

FINAL REPORT BY THE SECRETARY OF STATE.

DES MOINES, IOWA, November 13, 1893.

Mr. E. W. Crellin, superintendent and engineer for the improvement of the capitol grounds, severed his connection with the work July 13, 1892, and the care of the grounds was assumed by the Custodian of Public Buildings and Property.

In the fall of 1892, Mr. Alex Doyle furnished, in accordance with his contract, the bronze coat of arms, for terrace center pier, and buffalo head for drinking fountain, and in September, 1893, Mr. Karl Gerhardt delivered the pioneer group, all of which statuary has been put in place and paid for.

Following is a statement of the claims allowed by the Executive Council for the completion of the improvement:

DATE.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1892			
July	13 E. W. Crellin.....	Superintendent and engineer..	\$ 25.00
July	28 Bishop & Pollock	Sprinkling nozzles	3.75
September	10 Alex Doyle.....	Bronze buffalo head	650.00
March	15 Alex Doyle.....	Bronze coat of arms	550.00
March	15 White Line Transfer Company	Hauling bronze work.....	.87
1893			
January	28 Johnson & Kavanaugh	Sodding	20.00
November	13 Karl Gerhardt.....	Bronze pioneer group.....	4,500.00
November	13 Des Moines Transfer Company	Hauling and setting pioneer group	8.33
	Total		\$ 5,757.95
	Previously expended		94,242.05
	Appropriation		\$100,000.00

CLASSIFIED STATEMENT OF EXPENDITURES.

Granite	\$ 40,400.04
Cement.....	8,052.69
Foundations.....	5,365.61
Setting stone.....	2,938.20
Drainage.....	501.09
Grading, labor and hauling.....	23,519.47
Sodding.....	2,741.70
Gas and water pipe and fitting	2,711.22
Ornamental bronze and iron work.....	7,877.66
Printing and advertising.....	89.74
Plans, J. Weldenmann.....	1,002.80
Salary, superintendent and engineer.....	3,685.00
Tools and hardware	307.53
Lumber	228.98
Miscellaneous.....	578.27
Total.....	\$ 100,000.00

W. M. MCFARLAND,

Secretary of State and ex-officio Secretary of the Executive Council.

SIXTH ANNUAL REPORT

OF THE

State Dairy Commissioner

TO THE

GOVERNOR OF THE STATE OF IOWA

FOR THE YEAR 1892.

PRINTED BY ORDER OF THE GENERAL ASSEMBLY.

DES MOINES:

G. H. RAGSDALE, STATE PRINTER.
1892.

REPORT.

To HIS EXCELLENCY, HORACE BOIES, Governor of Iowa:

In conformity with the requirements of chapter 52, of the laws of the twenty-first general assembly, and amended by chapter 98 of the laws of the twenty-second general assembly, and to show the workings of chapter 50, of the laws passed by the twenty-fourth general assembly, I have the honor to submit the sixth annual report of this office.

At the date of our last report the twelve licenses which had been taken out had expired July 1, 1891, and with the exception of one in Council Bluffs, no others had been issued.

The following is a list of these holding oleomargarine licenses, giving the date on which the licenses were issued:

Frank Buder.....	Burlington.....	October 31, 1891
Eli Brown.....	Council Bluffs.....	November 7, 1891
H. F. Bodman.....	Muscatine.....	March 1, 1892
Bell & Son.....	Council Bluffs.....	March 11, 1892
Peter Beck.....	Council Bluffs.....	March 3, 1892
J. M. Bothwell.....	Ottumwa.....	March 26, 1892
John G. Biler.....	Ottumwa.....	April 11, 1892
E. S. Bogart.....	Glenwood.....	May 17, 1892
Callander & Co.....	Des Moines.....	April 13, 1892
G. D. Parsons.....	Des Moines.....	April 26, 1892
C. C. Cook & Co.....	Ottumwa.....	May 31, 1892
Mrs. E. A. Coursen.....	Des Moines.....	June 4, 1892
Coal Mine Supply Co.....	Cedar Mines.....	June 21, 1892
Dorn & Co.....	Des Moines.....	December 31, 1891
A. N. Day & Co.....	Des Moines.....	March 19, 1892
Draper & Co.....	Red Oak.....	April 11, 1892
M. J. Engle.....	Davenport.....	February 27, 1892
G. A. Gibbs.....	Harlan.....	June 31, 1892
Wm. Hoffmau.....	Des Moines.....	March 5, 1892
J. T. Hopkins & Co.....	Council Bluffs.....	April 11, 1892
Harper Meat Co.....	Burlington.....	May 7, 1892

Mac Hole	Glenwood	May 17, 1892
A. Jensen	Clinton	October 31, 1891
Kauffman & Lawrence	Anamosa	April 11, 1892
Charles C. Mitchell Jr.	Des Moines	April 11, 1892
M. Ryan	Stuart	March 1, 1892
Thos. Rishton	Council Bluffs	March 17, 1892
Smith Bros.	Perry	February 21, 1892
Smith & Tissue	Centerville	March 10, 1892
D. F. Stout	Des Moines	April 22, 1892
Henry Throm	Ottumwa	February 9, 1892
G. D. Carson	Des Moines	July 1, 1892
Ludham & Gotlobe	Lyons	August 31, 1892
Egal & Linjefield	Davenport	August 4, 1892
J. E. Collins & Bro.	Ottumwa	September 30, 1892
Applijen & Hollang	Ottumwa	September 3, 1892
Geo. H. Merchendorf	Council Bluffs	September 2, 1892
Eli Brown	Council Bluffs	September 2, 1892
Jacob Zoller	Council Bluffs	October 13, 1892
Bell & Son	Council Bluffs	October 10, 1892
Cummings & Cummings	Iowa Falls	January 8, 1891
Heed & Son	Boonesboro	February 1, 1892
W. F. Marsh	Boone	December 16, 1891
Marsh & Merchant	Boone	May 1, 1892
Brown & Van Patten	Missouri Valley	October 20, 1892
J. M. Voga & Company	Des Moines	October 8, 1892
J. W. Bothwell	Ottumwa	November 8, 1892
W. C. Carson	Des Moines	November 8, 1892
F. B. Draper	Red Oak	October 29, 1892
Albert Grefe	Des Moines	November 8, 1892
A. Jensen	Clinton	October 1, 1892
Wm. Koehler	Red Oak	November 8, 1892
T. A. Keltz	Cedar Rapids	November 8, 1892
Chris Carson	Council Bluffs	October 15, 1892
McRae Bros.	Des Moines	November 8, 1892
Geo. Grimes	Des Moines	November 8, 1892
T. H. Vickler	Ottumwa	November 8, 1892
Henry Throm	Ottumwa	October 7, 1892
Jack Zoller	Council Bluffs	October 1, 1892
Clemens Hansmann	Le Mars	November 10, 1892
Marsh & Merchant	Boone	November 2, 1892
J. W. Reel & Company	Sioux City	November 14, 1892

WHOLESALE.

K. B. Armour	Des Moines	October 12, 1892
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The following letter from the Hon. John Mason, Commissioner of Internal Revenue, Washington, D. C., was published in the fifth annual report:

TREASURY DEPARTMENT.
OFFICE OF THE COMMISSIONER OF INTERNAL REVENUE,
WASHINGTON, D. C., May 12, 1891.

A. C. TUPPER, Esq., State Dairy Commissioner, Osage, Iowa:

SIR:—Some one has sent me a copy of the Creamery Journal of May 1st, with a marked article written by you in regard to the enforcement of the oleomargarine laws in Iowa.

Referring to your statement that the internal revenue laws and regulations governing the sale of oleomargarine are not enforced in Iowa, I have to inform you that I have called the attention of Collector Weinstein to the letter purporting to have been written by him, a copy of which is printed in your article, and corrected his instructions to dealers in regard to the branding and marking of retail packages. The regulations on that subject, as quoted by you, are correct, and the collector has been directed to see that they are strictly conformed to by the dealers in his district.

It is my intention to see that the laws and regulations imposing a tax upon oleomargarine and providing for its collection are faithfully and impartially enforced in all parts of the country, and I am glad to have my attention at any time called to any evasions of the law.

Respectfully yours,

(Signed)

JOHN MASON, Commissioner.

The federal laws the commissioner refers to read as follows:

SEC. 6. That all oleomargarine shall be packed by the manufacturers thereof in firkins, tubs or other wooden packages not used before for that purpose, each containing not less than ten pounds, and marked, stamped and branded as the commissioner of internal revenue, with the approval of the secretary of the treasury, shall prescribe; and all sales made by manufacturers of oleomargarine, and wholesale dealers in oleomargarine, shall be in original stamped packages. Retail dealers in oleomargarine must sell only from original stamped packages, in quantities not exceeding ten pounds, and shall pack the oleomargarine sold by them in suitable wooden or paper packages, which shall be branded and marked as the commissioner of internal revenue, with the approval of the secretary of the treasury, shall prescribe. Every person who knowingly sells or offers for sale, or delivers, or offers to deliver, any oleomargarine in any other form than in the new wooden or paper packages as above described, or who packs in any package any oleomargarine in any manner contrary to law, or who falsely brands any package or affixes a stamp on any package denoting a less amount of tax than that required by law, shall be fined for each offense not more than \$1,000, and be imprisoned not more than two years.

In regulations respecting oleomargarine adopted by the commissioner of internal revenue, I find the following statement within: "As the retail dealer is required to sell from original packages and cannot as a retail dealer sell in such packages, he is, compelled to make up his own package. New wooden or paper packages similar to those usually employed in selling butter or lard at retail may be used. * * * Each retail wooden or paper package must have the name and address of the dealer printed or branded thereon, in letters not less than one-fourth of an inch square, the word oleomargarine and the quantity of pounds contained therein written or printed thereon as follows:

$\frac{1}{2}$ POUND OLEOMARGARINE.

The word "oleomargarine" and the quantity in pounds "which are required to be printed or branded on retail wooden or paper packages in letters not less than one-fourth of an inch square must be so plain as to be distinctly visible to the purchaser at the time of the sale to him."

The provisions of the Federal law are plain. Judging by the letter of Hon. John Mason the collectors of internal revenue were reprimanded for their delinquencies and misconstruction of the law and ordered to see that all its provisions were enforced; especially, that the package delivered to the consumer be properly stamped with the word "oleomargarine" as required by law. The violation of this provision was the cause of so many being fined last year who held United States licenses.

Mr. Mason's orders for a time had a salutary effect upon the revenue collectors and their deputies. Those holding United States government licenses were careful to place their licenses in a conspicuous place in store or shop and to brand the package properly that went into the hands of the customer. Unfortunately this vigilance has subsided to a great extent. The revenue officers have been persistent in hunting down any dealer that sold oleomargarine without a license. One man tried to wholesale it without procuring a license and the venture cost him several hundred dollars.

The proper enforcement of the law with regard to oleomargarine greatly lessens the duties of my office. If the dealers comply with the United States regulations, they virtually comply with the Iowa laws relating to it. One of the principal duties of my office is to see that restaurants, hotels and boarding houses are complying

with the provisions of the law, by placing placards with the words, "We use oleomargarine," in large letters in a conspicuous place in their dining-rooms.

In the fifth annual report of this office we stated that an appeal had been taken by Frank Buder, of Burlington, from a decision including a fine of \$50.00 and costs, made and imposed by Justice of the Peace E. J. Edmons, to the District Court. Geo. F. Tracy, District Attorney, took charge of the case in the District Court. The decision of the Justice's Court was sustained and the fine of \$50.00 and costs, or go to jail fifteen days, was paid by Buder. This ends the only oleomargarine case over which there was a contest. The case was tried in the July term of the District Court of Burlington.

Two licenses have been issued in Council Bluffs, three in Clinton and Lyons, which are virtually one city, as a stranger could not tell where Clinton leaves off and Lyons begins, two in Burlington and one in Des Moines. I visited Council Bluffs and Sioux City in December to see if any of them were feeding oleomargarine to their guests. I found one restaurant in Sioux City using it, but they had up eight placards printed in large letters announcing that "We use oleomargarine." The proprietor had been fined \$10.00 and costs the year before for not complying with the requirements of the law. Where the hotels and restaurants in Council Bluffs were using oleomargarine they invariably showed placards or produced butter from their tables. I visited Council Bluffs and Sioux City four times during the winter with like results. Three hotels and restaurants had already paid fines in Council Bluffs. Council Bluffs being so near Omaha, where oleomargarine is manufactured, makes that place a dangerous point, and requires constant vigilance on our part to prevent the illegal sale of oleomargarine. The commission men, who are selling straight goods, have always shown a commendable spirit in co-operating with us in our efforts to enforce the State laws against the sale of spurious butter.

I visited Clinton in January and found all four of the licensed sellers of oleomargarine complying with the requirements of the law, both State and Federal. I could find no hotel, restaurant or boarding house using it. The licensed dealers claimed to be doing very little business in its sale; in fact, I found no sample that had not been held for so long a time as to become rancid. Oleomargarine has no better keeping qualities than butter, and must be sold when fresh or it loses its flavor and will deceive no one.

A license was taken out in Des Moines December 31st. The

holder of it brought the best imitation butter into the city I ever examined. I was given a sample of it to eat on hot biscuit. It was probably composed of half creamery butter and the remainder of leaf lard, and was put up in a most appetizing manner. It was sold at 20 cents per pound, and according to Armour's quotations must have cost the dealer 18 cents. Towards spring the quality became much poorer. The dealer complied with the law, but the hotels and restaurants did not seem to care to purchase it.

The commission men and friends of honest butter kept a strict watch on what was fed to the guests of the hotels, restaurants and boarding houses. Several samples of the butter sold were sent to this office, but when placed under the microscope proved to be butter. Two samples from one restaurant were sent to Prof. Patrick, of Ames. He subjected them to a chemical analysis, but found no trace of adulteration.

The different cities in which government licenses have been taken out were each in time visited. Dealers were found to be complying with the law. I made arrangements with some friends of honest dairy products to have the hotels, restaurants and boarding houses watched. I do not make the statement that none of the imitation goods is sold illegally, for possibly some may escape the vigilance of myself and friends.

In February a restaurant at Boone was reported to be feeding oleomargarine to its guests. The next day I took dinner there, and upon examining the butter served, found it to be genuine. Upon the proprietor being charged with having used oleomargarine the day before, he acknowledged that he had done so, and produced a small placard with the word "Oleomargarine" on it. He claimed he was forced to use it, as the roads were in such a bad condition that the farmers could not bring butter to town. I reprimanded him for using so small a placard, and instructed him on the size required by law. He claimed that he would quit using oleomargarine. I found the licensed dealer complying with the law. He had been educated the year before at an expense of \$50.00 and costs. Upon examination I found that the other restaurants and hotels were using butter.

January 2d, was received at the office in Des Moines, by express, a roll of butter from Charles Smallwood, of Albia. He claimed that the center of the roll contained lard. Upon examination it was found to be a roll of lard coated over with butter. I went to Albia January 6th and examined the evidence by which the package could be identified. Mr. Smallwood had teams gathering

unsalted butter taken right from the churn, putting each lot into a cloth sack. The first time he cut open a roll containing the lard, he weighed the roll and, consulting the books of the driver, found that there were just two lots of that weight bought. The next time butter was gathered, that taken from the suspected parties was brought in by itself, and the weight of the larded butter traced it to a Mrs. H. Dunkin. The driver was then instructed to put a metal tag on the package of butter bought of Mrs. Dunkin the next time he bought of her. This he did and the package was sent to our office by express. We opened the box by taking a small board from the side. On examining it we found it to contain lard, so did not remove the butter from the sack, or the sack from the box, as the latter had all the marks of the address and the express company's label, too. Mr. Smallwood filed an information against Mrs. D. with Justice Robb, of Albia. The State furnished Ed Morrison, attorney at law, to assist the county attorney in the prosecution of the case. The books of Mr. Smallwood and the evidence of the driver, were presented to the court. Mrs. D. testified in her own behalf, her evidence being, "that she did not do it." The case was ably handled by the counsel for the State, and the evidence seemed to be conclusive and the case proven as presented by the plaintiff. The Justice, in his decision, acquitted the prisoner and the matter was dropped.

THE ENFORCEMENT OF THE NEW DAIRY LAW.

The Iowa law creating a Dairy Commissioner and defining his duties only contemplated the prevention of oleomargarine being sold except on its own merits. The law forbade any adulterated milk being used by factories or private parties in manufacturing butter or cheese. The commissioner could inspect the milk supply of the creamery or cheese factory, but could do nothing toward keeping pure the milk sold by milkmen. There is nothing in the law that would permit the dairy commissioner to be of any practical help to the creamery men, nor could anything be done by the office toward keeping the milk supply pure in the cities of Iowa.

At the last State Dairy Association held in Waverly, resolutions were passed asking for the legislation that is embodied in the new dairy law passed by the twenty-fourth general assembly, with the exception that the dairymen's demands were that at least two deputies should be appointed by the dairy commissioner to inspect the creameries and cheese factories of Iowa.

At a convention of the representatives of the cities of Iowa of the first class, held in Des Moines in February, they asked for the legislation embodied in the present law.

Hon. O. T. Denison, president of the Dairy Association of Iowa not only favored the legislation, but helped draft the bill and spent days in advocating its passage before the legislature. Hon. James Wilson, professor of agriculture at Ames college, also rendered valuable assistance. Every physician in the state was on the side of the law. The new law is published with the rest of the dairy laws at the end of the report.

In the fourth annual report of this office it was demonstrated (by the appointment of agents to gather milk samples in the cities of the first class) that the work was effective and could be done at small expense, and that when done kept the milk supply of the cities as pure as when it came from the cow.

All will perceive that it is the duty of the dairy commissioner to see that the milk is clean. This necessitates that the cans be absolutely free from all dirt or impurities. Cans not properly washed or not washed at all, breed the worst species of bacteria, which will destroy a constituent part of the milk, causing it in a very short time to become sour and rancid. Other forms of dirt may appear to be more offensive, but they are not as detrimental to the purity of the milk as are the unclean cans.

To detect unhealthy milk, caused by animal sickness, improper food, or milk from cows too close to parturition, is a very difficult task for this office when we take into consideration its limited resources. The detection of skimmed or partially skimmed milk, or watered milk, can be determined very easily. The efficiency of the law depends on the proper selection of men to act as our agents, men whose honesty is unquestionable and who are competent to do the work. The amount of butter fat which milk must contain is determined by law. The difficult thing for the agent to do is to obtain a fair sample of the milk from the dealer. Most of them are anxious to have the agent sample their richest can of milk. When the agent makes his own selection, which perchance is from the poorest can, they have claimed that sample to be taken from a can containing skimmed milk. Such samples have tested from two to two and eight-tenth per cent, whereas if it had been in reality skimmed milk it would not have tested over four-tenths of one per cent. The milk men very often neglect to stir the milk when it is cooling. If this were done it would prevent the cream from rising. The cream will only raise on milk when the temperature that surrounds it is lower than the milk itself. If the cream is thick, and the can is full, it takes thorough mixing to secure an average sample.

