.

BUTTER.—(No law.)

CHEESE.—(No. law.)

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese are defined as any article not produced from pure milk or cream—salt, rennet, and coloring matter excepted—in semblance of butter or cheese and designated to be used as a substitute for either. Shall not be colored to resemble butter or cheese. Every package must be plainly marked "Substitute for butter" or "Substitute for cheese," and each sale shall be accompanied by verbal notice and by a printed statement that the article is an imitation, the statement giving also the name of the producer. The use of these imitations in eating places, bakeries, etc., must be made known by signs.

MISCELLANEOUS.—(No law.)

IDAHO.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—Brand required for sale of oleomargarine or butterine, imitation butter, or mixture imitating butter. These shall not be sold as butter.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—(No law.)

PURE FOOD.—The adulteration of any article of food or drink with fraudulent intent, or sale of same as unadulterated, is a misdemeanor.

ILLINOIS.

MILK.—Cans and vehicles used in the retail trade of milk shall be marked with the dealer's name and the locality whence milk comes. *Skimmed milk.*—Skimmed milk may be sold as such, and each can or vessel shall be plainly marked "Skimmed milk." *Adulterated milk.*—The sale of adulterated or diseased milk, or its delivery to a factory, is prohibited. Adulteration after

delivery to a factory is a misdemeanor. *Condensed milk.*—The addition of sugar to condensed milk is permitted.

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—Imitation butter is defined as any article not produced from pure milk or cream—salt, rennet, and coloring matter excepted—in semblance of butter and designed to be used as a substitute for it. Shall not be colored to resemble butter. All packages must be plainly branded "Oleomargarine," "Butterine," "Substitute for butter," or "Imitation butter." Each sale shall be accompanied by notice to the purchaser that the substance is imitation butter.

IMITATION CHEESE.—Imitation cheese must be distinctly marked with the true and appropriate name of the article, and label bearing such name must be delivered with same when sold.

MISCELLANEOUS.—Care and food of dairy cows regulated. Co-operative creameries and butter factories shall give bond in the penal sum of \$6,000 and keep a monthly report of their operations posted conspicuously in factory for the inspection of patrons. The state's attorney is charged with the law relating to "Substitutes for butter."

INDIANA.

MILK.—*Adulterated milk.*—The sale of adulterated, diseased, etc., milk to anyone or its delivery to a factory is prohibited.

BUTTER AND CHEESE.—The use of poisonous or deleterious substances in the manufacture of butter and cheese is prohibited.

IMITATION BUTTER.—Butter other than that made from pure milk, when sold or used in hotels, etc., must be plainly labeled "oleomargarine."

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—(No law.)

IOWA.

DAIRY COMMISSIONER.—The dairy commissioner is appointed by the governor; shall have practical knowledge of dairying; term of office, two years; salary, \$1,500 per annum, shall give bond for \$10,000. He may employ clerical help at \$75 per month and an agent at \$3 per day in each city of over 10,000 inhabitants to collect milk samples; shall issue permits to milk dealers and keep a record of same; shall furnish certified test bottles to creameries. In addition to the regular appropriation, an appropriation of \$3,900 is made for the conduct of the office.

MILK.—Milk standard, 12½ per cent. solids, 3 per cent. fat. Milk dealers in cities shall register with the dairy commissioner and receive permits from him. *Skimmed milk.*—Skimmed milk may be sold as such. *Cream.*—Standard 15 per cent. fat...*Adulterated milk.*—The sale of adulterated, unwholesome, and diseased milk, or delivery to a factory, is prohibited.

BUTTER.—(No law.)

CHEESE.—*Skimmed milk cheese.*—Skimmed milk cheese shall be plainly marked.

IMITATION BUTTER AND CHEESE.—Imitation butter or cheese is defined as any article not produced from pure milk or cream—salt, rennet, and coloring matter excepted—in semblance of butter or cheese and designed to be sold as a substitute for either of them. Shall not be colored to resemble butter or cheese. Every package shall be plainly marked "Substitute for butter," or "Substitute for cheese," and each sale shall be accompanied by a verbal notice and by a printed statement that the article is an imitation, the statement giving also the address of the maker. The use of these imitations in hotels, bakeries, etc., must be made known by signs.

MISCELLANEOUS.—Tests of milk in factories, etc., must be accurate. Persons engaged in dairying shall keep their premises in hygienic condition and shall report statistics, etc., to the dairy commissioner. Care of cows is regulated.

KANSAS.

MILK.—*Adulterated milk.*—The sale of adulterated, skimmed, tainted, or diseased milk, or its delivery to any butter or cheese factory, is prohibited.

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—(No law.)

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—(No law.)

PURE FOOD.—Any article of food or drink is deemed adulterated if any injurious or inferior substance has been added to it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is diseased or tainted, if it is colored to conceal inferiority. With certain exceptions, which must be plainly labeled, such articles are prohibited.

KENTUCKY.

MILK.—*Skimmed milk.*—Skimmed milk shall not be sold with intent to defraud. *Adulterated milk.*—Adulterated milk, or milk from a diseased animal or an animal fed on "brewers' slop," etc., shall not be sold or used in the manufacture of butter or cheese.

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—Oleomargarine, butterine, or kindred compound, made in such form and sold in such manner as will advise the customer of its real character, and free from color or other ingredient to cause it to look like butter, is permitted.

MISCELLANEOUS.—(No law.)

IMITATION CHEESE.—(No law.)

PURE FOOD.—An article of food or drink is deemed adulterated if any inferior or injurious article has been added to it, if it is an imitation of or sold as another article, if it is colored to conceal inferiority, if it is diseased or decomposed, etc. Such articles are prohibited. Inspections and analyses are made under the supervision of the Kentucky Experiment Station. Falsely branding products to be sold is prohibited.

LOUISIANA.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—Such substances as oleomargarine, butterine, bogus butter, etc., shall be plainly labeled to indicate their composition. They shall not be sold as butter.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—(No law.)

MAINE.

MILK.—Milk standard, 12 per cent. solids, 3 per cent. fat. *Skimmed milk.*—Skimmed milk must not be sold as pure milk. *Adulterated milk.*—Sale of adulterated and diseased milk, and that from cows fed on distillery or brewery refuse, etc., is prohibited.

BUTTER AND CHEESE.—Butter and cheese are defined as the products usually so called, and manufactured exclusively from milk or cream, with salt and rennet, and with or without coloring matter.

IMITATION BUTTER AND CHEESE.—Any article in imitation of yellow butter or cheese and not made exclusively of milk or cream is prohibited.

MISCELLANEOUS.—All glassware used for testing milk delivered at factories must be tested for accuracy under the direction of the director of the experiment station. Specific gravity of sulphuric acid used in testing milk or cream

must be at least 1.82. Persons using the Babcock test for apportioning the value of milk or cream must hold a certificate from the superintendent of the dairy school of the State College of Agriculture.

Milk inspectors shall be appointed in towns of more than 3,000 inhabitants, and may be appointed in smaller towns. They are given special powers for making inspections, and are required to keep a record of the names and addresses of all dealers.

MARYLAND.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—Cheese made from pure skimmed milk is permitted.

IMITATION BUTTER AND CHEESE.—The manufacture, sale, or use in public eating places of any article in imitation of and designed to take the place of pure butter or cheese, and not made wholly from milk or cream, is prohibited. Mixtures of any animal fats or animal or vegetable oils with milk, cream, or butter shall be uncolored, and marked with names and percentages of adulterants, and this information shall be given to purchasers.

MISCELLANEOUS.—The mayor and city council of Baltimore shall make regulations for the sale, and provide by ordinance for the inspection, of milk and food products; shall provide for and fix compensation of inspectors and analysts.

State Board of Health is given special powers and assistance to detect and expose adulterations and corruptions of foods and to conduct prosecutions. Two thousand five hundred dollars is annually appropriated for making chemical and scientific examinations of suspected foods and drinks.

