REPORT

OF THE

BOARD OF

DENTAL EXAMINERS

OF THE

STATE OF IOWA

PRINTED BY AUTHORITY OF THE GENERAL ASSEMBLY

DES MOINES: EMORY H. ENGLISH, STATE PRINTER 1908

MEMBERS AND OFFICERS OF THE STATE BOARD.

E. H. Ball, D. D. S., President
W. H. DeFord, D. D. S., M. D
G. N. BEEMER, D. D. S
F. H. Rule, D. D. S
E. D. Brower, D.D. S. Secretary

REPORT

To His Excellency, Honorable Albert B. Cummins, Governor of Iowa:

In accordance with the provisions of section 2600-h, Code of Iowa, as amended by the Thirty-first General Assembly, I have the honor to submit the second report of the Board of Dental Examiners of Iowa.

At the annual meeting of the board in May, Dr. E. H. Ball was elected president and Dr. E. D. Brower, secretary. Through the recommendation of the state society you have re-appointed Dr. F. H. Rule of Ackley in 1907 and E. D. Brower of Le Mars in 1908 to succeed themselves thus leaving the board membership the same as it was two years ago.

During the past two years the board has held two meetings each year for examination of applicants for license. During the two years 182 made application for examination; three for interchange license under the Reciprocity Clause. We have issued sixteen renewal licenses; sixteen duplicate licenses; eighteen exchange certificates; three interchange licenses; 162 by examination.

In the four examinations held thirty-four failed on first examination; two on second examination and one on the third examination. A more thorough examination of applicants for license has been established. The passing grade has been placed at 80 per cent; practical examinations have been established in operative and prosthetic dentistry.

We herewith present an alphabetical list of the registered dentists of the state making a total of 2,208 licenses issued by the board since its creation in 1882, not including duplicates and renewals; also a list by counties as furnished the secretary by one dentist in each county; this list should be practically correct. It contains 1,132 names which should be the exact number of dentists practising in Iowa at this date, October 1, 1908.

We would ask your assistance in the coming session of the legislature in the passage of a bill to be presented by the state society, providing for the exemption of dentists from jury duty. Also to provide for the appointment of dentists to the state institutions.

The board asks that they be re-imbursed for moneys charged off their account by the state August 10, 1907, to the amount of \$988.98 there being only \$95 in the treasury at the present time and the July, August, September, 1908, bills are still unpaid.

RECIPROCITY.

The Thirty-first General Assembly made provision for interchange of license, chapter 116, sections 1 and 2. Under this law we have made contracts with ten staes for interchange of license as follows: Vermont, New Jersey, District of Columbia, Nebraska, Kansas, Oklahoma, Ohio, Indiana, Michigan and Minnesota. The last four make the provision that the applicant must pass a staisfactory examination in practical work, waiving the written examination. The first six waive both practical and written examinations.

A great many dentists fail to grasp the idea of exchange fully. A dentist must practice five years in a state before he can get the exchange certificate to go to another state. He must remain in that state five years before he can receive the exchange certificate to go to another state.

The holding of a license in Iowa but practicing in another state does not entitle the holder to an exchange certificate from this state. He must be in continuous practice in this state for at least five years immediately preceding his application for exchange certificate.

ENFORCEMENT OF THE LAW.

With the closing of another biennial period, that while there has been a number of violations of the law, all have been adjusted without appealing to the courts. The general public has been more thoroughly protected from charlatans and irresponsible dentists.

There are today very few if any dentists practicing without license, while four years ago there were over one hundred. At present to the secretary's knowledge there is no one practicing in Iowa without a license, except a few of the recent graduates that failed at the last examination and have opened offices supposing they had that privilege until the next examination. These men are being closed up as fast as complaints are received at this office.

The practicing dentist should be encouraged on ethical grounds to do his best work for his patients. Many who come to him for relief from their positions in life and lack of educational advantages are not able to differentiate between honest and indifferent services trusting implicitly in the opinion and advice of the operator. Therefore, the law steps in and under its munificent policy through boards of health, medical and dental laws, the interest of the humblest is protected.

STATE DENTAL SOCIETY.

The State Dental Society has been reorganized, establishing thirteen districts, each district having its own officers but under the control of the state society. A dentist must be a member of his district society to become a member of the state society, i. c. Membership in a district society earries with it membership in the state society. At the end of the first year's trial the attendance at the state society was more than three times as great as the largest meeting ever held before.

The prediction is that the district society will be of greater benefit in building up the standard of dentistry in Iowa, and it is hoped the advertiser and disreputable practitioner will be forced out of Iowa or be compelled to resort to honest means and methods of practice.

We respectfully submit this report for your consideration.

E. H. BALL, President.

E. D. BROWER, Secretary.

F. H. RULE.

G. M. BEEMER.

W. H. DEFORD.

TO THE DENTISTS OF IOWA.

In preparing this report the secretary is under obligations to one dentist in each county for the list by counties.

The alphabetical list has been corrected as far as possible. In case a dentist has moved away and I have been unable to find his address, I have left it at the last known address.

In case of deaths I know the list is imperfect. This will take the assistance of the dentists of the whole state especially of the older men. I called your attention to this two years ago but the list is still far from correct.

In this report you will find the list as it appears on our books. During the next two years the list can be made absolutely correct by a little attention by friends and neighbors of those that have gone.

There is one thing that I wish to speak of especially. This report in the future will be issued every two years by the state. In the past it depended on the board to pay for it out of their own money or let it go.

Now, do you want a correct list? If so, when you change your address, tell the secretary. If you do not get the report it is your own fault because the secretary does not know where you are. There were quite a number of the last reports returned to me.

I wish to personally call your attention to the proposed legislation this winter. First, the exemption of dentists from jury duty. Second, the appointment of dentists to the state institutions. This is in the hands of the legislative committee of the state society. See that your representative and senator favor such legislation.

Respectfully,

E. D. BROWER, Secretary.

FINANCIAL STATEMENT.

PECEIPTS

July 1, 1906. Cash balance in hands of state treasurer \$ 563.11
July 1. 1906. Cash balance in hands of treasurer of board 900.00
July 1, 1906-July 1, 1908. Received for 16 renewal licenses 400.00
July 1, 1906-July 1, 1908. Received for 16 duplicate licenses 32.00
July 1, 1906-July 1, 1908. Received for 18 exchange certificates. 90.00
July 1, 1906-July 1, 1908. Received for 3 interchange licenses. 75.00
July 1, 1906-July 1, 1908. Received for 183 examination fees 3,650.00
The state of the s
Total\$5,710.11
DISBURSEMENTS
July 1, 1906. Cash balance in hands of state treasurer \$ 563.11
July 1, 1906-July 1, 1908. Cash deposited with state treasurer 4,152.00
June 30, 1908. Cash in hands of treasurer of board 995.00
Total\$5,710.11
Aug. 10, 1907. Charged off by state as surplus for 1905-6 \$ 988.98
July 1, 1906-July 1, 1908. Expenses of the board

TABULATION OF DENTAL EXAMINERS EXAMINATIONS.

The tabulation consists of a record of the results of the dental examiners examinations of applicants for a license to practice dentistry. It is a systematic record of the annual reports of the secretaries of the state boards in the United States. Therefore, to the secretaries of the boards making these reports is the credit largely due for the work accomplished.

The tabulation covers a period of five years. From twenty-six to thirty-six state board of dental examiners reported each year. The first year 1,304 examinations were tabulated, 892 passed, 412 failed. It will thus be seen that thirty-one per cent or nearly one-third of the applicants were judged unfit to practice dentistry. Last year (1908), 2,048 applicants were examined by twenty-six boards who reported and 440 failed to meet the necessary requirements. Twenty-one per cent failed. In other words, the work of tabulation had stimulated the work of dental education to such an extent that ten per cent more dentists were qualified to practice and the efficiency of the services rendered to the public was correspondingly raised. Out of the twenty-one per cent of applicants who failed in 1908, sixteen per cent were dental college graduates.

In five years' tabulation 8,151 examinations have been compiled, 6,122 applicants passed and 2,029 failed to meet the requirements of the state before whose board they presented themselves for examination.

Can you produce any better evidence of the efficiency of state boards of dental examiners than the following:

First: They attend to their business without compensation.

Second: They examine candidates intelligently and impartially. Third: They keep a systematic record of their examinations.

Fourth: They have increased the efficiency of dental education ten per cent.

Over sixty per cent of the graduates of the following dental colleges passed the dental examiners in the United States: Ann Arbor Dental College, or University of Michigan, Ann Arbor, Mich. Atlantic Dental College, Atlanta, Ga. Baltimore College of Dental Surgery, Baltimore, Md. Baltimore Medical College, Baltimore, Md. Birmingham Dental College, Birmingham, Ala. Boston Dental School, Tuft's Medical College, Boston, Mass. Buffalo University of Buffalo, N. Y. California University, Dental Department, San Francisco, Cal. Chicago College of Dental Surgery, Chicago, Ill. Cincinnati College of Dental Surgery, Cincinnati, Ohio. Colorado College of Dental Surgery, University of Denver, Denver, Colo. Columbia University, Washington, D. C. Georgetown University, Dental Department, Washington, D. C. Harvard University, Boston, Mass. Illinois University, Chicago, Ill. Indiana Dental College, Indianapolis, Ind. Iowa State University, Iowa City, Iowa. Kansas City Dental College, Kansas City, Mo. Keokuk Medical College, Dental Department, Keokuk, Iowa. Milwaukee Medical College, Milwaukee, Wis. Minnesota, University of, Minneapolis, Minn. Missouri Dental College, or Washington University, St. Louis, Mo.