You will notice that the law did not come into effect until July 4. On the 4th of August I had visited the eleven cities of Iowa of the first class and had appointed agents and educated them as to their duties. I usually spent two days with each. In five of the largest cities I bought Babcock tests. This provided for the testing of the milk at home and gave the milk men a chance to witness the test. The good people of the cities have taken a great interest in the matter and invariably assisted me in finding good, honest, capable men for agents. Three dollars is allowed the agent for gathering a batch of samples, and we are allowed to test the milk on an average of thirty times per year in each city of the first class. The following are the number of samples in each city that

have fallen below the standard of three per cent of butter fat to the hundred pounds of milk: Des Moines, three; Cedar Rapids, five; Clinton, nine; Dubuque, eleven; Sioux City, three; Council Bluffs, eight; Ottumwa, none; Burlington, ten; Keokuk, five; Davenport, eleven; Muscatine, eight.

The agents are improving in their work and are being imposed on less frequently than at first. Very little cream is being worked off on them now by the unprincipled dealers. The milk supply of the cities is as rich in quality as the milk delivered to the separator creameries where the patrons are paid on the relative value plan. I am satisfied that hundreds of babies are fat and healthy because they are being fed on pure milk. This condition of things would not have been if it had not been for the passage of the new dairy law.

It is the duty of the dairy commissioner to inspect the milk as it comes into the creameries and cheese factories of Iowa:

First. So see that the milk is clean.

Second. To see that it contains no less than three per cent of butter fat to the hundred pounds of milk, if the milk is not bought on the relative value plan.

On September 20 the commissioner inspected the milk of Bush & Claus' creamery at Earlville, Iowa. Seven different lots of milk were returned to the patrons because it had not been strained or because the cans were dirty. Two lots of milk were set aside and word sent to the owners that if they did not come to see the commissioner by 2 P. M. they would be sent for by an officer of the law and information would be filed against them for selling dirty and unwholesome milk to be converted into butter. The penalty for so doing is a fine of not less than twenty-five (\$25.00) dollars or more than one hundred (\$100.00) dollars.

One of these parties had sent milk to the creamery in cans that had not been washed since he bought them, three months before. The other one had a quantity of manure in the bottom of his can. The proportion of dirty milk was so great that it puzzled the commissioner to know where to draw the line—whom to fine and whom not to, on this, his first visit. It resulted in giving all another chance.

Two of the first delinquents were severely dealt with, and one of them promised to replace his rusty cans with new ones.

The milk tested well as to the butter fat, the lowest being 3.10, and the highest, 6.20 per cent.

The difference in the quality of milk was a good object lesson to the patrons of the creamery, showing them the absolute neces-

sity of adopting the relative value plan before justice can be done each and all. Fifty samples of milk were tested at this creamery.

On September 21st I visited the creamery owned by Russell & Martin, located six miles southeast from Earlville. A few of the milk haulers had become acquainted with the preceding day's work at Earlville. One hauler had strained part of his load of milk at a farm house and all his cans were bright and clean. The majority of the haulers had not heard what had happened the day before. Nine lots of milk were returned on account of filthy cans, or from being unstrained. One man was sent for by the commissioner and severely reprimanded. He agreed to buy new cans. One hundred and four samples of milk were tested, all of which were three per cent, or above, with the exception of F. Girmatt's, which tested 2.60. Information was filed against him before Justice of the Peace Fuller. He plead guilty and was fined twenty-five dollars, which he paid.

On September 28th I inspected the milk supply of the co-operative creamery at Jesup, and sent back between three and four thousand pounds of milk. The milk was either unstrained or the cans had not been kept clean. Perhaps there was not over two lots in the batch that a jury would have considered sufficiently dirty to convict the owner of a violation of the new dairy law. The creamery was taking in twenty thousand pounds of milk per day and most of it was in excellent condition.

At Waterloo, on September 27th, I visited Fowler Bros.' cheese factory and found the cans in excellent condition and the milk of fair quality. I also inspected the Farmers' creamery in that city. I sent back four cans of milk and held the cans of three of the patrons, sending them word to come in and see me right away or I would send an officer after them. Much to my surprise the guilty parties, who shortly appeared, were, or had been, officers of the creamery, one being an ex-secretary, one an ex-director, and the other a director. The cans were in a filthy condition and looked as if they had not been washed for a week. It being the first offense I did not prosecute them.

I sent back two or three lots of milk from the creamery at Parkersburg on account of filth. The milk all tested above the standard.

I have visited creameries in Mitchell, Howard, Chickasaw, Delaware, Black Hawk, Butler, Grundy, Cerro Gordo, Dickinson, Palo Alto, Worth, Buchanan, Fayette and Winneshiek counties. Wherever I have visited separator creameries more or less milk has been sent back. The Mason City creamery seems to have its

patrons educated as to cleanliness the best of any the commissioner has visited so far. Only two lots of milk were sent back out of ten thousand pounds. All the separator creameries that I visited were sweet and wholesome with the exception of one. About one-third of the gathered cream creameries were in bad condition, the buildings were old, the floors broken and filled with caseine. They were unwholesome and were unfit for the manufacture of fine butter.

Two gathered cream creameries at Ackley, one of which had run on the separator plan in the summer, were both running on the gathered cream plan. Their butter was not selling in market within three cents per pound of what the well run gathered cream creamery butter was. The patrons were all trying to see who would have the biggest test. The milk was not kept as cold as it should have been kept. A large percentage of the cream was lost in the skim milk. Owing to the high temperature at which the cream was raised it came into the creamery in poor condition. It was only gathered twice a week. That period is too long between the milk-pail and the churn. In those two creameries the patrons are losing thousands of dollars every year for lack of better knowledge.

The commissioner visited a creamery at Cleves, six miles south of Ackley. The yield of butter to the one hundred pounds of milk was reported to be excellent. One man was under suspicion of selling thin milk. His milk tested 2.50. This person claimed that the milk was delivered to the factory as it came from the cow. The butter maker and the commissioner went out to his place and milked his cows. This milk tested 3.20. The patron's explanation was "that there were three cows milked in the morning that had their calves running with them during the day time. These cows were fresh milch cows that would hold up all their milk for their calves. The milk held up would be the strippings and the thinnest of the milk would be sent to the factory and might possibly make the difference in the tests. The patron desired me to come out to his place and see his cows milked in the morning to prove his statement that he had delivered straight milk from the cows. The sample of milk tested by the commissioner had been placed in a Babcock test bottle belonging to the creamery. Three samples of milk brought in, in the morning, were tested in three different bottles, and the night's milk in three more bottles. The sample that had been previously tested was 2.50. Two of the morning's samples tested 2.60 and one 2.90. Two samples of the night's milk tested 3.20, and the other 3.00. The results in each of the bottles should have

been exactly alike. The test bottle was wrong. There was no evidence against the patron, and the matter was dropped. The commissioner had traded off what he knew to be right in not using his own bottles, and got left, but learned that spurious test bottles are in the market. Creamery men should fill all their test bottles with the same milk and see that the bottles prove themselves correct in that the test is the same in all of them. For this reason I detail this case in full.

Visited E. M. Haven's creamery at Bristow, October 5, and found a large proportion of the milk in bad condition. Eight or nine lots were sent back. All the milk tested above standard with the exception of one sample. This sample belonged to an old lady nearly seventy years of age. She milked twenty-one cows. The creamery had tested the milk all summer. Six days out of seven it would test above the standard, but about every seventh day it would test from 2.00 to 2.40 per cent. Her son's and son-in-law's did the same. Mr. Haven deducted twenty-five per cent from the son's last milk check, but he had made no complaint. The old lady's milk tested 2.40 per cent in three bottles that are certified as correct by Prof. Babcock. Upon this the old lady and her relatives made bitter complaint of the great hardship it would be if she should be fined and disgraced, for she had always considered herself a good Christian. I made them this proposition: That I would take Mr. Haven and go out to the farm, see the cows milked and obtain a fair average sample of the night's milk, and if it did not test more than 2.40 per cent the matter would be dropped, provided, that if it did test more than 2.40 per cent they would plead guilty and pay the minimum fine. Her sons agreed to the proposition. When the old lady was consulted she said, if she "had to pay money the quicker it was done the better." Complaint was then made before a justice, and the fine was paid.

In Osgood, Palo Alto county, a patron had been accused of skimming or watering his milk. At the time I visited the factory he was taking his milk to another factory. Different tests of his milk had been saved by the butter maker which, when heated to the proper temperature, showed a test as low as 2.20, 2.30 and 2.50. The tests were not clear. I secured a sample of the man's milk as he was on his way to the other creamery and filled five bottles with it (these bottles were certified to be correct by Prof. Babcock, of Wisconsin), and five bottles belonging to the creamery test with the same milk. In these bottles we used my acid. Twenty other bottles were filled with different samples of

milk. The acid used with these latter tests was furnished by the creamery. The accused's milk tested 3.40. The creamery test bottles corresponded with my bottles. The test was uniformly low in the other bottles belonging to the creamery. Two of them were below standard, one testing 2.30 and the other 2.40. The same milk when re-tested and my acid used tested one pound more to the hundred pounds of milk, and six tenths less when their acid was used. These facts substantiate Prof. Babcock's claim "that acid that is not chemically correct produces results that are irregular, and will not bring out all the butter fat." Their acid had been on hand a year and had not been properly corked when received. It had absorbed moisture from the atmosphere and lost its strength. There was no evidence against the accused. His milk had tested well. When he came into the creamery and was told of the result the management apologized to him. All interested shook hands and he agreed to bring his milk back to the creamery. Peace, harmony and good will prevailed where there had been distrust, suspicion and accusation. A lawsuit was prevented and all is well. The moral to creamery people is: Buy your acid from some reputable firm, know that it is properly sealed when you receive it, and preserve it in that way.

On October 28 I inspected the milk of the coöperative creamery in Waterloo the second time. All the cans were bright and clean and the milk had been strained and was in excellent condition.

If the dairy commissioner's office had two deputies to attend to the inspection of the milk furnished the eight hundred creameries and one hundred cheese factories in Iowa, it would increase the worth of the product many thousands of dollars. Taking into consideration the dairy commissioner's other duties he will not be able to do over one-quarter of this kind of work that ought to be done.

CITY MILK TESTS.

DES MOINES.

1892.	NAME.	Test.
July	6 Andrew Berson.....	3.80
	6 H. M. Huntoon.....	3.20
	6 W. W. Payton.....	3.80
	6 A. W. Harding.....	3.50
	6 A. W. Harding, at his request.....	5.00
	6 A. W. Harding, milk depot.....	3.50
	6 George Terry, milk depot.....	3.80
	6 J. C. Morningstar.....	3.40
	6 Des Moines Dairy.....	3.80
	6 Geo. A. Fisher.....	3.40
	6 August Anderson.....	3.30
	6 M. Davis.....	3.80
	7 Des Moines Dairy Company.....	3.00
	7 Des Moines Dairy Company, depot.....	3.20
	7 M. H. Kreps.....	3.20
	7 A. W. Harding.....	3.60
	7 A. W. Harding, depot.....	3.60
	7 Terry & Dolphin.....	3.50
	7 Grand Avenue Depot.....	3.00
	7 H. Haulman.....	3.80
	7 S. D. Bartlett.....	4.00
	7 J. P. Von Stuben.....	4.00
	7 H. S. Clark.....	3.80
	7 W. W. Scott.....	4.20
20	J. C. Morningstar.....	3.80
20	W. W. Payton.....	3.60
20	H. S. Clark.....	3.10
20	Aug. Anderson.....	3.40
20	Gus Schoenfeldt.....	3.00
20	Des Moines Dairy Company.....	3.50
20	Des Moines Dairy Company.....	3.60
20	Des Moines Dairy Company (cream).....	12.00
20	Harding Bros.....	3.60
20	F. O. Bartlett.....	3.80
20	F. M. Huntoon.....	3.50
20	A. W. Harding.....	5.40
20	L. McConnell.....	3.40
20	J. P. Von Stuben.....	3.60
20	Pickering Bros.....	3.50

DES MOINES—CONTINUED.

1892.	NAME.	Test.
July	20 Geo. Terry.....	3.50
	20 John Mueller.....	3.50
	20 C. J. Inman depot—from J. Henderson.....	4.50
	20 M. H. Miller.....	3.70
	29 A. W. Harding.....	4.00
	29 W. W. Scott.....	4.60
	29 H. S. Clark.....	3.50
	29 Harding Bros.....	2.40
	29 F. M. Blackman.....	4.50
	29 F. M. Blackman.....	3.80
	29 A. W. Harding.....	4.30
	29 Geo. Terry.....	4.60
	29 Lee Wilson.....	3.20
	29 Harding Bros.....	3.00
	29 McConnell Bros.....	3.80
	29 Inman Dairy.....	4.80
	29 F. Wallbrick.....	3.80
	29 Des Moines Dairy Co.....	11.50
	29 Des Moines Dairy Co., depot.....	3.80
	29 Terry & Dauphin.....	5.00
	29 L. D. Bartlett.....	4.00
	29 Pickering Bros.....	3.50
	29 C. P. West.....	3.90
	29 J. C. Morningstar.....	3.40
	29 Inman Depot.....	3.00
Aug.	17 A. W. Harding.....	4.10
	17 W. F. Swearingen.....	3.80
	17 J. P. Von Stuben.....	4.20
	17 Lee Wilson.....	4.20
	17 F. M. Blackman.....	4.40
	17 Des Moines Dairy Co. (skim milk).....	1.80
	17 Des Moines Dairy Co.....	4.00
	17 Des Moines Dairy Co.....	2.90
	17 C. P. West.....	3.60
	17 Terry & Dauphin.....	3.00
	19 H. M. Huntoon.....	3.90
	19 Andrew Borgensen.....	3.40
	19 Des Moines Dairy Co.....	4.10
	19 J. C. Watts.....	4.00
	19 H. S. Clark.....	3.00
	19 W. W. Payton.....	3.20
	19 Thomas Barr.....	3.20
	19 M. Davis.....	4.20
	19 August Anderson.....	4.10
	19 Grand Avenue Creamery.....	4.00
	19 Bragdon Bros.....	4.10
	19 W. W. Scott.....	3.40
Sept.	8 Geo. Terry.....	3.80
	8 W. W. Payton.....	3.50
	8 H. M. Huntoon.....	3.80
	8 G. A. Fisher.....	3.65
	8 Des Moines Dairy Co.....	3.50
	8 A. W. Harding.....	3.40
	8 Des Moines Dairy Co.....	4.00
	8 Lee Wilson.....	4.05
	8 C. C. Lane.....	4.40
	8 F. M. Blackman.....	3.80
	8 Harding Bros.....	5.40
	8 Pickering Bros.....	4.00

DES MOINES—CONTINUED.

1892.	NAME.	Test.
Sept.	8 Inman's Dairy.....	3.00
	8 J. H. Jordan.....	5.00
	8 J. C. Morningstar.....	3.60
	8 M. Davis.....	4.30
	8 J. C. Watts.....	3.95
	8 J. P. Von Stuben.....	4.00
	8 Harding Bros.....	4.00
	8 Geo. Terry.....	3.60
	8 H. Haulman.....	3.80
	8 Crawford & Leonard.....	3.60
	8 Terry & Dauphin.....	3.50
	8 Mr. Jones.....	4.20
	8 Des Moines Dairy Co.....	4.00
	8 H. S. Clark.....	4.00
	15 M. Davis.....	4.00
	15 M. H. Kreps.....	3.50
	15 C. P. West.....	3.50
	15 A. Borgensen.....	3.30
	15 G. Fisher.....	3.90
	15 J. C. Watts.....	4.80
	15 W. W. Payton.....	3.60
	15 H. M. Huntoon.....	4.20
	15 Grand Avenue Creamery.....	3.90
	15 Des Moines Dairy Company.....	3.90
	15 F. M. Blackman.....	3.20
	15 Samuel Roth.....	3.40
	15 Bragdon Bros.....	3.60
	15 Inman's Dairy.....	3.45
	15 A. W. Harding.....	4.20
	15 W. W. Scott.....	3.60
Oct.	8 J. P. Von Stuben.....	3.60
	8 George Terry.....	3.70
	8 Lee Wilson.....	4.10
	8 Terry & Dauphin.....	4.00
	8 Rasan & Maxwell.....	4.00
	8 A. W. Harding.....	3.70
	8 Pickering Bros.....	4.50
	8 F. M. Blackman.....	3.40
	8 J. C. Morningstar.....	4.80
	8 W. W. Payton.....	4.00
	8 C. P. West.....	4.00
	8 H. M. Huntoon.....	4.00
	31 W. W. Scott.....	3.80
	31 H. S. Clark.....	2.90
	31 W. W. Payton.....	3.70
	31 A. J. Franklinfield.....	3.80
	31 Des Moines Dairy Company.....	4.20
	31 J. P. Von Stuben.....	3.80
	31 S. Roth.....	3.90
	31 G. D. Bartlett.....	4.30
	31 A. W. Harding.....	4.20
	31 Inman's Dairy.....	3.80
	31 Inman's Dairy, night.....	4.70
	31 J. H. Jordan.....	3.90
	31 L. McConnell.....	4.00
	31 George Terry.....	4.00

CEDAR RAPIDS.

1892.	NAME.	Test.
July	8 A. Ling.....	3.05
	8 Wm. Probst.....	3.10
	8 W. H. Hunter.....	3.10
	8 Jas. Kourtney.....	3.00
	8 Mrs. J. Conness.....	3.00
	8 Wm. Haward (depot), Frank Green.....	3.00
	8 Wm. Haward, Hendrickson.....	4.20
	8 C. J. Deberand.....	3.80
	8 P. J. Berry.....	3.50
	8 Fred Kilmeyer.....	3.30
	8 Fred Kilmeyer.....	4.00
	8 J. C. Ryker.....	3.10
	8 A. Dockery.....	3.00
	8 A. M. Miller.....	3.40
	9 L. Bemer.....	3.40
	9 C. Taft.....	3.70
	9 Thos. Perryman.....	7.10
	9 J. C. Ryker.....	4.25
	9 Williams Bros.....	4.00
	9 J. B. Hawkins.....	3.60
	9 Mrs. J. Conness.....	3.40
	9 J. R. Hall.....	3.45
	9 S. G. Smith.....	4.00
	9 C. J. Deberand (depot).....	3.20
	29 A. M. Miller.....	3.00
	29 L. Bemer.....	5.00
	29 C. Taft.....	4.60
	29 J. C. Peck.....	4.10
	29 J. Kourtney.....	3.80
	29 L. Bemer.....	5.00
	29 C. Taft.....	4.60
	29 G. C. Peck.....	4.10
	29 D. H. Bungler.....	4.20
	29 Wm. Probst.....	3.60
	29 F. Hilmeyer.....	3.60
	29 F. Perryman.....	4.60
	29 Williams Bros.....	4.00
	29 J. C. Ryker.....	4.00
	29 J. B. Hawkins.....	6.20
	29 R. Ellis.....	4.00
	29 C. J. Deberand.....	2.80
	29 A. Ling.....	3.60
	29 Smith & Howard.....	2.80
	29 P. J. Berry.....	2.80
	29 A. Dockery.....	4.00
Aug.	2 A. Ling.....	3.80
	2 James Sloan.....	3.40
	2 L. Bremer.....	3.40
	2 R. Ellis.....	3.40
	2 Thos. Perryman.....	4.20
	2 J. C. Ryker.....	2.20
	2 J. Kourtney.....	2.80
	2 A. Dockery.....	4.00
	2 P. J. Berry.....	3.40
	2 C. J. Deberand.....	3.20
	2 Smith & Howard.....	4.00

CEDAR RAPIDS—CONTINUED.