PURE FOOD.—Diseased, corrupted, or unwholesome milk or other foods shall not be sold. Mixing or coloring any article of food or drink with any ingredient for gain, unless some is handled under its true name and its package is plainly marked, etc., is prohibited.

MASSACHUSETTS.

DAIRY BUREAU.—The governor shall appoint three members of the board of agriculture to constitute a dairy bureau; term of office, three years; compensation, \$5 per day of actual service. Secretary of board is executive officer of the bureau, and receives therefor \$500 per annum in addition to salary from board. Governor may appoint an assistant to the secretary; salary, \$1,200 per annum. Agents, assistants, experts, etc., may be employed when necessary. Expenditures limited to \$7,000 a year.

MILK.—Milk standard in April, May, June, July and August, 12 per cent. total solids—9 per cent. solids not fat, 3 per cent. fat; in other months, 13 per cent. total solids—9.3 per cent. solids not fat, 3.7 per cent. fat. Milk dealers are registered and peddlers are licensed. *Skimmed milk*.—Skimmed milk includes that below the standard for pure milk. It must contain at least 9.3 per cent. solids not fat, and be plainly marked "Skimmed milk." *Condensed milk*.—Condensed milk must be labeled with name of manufacturer; if in hermetically sealed packages, brand and contents must be given. *Adulterated milk*. The sale of adulterated, diseased, or poor milk or its delivery is prohibited. Convictions for selling adulterated milk are advertised in the newspapers.

BUTTER AND CHEESE.—For the purpose of an early act, butter and cheese are defined as products usually known by these names and made exclusively from milk or cream, with salt or rennet, and with or without coloring matter.

IMITATION BUTTER.—An article made wholly or partly out of any fat or oil, etc., not from pure milk or cream, and which is in imitation of yellow butter, is prohibited; but oleomargarine, free from color or other ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted. It shall not be sold as butter, nor shall words like "dairy," "creamery," etc., or the name of any breed of dairy cattle, be used in connection with it. All packages ex-

posed for sale must be plainly marked "Oleomargarine," and labels similarly marked must accompany retail sales. Stores where it is sold and wagons used for delivery must display signs, and hotels, etc., using it must notify guests. Persons selling oleomargarine must be registered and conveyors licensed.

IMITATION CHEESE.—All articles in imitation of or intended as substitutes for cheese, not made exclusively of milk or cream, etc., must be plainly marked "Imitation cheese." Labels similarly marked must accompany retail sales.

MISCELLANEOUS.—Milk inspectors are appointed by the mayor and aldermen of cities and selectmen of towns. They are charged also with the inspection of imitation butter and cheese. Feeding garbage to milch cows is prohibited.

MICHIGAN.

DAIRY AND FOOD COMMISSIONER.—The dairy and food commissioner is appointed by the governor; term of office, two years; salary, \$1,200 per annum; must give bonds for \$10,000; shall appoint a deputy commissioner at \$1,000, and a chemist at not more than \$1,200 per year, and may appoint two clerks at \$60 per month each, six inspectors at \$3 per day, and an assistant chemist at \$1,000 per year. Authority extends to all food and drink products. Commissioner shall make detailed annual reports to the governor and issue popular monthly reports on foods, adulterations, etc. Annual appropriation, \$18,000.

MILK.—Milk standard, 12½ per cent. total solids, 3 per cent. fat, specific gravity between 1.029 and 1.033. *Skimmed milk.*—The specific gravity of skimmed milk must be between 1.032 and 1.037. It may be sold for what it is from cans plainly labeled "Skimmed milk." *Adulterated milk.*—The sale of adulterated, diseased, etc., milk to any person or its delivery to a factory is prohibited; milk from sick cows or those fed on distillery refuse, etc., is forbidden.

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese shall not contain any poisonous or deleterious substances. Proprietors of butter and cheese factories purchasing milk from more than three persons shall register with the dairy and food commissioner. A registered brand, with a suitable device and the words "Michigan full-cream cheese," for use on full-cream cheese and their packages will be furnished for \$1 to factories applying to the commissioner. False brands are prohibited.

IMITATION BUTTER.—Any article not made wholly from milk or cream, and containing melted butter, fats, or oil not produced from milk, and which is in imitation of pure butter, is prohibited; but oleomargarine, free from color or any ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted; its sale as butter is prohibited; signs must be displayed where it is sold or used, and its original packages must be plainly marked "Oleomargarine" if the article contains suet or tallow, or "Butterine" if it contains lard; retail sales shall be made from a package so marked, and a label similarly printed and bearing the name of the manufacturer shall be delivered with each sale; shall not be used in any public institution.

IMITATION CHEESE.—Any article in semblance of pure cheese, containing melted butter or fats or oils not produced from milk, is prohibited.

MISCELLANEOUS.—The police commissioners of Detroit shall appoint an officer to act as milk inspector in that city; he shall inspect dairies, milk shops, etc., in Wayne County. Common councils or boards of trustees in cities and towns may appoint and fix the compensation of milk inspectors.

PURE FOOD.—An article of food is deemed adulterated when inferior substances have been mixed with it; when any valuable constituent has been abstracted; if it is in imitation of or sold as another article; if it is decomposed or from an unhealthy animal; if it is colored to conceal inferiority; if it contains any poisonous or injurious substances, etc.; with certain common exceptions, such articles are prohibited.

MINNESOTA.

DAIRY AND FOOD COMMISSIONER.—The dairy and food commissioner is appointed by the governor; term of office, two years; salary, \$1,800 per annum. He may appoint a secretary at a salary of \$1,200 per year, and appoint and fix the compensation of such assistants, chemists, agents, and counsel as are necessary; biennial reports are made to the legislature; his authority extends to other foods. Fifteen thousand dollars is annually appropriated for his work.

MILK.—Milk standard, 13 per cent. solids, $3\frac{1}{2}$ per cent. fat. Persons receiving milk shipped by train or cars must empty the vessels before the milk is sour, and immediately clean them. *Cream.*—Cream standard, 20 per cent. fat. *Skimmed milk.*—Skimmed milk may be used for making skim cheese. Cans containing skimmed milk for sale must be plainly marked "Skimmed milk." *Adulterated milk.*—Unclean, unhealthy, adulterated, etc., milk includes that drawn from cows near the time of parturition, or fed on distillery waste, etc. (ensilage excepted); its sale or exchange or delivery to any factory, or its use for making cream or any food, is prohibited.

BUTTER.—Butter is defined as the product usually known by that name, and manufactured exclusively from milk or cream, or both; it shall not be falsely branded.

CHEESE.—At least 45 per cent. of the total solids of cheese must be fat. It shall not be falsely branded. A registered brand with a motto and the words "Minnesota state full cream cheese," for use on full cream cheese and their packages, is issued to factories upon application to the commissioner. *Skim cheese.*—Skim cheese is that below the standard for full cream cheese; it is permitted if the packages are plainly marked "Skim cheese;" a placard must be displayed where it is sold.

IMITATION BUTTER AND CHEESE.—Any article not made wholly from milk or cream, which is in imitation of and designed to take the place of pure butter or cheese, is prohibited; but such imitations of butter are permitted if colored bright pink. Butter made by any process by which casein and other ingredients of milk are made to replace pure fat shall be plainly marked "Patent butter," and a printed card stating its ingredients shall be given to each purchaser.

MISCELLANEOUS.—Milk cows shall not be kept in a crowded or unhealthy condition nor fed unwholesome food or any that produces impure milk.

Unless all the milk delivered is bought by a factory none of it shall be used by the operators for themselves without the consent of the owners; such factories shall keep a detailed account of their operations, open to the inspection of patrons.

Proprietors of factories, shippers of milk, and milk sellers shall make regular detailed reports to the commissioner. Milk dealers in towns of more than 1,000 inhabitants shall annually obtain from the commissioner, at the cost of \$1, a license giving certain information regarding the conduct of their business.

Any city council may provide for the inspection of milk, dairies, and herds supplying milk for its use.