Missouri Dental College, or Washington University, St. Louis, Medico-Chi College, Dental Department, Philadelphia, Pa. Maryland University, Baltimore, Md. New Orleans Dental College, New Orleans, La.

New York College of Dentistry, New York, N. Y.

New York Dental School, or College of Dental & Oral Surgery, New York, N. Y.

Northwestern University, Chicago, III.
Ohio College of Dental Surgery, Cincinnati, Ohio.
Ohio Medical University, Dental Department, Columbus, Ohio.
Omaha, University of, or Creighton University, Dental Department,

Omaha, Neb. Pittsburg Dental College or Western University of Pennsylvania, Pittsburg, Pa.

Physicians and Surgeons College, Dental Department, San Francisco, Cal.

Philadelphia Dental College, Philadelphia, Pa.
Pennsylvania College of Dental Surgery, Philadelphia, Pa.
Pennsylvania, University of, Philadelphia, Pa.
University College of Medicine, Richmond, Va.
Southern Dental College, Atlanta, Ga.
Southern California, University of, Los Angeles, Cal.
St. Louis Dental College, Marion-Sims, Mo.
Vanderblit University, Tennessee.
Western Reserve University, Cleveland, Ohio.

Alphonso Irwin, D. D. S., Chairman Tabulation Committee. LAWS GOVERNING THE PRACTICE OF DENTISTRY IN THE STATE OF IOWA.

CHAPTER 19A.

Section 2600-a. Repeal. That chapter nineteen (19) of title twelve (12) of the code be and the same is hereby repealed, and the following enacted in lieu thereof: (28 G. A., Ch. 91, No. 1.)

Sec. 2600-b. Board of Examiners—how appointed—term. The board of dental examiners shall consist of five practicing dentists, who shall have been engaged in the continuous practice of their profession in this state for the period of five years preceding their appointment, one of whom shall be appointed annually by the governor, and hold office for the term of five years from and after the first day of August following his appointment, and until his successor is appointed. The Iowa State Dental Society shall, at the request of the governor, submit a list of dentists of recognized ability, from which he may select the member of the board to be appointed. All vacancies occurring in the board shall be filled in like manner, and the appointee hold office for the unexpired term of his predecessor. All members of the present board shall continue in office under this act until the expiration of their respective terms of office. (28 G. A., Ch. 91, No. 2.)

Sec. 2600-c. Officers—meetings—quorum. The board shall organize by selecting one of its members as president, one as secretary and treasurer, and shall meet at least once each year, and at such other times as it may deem necessary, and at such place as it may select. A majority of the board shall constitute a quorum, and its meetings shall at all reasonable times be open to the public. (28 G. A., Ch. 91, No. 3.)

Sec. 2600-d. Examinations—license—record books—fees. The board shall at any regular meeting, and may at any special meeting, examine applicants for a license to practice dentistry as to their knowledge and skill in dental surgery, and shall issue to such ap-

plicants as are found to be qualified a license authorizing them to practice dentistry. The license shall be signed by each member of the board, attested by the president and secretary, and have the seal of the board affixed thereto; and shall be presumptive evidence of the right of the holder to practice dentistry in the state. The name, age, nativity, location, number of years of practice of the person to whom license is given, the number of the license and the date of the registration thereof shall be entered in a book kept in the office of the secretary of the board, which shall be open to the inspection of the public, under proper restrictions as to its safe keeping, and the number of the book and page containing such entrance shall be noted on the face of the license. Each applicant shall be a graduate of a reputable dental school, which is recognized as such by the board of dental examiners, and pay to the board a fee of twenty dollars before a license is issued. (28 G. A., Ch. 91, No. 4.)

Sec. 2600-e. Testimony—rules—regulations. The board shall have authority to take testimony in relation to all matters within its jurisdiction and the presiding officer thereof, or of any committee; and it may take and adopt all necessary rules, regulations and by-laws not inconsistent with law necessary to enable it to perform the duties and transact the business authorized and required by this act. (28 G. A., Ch. 91, No. 5.)

Sec. 2600-f. Treasurer to give bond. The treasurer shall, on assuming the duties of his office, file with the secretary of state, a good and sufficient bond in the penal sum of one thousand dollars, conditioned for the faithful discharge of his duties; and shall keep a full and accurate account of all moneys received by him under the provisions of this act. (28 G. A., Ch. 91, No. 6.)

Sec. 2600-g. Compensation. Each member of the board shall receive the sum of five dollars for each day he is actually engaged in the duties of his office, with the actual expenses incurred by him in discharge of such duties, and the treasurer shall receive a salary not exceeding three-hundred dollars per annum for his services as secretary and treasurer, which amounts shall be paid out of the fund received by the board under the provision of this act, and from no other fund or source. (28 G. A., Ch. 91, No. 7.)

Sec. 2600-h. Biennial report. The board shall make a biennial report to the governor of its proceedings, including a full and accurate account of all moneys received and disbursed, and shall pub-

lish said report with a list of dentists licensed to practice in the state. (31 G. A., Ch. 91, No. 4.)

Sec. 2600-i. License filed for record with clerk of district courtfee. Every person to whom a license is issued shall file the same
for record with the clerk of the district court in the county in
which he desires to practice dentistry and the clerk of the court
shall be entitled to a fee of fifty cents for recording such license;
and failure to file such license for record within one year after it
is issued by the board shall work a forfeiture thereof and said license shall not be restored by the board except upon the payment
to it of the sum of twenty-five dollars as penalty therefor. (31 G.
A., Ch. No. 3.)

Sec. 2600-j. Penalty. It shall be unlawful for any person to practice dentistry in this state without having complied with the provisions of this act and any person who shall violate the provisions thereof shall be deemed guilty of a misdemeanor and upon a conviction shall be punished by a fine not exceeding two-hundred dollars or imprisonment in the county jail not more than forty days or by both such fine and imprisonment. (28 G. A., Ch. 91, No. 10.)

Sec. 2600-k. Who not eligible to appointment on board. No member of a dental college faculty, or no person connected therewith shall be eligible to an appointment upon the state board of dental examiners. (28 G. A., Ch. 91, No. 11.)

Sec. 2600-1. Provisions as to physicians, dental students, and registered practioners. Nothing herein shall be construed to prevent any surgeons from extracting teeth in the practice of their profession or to prevent bona fide students in dentistry, in the regular course of their instruction, from operating upon patients at clinics, or under the supervision and in the presence of their precessors, but no fee or salary for such operations shall be received, either directly or indirectly by any such student of dentistry. And nothing herein shall be construed to prohibit the practice of dentistry in this state by any practioner who has been duly registered in accordance with the laws of Iowa existing prior to the passage of this act; or any person who is a member of an incorporated society or community and practicing dentistry solely for and among the members of such community or incorporated society without charge or compensation. (28 G. A., Ch. 91, No. 12.)

Section 1. Reciprocity. The board of dental examiners may, without examination, issue license to practice to any dentist who shall have been in legal practice in some other state or territory for a period of at least five years, upon the certificate of the board of dental examiners or a like board of the state or territory in which such dentist was a practitioner; certifying his competency and that he is of good moral character and upon payment of twenty-five dollars (\$25.00). Provided, however, that the state from which any practitioner may come shall have, and maintain equal standard of laws regulating the practice of dentistry and recognize exchange certificates issued by the board of dental examiners of the state of Iowa. (31 G. A., Ch. No. 1.)

Sec. 2. Exchange certificates. Any duly licensed dentist of the state of Iowa who is desirous of changing his residence to that of another state or territory shall, upon application to the board of dental examiners and the payment of a fee of five dollars (\$5.00), receive a certificate which shall attest that he is a duly licensed dentist of the state of Iowa. (31 G. A., Ch. No. 2.)

CHAPTER 7.

FEES AND EXPENSES OF STATE OFFICERS, BOARDS AND COMMISSIONS.

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

Section 1. Fees. That all boards, commissions, departments and officers of state, elective or appointive, shall turn into the state treasury on or before the fifteenth day of each month all fees, commissions or moneys collected or received during the preceding calendar month with an itemized statement of sources from which received; and shall also file with the auditor of the state a duplicate of such statement; provided, however, that the provisions of this act shall not apply to the state agricultural society, regents of the state university, trustees of the state college of agricultural and mechanic arts and of the state normal school, horticultural society, supreme court reporter and inspector of passenger boats. (30 G. A.)

Sec. 2. Statement of per diem and expenses. That all members of boards, commissions or departments of state, and all state officers, who are authorized to contract expense accounts in the service of the state, and all who are allowed a per diem for services instead of a fixed compensation, shall, on or before the end of each month file with the secretary of the executive council an itemized

and sworn statement of all expenses and days' service, with dates and amounts for the preceding calendar month. (30 G. A.)

Sec. 3. Approval—how paid. That the executive council shall examine all statements referred to in section two (2) of this act that shall have been filed with the secretary of the council and for all items of per diem and expenses approved and amounts allowed by a majority of said council, the auditor of state shall draw warrants payable by the treasurer of state out of such funds as are now, or may hereafter be, provided by law. The treasurer of state and auditor of state shall each keep an account of the moneys paid in under the provisions of this act and where the law now provides or may hereafter provide, that the amounts allowed for per diem and expenses shall be limited to or paid from fees collected, the auditor's warrant shall be drawn against the funds realized from such fees and shall not exceed the amount thereof. (30 G. A.)

Sec. 4. Acts in conflict repealed. All acts or parts of acts in conflict with this act are hereby repealed. (30 G. A.)

Approved April 13, A. D. 1904.

RULES AND REGULATIONS.

COLLEGES.

Every dental college or dental department of a university shall publish as its preliminary educational requirements those laid down by this board and we suggest shall so state and publish in its annual announcement.