1892.	NAME.	Test.
Aug.	2 C. Tuft.....	4.00
	2 William Probst.....	3.00
	2 William H. Hunter.....	4.40
	2 J. R. Hall.....	3.20
	2 A. M. Miller.....	4.40
	2 J. S. Porter.....	3.20
	2 J. B. Hawkins.....	3.00
	2 Williams Bros.....	3.60
	2 S. G. Smith.....	4.20
	17 A. Miller.....	4.00
	17 Wm. Probst.....	3.80
	17 J. R. Hall.....	3.20
	16 L. Bemer.....	4.00
	17 G. Perryman.....	3.60
	17 Williams Bros.....	4.00
	17 George Peck.....	3.80
	17 J. C. Ryker.....	4.00
	17 R. Ellis.....	3.20
	17 J. B. Hawkins.....	3.20
	17 P. J. Berry.....	4.60
	17 C. J. Deberard.....	4.00
	17 Smith & Howard.....	3.80
	17 C. Tuft.....	3.80
	17 Fred Kilmeyer.....	3.80
	17 A. Ling.....	3.60
Sept.	9 L. Bemer.....	3.20
	9 James Mann.....	3.80
	9 James Sloan.....	3.60
	9 Williams Bros.....	3.20
	9 George C. Peck.....	3.60
	9 Thomas Perryman.....	3.60
	9 J. C. Ryker.....	3.40
	9 J. R. Hall.....	4.00
	9 A. Ling.....	4.00
	9 Wm. Probst.....	3.40
	9 W. H. Hunter.....	3.20
	9 A. M. Miller.....	4.00
	9 C. Tuft.....	4.00
	9 J. S. Porter.....	4.00
	9 Fred Kilmeyer.....	4.20
	9 Howard & Smith.....	3.60
	9 C. J. Deberard.....	3.60
	9 P. J. Berry.....	3.60
	9 R. Ellis.....	3.40
	24 Wm. Probst.....	3.80
	24 A. Ling.....	4.80
	24 James Mann.....	4.00
	24 L. Bemer.....	3.00
	24 Thomas Berryman.....	3.80
	24 James Kourtney.....	4.20
	24 Wm. H. Hunter.....	3.20
	24 Fred Kilmeyer.....	4.00
	24 A. M. Miller.....	4.00
	24 Wm. Brock.....	4.20
	24 Wm. Howard.....	3.40
	24 J. B. Hawkins.....	3.00
	24 J. S. Porter.....	3.80
	24 C. J. Deberard.....	3.40
	24 A. Dockery.....	4.00

CEDAR RAPIDS—CONTINUED.

1892.	NAMES.	Test.
Sept. 24	R. Ellis.....	4.00
24	James Mann.....	3.20
24	Ellis Avenue Dairy.....	3.20
24	J. B. Haskins.....	3.60
24	Peck's Dairy.....	4.00
Oct. 26	S. N. Kooser.....	5.20
26	J. Kourtney.....	3.20
26	A. Dockery.....	4.00
26	P. J. Berry.....	3.00
26	A. N. Miller.....	4.00
26	Fred Kilmeyer.....	4.00
26	A. Ling.....	4.20
26	W. H. Hunter.....	3.60
26	Wm. Probst.....	4.20
26	L. Bemmer.....	3.00
26	J. C. Ryker.....	3.00
26	C. Tuft.....	4.00
26	E. A. Howard.....	3.20
26	J. D. Leiper & Barnes.....	3.80
26	W. W. Sweet.....	3.00
26	Williams Bros.....	3.00

SIOUX CITY.

July 19	A. W. Stover.....	3.50
19	A. W. Stover.....	3.40
19	W. D. Ray.....	3.20
19	T. P. Treadwell.....	3.40
19	Chas. Pfaff.....	4.00
19	P. E. Bradstreet.....	3.60
19	D. O. Wilcox.....	3.40
19	C. J. Toran.....	3.00
19	W. Moulin.....	3.60
19	C. Sorrensen.....	3.80
19	W. Mahaney.....	3.80
19	Bild Bros.....	3.40
19	Vaughn & Son.....	3.00
19	Chas. Pfaff.....	3.60
19	P. M. Reynolds.....	3.00
19	L. C. Krummann.....	4.70
19	A. C. Woodcock.....	4.90
19	G. F. Isgrig.....	3.40
19	J. H. Smithers.....	3.40
19	Wm. Mahaney.....	3.50
19	Vaughn & Son.....	3.40
19	John Krummann.....	2.60
19	W. D. Ray.....	3.20
19	A. W. Stover.....	3.20
19	Kemper Bros.....	3.70
19	D. O. Wilcox.....	3.00
Aug. 11	W. Mahaney.....	3.60
11	I. F. Morse.....	3.80
11	Wm. Moulin.....	3.60
11	T. P. Treadwell.....	3.40
11	W. D. Ray.....	4.00

SIOUX CITY—CONTINUED.

1892.	NAME.	Test.
Aug. 11	C. M. Robinson.....	4.00
11	J. S. Shephard.....	4.00
11	Bild Bros.....	3.50
11	Jas. Daly.....	3.60
11	C. Sorrensen.....	3.70
11	T. B. Armstead.....	3.60
11	A. J. Bradstreet.....	3.50
11	C. J. Toran.....	3.40
11	L. Krummann.....	3.20
11	A. W. Stover.....	3.65
11	J. Krummann.....	3.20
11	M. S. Chink.....	3.40
30	N. J. Rowe.....	4.00
30	Bild Bros.....	3.60
30	I. F. Morse.....	4.20
30	Vaughn & Son.....	4.40
30	Kemper Bros.....	2.90
30	W. Moulin.....	3.90
30	W. D. Ray.....	3.50
30	T. E. Bradstreet.....	3.50
30	Jas. Daly.....	3.60
30	W. Mahaney.....	3.00
30	T. P. Treadwell.....	7.20
30	A. J. Bradstreet.....	4.00
30	D. O. Wilcox.....	6.10
30	John Krummann.....	10.20
Sept. 20	W. Moulin.....	4.20
20	W. Mahaney.....	4.90
20	I. F. Morse.....	4.30
20	Bild Bros.....	4.10
20	C. J. Toran.....	3.30
20	L. Krummann.....	3.00
20	C. Sorrensen.....	3.60
20	J. Krummann.....	6.00
20	M. J. Rowe.....	4.40
20	D. C. Wilcox.....	6.30
20	T. P. Treadwell.....	3.40
28	W. Moulin.....	4.20
28	I. F. Morse.....	4.20
28	D. O. Wilcox.....	6.30
28	Chas. Pfaff.....	4.00
28	W. D. Ray.....	4.80
28	L. Krummann.....	8.30
28	Louis Pfaff.....	3.30
28	Geo. Jensen.....	3.60
28	John Krummann.....	6.20
28	Bild Bros.....	4.10
28	W. J. Rouse.....	4.20
Oct. 14	C. M. Robinson.....	5.00
14	W. D. Ray.....	3.60
14	W. Mahaney.....	4.20
14	D. O. Wilcox.....	4.00
14	I. F. Morse.....	3.80
14	Bild Bros.....	4.00
14	Geo. Jensen.....	3.60
14	Chas. Pfaff.....	3.50
14	J. S. Shephard.....	3.90
14	Louis Pfaff.....	3.60

SIOUX CITY CONTINUED.

1892.	NAME.	Test.
Oct. 14	W. Moulin.....	4.40
14	T. P. Treadwell.....	4.10
14	C. J. Toran.....	4.00
14	D. B. Heath.....	3.90
14	C. Reese.....	4.00
14	Mrs. Hansen.....	3.80
14	J. M. Nichols.....	2.90
14	John Krummann.....	3.80
14	W. J. Rowe.....	3.80
20	C. J. Toran.....	4.10
20	W. Mahaney.....	3.90
20	T. P. Treadwell.....	4.20
20	W. Moulin.....	3.80
20	T. E. Bradstreet.....	4.00
20	Louis Pfaff.....	3.60
20	I. F. Morse.....	4.20
20	George Jensen.....	4.30
20	J. S. Shephard.....	4.60
20	L. Krummann.....	4.10
25	George Jensen.....	4.60
25	W. Moulin.....	3.90
25	T. P. Treadmill.....	3.80
25	Chas. Pfaff.....	3.40
25	Geo. Jensen.....	4.40
25	C. J. Toran.....	5.00
25	T. E. Bradstreet.....	4.40
25	D. B. Heath.....	4.30
25	N. J. Rowe.....	4.00
25	John Krummann.....	4.90
25	L. Krummann.....	2.60
25	Bild Bros.....	4.00

DAVENPORT.

Aug. 4	Hans Peterson.....	1.80
4	J. Jurgensen.....	3.50
4	Hugo Trahm.....	3.00
4	John Larwitzer.....	3.00
4	Peter Reichert.....	3.00
4	John Woelk.....	3.00
4	Claus Hener.....	2.50
4	John Hener.....	2.40
4	Peter Petersen.....	3.00
4	Hiram Stowe.....	3.00
4	John Eckstein.....	3.80
4	J. W. Harrison.....	3.20
4	E. Plogmann.....	2.60
4	Thomas Gehman.....	3.00
4	Peter Ruch.....	3.40
4	Peter Fleming.....	3.00
4	Peter Ruchmann.....	3.20
4	Paul Thiesen.....	3.00
10	J. Jurgensen.....	4.00
10	J. Jarnt.....	3.00
10	Mose Schrum.....	3.00
10	Hans Petersen.....	3.00
10	Peter Ruchert.....	2.80

DAVENPORT—CONTINUED.

1892.	NAME.	Test.
Aug. 10	Hugo Trahm.....	3.00
10	Peter Ruch.....	3.20
10	Thomas Gehman.....	3.00
10	Paul Thiesen.....	3.50
10	John Carwiczell.....	3.00
10	Hermann Bolty.....	3.20
10	John Woelk.....	3.00
10	John Gerdes.....	3.00
10	Peter Springhorn.....	3.00
10	John Hener.....	3.20
10	Claus Hener.....	3.00
10	John Lange.....	4.10
10	Hans Kolp.....	3.50
10	John Schmidt.....	2.40
10	Peter Petersen.....	3.50
10	Hermann Willert.....	1.50
10	J. Tank.....	2.90
10	H. Mess.....	2.40
18	John Maves.....	4.00
18	J. H. Seifers.....	3.40
18	H. Mess.....	3.50
18	Peter Richman.....	3.20
18	J. W. Harrison.....	3.80
18	Thomas Coglass.....	4.20
18	Henry Bruhn.....	4.10
18	John Eckstein.....	4.30
18	Max Schrum.....	3.10
18	Jessie Armil.....	3.00
18	Z. H. Gilruth.....	4.00
18	A. Moffatt.....	4.10
18	Henry Bolt.....	3.90
18	G. A. Moffat.....	4.10
Sept. 3	Peter Peterson.....	3.00
3	Henry Bruhn.....	2.00
3	J. H. Gilruth.....	4.00
3	Mrs. M. Nichols.....	3.00
3	Fritz Drexel.....	4.00
3	H. Lang.....	3.90
3	Peter Fleming.....	4.00
3	Thomas Cogan.....	4.00
3	Paul Thiesen.....	4.70
3	A. Moffat.....	3.50
3	H. Kellogg.....	4.00
17	H. Bieber.....	3.40
17	John Tank.....	3.90
17	John Schmidt.....	3.20
17	J. Jurgensen.....	4.30
17	Claus Hener.....	3.70
17	J. Meres.....	4.00
17	H. Petersen.....	4.80
17	J. Carwiczell.....	4.00
17	Peter Ruch.....	3.20
17	J. Gaymen.....	4.10
17	J. Hener.....	3.70
17	H. Bolt.....	4.00
17	H. Willers.....	3.60
17	F. Dressell.....	4.00

DAVENPORT—CONTINUED.

1892.	TEST.	Test.
Oct.	13 Jesse Armil.....	4.00
	13 Peter Petersen.....	4.00
	13 M. Fleming.....	4.00
	13 H. Kellogg.....	4.00
	13 Mrs. Nichols.....	4.20
	13 J. A. Moffat.....	4.00
	13 J. H. Seefert.....	4.25
	13 Peter Ruchman.....	3.00
	13 Henry Bruhn.....	4.00
	13 E. Plogman.....	4.00
	13 P. Ruch.....	3.50
	13 John Hener.....	4.50
	13 Hans Peterson.....	4.00
	13 Henry Lange.....	4.75
	13 J. H. Gilruth.....	5.00
	13 Paul Thiesen.....	4.25
	21 John Zain.....	4.50
	21 Hugo Trahm.....	3.25
	21 Peter Richert.....	4.00
	21 John Carweizell.....	4.00
	21 Max Schrum.....	4.50
	21 Thomas Gaymen.....	4.00
	21 Herman Bolty.....	3.00
	21 Peter Springhorn.....	4.00
	21 John Woep.....	4.00
	21 Claus Hener.....	4.00
	21 Hans Keop.....	4.00
	21 John Schmidt.....	4.50
	27 J. Jurgensen.....	5.00
	27 Peter Ruch.....	4.00
	27 E. Plogmann.....	3.50
	27 Peter Flemming.....	3.50
	27 H. Willets.....	4.00
	27 Fred Ruchman.....	5.00
	27 John Hener.....	5.00
	27 Paul Thiesen.....	4.00
	27 H. Lange.....	4.00

BURLINGTON.

July	30 D. Hacker.....	3.00
	30 E. J. Swords.....	3.00
	30 H. C. Koestner.....	3.20
	30 T. L. Stephens.....	3.00
	30 E. S. Edger.....	3.60
Aug.	4 E. Duckstein.....	3.20
	4 T. L. Rogers.....	3.20
	4 C. G. Ernest.....	4.80
	4 F. M. Parsons (Jersey).....	3.60
	4 A. Hacker.....	4.60
	4 B. F. Gregg (Jersey).....	3.20
	4 J. Binder.....	3.40
	4 H. C. Koestner.....	3.20
	4 T. L. Stephens.....	3.20
	4 Vogelgesany Bros.....	3.60
	20 E. J. Swords.....	3.60
	20 A. J. Perry.....	3.60

BURLINGTON—CONTINUED.

1892.	NAME.	Test.
Aug.	20 O. G. Van Winkle.....	3.60
	20 C. G. Ernest.....	3.40
	20 A. Santi.....	3.40
	20 Vogelgesany Bros.....	3.40
	20 C. Bonar.....	3.60
	20 H. C. Bowman.....	3.20
	20 F. M. Parsons.....	4.20
Sept.	9 L. C. Pearson.....	3.60
	9 Chas. Bonar.....	3.80
	9 A. J. Perry.....	3.40
	9 E. J. Swords.....	3.60
	9 T. L. Rogers.....	3.40
	9 C. H. Buhrmeister.....	3.80
	9 J. Binder.....	3.80
	9 Vogelgesany Bros.....	3.60
	9 H. C. Koestner.....	3.20
	9 E. J. Tennity.....	3.80
	9 J. James.....	3.40
	9 H. C. Bowman.....	2.80
	26 O. G. Van Winkle.....	3.60
	26 A. Hacker.....	3.40
	26 T. L. Stephens.....	3.00
	26 C. G. Ernest.....	3.40
	26 F. M. Parsons (Jersey).....	4.80
	26 L. C. Pearson.....	2.80
	26 J. L. Hedges.....	3.40
	26 H. C. Bowman.....	3.60
	26 J. James.....	3.40
	26 Vogelgesany Bros.....	3.80
	26 Peter Galley.....	4.20
	26 J. A. Perry.....	3.60
	26 H. D. Leak.....	3.20
	26 A. Santi.....	2.80
	26 Fred Lichtenberg.....	3.20
	26 J. Binder.....	4.20
	26 B. F. Grigg.....	3.80
	26 H. C. Koestner.....	3.60
Oct.	8 Miss Sutton.....	4.00
	8 T. L. Stephens.....	2.80
	8 F. Duckstein.....	3.00
	8 J. James.....	3.00
	8 E. J. Swords.....	2.60
	8 A. Hacker.....	5.00
	8 A. Santi.....	2.00
	8 B. Gregg.....	4.00
	8 P. Galley.....	3.20
	8 H. D. Leak.....	3.20
	8 E. J. Tennity.....	2.00
	8 J. Binder.....	3.00
	8 C. G. Ernest.....	3.00
	8 T. L. Rogers.....	3.40
	8 J. A. Perry.....	2.00
	17 M. Murbing.....	4.00
	17 C. J. Ernest.....	3.20
	17 J. James.....	3.60
	17 H. C. Bowman.....	3.00
	17 E. J. Swords.....	3.60
	17 A. Hacker.....	2.80

BURLINGTON—CONTINUED.

1892.	NAME.	Test.
Oct. 17	E. P. Dunham.....	3.80
17	C. Bonar.....	3.80
17	J. Binder.....	3.00
17	O. G. Van Winkle.....	2.80
17	Fred Durstein.....	3.80
22	A. Santi.....	4.20
22	H. D. Leak.....	3.60
22	E. J. Tennity.....	2.00
22	H. C. Bowman.....	3.60
22	O. G. Van Winkle.....	4.40
22	L. C. Pearson.....	4.00
22	A. J. Perry.....	3.20
22	T. L. Stephen.....	3.20
22	C. G. Ernest.....	3.60
22	E. J. Swords.....	3.60
27	Joe Binder.....	3.60
27	B. F. Grigg.....	4.00
27	T. M. Parsons (Jersey).....	5.00
27	T. L. Stephens.....	4.00
27	A. Hacker (cream).....	8.00
27	H. C. Koestner.....	4.00
27	H. C. Bowman.....	3.60
27	E. J. Tennity.....	3.00
27	G. M. Hall (Jersey).....	7.00
27	T. L. Rogers.....	4.00
27	J. A. Perry.....	3.40
27	O. G. Van Winkle.....	4.00
27	A. Santi.....	3.40
27	H. H. Leak.....	3.60
27	Fred Lichterberg.....	3.40

DUBUQUE.