MISSISSIPPI.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—Packages of oleomargarine or similarly manufactured butters shall be plainly labeled with the correct name of their contents, and the product shall be sold by that name. A privilege tax of \$5 is imposed upon persons selling the articles named.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—It is unlawful to milk the cow of another, or to confine her with intent to take her milk, without the consent of the owner.

MISSOURI.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—Cheese made from milk testing at least 3 per cent. fat, or cream from the same, is deemed a full cream cheese. *Skim cheese*.—Any cheese not made from pure milk testing at least 3 per cent. fat, or cream from the same, shall be plainly branded "Skimmed milk cheese," or "Not full-cream cheese," and its true name given.

IMITATION BUTTER.—Imitation butter is defined as every article not produced wholly from pure milk or cream, made in semblance of and designed to be used as a substitute for pure butter; it shall not be sold as butter; shall not be colored to resemble butter unless it is to be sold outside the state; original packages shall be plainly stamped "Substitute for butter;" in hotels, etc., vessels in which it is served must be marked "Oleomargarine," or "Impure butter."

IMITATION CHEESE.—Any article not produced wholly from pure milk or cream and designed to take the place of cheese shall have its original packages stamped with its true name.

MISCELLANEOUS.—State board of agriculture is charged with enforcement of act relating to butter substitutes and cheese branding. Appropriation, \$5,000 for two years.

All cities and towns have power to license dairies, provide for inspection, etc.

MONTANA.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER AND CHEESE.—Any article in semblance of butter or cheese, and not made wholly from milk or cream, must be plainly labeled "Oleomargarine," or "Imitation cheese," and a printed label bearing the same word or words must be delivered to the purchaser with retail sales. Places where these articles are sold or used must display signs, and information as to their character be given if requested. Dealers must pay a license of 10 cents a pound on each pound sold.

MISCELLANEOUS.—Cows shall not be kept in unsanitary places, or fed food that produces unwholesome milk.

NEBRASKA.

MILK.—*Adulterated milk*.—The sale of adulterated, skimmed, diseased, or tainted milk, or its delivery to a factory, is prohibited.

BUTTER AND CHEESE.—No poisonous or deleterious matter shall be used in the manufacture of butter or cheese.

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese are defined as any article made in semblance of and designed to be used as a substitute for pure butter or cheese, and not produced wholly from pure milk or cream, salt, rennet, and harmless coloring matter. These articles, including any having melted butter added to them, shall not be colored to resemble butter or cheese; shall be plainly marked "Imitation butter," or "Imitation cheese;" verbal and printed information of the character of the articles, and address of the maker, shall be given at time of sale; signs shall be displayed in public eating places where used.

MISCELLANEOUS.—Use of cream by employees of a factory, without permission of patrons, is prohibited.

PURE FOOD.—Any article of food or drink is deemed adulterated if any inferior or injurious substance has been mixed with it, if any valuable constituent has been removed, if it is in imitation of or sold as another article, if it is diseased, decomposed, infected, if it is colored to conceal inferiority, etc. With certain exceptions, which shall be labeled, such articles are prohibited.

NEVADA.

MILK.—*Skimmed milk.*—Skimmed milk may be sold as such.—*Adulterated milk.*—The sale or exchange of adulterated milk, or milk from cows which are improperly cared for, or fed "swill" or other decomposed matter is a misdemeanor.

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—Any article in semblance of butter but not made exclusively of milk or cream, or containing melted butter, shall be in packages plainly marked "Oleomargarine."

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—Milk inspectors are appointed and their compensation fixed by board of county commissioners. They shall inspect milk sold by venders and prosecute violations. Care of cows regulated.

NEW HAMPSHIRE.

MILK.—Milk standard, 13 per cent. solids. It shall be sold by wine measure, and the capacity of vessels shall be marked upon them. *Skimmed milk.*—Milk from which any cream has been removed can be sold only from vessels plainly marked "Skimmed milk." *Adulterated milk.*—The sale of adulterated, unwholesome, diseased, etc., milk, and that from cows fed on brewery refuse, etc., is prohibited.

BUTTER AND CHEESE.—"Butter" and "cheese" are understood to mean the products usually known by those names, and which are manufactured exclusively from milk or cream, with salt and with or without coloring matter, and, if cheese, with rennet.

IMITATION BUTTER AND CHEESE.—Any article not made wholly from unadulterated milk or cream, which is in imitation of pure yellow butter or cheese, is prohibited, unless in packages plainly marked "Adulterated butter," "Oleomargarine," or "Imitation cheese." A label printed with the words on the original package shall be delivered with each retail sale. Oleomargarine, free from color or ingredient to cause it look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted. Notice of the use of substitutes for butter in hotels, etc., shall be given to patrons.

MISCELLANEOUS.—The mayor and aldermen of cities and the selectmen of towns may appoint and fix the compensation of milk inspectors. In towns having inspectors, all milk dealers must register and obtain, at the cost of 50 cents per year, a license which gives full details as to the conduct of their business. Inspectors are given special powers for making inspections of milk, butter, etc., and names of persons convicted of selling adulterated milk are published.

NEW JERSEY.

DAIRY COMMISSIONER.—Dairy commissioner is appointed by state board of health; term of office, three years; salary, \$2,000 per annum. He may appoint and fix the compensation of such assistants, chemists, agents, clerks, and counsel as are necessary. Expenses are limited to \$10,000 per year. An additional appropriation of \$1,000 is made for the enforcement of the pure-food law. Authority is extended to all foods and drugs.

MILK.—Milk standard, 12 per cent. solids. *Skimmed milk.*—Skimmed milk shall be sold only in or from cans plainly marked "Skimmed milk." In cities of the first class it is prohibited. *Adulterated milk.*—The sale of adulterated or unwholesome milk, or its delivery to a cheese factory, is prohibited. It is defined as any which has been adulterated by the addition of any substance, or any from cows poorly cared for or fed unwholesome foods, or that has been exposed to infection by diseased persons, etc.

BUTTER AND CHEESE.—The terms natural butter and natural cheese are taken to

mean the products usually so called, made exclusively from milk or cream, with salt and rennet and with or without coloring matter or sage. Each butter or cheese package must be branded with its weight and the name of the manufacturer.

IMITATION BUTTER AND CHEESE.—Any article made wholly or partly out of any fat, oil, etc., not from pure milk or cream, artificially colored in imitation of pure yellow butter, is prohibited; but oleomargarine and imitation cheese are permitted, if free from artificial color and in original package, encircled by a wide black band bearing the name of the maker and having the name of the contents plainly branded on them with a hot iron. Retail sales shall be accompanied by a printed card on which the name of the substance and the address of the maker are plainly printed, and the customer shall be orally informed of the character of the article at the time of sale.

MISCELLANEOUS.—It is unlawful for any person to use a milk can belonging to another and marked with the owner's name or initials without his consent. If they are so used and found, their contents may be emptied.

Cows shall be properly cared for and fed. Milch cows kept in towns shall be registered. State dairy commissioner shall be notified when any of them are supposed to be diseased.

PURE FOOD.—An article of food or drink is deemed to be adulterated if any inferior or injurious substance has been added to it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is diseased or decomposed, if it is colored to conceal inferiority, etc. With the exception of articles named by the board of health and ordinary articles of food, which shall be branded, such articles are prohibited.

NEW MEXICO.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—(No law.)

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—City councils shall provide for the inspection of dairy products.

PURE FOOD.—Any article of food or drink shall not be knowingly sold if it is unhealthy, or if any valuable constituent has been removed from it, or if it contains ingredients not asked for, unless notice is given to the purchaser. The use of an injurious coloring matter or any diseased or decomposed substance in the manufacture of food is prohibited.

NEW YORK.

COMMISSIONER OF AGRICULTURE.—Commissioner of agriculture is appointed by the governor; term of office, three years; salary, \$4,000 per annum. He may appoint assistant commissioners, chemists, clerks, agents, and counsel necessary for the work of his office and fix their compensation; also may appoint five expert butter and cheese makers to inspect factories, give instruction, etc.