Rule I. Preliminary qualifications for entrance as freshman on and after the school year 1906-07 not less than graduation from an accredited high school or its equivalent so attested by state superintendent or equivalent officer that applicant did at his or her entrance possess education equal to an accredited high school which certificate shall (or may) be accepted in lieu of such diploma and same may be recognized by this board.

Rule II. Full courses of didactic and clinical instruction shall consist of not less than thirty-two (32) weeks of six (6) teaching days each week, or twenty-six (26) weeks of six (6) teaching days each week exclusive of holidays and vacations covering a period of three or four (3 or 4) academic years respectively. Course of study shall consist of the following subjects, viz.: Anatomy, Physiology, Chemistry, Histology, Metallurgy, Pathology (Gen. spec.), Hygiene, Materia Medica, Anesthetics, Therapeutics, Bacteriology, Oral Surgery, Operative Technics, Prosthetic Technics, Operative and Clinical Dentistry, Prosthetic Dentistry and Orthodontia. Quizes must be held at least once each month in each branch.

Attendance upon the entire course as named will be insisted upon. Deductions not exceeding 20 per cent allowed for unavoidable absence, may be extended; 20 per cent in case of bona fide illness, properly attested by reputable physician, provided all studies are satisfactorily made up.

Rule III. Colleges must have proper facilities and equipment for teaching each subject of the course, must provide thorough and adequate instruction to its students and its clinical infirmary must be conducted along strictly ethical lines.

Rule IV. Each dental college must have a teaching faculty of at least six persons licensed practitioners of dentistry in good standing in the profession and teaching the subjects named in these rules, provided that the basic studies may be taught by experts in those subjects who may not be dentists.

Rule V. No college shall give credit for time to a student later than ten days after opening of session, provided time may be extended to twenty days in case of illness attested by reputable physician.

Rule VI. Colleges may receive into advanced grades only those students who have duly passed freshman or junior examinations. Students having passed such examination shall have mailed them within thirty days after such session, duly certified certificates, provided all obligations and requirements have been fulfilled, such certificates to be pledge to any college recognized by this board that the requisite number of terms had been spent in the institution issuing the certificate giving list of studies passed.

Rule VII. This certificate shall by correspondence be verified by the college to which a student may apply for admission. Without such certificate no student shall be received by any college recognized by this board for admission to advanced grades, and only on such conditions as would have been imposed by the original college, and these may be ascertained by conference or correspondence.

STANDING OF STUDENTS HOLDING CERTIFICATES FROM COLLEGES IN FOREIGN COUNTRIES.

Rule VIII. Persons holding certificates from colleges of dentistry in foreign countries, shall be required to furnish properly attested evidence of study, attendance upon lectures, examinations passed satisfactorily, etc., the same as is required of students coming from institutions in the United States.

Students coming from foreign countries who speak the English language may be given credit for the time passed in any foreign college recognized by this board. No student coming from any foreign country shall be received as a student in course with the view of final graduation and given advanced standing by any college until his credentials shall have been approved by the proper authorities of the country from which he claims to have come.

ADVANCE STANDING AND ADMISSION OF GRADUATES OF MEDICINE.

Rule IX. Advance standing in the classes shall not be given students except in the following instances:

First. Where a student shall have taken a full-course in a school recognized by this board and shall have successfully passed the required examination.

Second. When a student shall present evidence of graduation from a reputable medical college he may receive one year's advance standing in a dental school.

Rule X. Examinations conducted by colleges shall be in the English language only.

Rule XI. Any student who is suspended or expelled for cause from any dental college shall not be received by any other dental college during that current session. In case the action of the first college is expulsion, the student shall not be given credit at any time for the year's course from which he was expelled. Any college suspending or expelling any student shall at once notify all other dental colleges of its action. Students are required to obey the laws regulating the practice of dentistry.

Rule XII. Colleges shall each year issue announcements containing lists of their students classified in the grades of freshman, junior and senior; designating absentees, irregulars and specials, and giving a list of graduates of the preceding sessions.

Rule XIII. No dental college shall confer any degree as honorary, which is usually granted in due course of study and after examinations.

Rule XIV. No credit for the time of study pursued in any dental college not recognized as reputable by this board shall be allowed by any dental school.

Rule XV. There shall be graded courses of instruction, each course to be followed by examination thereon.

Rule XVI. Candidates for graduation must have completed the regular course of lectures as above stated, and must have passed satisfactory examination in the studies named in these rules and any additional studies named in the college curriculum schedule. They must also furnish creditable evidence of having complied with Rules I, II, XI and XVI. Schools must not graduate students who have failed in more than one study of the regular course or

who at the time of graduation have not succeeded in completing 75 per cent of the required clinical operative, and prosthetic work.

Rule XVII. A graduate of a recognized dental college, who applies to another college for its degree, shall complete one full year course or more of instruction in said college and comply with the requirements of the senior class or its equivalent.

Rule XVIII. The president or the board of dental examiners may appoint a committee or committees to investigate any complaints or charges against a recognized dental college, or any other matter that may in any way come to his or their knowledge which in his or their opinion may require investigation.

Rule XIX. Colleges will be recognized or recommended only when there has been actually secured by purchase or lease, and fitted up with all required equipment, a sufficiently commodious and convenient building or part of building entirely adequate to the needs of reputable dental college. Such equipment shall include not only the laboratories, etc., with proper chairs, benches, and all other apparatus required for complete, practical dental instructions; but also the rooms and fittings necessary for scientific training, with apparatus necessary for the proper teaching of Baeteriology, Histology, Microscopy, Chemistry, and such other scientific studies as should form a part of an advanced dental curriculum of study, and as are required by these rules.

The character and attainments of its faculty, which must already have been named with the respective positions they are to occupy, must be such as to give assurance that the school will be conducted in a manner to insure complete and adequate instruction in all branches of a good dental curriculum of study.

Rule XX. Credit shall not be given colleges recognized by this board for courses of instruction which do not commence in the morning and continue through the day.

Rule XXI. In the publication of names of students in the annual annuancements of colleges recognized by this board, those students who have been transferred during the session shall be indicated. All certificates of preliminary educational qualifications of such students before being accepted shall be verified by correspondence with the authorities issuing said certificates.

Rule XXII. A careful arrangement of the curriculum is recommended. Proper records shall be kept of the attendance, examina-

tions, markings and standing of each student for reference for at least one year after graduation.

Rule XXIII. Colleges, in order to obtain recognition, must through their officers, make application to the board, accompanying it with authentic copies of the announcements, schedules of lectures, quiz and examination question, or so much of them as the board may require, to form an intelligent judgment, and there should also be furnished a statement of the equipment and facilities of the institution, and its legal status in other states, particularly its home state, if not located in Iowa.

Rule XXIV. Although a college may have been recognized by this board as reputable, the board reserves the right to withdraw such recognition at any time, when it may deem it for the best interests of the public to do so. The failure of any college to live up to its profession and published announcements may involve such withdrawal of recognition. The president and secretary of the board are authorized to suspend such recognition pending an investigation, when any charge or facts come under their observation affecting the standing of such colleges. In addition to the minimum requirements established by the board, colleges will be held to a strict compliance with all their own published requirements, and to the observance of all rules which they profess to observe and any material deviation therefrom coming to the knowledge of the board may be held sufficient grounds for suspension of recognition, as above stated.

Rule XXV. No college shall be, or continue to be, recognized by this board if said college is managed or conducted in whole or in part by any person or persons who do not practice dentistry in accordance with well recognized and generally accepted forms, usually known as dental ethics; or if owned in whole or in part by men or women who are engaged in disreputable dental practice or having upon its list of trustees, in its faculties, among its demonstrators, or in any capacity, anyone who does not practice dentistry in accordance with principles above mentioned. And no college shall be or continue to be recognized by this board which by itself or any member of its faculty or by any of its officers, trustees, directors or agents shall be found guilty of the sale of a diploma or diplomas or any degree or certificate of merit in scholarship or standing which has not been earned in due course. The judgment and conclusion of the board of examiners, upon all questions arising under these

rules, shall be absolutely final and conclusive as to all parties concerned, unless reversed by the decision of a court of competent jurisdiction.

Rule XXVI. Any person desiring to practice dentistry in the state of Iowa, who is a graduate of, and has a diploma from, the faculty of a reputable dental college, school or dental department of a reputable university; may come before the board at any of its regular meetings for examination in the several branches of dentistry, and if found profesent, the board will issue to the said candidate a license to practice.

EXAMINATIONS AND LICENSES.

Rule XXVII. Each candidate for examination must present a diploma from a school recognized as reputable by this board and if found proficient a license shall be issued on payment of a fee of \$20.00. No license shall be issued to any candidate except after successful examination by the board at a regular or special meeting.

Rule XXVIII. (Miscellaneous Rules.) There shall be two or more regular meetings of the board each year, time and place to be determined by president and secretary. Annual meeting may be held during the session of the annual state dental society. Due notice of all meetings for examination of candidates for license shall be published in leading dental journals at least one month in advance of time. And a notice mailed by secretary to each person who may apply for license.

Rule XXIX. Examinations shall be practical, or all or in writing or partly or all or written, as may be determined, and shall be in the English language.

Rule XXX. Theoretical examination in the following subjects must make a general average of 80 per cent: Anatomy, Physiology, Chemistry, Materia Medica, Pathology, Therapeutics, Bacteriology Hygiene, Histology, Oral Surgery, Metallurgy, Prosthetic Dentistry, Operative Dentistry, Orthodontia and Jurisprudence.

Rule XXXI. Clinical demonstration will be required of each applicant, the nature to be determined by the board. Candidates must furnish all needed materials and operating instruments, engine included. Cavities must be prepared in presence of the board.