July 12	E. Hemmi.....	3.40
12	Caspar Brincker.....	1.90
12	J. H. Jecklin.....	3.00
12	J. Fluetsch & Sons.....	3.60
12	John Gadiant.....	3.00
12	Simon Tice.....	2.80
12	August Gardner.....	4.20
12	John Barrett.....	2.00
12	John Jecklin.....	3.40
12	Bailey Bros.....	2.00
12	R. Prysia.....	3.10
12	E. Wormington.....	3.60
12	H. Meyer.....	3.40
12	Robert Griffith.....	3.20
21	J. H. Jecklin.....	3.20
21	John Gadiant.....	3.00
21	August Gartner.....	2.60
21	Paley Bros.....	3.20
21	John Strelehzky.....	3.40
21	J. H. Jecklin.....	3.20
21	C. H. Walker.....	3.00
21	Paley Bros.....	3.10
21	E. Hemmi.....	3.00
21	Fred Mussehl.....	3.60

DUBUQUE—CONTINUED.

1892.	NAME.	Test.
July. 21	E. Hemmi (No. 2).....	3.00
21	John Barrett.....	2.30
21	Casper Brinke.....	3.60
21	Geo. Rider.....	3.40
21	J. Fluetsch & Sons.....	3.00
21	R. Prysia.....	3.40
21	Henry Meyer.....	3.00
21	Ed. Warmington.....	3.40
Aug. 27	E. Hemmi.....	3.00
27	J. H. Fluetsch & Sons.....	3.10
27	Philip Becker.....	3.20
27	J. H. Jecklin.....	3.20
27	Michael Schlagel.....	3.40
27	Paley Bros. No. 1.....	3.00
27	Burt Sheridan.....	3.60
27	J. H. Walker.....	3.10
27	Jacob Heim.....	2.90
27	Conrad Giesel.....	3.30
27	C. H. Smith.....	3.00
27	John Schueller.....	2.90
27	Fred Mussehl.....	2.90
27	Jacob Brenner.....	2.90
27	Paley Bros. (No. 2).....	3.00
27	John Barrett.....	2.90
27	Henry Meyer.....	3.40
27	J. Gadiant.....	3.20
Sept. 9	Ed. Warmington.....	3.60
9	T. Buckingham.....	3.60
9	R. Prysia.....	3.20
9	Simon & Tice.....	3.20
9	Robert Griffith.....	3.10
9	J. H. Jecklin.....	3.00
9	John Barrett.....	3.00
9	John Gadiant.....	3.00
9	E. Hemmi (No. 1).....	3.00
9	J. Fluetsch & Sons.....	3.10
9	E. Hemmi (No. 2).....	3.00
9	F. J. Pfohl.....	3.10
9	Conrad Geisel.....	3.20
9	Paley Bros. No. 2.....	3.10
9	H. Meyer.....	3.60
9	A. Weiland.....	3.10
19	John Gadiant.....	3.20
19	Ed. Warmington, Jr.....	3.50
19	Thos. Buckingham.....	3.50
19	Robert Griffith.....	3.30
19	J. A. Jecklin.....	3.20
19	John Barrett.....	3.10
19	J. Fluetsch & Sons (No. 1).....	3.20
19	J. Fluetsch & Sons (No. 2).....	3.20
19	E. Hemmi.....	3.20
19	Paley Bros. (No. 2).....	3.30
19	John Strelehzky.....	3.20
19	M. Schlagel.....	3.40
19	Philip Becker.....	3.10
19	F. J. Pfohl.....	3.10
19	E. Hemmi (No. 1).....	3.20
19	Henry Meyer.....	3.20

DUBUQUE—CONTINUED.

1892.	NAME.	Test.
Sept. 19	Adam Willard.....	3.40
19	Simon & Tice.....	3.30
Oct. 17	John Gadiant.....	3.30
17	R. Prysia.....	3.30
17	Thos Buckingham.....	3.50
17	Simon & Tice.....	3.20
17	J. H. Jecklin (No. 1).....	3.20
17	J. Flentsch & Sons.....	3.30
17	Paley Bros. (No. 2).....	3.20
17	M. Schlagel.....	3.40
17	Paley Bros. (No. 1).....	3.20
17	Jacob Brenner.....	3.20
17	C. H. Walker.....	3.20
17	Fred Mussehl.....	3.40
17	J. H. Jecklin (No. 2).....	3.20
17	Paley Bros. (No. 3).....	3.20
17	Philip Becker.....	3.60
17	E. Hemmi.....	3.30
17	J. Flentsch & Son (No. 2).....	3.30
17	Ed. Warmington.....	3.60
17	Henry Meyer.....	3.45
17	A. Weiland.....	3.40

CLINTON.

July 13	B. L. Nichelsen.....	2.50
13	Owen Morrissey.....	3.10
13	W. G. Haring.....	3.20
13	Richard Clausen.....	2.00
13	Peter Nichelsen.....	3.50
13	Nels Johnson.....	2.60
13	Carl Knutson.....	3.80
13	C. Peterson.....	3.00
13	Peter Schmitz.....	4.00
13	Seeser Bros.....	3.50
13	Detlef Gertsen.....	3.00
13	M. C. Miller.....	3.40
Aug. 8	O. L. Boynton.....	5.90
8	Martin Paulsen.....	2.80
8	J. C. Koch.....	3.20
8	Martin Petersen.....	4.60
8	Peter Schmitz.....	3.40
8	Seeser Bros.....	3.00
8	Carl Knutson.....	3.30
8	C. Peterson.....	2.60
8	M. E. Miller.....	2.80
8	J. Bach.....	2.90
8	B. L. Nichelsen.....	3.00
8	Owen Morrissey.....	3.30
8	Henry Nichelsen.....	3.00
8	Richard Clausen.....	3.10
8	Detlef Gertsen.....	3.00
Sept. 17	R. Clausen.....	3.00
17	O. Morrissey.....	3.90
17	F. Rasmussen.....	4.20
17	O. L. Boynton.....	4.10
17	M. Paulsen.....	3.30

CLINTON—CONTINUED.

1892.	NAME.	Test.
Sept. 17	M. Quinlan.....	2.90
17	N. Johnson.....	3.00
17	M. Peterson.....	4.60
17	J. Back.....	3.90
17	J. B. Koch.....	4.00
17	Seeser Bros.....	3.70
17	Carl Knutson.....	3.60
17	M. C. Miller.....	4.10
17	B. L. Nichelsen.....	3.65
17	Henry Nicolaisen.....	2.70
17	Peter Schmitz.....	3.40
17	W. G. Haring.....	3.45
17	C. Peterson.....	6.60
17	Detlef Gertsen.....	4.00

COUNCIL BLUFFS.

July 21	Ellenworth & Lavenberg.....	3.10
21	F. O. Millard.....	3.20
21	E. Easdale.....	3.00
21	J. I. Hunt.....	2.40
21	Charles Green.....	4.40
21	Fred Peterson.....	2.80
21	J. C. Johnson.....	3.00
21	T. E. Wolcott.....	3.10
21	E. P. Chapman.....	4.00
21	H. H. Martin.....	2.40
21	Peter Leonard.....	2.90
Aug. 11	Geo. Scheerer.....	3.20
11	Charles Green.....	3.40
11	H. H. Martin.....	3.80
11	J. F. Hunt.....	7.60
11	J. F. Hunt.....	7.00
11	F. O. Millard.....	3.00
11	T. E. Wolcott.....	3.20
11	P. Leonard.....	3.00
11	J. C. Johnson.....	3.65
11	E. Easdale.....	3.40
11	F. Peterson.....	2.30
11	I. Padgett.....	4.20
11	I. Padgett.....	4.00
11	E. P. Chapman.....	2.00
11	Ellenworth & Lavenberg.....	5.40
11	Geo. Scheerer.....	2.30
11	P. J. Arnold.....	3.50
11	N. Lewis.....	4.60
Sept. 19	James Ray.....	5.00
19	Charles Green.....	4.60
19	T. E. Wolcott.....	3.00
19	George Scheerer.....	2.80
19	P. J. Arnold.....	3.30
19	Fred Peterson.....	3.80
19	E. Easdale.....	3.20
19	Mrs. Fleming.....	4.00
19	W. Shiphard.....	3.80
19	H. H. Martin.....	3.80
19	P. Leonard.....	6.00

COUNCIL BLUFFS—CONTINUED.

1892.	NAME.	Test.
Sept. 19	J. F. Hunt.....	7.40
Sept. 19	J. F. Hunt.....	7.80
Oct. 31	J. F. Hunt.....	3.40
Oct. 31	E. Easdale.....	4.20
Oct. 31	J. C. Johnson.....	5.50
Oct. 31	P. Leonard.....	3.00
Oct. 31	P. Leonard.....	4.20
Oct. 31	P. Leonard.....	4.80
Oct. 31	James Ray.....	4.00
Oct. 31	J. Padgett.....	3.40
Oct. 31	Ellenworth & Lavenburg.....	7.10
Oct. 31	F. O. Millard.....	5.15
Oct. 31	H. M. Martin.....	5.60
Oct. 31	N. Lewis.....	4.20
Oct. 31	T. E. Wolcott.....	3.60
Oct. 31	George Scheerer.....	3.60

MUSCATINE.

Aug. 18	John Danker.....	2.60
Aug. 18	Chas. Leiendecker.....	3.00
Aug. 18	B. W. Lord.....	4.20
Aug. 18	H. R. Biermann.....	4.80
Aug. 18	Wills Bros.....	3.10
Aug. 18	C. C. Melchert.....	5.00
Aug. 18	Chas. L. Schnier.....	3.40
Aug. 18	Chas. L. Schnier.....	3.60
Aug. 18	Mittman Bros.....	4.20
Sept. 27	Chas. Leiendecker.....	3.40
Sept. 27	B. W. Lord.....	3.40
Sept. 27	Mittman Bros.....	3.80
Sept. 27	H. R. Biermann.....	3.30
Sept. 27	K. F. Obermann.....	4.80
Sept. 27	Chas. L. Schnier.....	4.80
Sept. 27	C. C. Melchert.....	5.20
Sept. 27	Wills Bros.....	5.00
Oct. 31	John Danker.....	3.60
Oct. 31	Chas. Leiendecker.....	4.50
Oct. 31	Wm. Greenway.....	4.40
Oct. 31	Thornton Nichols.....	4.70
Oct. 31	Chas. L. Schnier.....	4.00
Oct. 31	Mittman Bros.....	4.00
Oct. 31	B. W. Lord.....	4.40

OTTUMWA.

July 30	J. F. Bizer.....	4.20
July 30	G. W. Styre & Son.....	4.00
July 30	B. F. Michael.....	3.60
July 30	E. Daggett.....	5.30
July 30	E. R. French.....	4.00
July 30	W. H. Creps.....	3.20
July 30	W. H. Creps.....	4.80
July 30	H. Montague.....	3.40
Aug. 10	G. W. Styre & Son.....	3.40
Aug. 10	G. W. Styre & Son.....	5.80
Aug. 10	B. F. Michael.....	10.60
Aug. 10	H. Montague (cream).....	4.00
Aug. 10	E. Daggett.....	4.00
Aug. 10	E. Daggett.....	4.00

OTTUMWA—CONTINUED.

1892.	NAME.	Test.
Aug. 10	I. L. Spainhower.....	3.50
Aug. 10	W. H. Creps.....	3.00
Aug. 10	W. H. Creps.....	3.30
Aug. 10	J. F. Bizer.....	3.60
Aug. 10	J. F. Bizer (cream).....	10.30
Sept. 19	B. F. Michael.....	3.80
Sept. 19	I. L. Spainhower.....	4.30
Sept. 19	G. W. Styre & Son.....	4.20
Sept. 19	W. H. Creps.....	4.30
Sept. 19	H. Montague.....	5.00
Sept. 19	E. R. French.....	5.20
Sept. 19	J. F. Bizer.....	3.40
Sept. 19	E. Daggett.....	3.80

KEOKUK.

Aug. 2	J. S. Sample.....	3.10
Aug. 2	Geo. Mackey.....	3.40
Aug. 2	Andrew Hills.....	3.00
Aug. 2	A. Verberg.....	3.30
Aug. 2	Fred. Oertler.....	3.20
Aug. 2	Frederick Lange.....	3.40
Aug. 2	John Hills.....	2.20
Aug. 2	H. Driffield.....	3.60
Aug. 2	D. Patterson.....	2.00
Aug. 12	C. C. Safford.....	3.70
Aug. 12	Geo. Mackey.....	3.70
Aug. 12	C. A. Wright.....	3.30
Aug. 12	C. N. Raben.....	3.30
Aug. 12	John Hills.....	3.10
Aug. 12	W. H. Yenawine.....	3.50
Aug. 12	Andrew Hills.....	2.90
Aug. 12	D. Patterson.....	3.40
Aug. 12	Frederick Lange.....	3.60
Aug. 12	R. T. Burges.....	3.90
Aug. 12	C. Kepple.....	4.20
Sept. 23	Geo. Mackey.....	3.60
Sept. 23	H. Driffield.....	3.40
Sept. 23	C. N. Raber.....	3.40
Sept. 23	Fred. Oertler.....	3.60
Sept. 23	Robert Ferris, Jr.....	3.40
Sept. 23	D. Patterson.....	1.80
Sept. 23	Frederick Lange.....	3.60
Sept. 23	H. Rein.....	3.20
Sept. 23	John Hills.....	2.60

IOWA CROPS.

The crops in 1891 of all kinds were far above the average. Never in the history of the State did Iowa ship such quantities of her grain products to foreign markets. This is accounted for from the fact that there was a great shortage in the crops of Europe. Coarse grain was very scarce in Austria and Germany. This shortage caused great famine in many of the Russian provinces. When the quantity of yield in Iowa is taken into consideration the prices received were very remunerative.

In some of the dairy counties the yield of flax was 100 per cent greater than an average crop. This yield was twenty bushels to the acre and was sold for ninety (90) cents per bushel. The year before the same kind of a crop was raised with prices at one dollar and twenty-five cents (\$1.25) per bushel. This was more prosperity than some dairy men could stand. Quite a large number of them disposed of their dairy herds giving the reason that, "their circumstances were so greatly improved that it was unnecessary for them to confine themselves to the irksome task of milking." The dairies in the northern tier of counties have suffered a considerable diminution for this reason.

The spring of 1892 opened so that grass started fairly early. The ground was in good condition for sowing grain. Later, heavy and continuous rains set in that retarded plowing the ground for corn. Many acres were not planted before June. Hundreds of thousands of acres of land saved for corn were not plowed at all and remained idle all this season. The corn crop was cut down from 15 to 20 per cent.

This excessive wet weather was followed by exceedingly hot weather, the temperature ranging from 90 to 105 degrees. This was what the corn needed, but was exactly wrong for grain. It produced large quantities of straw which in many fields lodged

before the grain was headed out. Oats, spring wheat and barley have not only yielded poorly to the acre, but are light and inferior in quality. The hay crop was a very large one. About two-thirds was put up in good condition, but the remainder is damaged more or less by the wet weather. The pastures have been good the entire season with the exception of a drought in some of the counties which commenced early in the fall and continued six weeks. In northeastern Iowa, where the great dairy industry is located the fall feed has been excellent.

The frosts held off until the first of October. Corn on dry land in some sections of the State matured better than last year. The shortage in acreage, and the failure of the crop in low places, in the fields and river bottoms, will cause the crop to be many millions of bushels less than last year.

The price of creamery butter through the months of June, July, August, and September, was higher than in 1891. The fine pastures of good fall feed prevents the price advancing as early in the fall as usual; but there is every indication that from now on prices will be as good, if not better, than for 1891. Grain will not be proportionally as high as butter or cheese, consequently the prospect for the dairy men is good. They will receive ample remuneration for their "irksome" task of milking.

CHEESE.

Owing to the excessive wet weather of last spring the cows gave very thin milk, consequently the cheese made in Iowa was not as rich as the factory people desired it to be. Later in the season the quality improved and this fall's make has been very fine.

No cases of cheese poisoning have been reported at this office.

The prices of cheese have run high and the patrons of the cheese factories have been well paid for their milk.

A list of the cheese factories follows the creamery list.

SOME REASONS WHY CO-OPERATIVE CREAMERIES ARE UNSUCCESSFUL.

Many of the first creameries built in the State had become too small for the increase of the business and had to be replaced by new buildings. These new creameries are large and commodious, more attention having been paid to the site, convenience, ventilation and drainage. The co-operative creamery has, in many instances, taken the place of the individual or private creamery. Most of the co-operative creameries are well managed and are satisfactory to the patrons. Occasionally, however, the management accept compensation from some commission house for themselves. This may be only one-quarter of a cent per pound on the butter shipped to the commission house. The agent sent out by the house usually begins his work on the manager by sympathizing with him on the meagerness of his compensation for the large amount of work done; assures him that he sympathizes with him and if he will just ship all his butter to him he can make it an object that will help him out on his small pay from the creamery. Too often the manager sells out, only to find to his sorrow that he is no longer his own master. Fear of exposure, loss of position and honor, force him to accept just what the unscrupulous house see fit to return him for his goods.

The commission men are not alone in offering bribes. Dairy supply men who are taking contracts to build creameries, building them on the stock subscription plan, seek out the most influential and successful farmer in the neighborhood, a man whose integrity has never been questioned and who stands high in the community, and present him with five hundred dollars worth of stock in consideration of his being a stool pigeon to decoy his neighbors into the enterprise. Bad as are the facts that these supply men procure two

prices for their goods sold, often constructing creameries in localities that have no use for them and where they often remain idle, it is not to be compared with the diabolical ingenuity with which they place a stumbling block in the way of the influential farmer by appealing to his cupidity before which falls honor, integrity and the good name that it has taken years to build up. Often the farmer's prayer should be, "God save us from our friends."

If the co-operative system is to fail it will be because dishonest and designing men obtain control of the management for the purpose of furthering their own ends.

The patrons of most of the creameries take a great interest in the manner in which the creamery is run. They watch the different prices paid by the neighboring creameries and if they are not receiving the highest prices paid are ready to find fault. They will blindly milk cows year after year that are not good milkers and yet they take no trouble to ascertain the quality of the cow. The yield of butter from a cow can readily be changed from one hundred and fifty pounds to two hundred and fifty pounds by selecting the best milking cows in the herd and breeding them to sires from splendid milking mothers. Reforms in dairying should begin at home and if thoroughly pursued will bring about much more remunerative results than can be done from changing from one creamery to another.

FINANCIAL STATEMENT.