MILK.—Milk standard, 12 per cent. solids, 3 per cent. fat. Pure milk is defined as sweet and unadulterated; pure cream is that taken from such milk. Milk shall not be kept in unclean vessels nor in unsanitary places. All cans, etc., containing milk to be sold in counties other than where produced, must be plainly branded with name of the county of production; vehicles from which it is sold must be similarly marked. Glass bottles are excepted from the provision, but they must bear the name of the vendor. *Skimmed milk.*—Skim milk may be delivered to skim-cheese factories, and except in New York and Kings counties, it may be sold as skimmed milk for use in the county where it is produced or an adjoining county. *Condensed milk.*—Condensed milk must be made from pure and wholesome milk, and its proportion of milk solids shall be in quantity the equivalent of 12 per cent. of milk solids in crude milk, of which 25 per cent. shall be fat. All packages of condensed milk shall be labeled with name of manufacturer, etc. *Adulterated milk.*—Adulterated milk is defined as any below the standard, or which has been

altered, or any from cows poorly cared for or fed certain unwholesome foods. Its sale, exchange, delivery to a butter or cheese factory, or use for any food is prohibited. Pure skim milk is excepted as above.

BUTTER AND CHEESE.—Butter and cheese are defined as the products of the dairy usually known by those terms, manufactured exclusively from pure unadulterated milk or cream, with or without salt, rennet, coloring matter, or sage. False brands are prohibited. County trade-marks may be adopted by county dairymen's associations. A registered brand, with the words "New York state full cream cheese," for use on full milk cheese and their packages, will be furnished to factories applying to the commissioner of agriculture. *Skim cheese.*—Pure skim cheese may be made from clean, pure skim milk.

IMITATION BUTTER AND CHEESE.—The terms oleomargarine, butterine, imitation butter, or imitation cheese mean any article in the semblance of butter or cheese not the usual product of the dairy and not made exclusively from unadulterated milk, or having any oil, lard, melted butter, etc., as a component part. *Imitation butter.*—The manufacture of oleomargarine or any article in imitation of butter wholly or partly from fats or oils not produced from milk, or the sale or the use in hotels, etc., of such articles, is prohibited. No article intended as an imitation of butter and containing oils, fats, etc., not from milk, or melted butter in any condition, shall be colored yellow. *Imitation cheese.*—The manufacture or sale of any article in imitation of pure cheese, into which any animal fat, oil, or butter, etc., is introduced, is prohibited.

MISCELLANEOUS.—Milch cows shall not be kept in an unsanitary condition nor be fed distillery waste, spoiled feeds, or any food that injures milk; silage is permitted.

Unless factory operator buys all the milk delivered, he shall not use any of it or its products without consent of the owners, and he must keep an account of all factory operations for the inspection of his patrons.

NORTH CAROLINA.

MILK.—(No law.)

BUTTER.—Butter is defined as the product manufactured from fresh and pure milk and cream.

CHEESE.—(No law.)

IMITATION BUTTER.—Oleomargarine and butterine are defined as articles manufactured in imitation of butter, and which are composed of any ingredient or ingredients in combination with butter. Original packages shall be labeled with chemical ingredients and their proportions.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—District, county, and city attorneys shall prosecute offenders.

PURE FOOD.—An article of food or drink is deemed adulterated if any inferior or injurious substance has been added to it, if any valuable constituent has been removed, if it is an imitation of or sold as another article, if it is colored to conceal inferiority, if it is decomposed or unfit for food, etc.; with the exception of certain foods whose ingredients are known, such articles are prohibited.

NORTH DAKOTA.

DAIRY COMMISSIONER.—The state commissioner of agriculture and labor is ex-officio state dairy commissioner.

MILK.—(No law.)

BUTTER AND CHEESE.—Butter and cheese are defined as the products usually known by those names, and which are manufactured exclusively from milk or cream. Creameries and cheese factories shall brand each package of butter or cheese, giving quality of product, number of factory, etc. The brands are registered with the dairy commissioner.

IMITATION BUTTER.—Wholesale and retail packages of any article in semblance of butter, not made wholly from pure milk or cream, and containing melted butter, oils, or fats, etc., shall be plainly marked "Oleomargarine," "Butterine," or "Patent butter." Butter made by any process by which casein of

milk or other ingredients are made to take the place of pure fat shall be plainly marked "Patent butter." Sales of imitation butter shall be accompanied by a printed card giving the different ingredients.

IMITATION CHEESE.—Packages containing any substance designed to take the place of cheese, or in imitation of cheese, not produced wholly from pure milk, shall be stamped with the name of their contents. Sales of imitation cheese shall be accompanied by a printed card giving the different ingredients.

MISCELLANEOUS.—(No law.)

OHIO.

DAIRY AND FOOD COMMISSIONER.—State dairy and food commissioner is elected at the general elections; term of office, two years; salary, \$2,000 per year. He shall give bond for \$5,000. May appoint two assistant commissioners at salaries of \$1,000 per year; also appoint and fix the compensation of experts, chemists, agents, etc., as are necessary. Detailed annual report shall be made to the governor. Authority extends to all foods and drugs. Appropriation for 1898, \$42,600.

MILK.—Milk standard, 12 per cent. solids, 3 per cent. fat; in May and June, 11½ per cent. solids. *Skimmed milk.*—Skimmed milk shall not be sold as pure milk, but it may be used for making skimmed cheese; cans containing it shall be plainly marked "Skimmed milk." *Condensed milk.*—Condensed milk shall be made from pure fresh milk; the proportion of milk solids shall be equivalent to 12 per cent. in crude milk, of which 25 per cent. shall be fat; package containing same shall be plainly labeled with true name, brand, and name of manufacturer. *Adulterated milk.*—The sale of adulterated, skimmed, unclean, unhealthy, etc., milk, and that from sick cows, or its delivery to a factory, is prohibited.

BUTTER AND CHEESE.—Butter and cheese are defined as the products usually known by those names, and made wholly from pure milk or cream, with salt, and with or without harmless coloring matter, and, if cheese, with or without rennet and sage. *Butter.*—Standard for butter, 80 per cent. fat. *Cheese.*—Register brands with the words "Ohio state full cream cheese" are issued to factories for use on full milk cheese and their packages upon application to the dairy and food commissioner and payment of fee of \$1. *Skimmed cheese.*—Cheese as above defined, and containing less than 20 per cent. fat, shall be plainly marked, and have its package marked, "Skimmed cheese;" packages sold at retail shall be accompanied by a label similarly marked; exposed contents of a package shall be labeled as above with a placard, and a sign "Skimmed cheese sold here" shall be posted where it is sold; delivery wagons shall display similar signs; notice shall be given of its use in public eating places.

IMITATION BUTTER AND CHEESE.—With the exceptions noted below, any article in imitation of natural butter or cheese, and containing animal or vegetable oils not produced from milk, or acids, is prohibited. Any other substance not made wholly from pure milk or cream, salt, and harmless coloring matter, and appearing to be butter or cheese, may be sold only under its true name. Each roll or package shall be plainly marked with its name and the names of its ingredients, and the same shall be on a label delivered with each sale, in connection with which the use of such words as "butter," "dairy," etc., are prohibited; information as to the substance shall be given at all retail sales; it shall not be packed so as to be concealed by a finer grade of butter; its use in state charitable and penal institutes is prohibited. Signs shall be used as described below. *Oleomargarine.*—Oleomargarine is defined as any substance not pure butter of not less than 80 per cent. butter fat, and made for use as butter. It is permitted if free from coloring matter or other ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise the consumer of its real character. *Filled cheese.*—Any article in imitation of cheese and not made wholly of milk or cream, etc., and containing any fats, oils, etc., not produced from milk or cream, shall be plainly marked, and have its package or the exposed contents of any package marked "Filled cheese;" each

retail sale shall be accompanied by a label similarly marked; it shall not be sold as cheese. *Signs.*—The signs "Oleomargarine sold here" or "Filled cheese sold here" shall be displayed wherever these articles are sold, and signs and verbal information are required in public eating places where the articles are used; wagons delivering filled cheese shall display signs.