Rule XXXII. At the opening of the examination the applicant will be furnished with envelope containing numbered card. The applicant will write the name and address upon the card, seal the envelope and use this number on all examination papers. The sealed envelopes will at conclusion of the written examination be handed to the secretary and must not be opened until all papers are graded.

Rule XXXIII. Any candidate detected trying to give or obtain aid from a fellow candidate shall be dismissed from examination and his or her paper for the entire examination rejected.

Rule XXXIV. Applicants are expected to be promptly on time at the place of examination. One subject at a time will be taken, and must be completed by all the class before taking another subject. Read questions very carefully. Do not give information not asked for.

Rule XXXV. An applicant failing to pass the required per cent may appear before the board at the next regular examination. A failure to pass second examination will debar candidate from further examination by this board unless full fee is paid and complete examination taken.

Rule XXXVI. The law does not permit board to issue temporary license, hence failure of any applicant to secure proper grade debars from practice. This rule will be strictly enforced.

Rule XXXVII. The board shall begin the inspection of papers submitted immediately after the close of the session and shall complete the same as promptly as possible to insure careful inspection.

Rule XXXVIII. Write answers in the order of the questions. Do not copy question, but write the number of each question in Roman numerals in the center of page before the answer.

Rule XXXIX. Papers containing the questions must be returned intact with the answers.

Rule XL. An applicant for exchange certificate must be a member of the State Society of Iowa as this requirement is demanded by other states having reciprocity laws.

Rule XLI. All licenses must be recorded in the clerk's office in the county in which the holder is practicing. A license is of no legal value until it is recorded.

The next meeting of the board of dental examiners for examination will be held at Iowa City, June....., December.....

REGISTERED DENTISTS OF IOWA.

* indicates deceased; † indicates gone; ! indicates retired.

	T*Manchester
Ableiter, I	C. A
Ackert, C.	. B*Galva
Ackley, E.	JKeokuk
Adair, W.	SKellogg
Adams, M	. J
Adams, C.	F West Bay City, Mich.
Adamson,	S. TMalvern
Addington	EarlMarengo
Ahlenfeld.	Theodore
Akers, L.	PDes Moines
	L. COchevedan
	D. R
Alderman	L. R*Traer
Allen L	D
Allender I	CtJefferson
Allen H	D
Allon Flor	rietta FBerthand, Colo.
Allen E	rietta F Berthand, Colo,
	HCresco
Allwine E	SJewell Junction
Alleander	I. WtDes Moines
Allender,	C. AtUnion
Allender, 1	L. C
Allison, R.	JMason City
	T. EChicago
	BMuscatine
	AManchester
Amsdell, I	. JtFairbank
	R. W
	F. ESioux Rapids
Andrus, E.	DSeattle, Wash.
Anger, G.	WtBrooklyn
Anderson,	M. FDayton
Anger, H.	WVictor
	G. JNew London
Anderson,	A. GDecorah

Anderson, J. EPaton
Anderson, J. MLake Mills
Anderson, C. EMadrid
Anderson, W. LChariton
Anger, A. EBrooklyn
Applebee, J. OCuba, Ill.
Arthur, S. HScranton
Arnold, R. JLeon
Arnold, F. JWayland
Armstrong, L. HOttumwa
Armstrong, J. NOttumwa
Armstrong, F. T
Arthur, S. WNevada
Archer, G. StSanborn
Artman, C. P
Atkinson, ADavenport
Averill, W. SAfton
Avery, G. ECherokee
Axtell, T. WSiloam Springs, Ark.
Ayers, M. BDubuque
Aylworth, B. HIowa City
Bartlett, D. E
Backus, R. D
Barton, S. G
Barker, W. HDakota
Barker, A. DGrinnell
Barker, S. GJefferson
Babcock, G. M
Babcok, J. EtMuscatine
Baird, H. MSt. Louis, Mo.
Baneroft, S. CtLansing
Barnhart, H. C
Bandy, R. STipton
Bandy, R. S
Baker, S. H†Des Moines
Baker, C. R
Baker, W. G
Baker, J. D
Baker, J. D
Balk, Frank
Ball, E. H
Ball, E. H
Ball, J. W
Ball, J. O
Baldwin, R. W
Baldwin, H. L
Ballard, F. A
Bachman, O. B
Baldwin, F. E
Baldwin, F. E

Baughman, G. PWhat Cheer
Barnard, L. OPerry
Baumer, J. B
Bain, R. C Lorimor
Barth, W. HGreat Falls, Mont.
Bauldauf, L. WtOskaloosa
Bardwell, G. RBelle Plaine
Barnaby, W. JCedar Rapids
Bates, N. J
Bailey, ECharles City
Baird, W. H
Beyer, C. PWaverly
Beemer, G. N
Belding, G. H
Besore, C. PIda Grove
Besore, C. F
Bentley, S. F
Beardsley, C. B
Beers, T. L
Beers, C. J
Beers, A. O*Seattle, Wash.
Berg, N. C. A
Bender, E. P
Bernard, W. G*Riverside
Berry, R. G
Berghart, H. D
Bettice, Dan'l
Begun, A. R
Besore, J. H
Bedford, L. N
Bedford E
Bell, J. H
Bennett, J. BtKeokuk
Bergstresser, E
Beemis, O. HBancroft
Beach, A. W. Sheldon
Belding, H. H
Bevier, G. I
Beason, S. A
Berkley, N. C
Beams, F. N. Laurens
Beason, Mary L
Beason, S. A
Bennett, F. H. Fairbanks
Benedict, J. H
Bergstresser, C
Beecher, S. E
Benson, G. C
Beck, A. A
Seck, A. A

Beeman, C. ECedar Rapids
Beckman, F. SGrundy Center
Becker, A. FDes Moines
Beach, C. LHull
Bent, C. AMount Ayr
Bissell, E. HtIndependence
Bissell, E. M Independence
Bishop, J. HExira
Bishop, J. W St. Charles
Billings, C. ANorth Dakota
Billings, J. WGrinnell
Bitts, EtOelwein
Birchard, J. AMuscatine
Birchard, T. LKellogg
Bingham, F. NDes Moines
Bing, J. J
Birby R T. Union
Bidwell: E
Bigger, L. F
Plachley H W
Plachley C W
Blakemore N G
Disheelee A W
Ploam F M
Dieke I W
Disks F G
Plack G C
Rinck T I
Plack I CKeota
Pleak A T
Blanev R E Boone
Planchard F C
Plant C T. Sloux City
Plies T A Ruthven
Plasma P W
Plickenstaff W
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A P
Posset I C Brookings, S. D.
Deale E C
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Waterioo
TT TT
Borchers, F. J. TWaterloo

Bompke, M. PMuscatine
Bowles, H. JAtoka, Ind. Ter.
Braun, CDayenport
Brant, C. TChariton
Brandt, W. FWalnut
Brady, F. M*Osceola
Brady, W. J
Brady, Augusta H
Brady, T. B
Bradley, C. C
Bradley, W. OSpokane, Wash.
Braley, EBritt
Brandt, G. CtDenison
Brandt, C. R. MNeola
Bradshaw, P. R
Bradshaw, P. R
Bradshaw, W. COgden
Bradshaw, D. F Lehigh
Bradfield, N. S
Branson, L. L
Bradner, F. C Des Moines
Brewster, T. KOskaloosa
Brewer, G. C
Breene, F. T
Breen, M. HPorterville, Cal.
Brett, D. C
Brett, J. WMediapolis
Brenner, G. P
Brower, E. D Le Mars
Brown, R. L
Brown, C. W*Decorah
Brown, J. P
Brown, J. E
Brown, G. C
Brown, A. L
Brown, D. JOttumwa
Brown, W. H
Brown, H. A
Brown, L. AtManley Junction
Brown, F. J
Brown, S. CLas Vegas, New Mexico
Brown, W. A
Brown, C. H
Brown, Esther MStaceyville
Brown, C. A
Brown, G. V. I
Brownlie, I. C
Brownlee, E. C
Browning, E. W. Morning Sun
browning, E. W

Brooks, E. L*Vinton
Brooks, G
Brock, G. G
Brock, B. C
Brock, H. B Lone Tree
Brock, A. J
Bronson, E. T
Bronson, A. ESeymour
Bronson, J. L
Brookfield, B. M
Brotherton, S. S
Brierly, M. R
Bruner, C. W
Bruner, GrantFort Dodge
Bruner, Grant
Bruening, E. H
Bruce, G. R
Brunson, I. C
Brunson, A. FNora Springs
Bryant, H. F
Burrows, Cyrus Washington
Burris, G. H
Burris, C. M
Burgess, W. BNess City, Kan.
Burns, J. J
Burchell, F. P
Burkhart, W. EIdaho
Bull, T. JtPella
Bull, M. M Jefferson
Bullard, W. E
Budd, J. EDuluth, Minn.
Burler, D. I
Buckley, C. R
Byrkitt, G. M
Byers, R. E
Boysen, F. A
Bowers, C. K
Calvert, W. B
Cain, W. P
Carter, F. ABay Horse, Idaho
Carter, E. Lsioux City
Carpenter, G. A
Carpenter, L. D
Carpenter, M. M
Capron, A. J
Caldwell, J. W
Carson, F. R
Carson, H. AtEstherville
Casey, C. L
Casebeer, Bessie STiptor