Commissioner's salary.....	\$ 1,500.00
Clerk's salary.....	700.00
Contingent expenses.....	660.13
Postage.....	114.65
Expressage.....	20.65
Telegraph service.....	10.55
Laboratory supplies.....	6.05
Stationery.....	20.55
Agent's sample pails.....	59.10
Attorney's fee.....	10.00
Couch for office.....	45.00
Babcock milk tester.....	16.90
Printing.....	28.00
Analysis of butter.....	5.00
Extra clerk hire.....	14.50
Total.....	\$ 3,210.98

Original appropriation, 1886.....	\$20,000.00
Expended prior to Nov. 1, 1891.....	15,220.93
Balance unexpended Nov. 1, 1891.....	4,779.07
Appropriated by General Assembly, 1892.....	3,500.00
Expended from Nov. 1, 1891, to Nov. 1, 1892.....	3,210.98
Balance on hand.....	5,068.99

NEW DAIRY LAW APPROPRIATION.

Agents' salaries.....	192.00
Contingent expenses.....	7.39
Stationery.....	18.00
Babcock milk testers.....	69.79
Laboratory supplies.....	25.25
Total.....	\$ 312.43
Amount appropriated.....	\$ 2,500.00
Amount expended Nov. 1, 1892.....	312.43
Balance unexpended Nov. 1, 1892.....	2,187.57

LIST OF CREAMERIES.

ADAIR COUNTY.

Adair—Adair Creamery, George Faga.
 Fontanelle—E. & C. D. Newbury.
 Greenfield—J. W. Darby.
 Hebron—A. R. Haskell & Company.

ADAMS COUNTY.

Corning—Iowa Butter & Cheese Company.
 Corning—Corning Creamery Company.
 Iveyville—Farmers' Co-operative Creamery.
 Prescott—Farmers' Co-operative Creamery.

ALLAMAKEE COUNTY.

Dorchester—Elridge & Twomley.
 Lansing—Lansing Creamery, Nielander & Company.
 Ludlow Township—Ludlow Creamery, Oak Leaf Creamery Company,
 Waukon.
 Lyeurgus—Crystal Springs Creamery, Oak Leaf Creamery Company,
 Waukon.
 New Albin—Elridge & Twomley.
 Postville—Postville Farmers' Co-operative Creamery, Ellison Orr, Sec'y.
 Postville—Union Creamery Company.
 Quandahl—Arctic Spring Creamery, I. D. Johnson.
 Waterville—Farmers' Co-operative Creamery & Commercial Company.
 Waukon—Excelsior Creamery.
 Waukon—Oak Leaf Creamery.
 Volney—Farmers' Co-operative Creamery Company.

AUDUBON COUNTY.

Audubon—Audubon Creamery, Fisher Brothers & Company.
 Elkhorn—Farmers' Co-operative Creamery, George James, Secretary.
 Exira—Exira Creamery, Wilcox Brothers.
 Gray—Fest Brothers.
 Hamlin—West Hamlin Creamery Company, A. C. Hine, Butter-maker.
 Kimballton—Danish Western Creamery Company, Martin Ebur, Secretary.

BENTON COUNTY.

Belle Plaine—Belle Creamery, L. D. Hilton, Manager.
 Blairstown—Blairstown Creamery, J. R. Morin Company Cedar Rapids.
 Garrison—The Vinton Creamery, A. M. Rowe, Manager, Vinton.
 Gillespie—M. L. Newton.
 Mount Auburn—The Vinton Creamery, A. M. Rowe, Manager, Vinton.
 Norway—Norway Creamery, J. R. Morin Company, Cedar Rapids.
 Van Horn—Van Horn Creamery, J. R. Morin Company, Cedar Rapids.
 Vinton—The Vinton Creamery, A. M. Rowe, Manager.
 Urbana—Farmers' Co-operative Creamery Company, T. H. Remer, Secretary.

BLACK HAWK COUNTY.

Bennington Township—Engelking's Creamery, J. H. Engelking, Waterloo.
 Canfield—Canfield Creamery Company.
 Cedar Falls—C. J. Refshange.
 Dewar—Pleasant Valley Dairy Association, W. F. Garrett, Secretary.
 Dunkerton—Dunkerton Creamery, Geo. Meyerhoff.
 Dunkerton—Farmers' Creamery Company.
 Eagle Center—Eagle Center Dairy Association, H. R. Eighmy, Secretary.
 Edwards—William Widdle.
 Finchford—Union Creamery Company, J. P. Churchill.
 Hudson—Rock Creek Creamery.
 Hudson—Hudson Creamery, Samuel Wilson, Secretary.
 Jubilee—Farmers' Creamery Company.
 La Porte City—West Lawn Creamery, M. L. Newton.
 Lincoln Township—Red Bird Creamery, No. 1, Company, Albert Vittum,
 Secretary, Reinbeck.
 Louisa—Skim Station.
 Waterloo—Louie Diekmann.
 Waterloo—Waterloo Cheese and Creamery Company, Chas. A. Howard,
 Manager.

BOONE COUNTY.

Boone—Charles Gerber.
 Boone—Fountain City Creamery, A. M. Chamberlain.
 Ogden—Jerry Rinehart.
 Pilot Mound—Pilot Mound Creamery Company, O. W. Cline, Secretary.

BREMER COUNTY.

Bremer—Bremer Creamery Company, Henry Kaiser, Secretary.
 Buck Creek—Little Valley Creamery of Buck Creek.
 Frederica—Douglas Center Creamery, J. R. Gunsalus.
 Frederica—Frederica Creamery, Charles Goldburg, Secretary, Sumner.
 Grove Hill—Farmers' Co-operative Creamery, W. C. Peck, Secretary.
 Horton—Horton Creamery Stock Company, A. L. Nutting, Secretary.
 Janesville—F. & E. Dierks.
 Key—Golden Key Creamery, H. & W. Meyerhoff.
 Knittel—Maxfield Creamery Company.
 Klinger—C. F. Diekmann.

Maxfield—Maxfield Creamery, O. E. Meyerhoff.
 Maxfield—Artesian Creamery, Henry Grenning, Secretary.
 Minkler—Oran Creamery Company, E. E. Shippy.
 Plainfield—The Cedar Vale Creamery, J. F. Powers.
 Roxie—Western Douglass Creamery, H. K. Barney, Secretary.
 Seigel—Seigel Creamery Company.
 Sumner—Spring Fountain Creamery.
 Sumner—Red Clover Creamery, D. D. Hatch.
 Tripoli—Crane Creek Creamery Company.
 Tripoli—F. C. Ottrogge.
 Tripoli—Fremont Creamery Company.
 Wapsie—Wapsie Valley Creamery.
 Waverly—Washington Creamery Company, John Brandenburg, Secretary.
 Waverly—Lafayette Creamery, D. Carnforth, Secretary.

BUCHANAN COUNTY.

Aurora—Aurora Farmers' Creamery Company.
 Brandon—John Kline.
 Fairbank—Fairbank Farmers' Creamery Company, W. H. Blunt.
 Hazleton—Hazleton Farmers' Creamery Company.
 Independence—Weins & Shillinglaw.
 Independence—Charles Brooks.
 Jesup—Jesup Creamery Company, James Dalton, Secretary.
 Lamont—Lamont Creamery Association.
 Littleton—Littleton Creamery Company.
 Middlefield—Hazelrigg Brothers.
 Newtonville—W. W. Wilde.
 Otterville—Otterville Creamery Company.
 Quasqueton—Quasqueton Co-operative Creamery Company, A. P. Burhus, Secretary.
 Rowley—D. A. McLeish.
 Stanley—Stanley Co-operative Creamery, S. C. Irvine.
 Winthrop—Winthrop Co-operative Creamery.

BUENA VISTA COUNTY.

Alta—Maple Valley Creamery, H. C. Hauck.
 Alta—Alta Creamery, C. R. Armstrong.
 Elkton—Elkton Creamery, George Lauridsen.
 Marathon—Marathon Creamery.
 Newell—Newell Creamery Company.
 Storm Lake—Buena Vista Creamery, A. M. Cleveland.
 Sulphur Springs—Sulphur Springs Creamery, F. E. Sutton, Storm Lake.

BUTLER COUNTY.

Applington—Spring Hill Creamery, Mackley & Dockswell.
 Aredale—Aredale Creamery, Forthum & Company.
 Bristow—Clover Lawn Creamery, E. M. Haven, Secretary.
 Butler Township—Rose Hill Creamery.
 Clarksville—Oak Grove Creamery Association, E. D. Wilcox.

Clutterville—Clutterville Co-operative Society.
 Custer—Rosedale Co-operative Creamery.
 Greene—Cold Water Co-operative Dairy Association, L. O. Crandall, Secretary.
 New Hartford—Terpening & Rea.
 Parkersburg—Terpening & Rea.
 Parkersburg—D. McKellar.
 Parkersburg—Star Creamery, Clelland & Graham.
 Shell Rock—Hawkeye Creamery, E. Town & Son.
 Shell Rock—Waite & Curtis.
 Shell Rock—Star Company, L. H. Mead, Secretary.

CALHOUN COUNTY.

Farnhamville—Reene & Smith.
 Kissimmee—L. E. Gutz.
 Manson—Manson Creamery, Godkie & Company.
 Manson—Manson Creamery, H. Labke.
 Pomeroy—Pomeroy Creamery Company.

CARROLL COUNTY.

Arcadia—Ed. Rehker.
 Breda—C. W. Adams.
 Glidden—Glidden Creamery, A. J. Heaton.
 Maple River—C. W. Adams, Breda.
 Roselle—Rose Valley Creamery, C. Kohorst.

CASS COUNTY.

Anita—Anita Creamery Company.
 Atlantic—Atlantic Creamery, Peter Landmesser.
 Atlantic—Atlantic Creamery, A. C. Burton.
 Cumberland—E. D. Coats & Company.
 Lewis—S. Aldrich.

CEDAR COUNTY.

Clarence—Cedar Creamery, H. L. Dean, Tipton.
 Clarence—Clarence Creamery, H. J. Clarence.
 Bennett—Farmers' Home Creamery Association.
 Bennett—Bennett Butter and Cheese Company.
 Lowden—Lowden Farmers' Creamery Company.
 Lowden—Union Creamery Company.
 Lowden—Henricks' Creamery.
 Lowden—C. F. Ninty.
 Mechanicsville—Mechanicsville Creamery.
 Springdale—Hopewell Creamery, C. G. Evis, Manager.
 Stanwood—Cedar Creamery, H. L. Dean.
 Tipton—Cedar Creamery, H. L. Dean.

CERRO GORDO COUNTY.

Burchinal—Burchinal Co-operative Creamery.
 Clear Lake—Clear Lake Dairymen's Association, John Dawson, Secretary.

Clear Lake—Van Auken & Willis.
 Mason City—Mason City Creamery Company, S. Kennedy & Son.
 Meservey—Meservey Creamery.
 Portland—Portland Creamery.
 Plymouth—S. Kennedy & Son.
 Rockwell—Rockwell Co-operative Creamery.
 Swaledale—Swaledale Creamery.
 Thornton—Thornton Creamery, S. E. Allen & Sons.

CHEROKEE COUNTY.

Cleghorn—Robinson Brothers.
 Larrabee—Larrabee Creamery Company, E. D. Peck, Secretary.
 Marcus—Marcus Creamery, Barnes Brothers.

CHICKASAW COUNTY.

Alta Vista—Alta Vista Creamery Company.
 Bassett—Bassett Creamery, Wm. Beard & Sons.
 Boyd—Boyd Creamery, I. W. Edson, Secretary.
 Boyd—F. Shute.
 Devon—Devon Creamery Company.
 Elma—Wm. Beard & Sons.
 Fredericksburg—Fredericksburg Butter Company, I. W. Edson, Secretary.
 Ionia—Wm. Beard & Sons.
 Jerico—Jerico Creamery Association.
 Lawler—Lawler Co-operative Creamery Company.
 Little Turkey—Little Turkey Creamery Company.
 Nashua—Greenwood Star Creamery, W. I. Moody & Company.
 Nashua—S. S. Waterbury.
 New Hampton—John Kolthoff.
 North Washington—William Beard & Sons.
 Republic—Republic Creamery Company.
 Williamstown—John W. Kolthoff.

CLARKE COUNTY.

Woodburn—Woodburn Creamery, J. N. Coppock, Manager.

CLAY COUNTY.

Dickens—Rose Bud Co-operative Creamery and Cheese Factory, J. O. Varney, Secretary.
 Everly—Spring Creek Creamery, Wm. Ewolds, Secretary.
 Gillett—Sioux Valley Creamery.
 Spencer—Riverton Creamery Company, O. B. Ross, Secretary.
 Spencer—Sioux Valley Creamery Company, J. H. Walsh, Secretary.
 Yankee—Willow Creek Creamery.

CLAYTON COUNTY.

Casco Creek—L. W. Lowe, Volga City.
 Communica—Communica Creamery Association.
 East Elkport—C. Schnipf.
 Edgewood—Farmers' Creamery Company, H. E. James, Secretary.

Edgewood—Honey Creek Creamery, H. F. Beyer.
 Elkader—Iowa Creamery, A. N. Toutsch.
 Farmersburg—Farmersburg Creamery Company.
 Garnavillo—G. W. Kennedy, Guttenburg.
 Giard—Giard Creamery, J. D. Bickel.
 Guttenburg—Farmers' Creamery Company.
 Luano—Farmers' Creamery Company, M. Davis, Secretary.
 Watson—Farmers' Creamery Company, F. Cook, Secretary.
 Noble—H. F. Beyer.
 Osborne—James Burnes.
 Read—Wilke & J. Gopman, Elkader.
 Saint Olaf—Larson & Sons.
 Strawberry Point—Strawberry Point Farmers' Creamery Association, H. B. Wheeler, Secretary.
 Volga City—J. W. Lowe.

CLINTON COUNTY.

Andover—Graft Brothers.
 Charlotte—Graft Brothers.
 Delmar—Graft Brothers.
 Delmar—Hopkinton Co-operative Creamery.
 Elwood—Graft Brothers.
 Goose Lake—Heynen & von Oven.
 Low Moor—Eden Valley Creamery Company, W. C. Conover, Secretary.
 Pleasant Valley—Heynen & von Oven.
 Quigley—Graft Brothers.
 Teeds Grove—C. G. Forest & Co.
 Welton—Welton Creamery, R. M. Hinkley.
 Wheatland—Welding & Company.
 Wheatland—A. Fuller.
 Wheatland—Cedar Creamery, H. L. Dean.

CRAWFORD COUNTY.

Denison—Denison Creamery Company, D. L. Boynton, Secretary.
 Kiron—Henry Kohl.

DALLAS COUNTY.

Adel—Greeley Brothers.
 Dallas Center—Silver Spring Creamery Company.
 Dexter—Lyon Creamery, C. H. Lyon.
 Linden—Shotwell & Davis.
 Perry—Red Star Creamery.
 Woodward—Woodward Creamery Company, A. P. Shrayner, Secretary.

DAVIS COUNTY.

Drakeville—Drakeville Co-operative Creamery.
 Bloomfield—Bloomfield Creamery, W. H. Davis.
 Floris—Floris Butter and Cheese Factory.
 Pulaski—Pulaski Creamery, J. J. Miller.

DECATUR COUNTY.

Van Wert—Van Wert Creamery.

DELAWARE COUNTY.

Adams—Henderson's Creamery, James Henderson, Ehler.
 Adams—Washington Creamery Company, F. P. Ryan & Henley, Ehler.
 Berryville—Co-operative Creamery, Chas. Barry, Secretary.
 Bremen—Bear Grove Creamery Company, F. N. Klostermann.
 Bremen—Petersburg Creamery, Joseph Shearbring, Petersburg.
 Coffin's Grove—Colesburg Co-operative Creamery Company, two creameries, B. W. Kenyon, Masonville.
 Colony—Colesburg Co-operative Creamery Company, Robert Curry, Colesburg.
 Delaware Township—Manchester Co-operative Creamery Company, N. W. Sabin, Secretary, Manchester.
 Delaware Township—Spring Branch Creamery Company, L. S. Gates, Manchester.
 Delaware Township—C. W. Mead's Creamery, C. W. Mead, Manchester.
 Delhi—Pleasant Valley Creamery, Bush & Klaus, Earlville.
 Delhi—Silver Spring Creamery, F. L. Beal.
 Dundee—N. Davis, Secretary.
 Elk—Greeley Creamery Company, William Burbridge, Greeley.
 Hazel Green—N. B. Richardson.
 Hazel Green—Hazel Green Creamery, F. B. Dickey.
 Hazel Green—Almira Creamery, A. E. Anderson, Almira.
 Hazel Green—Hazel Green Co-operative Creamery, J. W. Thompson.
 Hazel Green—Willow Grove Creamery, G. Abbey, Abbeyville.
 Hazel Green—Maple Grove Creamery, D. Magirl, Ryan.
 Honey Creek—Honey Creek Creamery, Henry Beyer, Edgewood.
 Hopkinton—Co-operative Creamery Company, E. M. Clapin.
 Milo—Golden Creamery Company, F. L. Clarke, two creameries, Golden.
 North Fork—Russell & Martin, Earlville.
 Oneida—Almoral Creamery, Frank Carpenter, Almoral.
 Oneida—Oneida Creamery Company, Bush & Klaus, Earlville.
 Oneida—Hall & Son's Creamery, Monticello.
 Oneida—Linwood Creamery, Russell & Martin, Earlville.
 Oneida—Earlville Creamery, Bush & Klaus, Earlville.
 Prairie—Barryville Creamery Company, Charles Barry, Barryville.
 Sand Springs—Sand Springs Co-operative Creamery Association, H. Herman, Secretary.
 South Fork—Silver Springs Creamery, McConnell & Place, Hopkinton.
 South Fork—Dunlap Creamery, Robert Dunlap, Hopkinton.
 South Fork—Keystone Creamery, J. W. Merrill, Monticello.
 South Fork—Cedar Valley Creamery, John White, Worthington.
 South Fork—Diamond Creamery Company, two creameries, D. Pond, Manager, Monticello.
 Springville—Phoenix Creamery.
 Union—Uniontown Creamery, G. File.

DES MOINES COUNTY.

Burlington—Burlington Creamery, E. P. Dunham.

DICKINSON COUNTY.

Milford—Milford Creamery, J. J. Nysteum & Company.
 Spirit Lake—Spirit Lake Creamery, C. C. Dykins.

DUBUQUE COUNTY.

Balltown—Northwestern Creamery.
 Bankston—Woodland Creamery, Michael Ferring.
 Cascade—Crystal Falls Creamery, Dehner & Kay.
 Cascade—Hazel Creamery, W. C. Aitchinson.
 Dyersville—Golden Star Creamery Company.
 Epworth—Epworth Co-operative Creamery Company, D. Durham, Secretary.
 Farley—A. C. Walker & Company.
 Farley—Farmers' Co-operative Creamery, Vibber & Heald.
 Farley—Johns Creek Creamery, Vibber & Heald.
 Fillmore—Crystal Falls Creamery, Dehner & Kay.
 Fillmore—J. J. L. Breitback.
 Luxemburg—Globe Creamery Company, M. Linck, Secretary.
 New Vienna—Bear Grove Creamery Company.
 New Vienna—Hickory Valley Creamery Company.
 Peosta—Crystal Falls Creamery Company, Dehner & Kay, Cascade.
 Worthington—Spring Valley Creamery.
 Worthington—Worthington Creamery.
 Worthington—Vibber & Heald.