MISCELLANEOUS.—Milch cows shall not be kept in a cramped or unhealthy condition, nor fed unhealthy food, or food which produces unwholesome milk. Keeping a false account of milk delivered to a factory is prohibited. False brands on dairy products or their imitations are prohibited.

PURE FOOD.—Any article of food or drink is adulterated, if any inferior or poisonous substance has been mixed with it, if any valuable ingredient has been removed, if it is an imitation of or sold under the name of another article, if it is decomposed, infected, or from a diseased animal, if it is colored to conceal inferiority, etc.; such articles are prohibited. But certain common mixtures are permitted if packages are labeled with names of ingredients, etc.

OKLAHOMA.

MILK.—*Adulterated milk.*—Milk from a cow not in proper condition of health, or any milk adulterated by water or a deleterious substance, or colored, shall not be sold or delivered.

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—(No law.)

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—(No law.)

PURE FOOD.—The adulteration of food or drink with fraudulent intent is a misdemeanor. Buyer shall be informed if provisions are diseased or unwholesome. Board of health shall destroy any impure article of food offered for sale.

OREGON.

DAIRY AND FOOD COMMISSIONER.—The dairy and food commissioner, who shall be well qualified in dairy matters, is elected by the legislative assembly; term of office, two years; salary, \$1,000 per year; shall enforce the law and give dairy instruction, and may appoint and fix compensation of one deputy in each county. Chemist of State Agricultural College shall make analyses. Annual appropriation for dairy commissioner, \$500.

MILK.—Milk standard, 12 per cent. volume of cream, 12 per cent. solids, 3 per cent. butter fat, specific gravity of 1.035 after the cream has been removed. *Adulterated milk.*—Adulterated milk shall be plainly marked as such; it is defined as any which is below the standard, or has been altered so as to reduce its quality. Impure milk is defined as the product of cows fed unwholesome foods, or near the time of parturition; it is prohibited.

BUTTER.—Butter standard, not more than 14 per cent. water.

CHEESE.—(No law.)

IMITATION BUTTER AND CHEESE.—Adulterated butter or cheese is any which is below the standard; or has been altered so as to reduce its quality, or any article in imitation of or sold under the name of butter or cheese; it shall be plainly marked, and printed notice shall be given when it is used in public eating places. Salt and annatto or butter color in which annatto is the principal ingredient, are not adulterants of dairy products. Dealers in oleomargarine or any imitation dairy product shall keep a record of all sales.

MISCELLANEOUS.—Milch cows shall be allowed 800 cubic feet of air space each, in stables; rows facing each other shall not be closer than 6 feet. Stables shall be ventilated and kept in a healthful condition. Manufacturers of dairy products shall make detailed quarterly reports to the food commissioner. The boxes of any creamery or dairy shall not be used for selling the butter of another creamery or dairy.

PENNSYLVANIA.

DAIRY AND FOOD COMMISSIONER.—The dairy and food commissioner, who shall have practical experience in the manufacture of dairy products, is appointed by the governor; term of office, four years; salary, \$2,500 per year. He shall have a clerk, appointed by the governor; salary, \$1,500 per year. Authority extends to other foods. Commissioner shall make a detailed annual report.

MILK.—Milk standard, in cities of the second and third class, 12½ per cent. solids, 3 per cent. fat, specific gravity at 60 degrees F. between 1.029 and 1.033. In towns of over 1,000 population, vehicles from which milk is vended shall be marked with names of vendors and locality of production; and in cities of the second class, dairies and milk depots shall be registered by the bureau of health. *Skimmed milk.*—Skimmed milk standard, in cities of the second and third class, 6 per cent. cream by volume, 2½ per cent. fat by weight, specific gravity at 60 degrees F. between 1.032 and 1.037; milk from which any cream has been taken shall not be sold unless in a vessel plainly marked "skimmed milk." *Adulterated milk.*—The sale of adulterated, impure, or unwholesome milk is a misdemeanor. The addition of water or ice to milk is an adulteration, and milk from animals fed on distillery waste, or any substance in a state of putrefaction, or from sick or diseased cows, is declared to be impure and unwholesome. The sale of milk for human consumption, which contains boracic acid salt, salicylic acid, or other drug, is prohibited.

BUTTER.—(No law.)

CHEESE.—All cheese is divided into five grades, and each cheese and its package shall be plainly branded with the address of the maker, and the words "Full cream" if it contains not less than 32 per cent. of butter fat; "Three-fourths cream" if it contains not less than 24 per cent. butter fat; "One-half cream" if it contains not less than 16 per cent. butter fat; "One-fourth cream" if it contains not less than 8 per cent. butter fat; and "Skimmed cheese" if it contains less than 8 per cent. butter fat. Fancy cheese weighing less than five pounds, and pot cheese, are excepted.

IMITATION BUTTER AND CHEESE.—The manufacture or sale of any imitation, or adulterated butter or cheese, or any oleaginous substance not produced from pure milk or cream and designed to take the place of butter or cheese, is prohibited. These articles shall not be used in any state, charitable, or penal institution.

MISCELLANEOUS.—Councils of cities and boroughs may provide for milk inspection.

PURE FOOD.—An article of food or drink is deemed adulterated if any inferior or injurious substance has been mixed with it, if any valuable constituent has been removed, if it is in imitation of or sold as another article, if it is diseased, decomposed, infected, if it is colored to conceal inferiority, etc. With certain exceptions which shall be labeled such articles are prohibited.

RHODE ISLAND.

MILK.—Milk standard, 12 per cent. solids, 2½ per cent. fat; shall be sold by wine measure; vessels to be sealed by the sealer of weights and measures. *Skimmed milk.*—Skimmed milk is that which has been skimmed, or is below the standard; it shall be sold only from cans plainly marked, "Skimmed milk." *Adulterated milk.*—The sale or exchange of adulterated or diseased milk, or that from diseased cattle, or cows fed on distillery refuse, etc., is prohibited.

BUTTER.—All butter tubs shall be marked with their weights, and maker's initials.

CHEESE.—(No law.)

IMITATION BUTTER.—Any article not made wholly from milk or cream, but containing any melted butter or animal oil or fat not the product of milk, shall

be plainly marked "Oleomargarine," and a label similarly printed shall be delivered with all retail sales.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—The mayor and alderman of any city and the council of any town may elect and fix the compensation of milk inspectors. In Providence this is compulsory. Inspectors may appoint collectors of samples. All persons engaged in selling milk must register with the inspector and have their names on their wagons, etc. The authority of inspectors extends to other foods. Names of persons convicted are published.

SOUTH CAROLINA.

MILK.—Milk standard, 3 per cent. fat, $8\frac{1}{2}$ per cent. other solids. *Skimmed milk*.—Skimmed milk is that below the standard; it and buttermilk may be sold under their own name. *Adulterated milk*.—The sale of unclean, diseased, adulterated, etc., milk, or its delivery for domestic use, or to be converted into any human food, is prohibited.

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER AND CHEESE.—Imitation butter and cheese are defined as every article not produced from pure milk or cream, with or without salt, rennet, and harmless coloring matter, which is in semblance of and designed to be used as a substitute for butter or cheese; they shall not be colored to resemble butter or cheese; original packages shall be marked "Substitute for butter," or "Substitute for cheese;" shall not be sold as genuine butter or cheese, nor used in hotels, etc., unless signs are displayed.

MISCELLANEOUS.—Statement of the chemist of the state college shall be accepted as evidence of analysis of imitation butter and cheese.

SOUTH DAKOTA.

MILK.—*Adulterated milk*.—The sale of unwholesome, diseased, or adulterated milk as the pure article is prohibited.

BUTTER AND CHEESE.—Butter and cheese are defined as the products usually known by those names, and which are made wholly from milk or cream or both, with salt and rennet, and with or without coloring matter.