Calkins, C. DWaterloo
Carr, C. WBuxton
Caradine, W. H
Carroll, O. VBussey
Carroll, W. DDavenport
Calhoun, J. F
Case, R. ADavenport
Carey, F. P
Carney, E. B
Carl, C. EMorning Sun
Carter, E. OIowa Falls
Carratte, EdithSpokane, Wash.
Carratte, R. HSpokane, Wash.
Carrick, C. C
Cameron, W. W
Cameron, W. J
Campbell, E. J
Cannon, W. L
Castello, Dan'lGrand Rapids, Mich.
Cabeen, J. B
Caywood, H. E Lake Park
Channell, W. P
Chamberlin, F. CtClarinda
Chamberlain, Louis
Chambers, W. M
Chandler, V. K
Chapman, F. P
Chapman, W. HBurlington
Chandler, R. E
Chase, H. H La Crosse, Wis.
Charters, W. J Des Moines
Cheney, A. M
Check, F. J
Choate, W. N
Christiansen, C. EHarlan
Chesebro, M. B
Childs, A. E
Christie, B. L
Chinburg, S. I
Clarke, R. H
Clarke, O. GtNorth English
Clarke, C. A
Clarke, L. E
Clarke, F. B
Clarke, R*Dubuque
Clarke, J. E
Clarke, W. P
Clark, A. E
Clark, W. R
Clark, W. RClear Lake

Clark, F. CNew Sharon
Clark, W. GChicogo, Ill
Clark, A. B
Clark, G. WFort Dodge
Clark, A. D
Clark, G. A Eau Claire, Wis.
Clark, F. C
Clark, R. H
Cleland, JDavenport
Clemmens, Henry Amana
Clemmer, J. J
Clinite, J. IEstherville
Conner, F. NOmaha, Neb'r.
Conner, R. S Des Moines
Cochran, R. LBurlington
Cochrane, L. WMonroe
Cochrane, J. A
Coe, D. MWinterset
Cole Wm
Cole, G. B
Cole A H
Condon I M
Condon I I
Coulson Tosse
Coughlin W I
Countryman C C
Courtney W C Winnebago City, Minn.
Courtright E E
Conzett I V
Cope C. W
Colling T P
Collins, G. WVermillion, S. D.
Colling F B
Cobb C M
Coleman, W. FtDecorah
Colton, E. EColorado
Condon A P
Coluir T W
Cornell D D
Corley C O Shenandoan
Conn F K
Cook H M
Cook H D
Clock A I
Cooks T F
Colby I E
Colby E T
Colber N F
Corbus, R. C*Hull

Colder, J. HCedar Rapids
Cornwell, E. HMilwaukee, Wis.
Cornish, M. SAlton
Cooper, R. SWinterset
Cox, W. AMoline, Ill.
Collison, D. AMarshalltown
Cooley, C. CArlington
Conant, M. AChurdan
Coffin, T. EOskaloosa
Cory, H. H
Connole, C. V
Cory, F. MDes Moines
Copps, H, RDes Moines
Cowan, W. AState Center
Conover, J. F
Conover, F. W
Covalt, Scott
Conger, L. JAkron
Connell, G. D
Conley, W. TTyndale, S. D.
Coon, L. BNew Virginia
Crawford, W. M
Crawford, C. W*Spencer
Crawford, E. M*Vinton
Crawford, R. WBaxter
Crawford, GuyDumont
Crawford, P. F
Crane, L. EtDes Moines
Crane, L. F
Craven, J. G
Crandall, W. G
Creswell, W. B
Cress, G. T
Cress, Geo
Cretors, C. R
Creath, W. E Ottumwa
Creighton, D. M Mediapolis
Cross, A. M
Crooks, W. BWashington
Crose, R. BShenandoah
Crose, R. B
Crouch, C. C
Crichfield, F. W
Crumm, A. EBoone
Cullum, M. B
Cullum, R. H
Cutler, A. B
Cutler, D. EOsage
Cutler, EarleOsage
Cutter, Barrie

Culmsee, C. F	
Currer, G. R Sloux City	
Currie, A. LMonona	
Curran, J. J	
Cunningham, G. WLe Mars	
Daly, D. V	
Daly, T. H	
Daly, F. T	
Day, C. NLucas	
Davidson A C	
Davidson, W. E	
Davis, F	
Davis, F. H	
Davis, J. COelwein	
Davis, F. HBroadhead, Wis.	
Davis, J. D. C	
Davis, J. A	
Davis, Loyd	
Davis, W. COskaloosa	
Davis, H. S	
Davis, H. S	
Dalzell, H. M	3
Dalzell, H. M	
Daizell, Mrs. E. A	t
Daugherty, M. J*Bruch Creek	0
Dawson, E. S	8
Darling, L. M	1
Darling, J. H	r
Darnell, G. WBurlington	1
Dana, A. W	
Darling, A. D	n
Dannott, E. G Lowder	a
Danes, L. R	600
Damon, R. ELanning	D.
De Bey, C	4
De Armand, L. G	W.
Dey Ermand, W. J	12
De Ford, Mrs. J. M. R	10
De Ford, W. H	123
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Dearborn, Helen TRed Os	K

Dennis, A. B	
Denise, O. HBurlington	
Denzler, John	
Denault, E. VLadd, Ill.	
Derivan, H. BForest City	
Dewey, D. J	
Dempsey, P. FWaukon	
Derr, J. W*Grinnell	
Devereaux, T. EFort Dodge	
Devereaux, C. H	
Devereaux, C. CFort Dodge	*
Devereaux, H. CAlgona	
Devaney, W. L	
Deetken, J. CCouncil Bluffs	
Decker, H. MDavenport	
Deebe, W. EWaterloo	
Dewell, Wells	
Dexter, Clement	
Dessaint, L. RDavenport	
Dewey, J. BWest Union	
Dellahoyde, HughMurray	
Detwiler Coroline	
Dickinson, W. P	
Dickinson, H. HCouncil Bluffs	
Dickson, H. O Des Moines	
Dixon, F. LRock Valley	
Diffenbacker, D. SColorado	
Diffenbacker, B. LYork, Neb.	
Dille, A. A*Kellogg	
Dingwell, A	
Diehl C E Eldora	
Diamond P. T	
Dillingham, E. H	
Dorman I M	
Dorman, C. WStrawberry Point	
Dorman Harry	
Dorman, L. C	
Dorman, J. M	
Dorman, O. S	
Dorman, J. EFayette	
Dorman, C. WFayette	
Downs, F. F*Davenport	
Downing, C. HDelta	
Downey T W State Center	
Dowling I B	
Dow, L. CMarion	
Dowdy S C):
Dorward W N Omaha, Neb.	
Doran, F. W	
Duran, P. Harrister, C. L. Control of the Control o	

Doering, F. EDavenport
Doughty, A. AOklahoma
Dodds, Logan
Doolittle, M. J Lanark, Ill.
Donaldson, W. W
Donnan, W. AKeystone
Donahue, E. M
Dorr, P. P Fort Dodge
Dolan, J. P
Dodge, C. A
Dobson, G. H
Doran, O. D
Doran, J. WBennett
Drummond, C. EOsage
Driver, W. WShenandoah
Drake, D. DAudubon
Drees, L. J
Dunlavey, W. LGravity
Dunlap, Frank
Dunham, O. AManchester
Duncan, H. E
Duncan, W
Duncan, A. LSanborn
Dunkle, C. SGilman
Dudley, D. RMount Ayr
Dueser, F. H
Dunning, W. SOttumwa
Du Bois, L. L
Dulitz, E. A
Dwight, J. HDes Moines
Dwight, W. HLe Mars
Dwight C F
Dwyer, J. W
Duncan, H. D
Duffy, M. HBussey
Eaton, A. V Effingham, Ills.
Eaton, A. DStrawberry Point
Eaton, JohnSabula
Eaton, H. MStrawberry Point
Eaton, C. ROxford Junction
Easterly, C. AManning
Ebi, EdwardtCedar Rapids
Eberhart, A. EMason City
Eberhart, F. VDes Molnes
Echternacht, H. F
Edwards, S. L*Des Moines
Edwards, S. L
Edwards, H. N
Edgars, E. B
Edginton, G. H

Edwards, A. UCambridge
Edwards, F. M
Egbert, Morton
Ehlers, F. F
Eichar, Cora L
Eichelberg, G. C
Eisenbrand, G. F
Ellsworth, P. J Oskaloosa
Ellis, G
Ellis, J. B
Ellis, G. H
Ellis, I. N
Ellis, I. N
Ellis, W. H
Ellis, W. H
Ellis, W. HLohrville
Ellis, G. CBellevue
Eller, C. L
Eller, L. ROllie
Elmquist, H. AEast Des Moines
Emory, F. WtWest Union
Ensign, E*Algona
Entrikin, J. B Des Moines
Englemann, A. UKelsey
Engle H SLineville
Erkenbreck W M
Erb B F
Furet C E
Est B H Grundy Center
Feblomen F R
Eshloman C D
Feblumen G W
Protice W C
English E I.
Display C M
Throng A T
Errong C T
Evans, C. HtDes Moines
Echbury, A. N
Fairchild, A. FManchester
Fairchild, A. F
Fairall, J. AElkader Faber, A. J
Falis, R. WDubuque
Fallis, R. W
Farley, G. E Madrid
Farlein, J. A
Farrand, C. H
Farnsworth, F. W
Farnsworth, F. W
Ferguson, J. TtClarinda
Ferris, F. ECalifornia