EMMET COUNTY.

Armstrong—J. H. Holcomb.
 Swan Lake—M. A. Denning.
 Wallingford—Wallingford Creamery.

FAYETTE COUNTY.

Alpha—Bethel Creamery, Ace Webster, Waucoma.
 Brush Creek—Brush Creek Creamery Company.
 Clermont—Clermont Valley Creamery Company, A. L. Rasmussen.
 Elgin—Union Creamery Company.
 Fayette—Fayette Creamery Company, J. L. Paine.
 Hawkeye—Hawkeye Creamery Company.
 Hawkeye—W. R. Rogers.
 Maynard—Crown Creamery Company, J. C. Lewis.
 Oelwein—Jefferson Farmers' Creamery Company, E. E. Gay.
 Oelwein—Oelwein Farmers' Creamery Company, E. Day.
 Oran Township—Oran Creamery Company, E. E. Shippy, Minkler.
 Randalia—Fairview Creamery Company.
 Randalia—Randalia Creamery Company.
 Richfield—Richfield Creamery Company.
 Richfield—Farmers' Creamery.
 Stanley—Stanley Creamery.
 St. Lucas—St. Lucas Creamery, Ace Webster, Waucoma.
 Wadena—Steamboat Mound Creamery, James Leahy.
 Waucoma—Waucoma Creamery, Ace Webster.

West Gate—West Gate Creamery Company, S. A. Sylvester, Secretary.
 West Gate—Corbley's Grove Creamery Company.
 West Union—Union Creamery Company.
 West Union—The Farmers' Creamery.

FLOYD COUNTY.

Charles City—H. V. Fussell, Manager.
 Floyd—Floyd County Co-operative Creamery Association, D. Wilbur, Manager.
 Marble Rock—Marble Rock Co-operative Dairy Association, E. A. Rasenkranz.

Marble Rock—Marble Rock Creamery Company.
 Niles—Niles Creamery Association, J. C. Daly, Secretary, Charles City.
 Nora Springs—Cottage Grove Dairy Association.
 Powersville—Pleasant Grove Creamery, P. H. Powers.
 Riverton Township—S. S. Waterbury, Nashua.
 Rockford—Rockford Creamery Company.
 Rudd—Charles A. Howard.
 Ulster—Ulster Creamery Company, Thompson & Herrod.
 Ulster—A. P. Mott & Son.

FRANKLIN COUNTY.

Burdette—Harvis & Company.
 Chapin—Chapin Creamery, Mr. L. Forthum.
 Faulkner—G. F. Berkley.
 Geneva—Geneva Creamery, I. W. Meyers, Hampton.
 Hampton—I. W. Meyers.
 Hampton—I. W. Meyers.
 Latimer—I. W. Meyers, Hampton.
 Latimer—Rasmussen's Creamery, Chris. Rasmussen.
 Sheffield—Sheffield Creamery, Hocking & Slade.

FREMONT COUNTY.

Randolph—Creamery and Cheese Factory, R. F. Norton.

GREENE COUNTY.

Churdan—Churdan Creamery, S. C. Hoyt.
 Dana—W. L. Addy.
 Dana—Dana Creamery.
 Jefferson—Jefferson Creamery, Dunham & Sons.
 Paton—Paton Creamery, G. E. White.
 Rippey—Rippey Co-operative Creamery.
 Scranton—Scranton Butter and Cheese Factory.

GRUNDY COUNTY.

Beaman—Beaman Creamery.
 Colfax Township—J. H. Sperry, Grundy Center.
 Colfax Township—Colfax Creamery, Nelson & Shuler, Grundy Center.
 Conrad Grove—Farmers' Co-operative Creamery Company, C. M. Deal.
 Clive—J. H. Sperry & Company.

Dairyville—Dairyville Creamery, N. Blom.
 Fairfield Township—F. Wells, New Hartford.
 Fredsville—Danish Creamery, J. & T. Slifsgard.
 Grant Township—Grant Township Co-operative Creamery.
 Grundy Center—J. H. Sperry.
 Lincoln—Lincoln Spring Creamery.
 Morrison—Morrison Creamery, J. & T. Slifsgard.
 Reinbeck—Reinbeck Butter and Cheese Association.
 Wellsburg—Martin & Faust.

GUTHRIE COUNTY.

Bagley—Bagley Creamery Company.
 Guthrie Center—Farmers' Butter and Cheese Association.
 Panora—Panora Creamery.
 Stuart—Stuart Creamery Company.
 Yale—Yale Creamery Company, C. L. Dieke, Secretary.

HAMILTON COUNTY.

Blairsburg—J. Redding.
 Ellsworth—S. G. Johnson & Company.
 Ellsworth—Farmers' Co-operative Creamery, Ben Berguson, Secretary.
 Jewell—Jewell Creamery, C. E. Faceton, Secretary.
 Kamrar—Gold Nugget Creamery, D. C. Bailey, Secretary.
 Poplar Grove—W. H. Dygart.
 Randall—Randall Creamery Company.
 Stanhope—Iverson Brothers.
 Stratford—Stratford Creamery, J. M. Daniels & Son.
 Webster City—R. G. Clark.
 Williams—R. G. Clark.

HANCOCK COUNTY.

Britt—Farmers' Co-operative Creamery, C. R. Cady, Secretary.
 Britt—S. E. Allen & Sons.
 Corwith—S. E. Allen & Sons.
 Garner—S. E. Allen & Sons.
 Goodell—Goodell Creamery, C. S. Farman.
 Klemme—Klemme Creamery Company, Alex. Kirkwood.
 Russell—Russell Co-operative Butter and Cheese Association, Cal C. Force, Secretary.

HARDIN COUNTY.

Ackley—Martin Brothers.
 Alden—Alaska Creamery, Harris & Company.
 Alden—Buckeye Co-operative Creamery Company.
 Cleves—Sperry & Woolright.
 Hubbard—B. S. Harrison.
 Hughes—Peterson & Co.
 Lawn Hill—Lawn Hill Creamery Company, G. B. Strayer.
 Radcliffe—Lincoln Creamery.
 Radcliffe—Crawford & Hill.

Robertson—John Windeseer.
 Steamboat Rock—Gray, Peterson & Company.
 Whitten—Whitten Creamery Company, George N. Carr.

HARRISON COUNTY.

California—California Creamery, G. W. Hawkins.
 Dunlap—B. F. Roberts.
 Persia—Persia Co-operative Creamery Association.
 Woodbine—Woodbine Creamery Company.

HENRY COUNTY.

New London—New London Creamery, Allison & Gilchrist.
 Winfield—Winfield Creamery, Eicher Brothers.

HOWARD COUNTY.

Bonair—Farmers' Creamery Association, T. S. Johnson, Secretary.
 Chester—Chester Creamery Association, Ed. Capper, Secretary.
 Cresco—Boston & Decorah Creamery Company.
 Cresco—Cresco Creamery, Platt & O'Malley.
 Cresco—Merchants' Creamery.
 Elma—Boston & Decorah Creamery Company.
 Kendallville—Kendallville Creamery.
 Lime Springs—Boston & Decorah Creamery Company.
 Lourdes—Boston & Decorah Creamery Company.
 Prolivin—Farmers' Creamery Association.

HUMBOLDT COUNTY.

Bode—Bode Creamery Association, T. A. Rossing, President.
 Dakotah—Baker, Savage & Company, C. F. Faderbourg, Manager.
 Humboldt—Humboldt Butter & Cheese Association.
 Livermore—Livermore Creamery, J. Small.
 Renwick—John Wallace, Algona.
 Thor—Thor Co-operative Creamery.

IDA COUNTY.

Ida Grove—Ida Grove Creamery.

IOWA COUNTY.

Genoa Bluff—Genoa Bluff Creamery, Geo. R. Howard.
 Homestead—D. Sanderfield.
 Ladora—Peterson & Schneider Brothers.
 Marengo—Peterson & Schneider Brothers.
 Marengo—E. S. McDonald.
 North English—Chiles & McGoon.
 Williamsburgh—J. M. Mathews.
 Victor—Scheitzlieu Brothers.

JACKSON COUNTY.

Andrew—Andrew Creamery Company, A. E. McComb, Manager.
 Bellevue—Crystal Spring Creamery, W. E. Hughey.
 La Motte—Butler & Neimans.
 La Motte—G. W. Wilson.
 Miles—Pioneer Creamery, Heynen & von Oven.

Miles—Forest Brothers.
 Preston—J. W. Merrill, Monticello.
 Spragueville—Pioneer Creamery, Heynen & von Oven.
 Spring Brook—Spring Brook Creamery, Chris Kegler.

JASPER COUNTY.

Baxter—Harris & Company, W. H. Graham, Manager.
 Colfax—Colfax Creamery Company.
 Kellogg—Farmers' Dairy Association.
 Metz—Metz Creamery, Stoops & Chase.
 Newton—The Malaka Creamery, H. D. Parsons.
 Prairie City—Bosquet & Rhinesberger.
 Reasner—Farmers' Co-operative Creamery, Louie Shultz.

JEFFERSON COUNTY.

Batavia—Batavia Creamery, C. O. Mohler.
 Fairfield—Fairfield Creamery, John McLone.
 Locust Grove—Locust Grove Butter & Cheese Company.
 Packwood—Packwood Butter & Cheese Association.

JOHNSON COUNTY.

Iowa City—W. G. Brooks & Son.
 Lone Tree—J. M. Carl, Manager.
 Oxford—R. W. Brooks.

JONES COUNTY.

Amber—Amber Creamery, W. H. Sanford.
 Anamosa—J. R. Morin Company, Cedar Rapids.
 Anamosa—I. S. Condit.
 Brookside—J. R. Morin Company, Cedar Rapids.
 Butterfield—Crystal Falls Creamery, Dehner & Kay.
 Cascade—J. Hosch.
 Hale—Mills & Inglass.
 Highland—J. R. Morin Company, Cedar Rapids.
 Jackson—J. R. Morin Company, Cedar Rapids.
 Martelle—J. R. Morin Company, Cedar Rapids.
 Monticello—Diamond Creamery Company, D. Pond, Manager; two creameries, nine skim houses; two creameries in Linn county.
 Olin—Olin Creamery, Lamb Brothers.
 Onslow—S. L. Gilbert.
 Scotch Grove—Rose Creameries, C. M. Hanna; two creameries.
 West Cass—Franklin Creamery, A. L. Cory, Waubeek.
 Wyoming—Diamond Creamery Company, eight creameries, D. Pond, Manager, Monticello.

KEOKUK COUNTY.

eight creameries,

Delta—Delta Butter & Cheese Manufacturing Company, W. W. Chandler.
 Hedrick—Hedrick Creamery Company.
 Keota—Farmers' Creamery Company, W. W. Carpenter.
 Keswick—Keswick Creamery.
 Martinsburg—Prairie Mound Creamery.

Martinsburg—Martinsburg Creamery.
 Ollie—Ollie Creamery.
 Richland—Richland Creamery.
 Sigourney—Sigourney Creamery Company.

KOSSUTH COUNTY.

Algona—Algona Co-operative Creamery Company, Myron Schneck, Secretary.

Algona—Boardman Brothers & Company.
 Bancroft—Bancroft Co-operative Creamery Company, J. H. Merrifield.
 Bancroft—Garfield Co-operative Creamery Company, R. W. Berringtonhouse, Secretary, West Bend.
 Buffalo Fork—Buffalo Fork Co-operative Creamery Company, J. Casey, Secretary.
 Burt—Burt Co-operative Creamery Company, S. Nicolson, Secretary.
 Fenton—Fenton Co-operative Creamery Company, J. L. Reid.
 Hobart—Hobart Co-operative Creamery Company.
 Lotts Creek—Lotts Creek Co-operative Creamery Company, F. L. Ramsey, Secretary.

Seneca—Seneca Co-operative Creamery Company, W. W. Alcom, Secretary, Armstrong.

Wesley—Lawson & Olson Brothers.
 Whittimore—Whittimore Co-operative Creamery Company, J. S. Cotton, Secretary.

Whittimore—Boardman Brothers & Company.

LEE COUNTY.

Denmark—Denmark Creamery, Thomas G. Currier.
 Ft. Madison—Ft. Madison Creamery.
 Houghton—Hough & Company.
 Mount Clara—Mount Clara Butter and Cheese Company, R. H. Tounkin, Manager.
 Sawyer—Sawyer Butter and Creamery Association, S. M. Lanther.
 West Point—West Point Creamery, C. W. Stoddard.
 West Point—William Schulte.

LINN COUNTY.

Alburnett—S. Neitert.
 Cedar Rapids—H. N. Woodward & Son.
 Central City—P. G. Henderson, three Creameries.
 Central City—Minehart & Company.
 Central City—Minehart & Cook.
 Center Point—J. R. Gitchell.
 Coggon—Coggon Creamery Company.
 Coggon—Brazelton & Son, two Creameries.
 Coggon—Farmers' Creamery Company.
 Elmont—S. B. Mills.
 Ely—J. R. Morin Company, Cedar Rapids.
 Fairfax—H. N. Woodward & Son.
 La Fayette—John H. Neitert.
 Lisbon—W. S. Furnas Creamery Company.

Marion—W. W. Gray, two Creameries.
 Mt. Vernon—H. L. Dean, Tipton.
 Prairiesburgh—Beatty Brothers.
 Robins—Eureka Creamery Company, two Creameries.
 Springville—Irwin Paul, two Creameries.
 Springville—Rudolph Miller, two Creameries.
 Springville—Shaver & Company.
 Scotch Grove—J. R. Morin Company, Cedar Rapids.
 Toddville—Monroe Creamery Company.
 Troy Mills—Highland Creamery Company.
 Troy Mills—Bruce & Harvey.
 Waubeek—A. L. Cory, three creameries.
 Waubeek—J. G. Fox.
 Walker—H. J. Neitert.
 Western—J. R. Morin Company, Cedar Rapids.

LOUISA COUNTY.

Letts—H. H. Hildebrand.
 Fredonia—Fredonia Co-operative Creamery Company.
 Wapello—Co-operative Creamery Company.

LUCAS COUNTY.

Derby—Derby Butter & Cheese Company, J. J. George.
 Russell—Russell Co-operative Butter & Cheese Company, W. J. Marshall, Secretary.

LYON COUNTY.

Inwood—Inwood Creamery, Wenig & Barthell.
 Rock Rapids—Rock Rapids Butter & Cheese Association, T. C. Puckett, Manager.

MADISON COUNTY.

Winterset—B. Tucker & Company.

MAHASKA COUNTY.

Barn City—Barnes Creamery.
 Fremont—Fremont Creamery, William Miles.
 Indianapolis—Indianapolis Creamery, D. A. Baker.
 New Sharon—Cold Spring Creamery.

MARION COUNTY.

Dallas—Dallas Co-operative Creamery.
 Knoxville—Gasport & Rhynsbarger.
 Pella—Gasport & Rhynsbarger.
 Prairie City—Gasport & Rhynsbarger.

MARSHALL COUNTY.

Clemons—Minerva Valley Creamery Association, S. M. Gause, Secretary.
 Gilman—C. B. Smith.
 Haverhill—Meyer Brothers.
 Laurel—Harris & Company.
 Le Grande—Farmers' Co-operative Creamery.

Liscomb—Farmers' Co-operative Creamery.
Rhodes—A. Rhodes.
State Center—State Center Farmers' Creamery Association.

MILLS COUNTY.

Emerson—Blue Grass Creamery Company, A. W. Culver, Secretary.
Malvern—Malvern Creamery, R. F. Norton.

MITCHELL COUNTY.

Carpenter—Kennedy & Sons.
Bailey—Lawn Spring Creamery, T. J. Wheeler.
Brownville—Brownville Co-operative Creamery, James McCarty, Secretary.
Little Cedar—Little Cedar Creamery Company.
Mona—Frank Penny & Company.
Orchard—Spring Creek Company, Noah Naden, Manager.
Osage—Osage Co-operative Creamery Company.
Rock Creek—Rock Creek Creamery Company.
Riceville—Farmers' Co-operative Creamery Company.
Saint Ansgar—The Farmers' Co-operative of St. Ansgar, J. F. Dermody, Secretary.

MONONA COUNTY.

Blencoe—Bround Grove Creamery, Yeomans & Company.
Blencoe—F. F. Loomis.

MONTGOMERY COUNTY.

Villisca—Villisca Creamery, J. P. Davis.

MUSCATINE COUNTY.

Atalissa—Penn Avenue Creamery, Jacob Long, President.
West Liberty—Cedar Valley Creamery Company, Pickering & Kelley.
West Liberty—Lone Star Creamery, H. H. Hildebrand.
Wilton Junction—Nickel Plate Creamery, Geo. W. Kelly.
Wilton Junction—Lily Lake Creamery, S. G. Kelley.

O'BRIEN COUNTY.

Sibley—Northwestern Creamery, Garnavillo.
Paulina—Calidonia Creamery, Wm. Geharts, Manager.
Sutherland—Farmers' Co-operative Dairy Association, D. M. Sheldon, Secretary.
Sanborn—Sanborn Creamery Company.

OSCEOLA COUNTY.

Ocheyedan—Farmers, Co-operative Butter & Cheese Company, W. S. Ely, Secretary.
Sibley—Clover Grove Creamery, G. B. Gray.

PAGE COUNTY.

Blanchard—Blanchard Butter & Cheese Company, F. O. Winchell.
Clarinda—Clarinda Creamery, J. S. Chiles.
Coin—Coin Creamery.

PALO ALTO COUNTY.

Ayrshire—Ayrshire Creamery.
Curlew—Curlew Creamery.
Cylinder—Cylinder Butter & Cheese Association, W. Davison, Secretary.
Cylinder—Fairview Creamery.
Emmetsburg—Boardman Brothers & Company.
Fairwill—Fairwill Creamery, Fred Wagener, Secretary.
Grättinger—Lost Island Creamery Company, Lars Christiansen, Secretary.
Grättinger—Grättinger Creamery.
Independence Township—Maple Leaf Creamery Company.
Mallard—Mallard Creamery Company.
Osgood—Walnut Creamery Company, C. S. Wells, Secretary.
Ruthven—Highland Butter Association, Thomas Brennan.
Ruthven—Star Creamery Association.
West Bend—West Bend Creamery, Gilbert Wright.

PLYMOUTH COUNTY.

Kingsley—Kingsley Creamery Company.
Remsen—Remsen Creamery, J. M. Beck.

POCAHONTAS COUNTY.

Gilmore City—Gilmore City Creamery Association.
Laurens—Laurens Creamery.
Fonda—W. D. Beswick.