IMITATION BUTTER.—Any article not made wholly from pure milk or cream, and in imitation of pure butter, is prohibited; but oleomargarine, colored pink, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted; notice of its use in public eating places must be given.

IMITATION CHEESE.—(No law.)

MISCELLANEOUS.—Health officers, sheriffs, etc., shall institute complaints, etc.

PURE FOOD.—Any article of food or drink which is diseased or unwholesome, or fraudulently adulterated or colored, for gain, is prohibited, unless plainly labeled, etc.

TENNESSEE.

MILK.—(No law.)

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER.—Any article which is in imitation of yellow butter and not made exclusively from pure milk or cream is prohibited; but oleomargarine, free from color or other ingredient to cause it to look like butter, and made in such form and sold in such manner as will advise the consumer of its true character, and other imitations if uncolored and labeled with their correct names, are permitted; wholesale packages shall be plainly labeled, and a label shall accompany retail sales.

IMITATION CHEESE.—Imitation cheese may be manufactured under its true name; each package and its contents shall be stamped with the correct name, and a label, similarly printed, shall be delivered with retail sales.

MISCELLANEOUS.—(No law.)

PURE FOOD.—Any article of food or drink is adulterated if inferior substances have been added to it; if any valuable constituent has been abstracted; if it is an imitation of or sold as another article; if it contains any poisonous substance; if it is decomposed or diseased or from an unhealthy animal, etc. With certain common exceptions, such articles and all misbranded articles are prohibited.

TEXAS.

(No dairy laws.)

UTAH.

MILK.—*Adulterated milk.*—The sale or exchange of unclean, impure, etc., milk, or its use for making any kind of food, is prohibited.

BUTTER.—(No law.)

CHEESE.—(No law.)

IMITATION BUTTER AND CHEESE.—Any article in semblance of butter or cheese, and not made wholly from milk or cream, shall be plainly marked "Oleomargarine butter," or "Imitation cheese," and retail sales shall be made from packages so marked. Such articles shall not be colored to resemble butter or cheese.

MISCELLANEOUS.—(No law.)

VERMONT.

MILK.—Milk standards, 12¼ per cent. solids, 9¼ per cent. solids not fat; in May and June, 12 per cent. total solids. Standard measure is wine measure. *Adulterated milk.*—The sale of adulterated or skim milk, or milk below the standard, or its delivery to a factory, or the delivery of tainted milk to a factory, is prohibited.

BUTTER AND CHEESE.—Butter or cheese shall not be marked "Creamery," unless made in a creamery; marking "Private creamery" is permitted if name of maker is also given. *Butter.*—Butter is defined as the product usually known by that name, and made wholly from milk or cream, with or without salt or coloring matter.

IMITATION BUTTER OR CHEESE.—The manufacture of any article in imitation of butter or cheese which contains any animal fat, or animals or vegetable oils or acids not produced from pure milk or cream, is prohibited. *Imitation butter.*—Imitation butter for use in public eating places, or for sale, shall be colored pink.

MISCELLANEOUS.—Payment for milk at factories is to be based on milk testing 4 per cent. fat. Result of analysis by State Agricultural Experiment Station shall be deemed competent evidence in prosecutions. Operators of factories shall not use any cream from the milk delivered to them, except with consent of owners.

VIRGINIA.

MILK.—*Adulterated milk.*—The sale of adulterated, skimmed, tainted, etc., milk, or its delivery to any creamery or cheese factory, is prohibited.

BUTTER.—Butter inspectors shall brand lots of butter offered for inspection according to quality.

CHEESE.—*Skimmed cheese.*—Skimmed cheese may be made from pure skimmed milk.

IMITATION BUTTER.—The manufacture or sale of any article made wholly or partly from any fat or oil not produced from unadulterated milk or cream, and which is in imitation of pure yellow butter, is prohibited; but oleomargarine, butterine, or kindred compound, made in such form and sold in such manner as will advise the consumer of its real character, and free from color or other ingredient to cause it to look like butter, is permitted. Signs, with

the words "Imitation butter used here," shall be displayed in eating places, bakeries, etc., where the articles above named are used.

IMITATION CHEESE.—The manufacture or sale or use in public eating places, of any article in imitation of and designed to take the place of pure cheese, and not made wholly from milk or cream, is prohibited.

MISCELLANEOUS.—Factory employees shall not use cream without the consent of its owners.

WASHINGTON.

DAIRY COMMISSIONER.—Dairy commissioner is appointed by the governor; term of office, four years; salary, \$1,200; must give bond for \$5,000. He may appoint deputies at \$3 per day when necessary; the services of chemists of state institutions are available; other chemists may be employed when necessary. Appropriation, \$3,000 per year. A state board of dairy commissioners, ex-officio, is constituted of the secretary of state, president of the agricultural college, and dairy commissioner. Members receive no salary, but are allowed traveling expenses. They report to the governor biennially.

MILK.—Milk standard, 3 per cent. fat, 8 per cent. solids not fat. *Adulterated milk*—Adulterated, skimmed, diseased, impure, etc., milk is defined as any below the standard, or which has been altered in any way, or is from cows diseased, poorly cared for, or fed unwholesome foods, or has been exposed to infection by disease germs, or has borax or salicylic acid added to it to prevent souring, etc. It shall not be sold as pure milk.

BUTTER.—(No law.)

CHEESE.—All cheese made by Cheddar process shall be branded with the name and location of factory, and the words "Washington full cream," if made wholly from pure milk and containing at least 30 per cent. fat; "Half skimmed," if containing at least 15 per cent. butter fat and made from milk from which not more than one-half the cream has been extracted; or "Skimmed," if made from pure skimmed milk. All cheese shipped from other states must be branded to indicate its quality, as above.

IMITATION BUTTER.—No article which is in imitation of pure yellow butter and is not made wholly from pure milk or cream, with or without harmless coloring matter, shall be manufactured, sold, or used in any public eating house or eleemosynary or penal institution, etc., but oleomargarine, free from color or other ingredient to make it look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted.

IMITATION CHEESE.—Any cheese not made from pure milk or cream or skimmed milk, with salt, rennet, and harmless coloring matter, is prohibited.

MISCELLANEOUS.—A record of the operations of every butter and cheese factory and private dairy (of 20 cows or more) where butter or cheese is made shall be kept and always open to the inspection of the dairy commissioner or any patron.

WEST VIRGINIA.

MILK.—*Skimmed milk.*—Skimmed milk may be used in the manufacture of cheese.

BUTTER AND CHEESE.—Salt, rennet, and harmless coloring matter are permitted in the manufacture of butter and cheese.

IMITATION BUTTER AND CHEESE.—Any substance in semblance of butter or cheese, and not made wholly from pure milk or cream, and packages containing such substances, shall be plainly marked; printed statements explaining the character of the substance must be given to consumers. *Oleomargarine.*—Oleomargarine and artificial and adulterated butter shall be colored pink.

MISCELLANEOUS.—(No law.)

PURE FOOD.—The adulteration of any article of food or drink is a misdemeanor.

WISCONSIN.

DAIRY AND FOOD COMMISSIONER.—Dairy and food commissioner is appointed by the governor; term of office, two years; salary, \$2,500 per annum. He may appoint an assistant commissioner at a salary of \$1,600, a chemist at \$1,800, and a clerk at \$900 per annum; also an inspecting agent at \$3 per day. Authority extends to all foods and medical drugs. Laboratory for all analytical work is provided. Commissioner shall make biennial reports, issue brands to cheese factories, enforce measures for cleanliness of dairies, factories, etc.

MILK.—Milk standard, 3 per cent. fat and pure. Milk for city trade must be produced from healthy cows fed wholesome food. Barns, stables, etc., must be clean. *Adulterated milk.*—The sale of adulterated, diseased, etc., milk, or its delivery to a factory, is prohibited. Boracic and salicylic acids and injurious antiseptics are prohibited. Standard tests may be made for proving adulteration.