Ferris, A. N	
Ferguson, F. LtEstherville	
Ferreby, T. GHumboldt	
Fellows, R. LWest Union	
Fear, M. FGreen City, Mo.	
Ferstenberg, W. F	
Fisher, G. E	
Fisher, H. PLyons	
Fisher, C. K	
Fish, W. EAnita	
Finn, WmCedar Rapids	
Fields, L. SSanborn	
Fitzgerald, E. G	
Fletcher, H. AKansas	
Fleener, J. AOskaloosa	
Foulring, J. WAlbia	
Fourt, FrankFairfield	
Foot, L. LRichland	
Forbes, L. SNashua	i.
Fordyce, B. WtClarinda	į.
Fordyce, ChesterGuthrie Center	ė.
Foster, J. JtWashington	1
Foster, H. A	ď
Foster, C. GNorth English	i
Fogarty, J. AGlenwood	ı
Fowler, J. H	·
Ford, A. MBloomfield	i
Follansbee, H. E	
Forney, J. E	K
Forney, J. WArispe	e
Foltz, H. APerry	y
Frank, A. JMoravia	a
Frazier, M. CNevada	a
Frazier, M. C	n
Francis, T. P	v
Frey, J. A	1.
Freemin, A. J	r
Freemire, F. N	e
Frazee, B. O	k
Frazee, B. OLincoln, Nel	b.
Fraser, M. O	v
Frush, B. CPell	a
Frahm, F. W	g
Frank, F. W	100
Fuller, C. StLyon	00
Fuller, G. W	0
Fullerton, L. K	10
Fullerton, K. M	MED MED
Fullerton, K. M	D
Fink, R. AFargo, N. I	100

Fuermann, F. WFt. Dodge
Funston, G. EWaterloo
Garretson, C. FKnoxville
Garretson, W. RColorado
Gaston, S. M
Garber, S. A*Tipton
Garber, T. WtWoodbine
Garfield, L. K
Gaylard, C. MtMason City
Gardiner, TtClear Lake
Gardner, H. H
Gardiner, J. EtWest Point
Gardner, F. LMuscatine
Gardner, C. E
Gallagher, F. JAshton
Gallagher, O. HGrinnell
Gant, C. HMuscatine
Gant, S. M
Gant, W. AtClinton
Gantz, H. H
Galloway, C. C
Galloway, W. P
Galloway, W. P
Gary, A. G
Gary, A. G
Ganoe, O. E
Gabriel, W. N
Galbraith, H
Gaumer, A. W
Gaumer, R. R
Gates, A. GLivermore
Gates, Hanna D
Genung, G. E
Gist, N. HLewis
Given, P. F
Gill, B. HPrairie City
Gibford, H. T
Gibbs, H. EKensett
Girls, C. LMuscatine
Gibbon, E. ABellevue
Glddings, E. T
Glantz, IdaBurlington
Glass, H. L
Clienter II C
Clasion A D
Cuiden M D
Clines A S
Cleaves A D
Close A W Monmouth, III.
Gladson, R. EKnoxville

Glew, H. M	Preston
Gleason, C. A	Mount Horeb, Wis.
Gore, Mrs. J. B.	
Gore, F. A	
Gould, J. B	
Gould, C. F	
Gouchenour, W. P.	
Goble, M. D.	
Gormley, T. A	
Godlove, G. W.	
Godlove, L. L.	
Godshall, O.	
Goodsell, E. H.	
Goodenough, G. D.	Coverie
Goodearle, L. M	Mason City
Goldthorpe, F. J.	La Motta
	Cleanenay
Goldsmithh, W. S	
Golly, C. E	Spencer
Gowdy, H. L	Alturas, Cal.
Gothard, E. H	Aituras, Cai.
Graham, G. D	Nasnua
Graham, J. A	Ocneyedan
Gramm, C. G	Chicago, III.
Gramm, S. C	Кеокик
Graham, A. B	Montezuma
Green, E. B	Marengo
Green, A. W	
Green, A. G	
Green, O. N	Newton
Greene, E. A	
Greene, J. E	
Greene, O. E	
Greeno, J. F	
Greenawalt P A	La Motte
Greenwood W H B	Oelwein
Chang T M	Waverly
Grout I I	New YORK
Court I C	
Charge W A	
Cours C C	tCedar Rapids
Chara I C	Owatonna
Count C C	
Character T D	Stuart
- T TT	Manchester, Ind.
Com C T	Manchester, Ind.
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or toward the last	Atlantic
Griffin, F. M	
Grining E. Marris and Control of the	

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Griffin, L. HTwin Falls, Idah)
m A Maicoim, III	*
George 1d T	S
Califor T P	1
Change V M	e
Gregg, V. M	y.
Gurney, L. ECouncil Bluff	S
Hardman, Jos*Muscatin	e
Hardman, J. F).
Hardman, J. FEpwort	h
Harkinson, J. L	y
Harkinson, J. LtBlanchar	d
Harkness, B. B	S
Harrell, F. MAudubo	n
Harris, R. L	n
Harris, C. S*Keot	a
Harder, J. C*Keot	a
Harter, C. WKeot	h
Harter, Ida MtNorth Englis	9
Hart, Fred	la.
Harmon, W. R	m
Harmon, J. B	m
Harmon, J. B	TT.
Harned, C. W	3
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Hall, O. CRockwell City
Hall, R. WSanborn
Hall, E. A
Haller, W. EWalcott
Hayes, J. BDavenport
Hayes, C. L
Hays, A. SWashington
Hazelton, H. B. JrToledo
Hathaway, J. Clowa Falls
Haines, C. ECenter Point
Hazen, C. C
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Haffa, H. D
Hasek, V. OCedar Rapids
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Hancock, R. LBelle Plaine
Hautsch, F. AMuscatine
Huser, H. PCenter Point
Traine D D
Hanofin, T. F
Unight P F
Hamlin F CPerry
Hanson, N. WDes Moines
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Hollingsworth, W. GSheboygan
Holt, E. TWebster City
Holt, F. J
Holden, C. S
Holden, E. ESloux City
Hollenbeck, C. D
Hollenbeck, T. BBoone
Holaday, S. FStratford
Hoag, C. EWapello
Hoag, G. W
Hobbs, J. MFort Madison
Hodge, A. SMaquoeta
Hodge, L. DArkansas City, Kan.
Hodges, S. T Earlham
Hockabout, WmBlanchard
Hockabout, S. JCoin
Homer, AtWaterloo
Hodgin, W. ESpringville
Hoover, C. DAlbia
Hood G. TRockwell City
Hopkins, A. FClinton
Hopkins, C. LRawlins, Wyo.
Hopkins, R. LSterling, Ill.
Hope, B. NEagle Grove
Horton, Mary CtWellman
Horton, F. WEldora
Horton, J. PTingley
Hoover, M. SPerry
Hosford, W. SIowa City
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Houghawont, J. WFort Dodge
Houston R CEmerson
Houston, G. BCenterville
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Hyatt, F. B
Heverly, S. T*Keokuk
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Jacobs, C. HFountain City, Wis.
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James, T. L
James, F. BWilton
Jankens, W. GFort Dodge
Jarrett, J. VCentral City, Neb.
Jayne, W. BWest Liberty
Jeffers, W. JElkader
Jeffers, L. L
Jeffries, C. HCouncil Bluffs
Jenkins, F. LVillisca
Jenson, JasCedar Falls
Jerrel, C. OMount Pleasant
Johnson, J. H
Johnson, S. KSioux City
Johnson, F. AHolstein
Johnson OtCedar Falls
Johnson, ARoland
Johnson, A. BMallard
Johnson, C. VCouncil Bluffs
Johnson, T. WLake City
Jones, N. Qtlowa Falls
Jones, J. PBentonsport
Jones, A+Des Moines
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Kellogg, L. F
Kellogg, A. ECresco
Kellogg, H. HSioux City
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Kelley, M. J
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Kemp, F. N
Kennedy, J. R
Kennedy, C. M
Kennedy, E. FFort Dodge
Kennedy, J. MEldon
Kennedy, Jas
Kenney, R. BEssex
Kenderdine, W. H
Kern, F. JDubuque
Kepford, J. CMilford
Kerr, J. S
Kerr, E. N*Newton
Kerrigan, J. A
Kettell, H. CJefferson
Ketchum, H. H
Kidder, R. EEmmetsburg
Kier, G. PEldora
Killingsworth, D. H
King, J. WFort Dodge
King, G. EVillisca
King, O. ABlairstown
King, FrankRolfe
King, C. A
Kinsley, J. D Lisbon
Kinner, M. R
Winnen H A
Kinney H E
Figher A II
Wiels D C Shellsburg, Wis.
Wishnatelek P
Kittoe, J. F*Cedar Rapids

Kiser, E. LQuasqueton	
Kline, H. JLogansport, Ind.	
Klaffenbach, A. OMuscatine	
Knapp, H. G	
Knapp, JohnBoone	
Knapp, W. TtCharles City	
Knepper, G	
Knight, N. P	
Knott, H. A West Liberty	
Knott, F. W	
Knowles, A. C	
Knoll, T. F	
Knoll, O. ADubuque	
Koch, V. EJoplin, Mo.	
Kruger, L. FGarnavillo	
Kratz, W. FBurlington	
Krieg, J. A	
Kulp, J. HtDavenport	
Kulp, W. O*Davenport	
Kulp, J. SMuscatine	
Kulp, J. RDavenport	
Kulp, D. EWest Bend	
Kulp, C. J Muscatine	
Kulander, HSwea City	
Kuehn, F. JPrimghar	
Kuster, S. WRemsen	
Kinney, C. LEssex	
Lacey, C. BSloan	
Lahman, R. CMissouri Valley	
Laird, J. O	i
Laird, C. E Des Moines	
Lally, F. E. VSioux City	
Lambert, N. MSpringfield, Ill	
Lane, W. H	1
Lane, A. HChicago	5
Lanning, G. RSloux City	
Lange, LtDavenpor	
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Landee, G. ADunlay	D
Larmer, C. V	
Lattig, H. S	n
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Lathrop, C. M	n
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Lewis, C. B
Lingo, A. M
Little, J. J
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Littlefield, A. H
Lister, C. S
Lockhart, W. T
Lockwood, W. B
Logan, R. C. Des Moines Logan, R. C. Des Moines
Logan, R. C. Dubuque Long, C. J. West Liberty
Long, C. J
Long, W. M. Des Moines Long, A. R. Eddyville
Long, A. R
Long, Martin
Loring, W. W
TOTAL STATE OF THE