POLK COUNTY.

Bondurant—Bondurant Creamery, M. F. McClung.
Grimes—Grimes Butter & Cheese Association.

POTTAWATTAMIE COUNTY.

Avoca—Avoca Creamery, B. Frost.
Hancock—Hancock Co-operative Creamery.
Oakland—Oakland Creamery.

POWESHIEK COUNTY.

Barnes—Gold Medal Creamery, F. L. Emery.
Brooklyn—Brooklyn Creamery, E. O. Spencer.
Chester Center—Chester Center Creamery, C. B. Smith.
Deep River—Deep River Creamery, Hatter & Baird.
Grinnell—Grinnell Creamery, Pierce & Mattison.
Guernsey—Guernsey Creamery Company, J. W. Ran.
Malcomb—E. O. Spencer.
Montezuma—H. Baughman.

RINGGOLD COUNTY.

Benton—Benton Creamery, M. M. Pass.
Kellerton—Kellerton Creamery Company.
Knotton—Knotton Creamery.
Mount Ayr—Mount Ayr Creamery.
Redding—Redding Creamery Company, O. H. Edwards.
Tingley—Tingley Co-operative Creamery Company.

SAC COUNTY.

Auburn—Auburn Creamery, Boardman Brothers & Company, Nevada.
 Carnavon—Carnavon Butter Company, W. A. Seaman, Butter-maker.
 Carnavon—Carnavon Creamery, Boardman Brothers & Company.
 Earley—G. Pattee & Brother.
 Earley—Delaware Center Creamery Company, Clarke N. Searle, Sec'y.
 Earley—Champion Hill Creamery & Cheese Association.

SAC COUNTY.

Lake View—Lake View Creamery, Donahue & Ahern; two creameries.
 Odebolt—G. Fuhlendorf.
 Odebolt—Chricton & Wright.
 Odebolt—F. Fleck.
 Sac City—Applegate Bros.; two creameries.
 Sac City—Elwood & Pettis.
 Sac City—Brazee & McClure.
 Shaller—Shaller Creamery.
 Wall Lake—Donahue & Ahern.

SCOTT COUNTY.

Big Rock—Cedar Creamery, H. L. Dean, Tipton.
 Dixon—Dixon Creamery Company.
 Elridge—Farmers' Butter and Cheese Factory.

SHELBY COUNTY.

Elkhorn—The Danish Centrifugal Creamery Company.
 Harlan—Harlan Creamery Association, O. F. Graves, Secretary.

SIOUX COUNTY.

Alton—W. Strouks.
 Hawarden—Sioux Valley Creamery Company, Rudolph Miller, Secretary.
 Hull—Hull Creamery.
 Sioux Center—Sioux Valley Creamery Company.

STORY COUNTY.

Ames—Iowa Agricultural Creamery.
 Ames—Milford Farmers' Creamery Company.
 Cambridge—Boardman Bros. & Company, Nevada.
 Colo—Gates & Reed; two creameries.
 Elwell—Highland Creamery, Richardson & Paine.
 Maxwell—Frank W. Hill.
 Maxwell—Keystone Creamery, Frank W. Hill.
 Roland—Roland Creamery, Boardman Bros. & Company.
 Roland—Roland Co-operative Creamery.
 Slater—Slater Butter and Cheese Association.
 Smaysville—Wm. Smay.
 Story City—Swenson & Thorson.
 Zearney—Zearney Creamery, J. C. Hoyt.

TAMA COUNTY.

Berlin—Berlin Creamery Company.
 Dysart—Vinton Creamery Company, A. M. Rowe, Manager, Vinton.
 Garwin—Garwin Co-operative Creamery.
 Gladbrook—Hilton Bros. & Company.
 Mooreville—Vinton Creamery Company, A. M. Rowe, Manager, Vinton.
 Montour—Sibley & Cunningham.
 Tama—Hilton Bros. & Company.
 Traer—Waite & Curtis.
 Waltham—Waltham Creamery, Sam'l Siegal.

TAYLOR COUNTY.

Bedford—Bedford Butter and Cheese Association.
 Blockton—Blockton Butter and Cheese Association, M. C. Brown, Secretary.
 Clearfield—Clearfield Creamery Company, O. S. Carson, Secretary.
 Conway—Conway Creamery Company, E. A. Lake, Secretary.
 Guss—Guss Creamery.
 Lenox—Lenox Creamery, Phil. Godwin.
 New Market—New Market Creamery, Mr. Jackson, Secretary.

UNION COUNTY.

Afton—Afton Creamery Company.
 Lorimore—Lorimore Creamery, Ira Brown.
 Creston—Rosedale Creamery Association.
 Creston—Creston Creamery Company.
 Talmage—Talmage Creamery.

VAN BUREN COUNTY.

Birmingham—Birmingham Butter and Cheese Company, Porter Pleasants, Secretary and Manager.
 Farmington—Farmington Butter and Cheese Company, H. G. Kelley, Superintendent.

WAPELLO COUNTY.

Eldon—Eldon Creamery Company.

WARREN COUNTY.

Indianola—Indianola Creamery, B. S. Schermerhorn, Des Moines.
 Lacombe—Lacombe Co-operative Dairy Association.
 Milo—Farmers' Co-operative Dairy Association.

WASHINGTON COUNTY.

Brighton—Brighton Creamery, Ricksher & Emery.
 Crawfordville—Crawfordville Co-operative Creamery.
 Noble—Oak Ridge Creamery, Benjamin Eicher.
 Riverside—
 Washington—Washington Creamery.
 Wellman—Wellman Creamery.

WAYNE COUNTY.

Allerton—Allerton Creamery, I. N. Haldeman.
 Humeston—Wayne County Creamery, E. Haldeman.

WINNEBAGO COUNTY.

Buffalo Center—S. E. Allen & Sons.
 Douglass—Douglass Creamery.
 Forest City—S. E. Allen & Sons.
 Lake Mills—Lake Mills Co-operative Creamery.
 Leland—Leland Creamery, S. E. Allen & Sons.
 Norman—Norman Creamery.

WEBSTER COUNTY.

Burnside—Burnside Creamery Company, Abram Olson.
 Callender—Callender Butter & Cheese Association, B. Larson.
 Dayton—Daniels Creamery, J. M. Daniels & Son.
 Duncombe—Palmer & Clausen.
 Fort Dodge—Fort Dodge Butter & Cheese Association.
 Gowrie—Gowrie Creamery, F. S. Davis, Manager.
 Vincent—Vincent Creamery, P. J. Hansen.

WINNESHIEK COUNTY.

Burr Oak—Silver Creek Creamery.
 Calmar—Calmar Creamery.
 Castalia—Ossian Creamery Company.
 Decorah—Wm. Beard & Son.
 Decorah—Glenwood Creamery, Johnson & Bakke.
 Festina—Ossian Creamery Company.
 Frankville—Wm. Beard & Sons.
 Ft. Atkinson—Wm. Beard & Sons.
 Hesper—Anchor Creamery, H. F. Cleveland.
 Highlandville—J. H. Miller.
 Kendallville—Boe Brothers & Company.
 Locust—Kjone Creamery.
 Nordness—Ossian Creamery Company.
 Ossian—Ossian Creamery Company.
 Postville—Union Creamery Company.
 Ridgeway—Wm. Beard & Sons.
 Spillville—Ossian Creamery Company.
 Washington Prairie—Ossian Creamery Company.
 Washington Prairie—W. W. & G. L. Hubbell.

WOODBURY COUNTY.

Sioux City—Haley & Chase.

WORTH COUNTY.

Fertile—Fertile Co-operative Association.
 Grafton—Martin McNamara.
 Kensett—Kensett Creamery Company.
 Manley—Manley Co-operative Creamery.
 Northwood—Northwood Dairy Association.
 Northwood—Farmers' Butter and Cheese Association.

WRIGHT COUNTY.

Belmond—S. E. Allen & Sons.
 Clarion—Clarion Creamery, J. D. Denison.
 Clarion—Farmers' Home Creamery, S. E. Allen & Sons.
 Dows—Dows Creamery.
 Eagle Grove—Eagle Grove Creamery.
 Goldfield—Goldfield Creamery Company.
 Norway—Norway Creamery.
 Woolstock—Fountain Separator Company.
 Woolstock—Woolstock Butter & Cheese Association.

CHEESE FACTORIES.

ADAMS COUNTY.

East Nodaway—Nodaway Joint Stock Company.
Corning—Corning Cheese Factory.

APPANOOSE COUNTY.

Centerville—M. Edwards.
Iconium—Iconium Cheese Factory, George Mann, Manager.
Moravia—Moravia Cheese Company, W. A. Eastlack.
Moravia—S. Pense.
Moulton—Dickson & Guile.

AUDUBON COUNTY.

Brayton—L. A. Cummings.

BENTON COUNTY.

Atkins—Highland Cheese Factory, Shaver Cheese Company, Cedar Rapids.
Garrison—Excelsior Cheese Factory.
Newhall—Model Cheese Factory, J. H. Shaver Cheese Company, Cedar Rapids.
Shellsburg—Tiptop Cheese Factory.

BLACK HAWK COUNTY.

Raymond—The Fowler Company.
Waterloo—The Fowler Company.

BOONE COUNTY.

Grant Township—Grant Township Butter & Cheese Association.
Madrid—A. M. Chamberlain.

BREMER COUNTY.

Janesville—The Fowler Company.

BUCHANAN COUNTY

Quasqueton—W. D. Boies.
Quasqueton—Boies & Anderson.

CEDAR COUNTY.

West Branch—Quaker Factory, J. H. Shaver Cheese Company, Cedar Rapids.

CHICKASAW COUNTY.

Williamstown—John H. Kolthoff.

CLAYTON COUNTY.

Luana—R. M. Fonda.

CRAWFORD COUNTY.

Buck Drove—S. M. Thew.

DAVIS COUNTY.

Pulaski—Kensinger's Cheese Factory, P. Kensinger.
Troy—Hod Tisdale.

DECATUR COUNTY.

Garden Grove—George M. Pence.
Leon—Chastian & Chastian.
Weldon—George M. Pence, Garden Grove.

DELAWARE COUNTY.

Sand Spring—Charles Crocker.
South Fork Township—William Lattner, Worthington.

FAYETTE COUNTY.

Elgin—Fred Shuppach.

FLOYD COUNTY.

Charles City—Elm Spring Cheese Factory, White & Company.

FRANKLIN COUNTY.

Morgan—Badger & Hill's Factory, A. A. Bangs, Dows.

GREENE COUNTY.

Dana—Excelsior Factory, William Davenport.
Grand Junction—Renner Brothers.
Hardin Township—John C. Harker, Grand Junction.

GRUNDY COUNTY.

Grant Township—L. C. Vanderlip, Cedar Falls.
Reinbeck—The Fowler Company, Waterloo.

GUTHRIE COUNTY.

Casey—John Ross.
Grant Township—D. Y. Cowden, Adair.
Herndon—Chadsey & Smith.

HANCOCK COUNTY.

Britt—Britt Cheese Factory.

HARDIN COUNTY.

Cottage—Cottage Cheese Factory, C. Ryan.
Ellis—Ellis Cheese Manufacturing Company, W. I. Clark.
Owasa—P. Ransom.

HENRY COUNTY.

New London—Newton Butter & Cheese Factory.

IOWA COUNTY.

Green Center—Green Center Cheese Manufacturing Company, J. H. Yoder, Secretary.

La Dora—D. D. Case.

JASPER COUNTY.

Baxter—E. S. Allen.

Newton—N. W. Lewis.

JOHNSON COUNTY.

Frank Pierce—Washington Cheese & Butter Company, Peter Kettles, Secretary.

Iowa City—Sharon Cheese Company, J. J. Marner.

Morse—Shamrock Factory, J. H. Shaver Cheese Company, Cedar Rapids.

JONES COUNTY.

Bowen—T. W. Little.

Monticello—Diamond Creamery Company.

Onslow—J. A. Griswold.

Onslow—S. L. Gilbert.

KEOKUK COUNTY.

Talleyrand—Talleyrand Cheese Company.

Webster—Webster Cheese Company, C. S. Morgan, Secretary.

LEE COUNTY.

Denmark—Thomas C. Currier, Fort Madison.

LINN COUNTY.

Springville—Uncle Sam Factory, J. H. Shaver Cheese Company, Cedar Rapids.

MAHASKA COUNTY.

Bussey—Maple Grove Factory, A. J. Jones.

MONROE COUNTY.

Albia—Albia Factory, H. W. Watson.

Albia—Pleasant Township Factory, H. W. Watson.

Albia—Monroe Factory, W. A. Rowles.

Albia—Hilton Factory, W. A. Rowles.

Albia—Mantua Factory, J. M. M. Roberts.

Albia—M. J. & E. Watson.

Albia—P. E. Enix.

Albia—Amos Smith.

Albia—Bluff Creek Factory, J. K. Watson.

Albia—Urbana Factory, H. W. Watson.

Albia—Union Center Factory, H. W. Watson.

Albia—Salem Factory, L. Lewis.

Bluff Creek—Bluff Creek Factory, John Forster, Albia.
Franklin Township—Frank Hamilton, Moravia.
Lovilla—Lovilla Factory, Sherwin & Stark.
Moravia—Union Cheese Company, Miller & Stoops.

MONTGOMERY COUNTY.

Red Oak—Lincoln Cheese Factory, E. T. Evans, Manager.

PAGE COUNTY.

College Springs—E. F. Badger.

Northboro—William T. Hatfield.

PLYMOUTH COUNTY.

Kingsley—D. A. Oltman.

POWESHIEK COUNTY.

Grinnell—J. E. Neeley.

RINGGOLD COUNTY.

Mount Ayr—Liberty Co-operative Cheese Company.

Tingley—Fram's Factory, Jacob Fram.

Tingley—Joseph Ruffner.

SIOUX COUNTY.

Alton—Alton Cheese Factory, William Strouke.

TAMA COUNTY.

Elberton—Elberton Factory, J. H. Shaver Cheese Company, Cedar Rapids.
Toledo—Evergreen Cheese Factory.

TAYLOR COUNTY.

Conway—George Dean.

Lenox—Orchard Hill Cheese Factory, J. B. Hewitt.

UNION COUNTY.

Lorimor—William Groesbeck.

Lorimor—S. W. Groesbeck.

VAN BUREN COUNTY.

Cantril—Charles Dye.

Milton—Volney Nagle.

Milton—Woodard & Cooley.

WAPELLO COUNTY.

Eddyville—Pleasant Township Cheese Factory.

Ottumwa—South Ottumwa Cheese Company, N. S. Poling, Secretary.

WARREN COUNTY.

Indianola—J. D. McCoy.

Medora—Stacy Brothers.

WASHINGTON COUNTY.

Clay—Clay Cheese Company, O. Meacham, Secretary.

Dublin—Dublin Cheese Company, M. L. Done.

Nira—Nira Cheese Company.

Winchester—Winchester Cheese Company, A. G. Leet.

WAYNE COUNTY.

Clio—Clio Co-operative Cheese Manufacturing Company, D. H. Bruner.
 Corydon—Corydon Cheese Factory, C. F. Ault.
 Lineville—Lineville Cheese Factory.
 Promise City—G. Avery.
 Seymour—Seymour Cheese Factory.

WINNEBAGO COUNTY.

Grant Township—Two cheese factories.

WORTH COUNTY.

Northwood—Northwood Farmers' Butter & Cheese Association.

WRIGHT COUNTY.

Dows—George C. Jameson & Sons.
 Dows—A. A. Bangs.
 Galt—B. C. Robinson.

BUTTER SHIPMENTS.

The Dairy Commissioner considered it an important matter to ascertain the amount of butter shipped from the State of Iowa during the year ending September 30, 1892. The value of dairy products ought to be known, that the people of the State may comprehend their magnitude and be aware of the vast importance of the dairy industry, which is constantly menaced by the sale of oleomargarine in other states.

The manufacturers of oleomargarine are constantly on the watch for an opportunity to repeal or eliminate a part of the National Butterine Law.

The Dairy Commissioner, through correspondence and personal interviews, secured the consent of all the railroad companies doing business in the State, to furnish the desired information.

We sent out the following request:

To the General Traffic Managers of Railroad Companies:

The Iowa State Dairy Commissioner's office would respectfully request that your office issue orders to each of your station agents in Iowa, to ascertain the full amount of butter in gross pounds, shipped by them out of the State of Iowa from October 1, 1891, to October 1, 1892, and that this information be sent to the general office.

We further request that this information be furnished the Iowa State Dairy Commissioner's office with a pledge, on our part, to consider the same private, except in ascertaining how much butter was shipped out of the State.

We wish this information for the following reasons:

First. It is the only way in which we can gain accurate statistics of the butter shipments of the State, the statements furnished by the different creameries not always being correct, and from some of them we do not receive reports.

Second. We have no other way of ascertaining the amount of butter

shipped out of the State not made by creameries. The information we seek will be very valuable, as it affords the only accurate statistics of the butter production of the State, and would establish a basis from which future supplies can be closely estimated.

Very respectfully,

A. C. TUPPER,
Iowa State Dairy Commissioner.

The railroad people, through their traffic managers, made no objections to furnishing the information, although it entailed a very large expenditure of time on the part of the station agents, most of whom at this time are crowded with work. Their willingness to comply with our request proves that the railroad people are friendly to our people and are willing to accommodate them even though it costs them time and money.

The following is the amount of butter, in gross pounds, shipped out of the State, from stations of railroads doing business in Iowa, for each county in the State, for the year ending September 30, 1892.