BUTTER.—Use of boracic and salicylic acids and injurious antiseptics in the manufacture of butter are prohibited.

CHEESE.—Unlawful to use false brands on cheese. Brand, with the words "Wisconsin full-cream cheese," is issued to factories upon application to dairy commissioner. *Skimmed cheese.*—Skimmed cheese must be 10 inches in diameter and 9 inches high, and stamped "Wisconsin skimmed cheese."

IMITATION BUTTER.—Any article made partly or wholly out of any fat or oil, etc., not from pure milk or cream, and in imitation of yellow butter, is prohibited; but oleomargarine, free from color or other ingredient to make it look like butter, and made in such form and sold in such manner as will advise the consumer of its real character, is permitted. It shall not be sold as butter. All packages exposed for sale must be plainly marked "Oleomargarine;" signs must be displayed in selling places and on wagons. Hotels, etc., using it must notify guests. Use not permitted in charitable or penal institutions.

IMITATION CHEESE.—Manufacture or sale of cheese made from skimmed milk with the addition of fat foreign to milk is prohibited.

MISCELLANEOUS.—Wholesome food shall be fed to cows producing milk for retail sale. Account of daily operations must be posted in butter and cheese factories.

PURE FOOD.—Any article of food or drink shall be deemed adulterated if any injurious or inferior substance has been added to it; if any valuable ingredient has been removed; if it is an imitation of or sold as another article; if it is diseased, infected, decomposed; if it is colored to conceal inferiority, etc. With the exception of certain ordinary foods, which shall be plainly labeled, such articles are prohibited.

WYOMING.

(No dairy laws.)

CANADA.

(For full text of law, see p. 703.)

LIST OF CONVICTIONS.

CONVICTIONS FOR SALE OF ADULTERATED MILK.

1896.	
Nov. 19	Andrew Niefnicker .....\$10 and costs
Nov. 25	John E. Pfund.....\$10 and costs
1897.	
May 22	O. M. Nelson, Amos .....\$25 and costs
May 4	F. Wilkins, Fairfield 25 and costs
May 25	L. E. Hildreth, Stoughton..... 10 and costs
June 22	Phillip King, Fond du Lac..... 25 and costs
Aug. 17	Nelson Rust, Monroe..... 25 and costs
Aug. 24	Jer. Goodman, Monroe..... 25 and costs
Aug. 24	G. Hueber, Monroe 25 and costs
Aug. 31	Geo. Drege, Monroe 25 and costs
Sept. 1	Jas. Klinka, Hartford 25 and costs
Sept. 2	Jno. Shafer, Hartford 25 and costs
Sept. 3	Ludwig Esselman, Hartford 25 and costs
Sept. 16	Otto Nienow, Hartford 25 and costs
Sept. 20	Wm. Plantikow, Monroe 25 and costs
Sept. 25	Chas. Rohm, Appleton 25 and costs
Sept. 25	Fred Schulz, Appleton 25 and costs
Sept. 28	Louis Doeringfeld, Fennimore..... 25 and costs
Oct. 23	Louis Duhm, Appleton 25 and costs
Oct. 23	Wm. Ganin, Appleton 25 and costs
1898.	
Feb. 23	*G. Goll., Milwaukee 25 and costs
Feb. 23	*W. Loase, Milwaukee 25 and costs
Feb. 23	*A. Sahr, Milwaukee 25 and costs
Mar. 22	C. Bart (milk from diseased cow), Milwaukee..... 50 and costs
May 17	C. L. Dana (adult with "Freezine"), Milwaukee..... 25 and costs
July 12	Fred Gruening, Wautoma..... 25 and costs
July 12	Wm. Klotsbicker, Wautoma 25 and costs
July 19	Mrs. Mary Messerschmidt, Mt. Vernon 25 and costs
July 26	E. Lingenfelter, Fond du Lac..... 25 and costs
July 26	S. F. Block, Fond du Lac..... 25 and costs
Sept. 28	Herman Vetter, Fond du Lac..... 25 and costs

CONVICTIONS FOR SALE OF ADULTERATED VINEGAR.

1896.		<i>Fine.</i>
Oct.	*D. D. Evans & Co., Milwaukee .....\$10 and costs	
1897.		
Mar.	*Adolph Rosenheim, Milwaukee 10 and costs	
Mar.	*C. Rostad, Milwaukee 10 and costs	
Mar.	*Albert Heath, Milwaukee 10 and costs	
April.	Eugene Schrottky, Appleton 10 and costs.	
April.	John Walsh, Appleton 10 and costs	
April.	H. Rademacher, Appleton 10 and costs	

*Sentence suspended.

April.	C. A. Devenor, Appleton	10 and costs
April.	Geo. Lausmann, Appleton	10 and costs
April.	Ingold Bros., Appleton	10 and costs
April.	Marugg & Briese, Appleton	10 and costs
April.	L. C. Schmidt, Berlin	10 and costs
April.	B. D. Fuller, Berlin	10 and costs
April.	Fred W. Leskey, Berlin	10 and costs
April.	Chas. Brunk, Berlin	10 and costs
April.	J. C. Briske, Berlin	10 and costs
June.	C. Nelson, Eau Claire	10 and costs
June.	F. N. Larson, Eau Claire	10 and costs
June.	F. Decremer, Green Bay.....	10 and costs
June.	W. W. Winegard, Green Bay.....	10 and costs
June.	Edw. Vanden Braak, Green Bay.....	10 and costs
June.	Carl Koch, Menasha	10 and costs
June.	John Planner, Menasha	10 and costs
June.	F. W. Buboltz, Menasha	10 and costs
Sept.	C. N. Hawley, La Crosse	10 and costs
Sept.	A. M. Watson, La Crosse	10 and costs
Sept.	Bergoust Groc. Co., La Crosse.....	10 and costs
Sept.	John C. Toeller, La Crosse	10 and costs
Sept.	F. Gregory, La Crosse	10 and costs
Nov.	Wenzel Grams, La Crosse	10 and costs
Nov.	**Adolph Radtke, Beaver Dam	10 and costs
1898.		
Feb.	*J. Roehl & Son, Milwaukee	10 and costs
Feb.	*W. Weickhart, Milwaukee	10 and costs

COLORED OLEOMARGARINE.

		<i>Fine.</i>
1897.		
June 23	W. M. Jones, Oconomowoc.....	\$50 and costs
Dec. 3	Wm. Orlebeke, Milwaukee.....	50 and costs
Dec. 4	*S. Townsend, Milwaukee	50 and costs
Dec. 4	*C. W. Howard, Milwaukee.....	50 and costs
Dec. 22	John McGavock, Milwaukee	50 and costs
1898.		
Jan. 4	Edward McGrath, Milwaukee	50 and costs
Jan. 4	A. Hoffman, Milwaukee	50 and costs
Jan. 13	J. A. Flom (Flom's hotel), Madison.....	50 and costs
Jan. 13	Michael Meyers, Madison.....	50 and costs
Jan. 13	G. E. Fess, Madison.....	50 and costs
Jan. 13	Chas. Elver, Madison.....	50 and costs

ADULTERATED LEMON EXTRACT.

		<i>Fine.</i>
1898.		
June 9	*David Dickson, Milwaukee.....	\$25 and costs
July 22	*Chas. Levison, Racine	25 and costs
Aug. 12	J. Kaiser, Madison	30 and costs
Oct. 24	*J. Michelstetter, Milwaukee	Fine suspended

MISCELLANEOUS CONVICTIONS.

Mch. 30, '98,	I. Karger, Milwaukee, adulterated honey.....	Sentence suspended
1898.		<i>Fine.</i>
Feb. 16	A. R. Nitz, Milwaukee, unlabeled alum bak. powder.....	\$25 and costs
Feb. 16	W. G. Beech, Milwaukee, unlabeled alum bak. powd.....	25 and costs
June 9	*David Dickson, Milwaukee, unlabeled lum bak. powd.....	25 and costs
July 22	*Chas. Levison, Racine, unlabeled alum bak. powd.....	25 and costs
Aug. 12	J. Kaiser, Madison, unlabeled alum bak. powd.....	25 and costs
Aug. 30	*H. Uvaas, Neenah, adult. cream tartar.....	25 and costs

*Sentence suspended. **Remitted.