Love, H. L	Provost City, Utah
Love, D. T	
Lowe, J. R	Nebraska
Lowry, W. D.	Davenport
Lowry, L. S	tKeokuk
Lotts, E. G	Dows
Lucke P P	Le Mars
Lupton, L. A	Toledo
Lundell, H. W	Webster City
Lutz, I. D	Boone
Lynch, O. E	Des Moines
Lynn, T. M	Grundy Center
Lynn, W. R.	Grundy Center
Lynn, A. A	La Porte
Lynn, E. C	State Center
Lybe, D. I	Sidney
Lyon, W. W	Garwin
Lyon, H. E	Buffalo Center
Lyons, G. E	Grand Island, Neb.
Lyon, D. E	Jefferson
McAbery, E. G	Chicago
McAllister, H. M	Pella
McBeath, Wm.	Madrid
McBean, A. O	Grafton, Wis.
McBoyle, R. E	Mendota, Ill.
McBall, A. D.	Atlantic
	Council Bluffs
McCall, S. W	Osage
McCabe, M. B	*Nora Springs
McCarty, W. W	Des Moines
McCarty, A. L.	Des Moines
McCarty, A. L	tDavenport
McCandless, A. S	Marshalltown
McCandless, A. S	Davenport
McCarthy, C. B	Story City
McCartney, E. F.	Sloux City
McCartney, E. F	Thurman
McCartney, O. E	Rockwell
McCalman, C. S	*Keosaugua
McClurg, J. A	Corydon
McClanahan, W. P	Iowa Falls
McClanahan, W. B	Milton
McClanahan, W. B	Glenwood
McClelland F.	Titte Tite

McConnaughey, S. DBrighton
Washington Washington
McConnaughey, C. H
McConneugher R ODenison
MaCov T P
McConn, M. LtBloomfield
McCord, A. IRiverton
McCormack, A. J
McDavitt, W. GtDavenport
McDonald, W. FOttumwa
McDonald, W. F
McErlain, J. AGuttenburg
McElwain, W. D
McElwain, P. W
McElwain, P. W
McElderry, C. A
McEvoy, R. D
McEvoy, J. MDelta
McEvoy, M. LMassena
McEvoy, A. EDubuque
McEwen, E
McFadden, C. CSherburn, Minn.
McFarland, J. FDubuque
McGregor H V
McGregor, P
McCorvey I. E
McCredi T C Savannan, III.
McChira T H
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McParland, J. F Dubuque
McQuillen, E
McStay, E. E
McSwiggin, J. FVictor
McVay, J. ECresco
McVay, H. REddyville
Mabee, O. P
Mackey, T. DKeokuk
Maguire, J. O
Magruder, G. RHubbard
Mahood, D. GWebster City
Mahood, L. MSioux City
Maxfield, J. JIndianola
Maxfield, H. BFairmount, Ill.
Maxon, L. JCedar Rapids
Maxwell, W. AAvoca
Manker, J. WRed Oak
Manker, G. FBedford
Manker, LewisNebraska
Mansfield, F. JBurlington
Mather, J. WLamoni
Mather, W. JLamoni
Mathews, L. NDes Moines
Matthews, W. H Denver, Colo.
Matthews I. D. Denver, Colo,
Matheson, G. A
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Maercklein, R. EMilwaukee Wis.
Maurice, A. M
Maurice, A. M. Eau Claire, Wis.
Mason, V. V
Marion, J. W
Mason, C. J
Melon, Frank
Meyers, R. D
Meyers, L. G
Mershon, G. AMarshalltown
Merrill, A. F
Merrill, F. B
Merner, DCedar Falls
Meis, W. ADubuque
Merrick, R. FSioux City
Means, J. JGreenfield
Merritt, G. LDubuque
Mentzer, C. J
Mentzer, J. A
Meyer, F. APostville
Meyer, C. E
Meade, W. JOxford
Mead, C B
Mais H I. Sioux City
Meade, C. L
Messinger I A
Miner A K*Cedar Rapids
Miner A M*Davenport
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Minor Core R
Miller W C
Miller C W Des Moines
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Miller, R. WSioux City
Miller, McK
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Miller, A. KMount Ayr	
Mills, D. WKeokuk	
Mills, B. C	
Mitchell, G. OMassachusetts	
Mitchell, H. ELancaster, Mo.	
Mitchell, S. T	
Mitchell, W. TDavenport	
Mitchell, A. ECambridge	1
Mitten, J. CPella	
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Minter, R. MCollege Springs	1
Milburn, A Sloux City	
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Musser, F. CTexas
Mullett, E. R
Mullen, W. LDubuque
Mullican, LIndianola
Munn, E. WDubuque
Murray, J. WLawler
Murrell, ELancaster, Mo.
Mueller, A+Davenport
Mueller, A. J
Mueller, J. H. CMarshalltown
Munson, V. W
Munger, F. E., JrBayard
Munger M W West Branch
Muir, W. W
Murray I R
Murray C. A
Myler, M. WSelby, S. D.
Nance Ray
Nauman, E. HtOxford Junction
Nauman, BFrankfort, Kan.
Naumann, L. ABurlington
Naibert, W. F
Nagelsaker, O. BDecorah
Narrley, G. R
Neuman, G. A
Neuman, W. W
Newcomb, E. E
Newton, F. S
Nell, J. AtPostville
Neal, E. B
Neece, W. AtMarshalltown
Neeper, H. P
Nenahlo, C. J
Neely, W. L
Nickolas, J. RBurlington
Nickolson, J
Nickolson, J "Humboldt
Nickson, E. D
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Nies, G. HOssian
Nies, G. H*Sioux City
Niswander, C. H
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North, Gustavus Norris, L. L
Norris, L. L
Nott, J. H. Slater
Nott, R. G
Noble, E. P. Belle Plaine Nourse, H. F. Mapleton
Nourse, H. F
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Nye, W. S Leon
Nyce, H. CNorristown, Pa.
Neil, F. ALowden
Oberman, B. E
Ockerman, S
Ockerman, W. HCedar Rapids
Ockerman, Clara LCedar Rapids
Ogg, J. AOrange City
Ogg, M. D
Oldaker, J. L
Oleson, G. H
Oliphant, L
Olkon, D. M
O'Malley, Martin
O'Grady, J. ESchaller
Orebaugh, W. W
Osborn, R. L
Osborn, A. E
Osher, B. TGraettinger
Oursler, W. N
Overfield, M. S
Oyler, W. S
Palmer, W. H*Cherokee
Palmer, N. H
Palmer, A. B
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Philbrook, B. F
Phelps, J. O
Pherrin, J. B
Pinckney, L. DtLake City Pinney, R. GtLake City
Pinney, R. G
Piner, H. E
Pile, S. W. Boone
Pile, S. W Bloomfield Pittman, L. L Bloomfield
Pittman, L. L Des Moines
Pittman, L. Des Moines Pierce, C. H
Pierce, C. H
Pittman, E. WTipton Pittman, H. A
Powers, J. L. Paoma, Colo. Powers, E. G. Dubuque
Powers, E. G
Powell, E. F
Powell, E. H*Mason City

Pool, H. FMason City
Poor, Chandler*Dubuque
Potter, F. GMaquoketa
Porter, J. TBlairstown
Porter, C. EDavenport
Porter, H. J
Porterfield, W. R
Port, Chas
Pote, Chas
Poland, J. M
Pollock, D. J(Marshalltown
Polick, D. J
Pospisiei, Jos
Pollard, G. A
Pohle, E. J
Poston, L. L
Pomeroy, L. M
Plank, F. T
Price, Ben
Price, B. A
Price, F. O
Preston, F. M
Printice, A. B
Pringle, G. A
Pratt, G. M
Pratt, D. WBurt
Prettyman, F. S
Punton, A. L
Purdie, J. C
Quaife, H. H
Quick, R. C
Rathbun, R. S
Rathbun, C. N
Rathbone, R. R
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Read, E. COakland
Read, Arthur
Read, T. LLa Porte
Rear, E. O
Poody E H Beatrice, Neb.
Reidy M T
Reilly, W. H*Oskaloosa
Redfield D W
Podorick A T
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Rose, M. H

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Ross, J. AOsceola
Rose, T. ASloux City
Rose, R. E Mount Grove, Mo.
Rose, J. EVinton
Roe, F. ABurlington
Roe, L. ECouncil Bluffs
Rozelle, E. L
Roberts, G. AIndependence
Roberts, I. A
Roberts, F. H
Roberts, C. W
Roberts, M. CWest Point
Robertson, C. W
Robertson, C. BDes Moines
Robertson, M. M
Robertson, R. C
Robinson, W. J
Robinson J CDenison
Robinson, E. G
Pohinson F W Sioux City
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Russell, H. JAlbia	
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Paydor G A	
Reed G F	
Sale, H. W	
Sanborn, J. F*Tabor	
Sanford, H. LSyracuse, N. Y.	
Sargent C H	
Sergent A C	
Sassaman, O. HLisbon, N. D.	
Salisbury, F. GGriswold	
Sauer, R. J	
Samson, W. RBurlington	
Schadel, F. K. S	
Schwaner, W. F	
Schwaner, R. AWinterset	
Schwartz, B. FVinton	
Schwartz, B. F	
Schwartz, John	
Schwinn, F. W	
Schroeder, G. M	
Schroeder, G. M	
Schlawig, W. M	
Schmidt, A. L	
Schultz, A. F	
Schulze, H. J	
Schleiter, J	
Schrader, E. A	
Scroggs, R. E	
Scroggs, R. E	
Scranton, F. H	
Scovel, R. MFort Madison	
Scott, J. E	
Severance, J. J	
Semler, L	
Searles, C. SChicago	
Seabert, C. PTama	
Seeley, S. L	
Seybolt, H. MSioux Falls, S. D.	
Seydell, R. ALadora	
Secor, AlsontForest City	
Seydell, S. J. K	
Sexton, J. O	
Seybolt, W. ADavenport	
Seiler, Agnes	
Settell, A. R	
Sherwood, J. HOhio	
Shouse, A. C	