COUNTY.	No. of creameries.	LBS.	COUNTY.	No. of creameries.	LBS.
Adair.....	4	94,434	Jones.....	35	1,999,385
Adams.....	4	170,396	Keokuk.....	10	452,725
Allamakee.....	12	1,036,417	Kossuth.....	13	975,875
Appanoose.....	0	19,125	Lee.....	7	237,590
Audubon.....	6	290,716	Linn.....	40	3,375,572
Benton.....	9	653,915	Louisla.....	3	253,805
Black Hawk.....	17	2,190,575	*Lucas.....	2	321,335
Boone.....	5	117,461	Lyon.....	2	113,590
Bremer.....	24	2,632,693	Madison.....	1	155,910
Buchanan.....	17	2,949,004	Mahaska.....	4	294,400
Buena Vista.....	7	598,500	Marion.....	4	242,490
Butler.....	15	2,360,301	Marshall.....	8	935,975
Calhoun.....	5	671,733	Mills.....	2	46,618
Carroll.....	5	910,329	*Mitchell.....	11	2,316,010
Cass.....	5	323,657	Monona.....	2	71,768
Cedar.....	12	808,636	Montgomery.....	1	297,403
Cerro Gordo.....	10	862,705	Monroe.....	0	26,950
Cherokee.....	3	210,410	Muscatine.....	5	596,335
Chickasaw.....	17	2,124,598	O'Brien.....	4	222,581
*Clarke.....	1	365,497	Osceola.....	2	91,975
Clay.....	6	463,900	Page.....	3	283,003
Clayton.....	18	2,515,897	Palo Alto.....	14	641,025
Clinton.....	14	863,527	Plymouth.....	2	213,339
Crawford.....	5	300,716	Pocahontas.....	3	546,070
Dallas.....	6	721,729	*Polk.....	2	329,594
Davis.....	4	45,925	Pottawattamie.....	3	71,713
Decatur.....	1	49,661	Poweshiek.....	8	574,683
Delaware.....	43	2,582,212	Ringgold.....	6	116,809
Des Moines.....	1	124,252	Sac.....	17	1,061,420
Dickinson.....	2	128,910	Scott.....	3	153,840
Dubuque.....	18	1,615,523	Shelby.....	2	30,665
Emmet.....	3	132,680	Stout.....	4	239,288
Fayette.....	23	2,062,855	Story.....	14	1,962,827
Floyd.....	12	830,822	Tama.....	9	624,784
Franklin.....	9	595,831	Taylor.....	7	148,477
Fremont.....	1	4,370	Union.....	6	427,781
Greene.....	7	333,902	Van Buren.....	2	72,590
Grundy.....	14	1,095,895	*Wapello.....	1	1,335,421
Guthrie.....	5	30,924	Warren.....	3	31,680
Hamilton.....	12	1,663,333	Washington.....	6	474,100
Hancock.....	7	206,894	Wayne.....	2	253,399
Hardin.....	12	1,199,343	*Webster.....	7	1,197,415
Harrison.....	4	20,783	Winnebago.....	6	647,895
Henry.....	2	75,922	Winneshek.....	19	2,334,091
Howard.....	10	1,548,421	Woodbury.....	1	218,092
Humboldt.....	6	557,615	Worth.....	6	833,330
Ida.....	1	57,575	Wright.....	9	671,244
Iowa.....	8	670,086	Total.....	775	71,563,013
Jackson.....	10	1,092,847			
Jasper.....	7	678,775			
Jefferson.....	4	322,185			
Johnson.....	3	225,520			

*Counties that have butter shipped in from outside points.

Total gross shipments of butter billed out of the State for the year ending September 30, 1892, 71,563,013 pounds.

Total gross shipments of butter billed out of the State for the year ending September 30, 1892, less 16 per cent tare, 60,112,931 pounds.

The best authorities estimate the home consumption of butter to be fifty pounds per capita, 100,000,000 pounds; to this add 60,112,931 and we have as the total make of the State 160,112,931 pounds.

Estimating 160,112,931 pounds of butter at 20 cents per pound gives \$32,022,386.20 as the value of the butter industry of Iowa.

The publication of the following article was suggested by Assistant Secretary Andrews of the State Board of Health:

PARAFFINE WAX.

WHY IT SHOULD BE USED ON BUTTER-TUBS.

For these reasons:

First—It fills every pore of the wood.

Second—It stops up every crevice and crack.

Third—It leaves the tub perfectly smooth, although the wood may be somewhat rough before application, thereby allowing the use of No. 2 tubs or seconds, the price of which is less than that of No. 1 tubs.

Fourth—It positively stops all shrinkage of the butter, by keeping all the water that the butter originally contains, as paraffine is water and air proof.

Fifth—It saves the trouble of soaking and salting the tubs before using, and avoids the danger of bursting hoops from the swelling of the staves on account of soaking.

Sixth—It allows the shipping of a tub that is dry on the outside, which greatly improves the appearance and lessens the weight of the package, also making it more convenient to handle.

APPLICATION.

Chop the paraffine into small chunks—the smaller the quicker it will melt—and put it into a tin pail or basin that is small enough to get into a pan of water, thereby forming a water bath similar to a glue pot. Heat the water till the paraffine melts; in this way there is no liability of scorching the wax. When the paraffine is thin and hot, spread on the inside of the dry tub in a smooth, thin coat with a common flat paint or varnish brush. A short handled brush is more convenient for use in small tubs. If an entirely air-tight package is wanted, lay a piece of paraffine paper over the butter, and with the brush apply the melted paraffine around the edge, taking care to fill the crevice between the paper and the staves. This makes a much tighter and better looking package than pasting with salt, and being air-tight it retains the sweetness and the flavor of the butter, and excludes the odors such as vegetables and kerosene that so commonly spoil butter during transit.

CHAPTER LII.

PREVENT DECEPTION IN MANUFACTURE AND SALE OF IMITATIONS OF BUTTER AND CHEESE, AND CREATE DAIRY COMMISSIONER.

AN ACT to Prevent Deception in the Manufacture and Sale of Imitation Butter and Cheese.

Be it enacted by the General Assembly of the State of Iowa:

SECTION 1. That for the purpose of this act, every article, substance or compound, other than that produced from pure milk, or cream from the same, made in the semblance of butter, and designed to be used as a substitute for butter made from pure milk or cream from the same, is hereby declared to be imitation butter, and that for the purpose of this act, every article, substance or compound other than that produced from pure milk or cream from the same, made in the semblance of cheese, and designed to be used as a substitute for cheese made from pure milk or cream from the same, is hereby declared to be imitation cheese; provided that the use of salt, rennet and harmless coloring matter for coloring the product of pure milk or cream, shall not be construed to render such product an imitation.

SEC. 2. Each person who manufactures imitation butter or imitation cheese shall mark by branding, stamping and stencilling upon the top and sides of each tub, firkin, box or other package in which such articles shall be kept, and in which it shall be removed from the place where it is produced, in a clear and durable manner, in the English language, the name of the contents thereof as herein designated, in printed letters in plain Roman type, each of which shall not be less than one inch in length by one-half of an inch in width. Every person who by himself or another violates the provisions of this section, shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not to exceed two hundred and fifty dollars, or by imprisonment in the county jail not to exceed sixty days.

SEC. 3. No person by himself or another shall knowingly ship, consign or forward by any common carrier whether public or private any imitation butter or imitation cheese, unless the same be marked as provided by section two of this act; and no carrier shall knowingly receive for the purpose of forwarding or transporting any imitation butter or imitation cheese, unless it shall be marked as hereinbefore provided, consigned and by the carrier receipted for by its name as designated by this act; provided that this act shall not apply to any goods in transit between foreign States and across the State of Iowa.

SEC. 4. No person shall knowingly have in his possession or under his control any imitation butter or imitation cheese unless the tub, firkin, box or other package containing the same be clearly and durably marked, as provided by section two of this act; provided that this section shall not be deemed to apply to persons who have the same in their possession for the actual consumption of themselves or family.

SEC. 5. No person by himself or another shall knowingly sell or offer for sale imitation butter or imitation cheese under the name of or under the pretense that the same is pure butter or pure cheese; and no person by himself or another shall knowingly sell any imitation butter or imitation cheese, unless he shall have informed the purchaser distinctly at the time of the sale that the same is imitation butter or imitation cheese, as the case may be, and shall have delivered to the purchaser at the time of the sale a statement clearly printed in the English language, which shall refer to the articles sold, and which shall contain in prominent and plain Roman type the name of the article sold, as fixed by this act, and shall give the name and place of business of the maker.

SEC. 6. No keeper of a hotel, boarding house, restaurant or other public place of entertainment shall knowingly place before any patron for use as food any imitation butter or imitation cheese, unless the same be accompanied by a placard containing the name in English of such article, as fixed by this act, printed in plain Roman type. Each violation of this section shall be deemed a misdemeanor.

SEC. 7. No action can be maintained on account of any sale or other contract made in violation of or with intent to violate this act by or through any person who was knowingly a party to such wrongful sale or other contract.

SEC. 8. Every person having possession or control of any imitation butter or imitation cheese which is not marked as required by the provisions of this act, shall be presumed to have known during the time of such possession or control the true character and name as fixed by this act of such imitation product.

SEC. 9. Whoever shall efface, erase, cancel or remove any mark provided for by this act, with intent to mislead, deceive, or to violate any of the provisions of this act, shall be deemed guilty of a misdemeanor.

SEC. 10. Whoever shall violate any of the provisions of the third, fourth and fifth sections of this act shall, for the first offense, be punished by a fine of not less than fifty dollars nor more than one hundred dollars, or by imprisonment not exceeding thirty days, and for each subsequent offense shall be punished by a fine of not less than two hundred and fifty dollars nor more than five hundred dollars, or by imprisonment in the county jail not less than thirty days nor more than six months, or by both such fine and imprisonment, in the discretion of the court.

SEC. 11. The Governor shall, on or before the first day of April of each even-numbered year, appoint an officer, who shall be known as the Iowa State Dairy Commissioner, who shall have practical experience in the manufacture of dairy products, and who shall hold his office for the term of two years from the first day of May following his appointment, or until his successor is appointed and qualified. Said Commissioner shall give an official bond conditioned for the faithful performance of the duties of his office in the

sum of ten thousand dollars, with sureties to be approved by the Governor. He may be removed from office by the Governor, with the approval of the Executive Council, for neglect or violation of duty. Any vacancy shall be filled by the appointment of the Governor, and with the advice and consent of the Executive Council.

SEC. 12. The State Dairy Commissioner shall receive a salary of fifteen hundred dollars per annum, payable monthly, and the expenses necessarily incurred in the proper discharge of the duties of his office; provided, that a complete itemized statement of all expenses shall be kept by the Commissioner, and by him filed with the Auditor of State after having been duly verified by him before receiving the same. He shall be furnished a room in the agricultural department of the capitol at Des Moines, in which he shall keep his office and all correspondence, documents, records and property of the State pertaining thereto, all of which shall be turned over to his successor in office. He may, if it is found to be necessary, employ a clerk whose salary shall not exceed the sum of fifty dollars per month. Said salaries and expenses to be paid from the appropriation provided for in section seventeen of this act. The Commissioner provided for by this act shall hold no other official position under the laws of Iowa, or a professorship in any of the State institutions.

SEC. 13. It shall be the duty of the State Dairy Commissioner to secure, so far possible, the enforcement of this act. He shall collect, arrange and present in annual reports to the Governor, on or before the first of November of each year, a detailed statement of all matters relating to the purposes of this act, which he shall deem of public importance, including the receipts and disbursements of this office. Such report shall be published with the report of the State Agricultural Society.

SEC. 14. The State Dairy Commissioner shall have power in all cases where he shall deem it important for the discharge of the duties of his office, to administer oaths, to issue subpoenas for witnesses and to examine them under oath, and to enforce their attendance to the same extent and in the same manner as a justice of the peace may now do, and such witnesses shall be paid by the Commissioner the same fees now allowed witnesses in justices' courts.

SEC. 15. Whoever shall have possession or control of any imitation butter or imitation cheese contrary to the provisions of this act shall be construed to have possession of property with intent to use it as a means of committing a public offense within the meaning of chapter 50 of title 25 of the Code; provided, that it shall be the duty of the officer who serves a search warrant issued for imitation butter or imitation cheese, to deliver to the State Dairy Commissioner, or to any person by such Commissioner authorized in writing to receive the same, a perfect sample of each article seized by virtue of such warrant, for the purpose of having the same analyzed, and forthwith to return to the person from whom it was taken, the remainder of each article seized as aforesaid. If any sample be found to be imitation butter or imitation cheese, it shall be returned, to and retained by the magistrate as and for the purpose contemplated by section 4648 of the Code, but if any sample be found not to be imitation butter or imitation cheese, it shall be returned forthwith to the person from whom it was taken.

SEC. 16. It shall be the duty of the court in each action for the violation

of this act to tax as cost in the cause the actual and necessary expense of analyzing the alleged imitation butter or imitation cheese, which shall be in controversy in such proceedings, provided that the amounts so taxed shall not exceed the sum of twenty-five dollars. It shall be the duty of the district or county attorney, upon the application of the Dairy Commissioner, to attend to the prosecution, in the name of the State, of any suit brought for the violation of any of the provisions of this act within his district; and in case of conviction he shall receive twenty-five per cent of the fines collected, which shall be in addition to any salary he may receive, to be taxed as costs in the case.

SEC. 17. That the unexpended portion of the appropriation provided for by section 17 of the 52d chapter of the twenty-first General Assembly, is hereby appropriated for the next biennial period, or so much thereof as may be necessary for the proper carrying out of the purposes of the act; but not more than one-half of said unexpended balance shall be drawn from the State Treasury prior to the 1st day of May, 1889. The amount hereby appropriated shall be expended only under the direction and with the approval of the Executive Council. And all salaries, fees, costs and expenses of every kind incurred in the carrying out of this law shall be drawn from the sum so appropriated.

SEC. 18. Chapter 39 of the acts of the Eighteenth General Assembly of Iowa, and all acts and parts of acts in conflict with this act, are hereby repealed.

SEC. 19. This act being deemed of immediate importance, shall take effect and be in force from and after its publication in the Iowa State Register and Iowa Homestead, newspapers published in Des Moines, Iowa.

Approved March 27, 1886.

Amendments approved March 28, 1888.

Law pertaining to milk, as enacted by the Thirteenth General Assembly, and found in the Code of Iowa, chapter 156, section 4042.

ADULTERATED MILK, CHEESE OR BUTTER.

SEC. 4042. If any person knowingly sell to another, or knowingly deliver or bring to another to be manufactured, to any cheese or butter manufactory in this State, any milk diluted with water, or in any way adulterated, or milk from which any cream has been taken, or milk commonly known as "skimmed milk," or shall keep back any part of the milk known as "strippings," with intent to defraud, or shall knowingly sell the milk, the product of a diseased animal or animals, or shall knowingly use any poisonous or deleterious material in the manufacture of cheese or butter, he shall, upon conviction thereof, be fined in any sum not less than twenty-five dollars nor more than one hundred dollars, or be liable in double the amount of damages to the person or persons, firm, association or corporation upon whom such fraud shall be committed.

NEW DAIRY LAW.

An act to repeal section 4042 of the Code of 1873, and provide a substitute therefor, and to enlarge the duties and powers of the State Dairy Commissioner, and to provide an appropriation therefor.

Be it enacted by the General Assembly of the State of Iowa:

SECTION 1. That section 4042 of the Code of 1873 is hereby repealed and the following is enacted in lieu thereof: If any person shall sell or exchange, or expose for sale or exchange, deliver or bring to another for domestic use, or to be converted into any product of human food whatsoever, any unclean, impure, unhealthy, adulterated, unwholesome or skimmed milk, or milk from which has been held back what is commonly known as strippings, or milk taken from an animal having disease, sickness, ulcers, abscesses, or running sore, or was taken from an animal fifteen days before, or less than five days after parturition, shall, upon conviction thereof, be fined not less than twenty-five dollars (\$25.00) nor more than one hundred dollars (\$100.00), and be liable in double the amount of damages to the person or persons upon whom such fraud shall be committed. Provided that the provisions of this act shall not apply to skimmed milk where it is sold as such.

SEC. 2. For the purposes of this act milk which is proved by any reliable method of test or analysis, to contain less than three pounds of butter fat to the one hundred pounds of milk, shall be regarded as skimmed or partially skimmed milk.

SEC. 3. It is hereby made the duty of the Dairy Commissioner to enforce the provisions of the foregoing sections.

SEC. 4. The State Dairy Commissioner is hereby authorized to appoint agents in every city having over ten thousand inhabitants, in the State of Iowa, who are to collect the samples of milk as sold in such cities, and it shall be their duty to forward such samples to the office of the Commissioner in Des Moines in such manner as he shall direct. The compensation of such agents at any one time, shall not be more than three dollars (\$3.00) for collecting and delivering the same to the express companies.

SEC. 5. The number of times samples are collected in each city of more than ten thousand inhabitants shall not exceed an average of thirty times during any one year.

SEC. 6. The State Dairy Commissioner, if it shall be found necessary, may increase the clerk hire of his office twenty-five dollars (\$25.00) per month.

SEC. 7. Every milk dealer who runs a milk wagon, milk depot or sells milk from a store, in the cities that have over ten thousand inhabitants, in the State of Iowa, shall obtain a permit from the State Dairy Commissioner's office, for which he shall pay the sum of one dollar (\$1.00) annually. The Commissioner shall keep a book in which shall be registered the name, location and number of each dealer in milk, and a record of each analysis. Whoever violates the provisions of this section, upon conviction thereof, shall be fined not less than ten dollars (\$10.00) nor more than twenty five dollars (\$25.00).

SEC. 8. The Dairy Commissioner or his agents shall have power and authority to open any can or vessel containing milk which is offered for sale, and may inspect the contents thereof and may take therefrom samples of milk for analysis.

SEC. 9. That there is hereby appropriated out of any money in the State Treasury, not otherwise appropriated, the sum of twenty five hundred dollars or as much as may be necessary for the purpose of carrying out the provisions of this act.

REGULATION PASSED BY THE STATE BOARD OF HEALTH.

The attention of all who handle milk is directed to the following regulation made by the State Board of Health, and which is binding upon all the people. It is known that very few substances absorb the germs of contagious diseases so quickly as milk. The purpose of this regulation is to prevent the spread of such diseases through this media. It is supplemental to the statute which prohibits the sale of impure milk:

When Asiatic Cholera, Small Pox, Diphtheria, Scarlet Fever (Scarlatina, Scarlet Rash), Typhoid Fever, Typhus Fever, Membranous Croup, Measles; or any other contagious disease exists in any house or dwelling place of a dealer in, or seller of milk, he shall discontinue, and cease to give or sell, or distribute milk to any person, or to creameries or butter factories, or in anywise handle such milk, until a permit is granted therefor by the mayor (or clerk), countersigned by the Health Officer. And no person who attends cows, and the milking, or who has the care of milk vessels or the sale or distribution of milk shall be permitted to enter any premises or place wherein exists any of the diseases named herein, nor have any communication, direct or indirect, with any person who resides in, or is an occupant of, such infected place; nor shall any milk or butter be given away, sold or distributed from such infected place.

INDEX.

	PAGE
List of Persons Holding Oleomargarine Licenses.....	3- 4
Letter from Hon. John Mason.....	5
Law in Relation to Oleomargarine.....	5
The Enforcement of the New Dairy Law.....	10-16
CITY MILK TESTS—	
Des Moines.....	17-19
Cedar Rapids.....	20-22
Sioux City.....	22-24
Davenport.....	24-26
Burlington.....	26-28
Dubuque.....	28-30
Clinton.....	30-31
Council Bluffs.....	31-32
Muscatine.....	32
Ottumwa.....	32-33
Keokuk.....	33
Iowa Crops.....	34-35
Cheese.....	36
Some Reasons why Co-operative Creameries are Unsuccessful.....	37-38
Financial Statement.....	39
List of Creameries.....	40-59
Cheese Factories.....	60-64
Butter Shipments.....	65-67
Paraffine Wax.....	68
Old Law.....	69-72
New Dairy Law.....	73-74
Regulation Passed by State Board of Health.....	74