FINANCIAL STATEMENT.

DAIRY AND FOOD COMMISSION.

DISBURSEMENTS FOR THE YEAR ENDING SEPTEMBER 30, 1897.

<i>Dairy and Food Commissioner's Dept.—</i>		
Adams, H. C., com'r, salary.....	\$2,496 00	.....
Adams, H. C., com'r, expenses.....	99 20	.....
Chadwick, W. W., asst. com'r, salary.....	1,750 00	.....
Chadwick, W. W., asst. com'r, expenses.....	672 78	.....
Mitchell, A. S., chemist, salary.....	1,800 00	.....
Mitchell, A. S., chemist, expenses.....	60 43	.....
Field, N. J., dairy inspector, per diem, and expenses	370 60	.....
Norton, F., stenog. and confidential clerk, salary....	225 00	.....
Democrat Pr't'g' Co., blanks.....	33 47	.....
Democrat Pr't'g' Co., report.....	1,699 00	.....
Madison Post Office, postage.....	110 00	.....
Madison Post Office, box rent.....	8 00	.....
Dane Co. Telephone Co., rental.....	24 00	.....
Wis. Telephone Co., messages.....	32 50	.....
Western Union Telegraph Co., telegrams.....	21 95	.....
American Express Co., expressage.....	124 54	.....
United States Express Co., expressage.....	93 31	.....
<i>Laboratory—</i>		
Sargent, E. H., & Co., laboratory supplies.....	\$50 01	.....
Williams, E., laboratory supplies.....	75	.....
Drake Bros., laboratory supplies.....	1 65	.....
Eissfeldt, C., Co., laboratory supplies.....	7 00	.....
Hollister, A. H., laboratory supplies.....	10 46	.....
Madison Gas & Electric Co., laboratory supplies....	9 81	.....
Elmer & Amend, laboratory supplies.....	75 00	.....
Hennecke, C., Co., laboratory supplies.....	2 35	.....
Baumbach, C., Co., laboratory supplies.....	9 40	.....
		\$9,787 21

DISBURSEMENTS FOR THE YEAR SEPTEMBER 30TH, 1898.

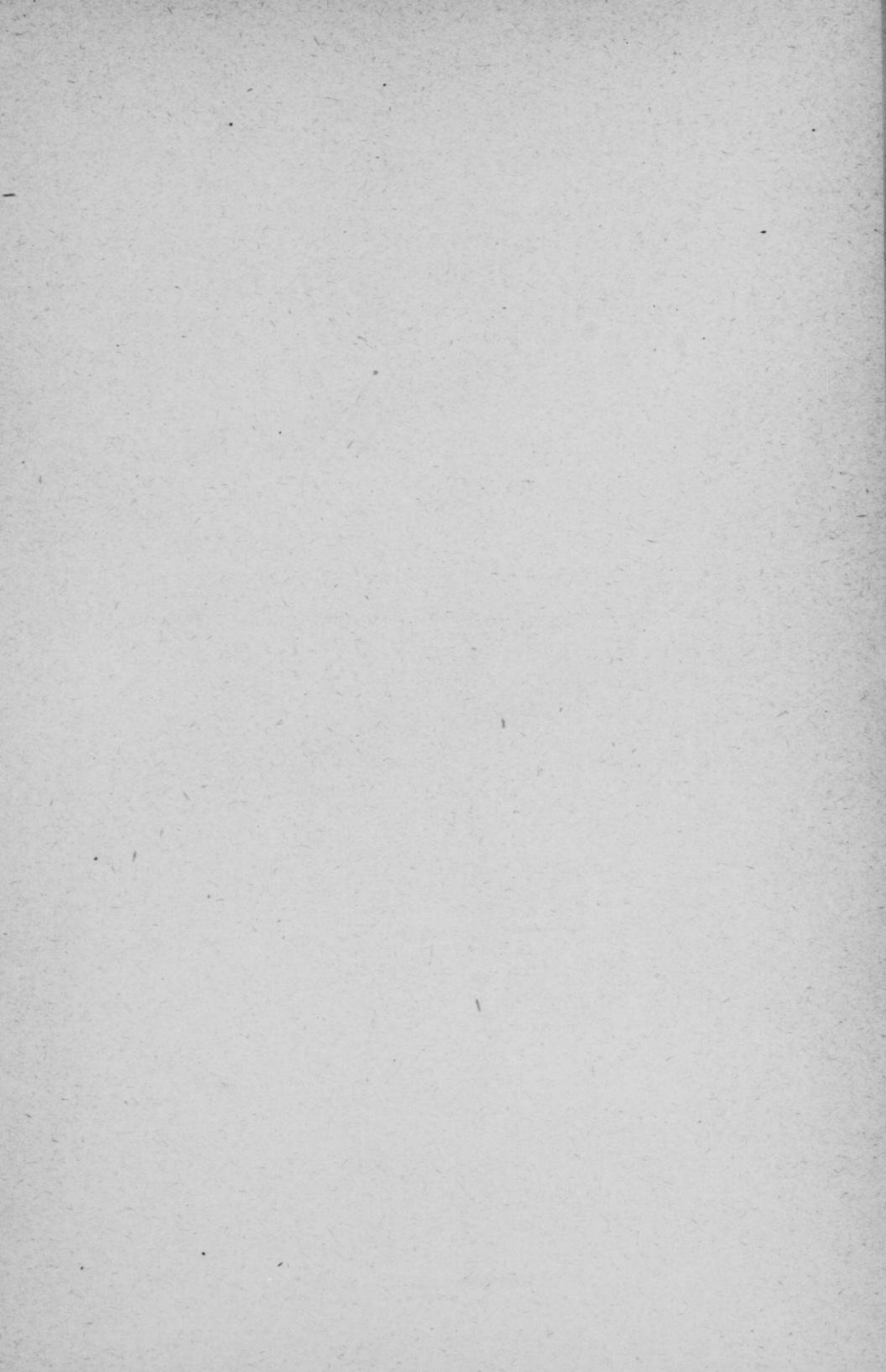
<i>Dairy and Food Commissioner's Department—</i>		
Adams, H. C., com'r, salary.....	\$2,511 00	.....
Adams, H. C., com'r, expenses.....	148 45	.....
Chadwick, W. W., asst. com'r, salary.....	1,600 00	.....
Chadwick, W. W., asst. com'r, expenses.....	765 13	.....
Mitchell, A. S., chemist, salary.....	1,800 00	.....
Norton, F., stenog. and clerk, salary.....	900 00	.....
Olin, J., attorney fees.....	14 00	.....
Field, N. J., dairy inspector, per diem and expenses.	1,563 30	.....
Democrat Prtg. Co., prtg. blanks.....	53 84	.....
Madison Post Office, postage.....	139 00	.....
Madison Post Office, box rent.....	8 00	.....
Dane Co. Telephone Co., rental.....	24 00	.....
Wisconsin Telephone Co., messages.....	2 75	.....
Western Union Telegraph Co., telegrams.....	26 55	.....
American Express Co., expressage.....	77 27	.....
United States Express Co., expressage.....	67 72	.....
Laboratory:		
Vilas, Wm. F., rent.....	\$250 00	.....
Richards & Co., Ltd., mdse.....	64 98	.....
Madison Gas and Electric Co.....	19 12	.....
Sargent, E. H., & Co.....	5 58	.....
Sheehan & Co.....	2 55	.....
Hollister's Pharmacy.....	3 99
Williams, E.....	3 95
Eimer & Amend.....	40 17
Hussey, J.....	5 00
Drake Bros. Co.....	4 35
		\$10,100 70



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WISCONSIN DAIRY &
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