Shriver, H. W*Omaha
Shriver, S. KGlenwood
Shriver F. M
Sherman, J. H*Storm Lake
Sherman, G. LCarroll
Sherman, T. H
Sherman, W. ADes Moines
Sheridan, W. HNebraska
Sherri, W. LOmaha, Neb.
Sherer, R. E
Shelby, J. A
Shelby, J. A
Shendon, P. H
Sheldon, A. CNevada
Shetterly, J. S. MStuart
Sharp, J. L#Fairfield
Sharp, B. BMendota, Ill.
Sharp, W. ADes Moines
Sharp, JosKingsley
Shaw, F. WDes Moines
Shane, C. NWaterloo
Shattuck, T. N
Shankland I W
Shuck, M. LClarence
Chumakar I F
Shumaker H C
Shartleff C H
Showster E
Chumakar W C
Shockley Ned
Chonte D I
Cime E E
Sime N I
Cimmonds & W
Cimons C M
Simmonds W H
Silverling, G. E
Cilvernail P D
Citron C I
Steen II B
Cippal C H
Steflin C W
Sinn T T
Sinotte R G
Skidmore I. W
Slate, F. GFort Dodge
Clater Frank
Slatton A M
Clinch# G WBurlington
Smouse, C. W
Smouse, O. Williams

Smesrude, E. ABuffalo Center
Small, J. LMoline, Ill.
Small, B. ABelle Plaine
Smead, H. HEpworth
Smales, F. B
Smith, D. EWilton
Smith, H
Smith, B. F
Smith, B. MUte
Smith, L. B
Smith, D. E
Smith, C. W
Smith, R. B Fort Dodge
Smith, E. K
Smith, E. W. Burlington
Smith, J. M
Smith, D. FIowa City
Snyder, P. BtGreene
Snyder, E. S
Snyder, C. M
Snyder, G. JAmes
Snuggins, L. W
Snodgrass, E. G
Soule, J. W*Ottumwa
Solvsberg, ArthurSioux City
Sohl, O. LKeokuk
Soukup, J. E
Spayde, F. MGarner
Spicer, B, FRed Oak
Spencer, W. EIowa City
Spencer, M. LMitchell, S. D.
Spencer, Harvey*Fairfield
Spicer, S. SCedar Rapids
Spessard, E. WAinsworth
Spaulding, H. DWest Union
Sprague, A. LCreston
Sprague, D. EMinneapolis, Minn.
Spurgin, CLorimor
Sterneman, C. HMuscatine
Sterneman, C. RNebraska
Stimmel, E. CPueblo, Colo.
Stearns, C. HOwatonna, Minn.
Stidger, T. FSouth English
Sterdevant, T. BtClarence
Stark, J. WGolden, Colo.
Stafford, H. H
Stafford, F. HChicago
Stauffer, C. HGowrie
Staves, F. I Des Moines

Strauss, A. VLogan
Stevens, J. SShenandoah
Stevens, H. HZumbro Falls, Minn.
Stevens, H. H
Stealy, E. RDunlap
Stever, M. FCreston
Steurwald, C. ASt. Ansgar
Stewart, G. A
Stewart, E. E Lake Mills
Steele, J. F
Steele, Wm. H
Stephone C M
Stephens, C. MLehigh
Stephens, C. AMitchellville
Stanley, J. GOrient
Stemple, H. FFort Madison
Stinehart, J. EMason City
Stillman, A. T
Stieneker, G. WDonnellson
Stimmel, E. CPueblo, Colo.
Stott, JosBurlington
Stoufer, C. W:Cedar Rapids
Stoehr, R. J
Stoffel, E. N
Story, W. H
Stote, F. C
Stocker, C. GArmstrong
Stooksberry, J. Hlowa Falls
Straub, E. SSioux City
Steurwald, L. FColorado
Strayer, F. AHudson
Stuttaford, HLivermore
Starbuck, A. W
Starbuck, W. R Bricelyn, Minn.
Stute, F. NElma
Stull, Claude
Sturtz, HermanRock Island, Ill.
Stryker, A. C
Struble, Wm
Sutpin, E. E
Sutton, H. B
Summa, RichardSt. Louis
Sugg, B. RClinton
Summy, C. EPrimghar
Sullivan, J. S
Suthers, W. ARichland
Sweet, E. StWoodbine
Sweet, W. SSpringville, Mo.
Sweet, W. SAlexander
Swain, Ada P

Swain, C. JClearfield	
Swelp F M	
Carein I E	
Swain S RMarengo	
Swartzendruber, J. RKalona	
Switzer, F. D	
Sweeney, R. J	
Sweeney, C. AOwatonna, Minn.	
Taylor, J. A Des Moines	
Taylor, J. A	
Taylor, J. LDubuque	
Taylor, E. AGriswold	
Taylor, F. E. DtIowa City	
Taylor, E. RLogansport, Ind.	
Taylor, C. AWinthrop	
Taylor, E. SArlington	
Tanna, G. EDe Witt	
Tate, J. MState Center	
Terry W M	
Teeter, J. NOskaloosa	
Teeter, M. H	
Teege, HarryCedar Rapids	
Thomas, C. GDes Moines	
Thomas, C. L	
Thomas, C	
Thomas, E. FBlockton	
Thomas, H. DPanora	
Thompson, A. BKeokuk	
Thompson, HughKnoxville	
Thompson, I. J	
Thompson, D. LCorning	
Thompson, E. G	
Thome, F. S	
Thornton, F. E	
Thornton, J. HLansing	
Thornton, J. H	
Thornley, F. S	
Thormley, F. S	
Thweatt, A. CtGreenfield	
Thweatt G. EtGreenfield	
Thrower, W. HWaterloo	
Thill, H. RDubuque	
Throckmorton, R. FDerby	
Theile, A. AEmmetsburg	
Thrift, W. HDubuque	
Tiffany, J. W	
Tiffany, C. DChicago	
Tipton, W. RtBrooklyn	
Tinker, E. TWheatland	
Tinker, F. EClinton	
Tims, F. BTama	

Tirrell, E. V
Tilden, J. F
Tomlinson, A. G
Tomy, J. IOskaloosa
Townsend, J. R
Towne, R. S
Topliff, C. L
Topliff, R. F Postville
Tobie, H. A
Tobey, R. R
Tonov S D
Toney, S. BPreston
Toye, W. R
Tourtelott, L. J
Trainer, M. M
Trussell, C. WReinbeck
Tritchell, F. AAlbert Lea, Minn.
Trickey, F. SDubuque
Truax, F. EOlin
Troutman, J. A
Trout, B. E Kellerton
Trent, H. GMilan, Ill.
True, F. BThompson
True, H. A Des Moines
Tullis, M Kansas City, Mo.
Tullis, R. HiBoone
Tullis, G. F Ottumwa
Turner, R. L. SStuart
Turner, G. WSavannah, III.
Tubbs, W. EMaguoketa
Tyler, C. PtGarden Grove
Tyler, B. S
Unangst, J. D
Unbehaun, E. C
Upton, W. H
Van, Norden, W. A
Van Sickle, A. B
Van Horn, Wm
Van Buskirk, W. L
Van, Buskirk, J. MShenandoah
Van Dyke, J. WSloux City
Van Doren, O. E
Van Oren, A
Van Winter, CSeattle, Wash.
Vane, L. FCedar Rapids
Vance, Chas
Vance, W. WOttumwa
Vance, M. ELincoln, Neb.
Vail, G. W

Vaughn, G. A Eagle Grove	
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Warren, H. N	
Warren, G. E	
Warren, G. EtDes Moines	
Watts, J	
Watts, C. V*Shelby	
Ward, Frank	
Ward, Frank	
Ward, Jesse	
Ward, W. C	
Ward, G. G Oelwein	
Ward, G. G	
Wallace, S. R	
Wallace, T. B	
Waterbury, E. M	
Waterbury, E. M. Hiteman Waterman, H. A. Newell	
Waterman, G. B	
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Wasson, A. S	
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West, Mrs. M. L	ş

West, D. C	
West, Jessie A Des Moines	
Weeks, E. CNashua	
Wetzel, D. PKansas	
Webber, F. P	
Webber, Mrs. P. J	
Webber, F. G	
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Weber, W. O	
Weber, S. D	
Webb, G. D	
Webb, C. A Des Moines	
Webb, J. EMcGregor	
Weatherbee, J. WtDubuque	
Wells, Hattle BPerry	
Wells, Ira HMaddock, N. D	
Wells, F. P	
Welsh, J. DNew Hampton	
Weinberg, NtKeokuk	
Weiser, S. VEagle Grove	
Welkert, W. HLuverne	
Weir, C. R	
Wetherell, C. R	
Webster, IvorytWest Liberty	
Waymouth, Ida MToledo	
Westcott, H. B	
Werntz, J. OThornburg	
West, C. E	
Westenhaver, E. H	
Westwood, C. ESioux City	
Wesley, R. D	
Whinnery, J. L. "Marshalltown	
Wheeler, H. S , *Charles City	
Whelpley, C. B	
White, E. SShenandoah	
White, H. H	
White, H. PSioux City	
Whitehill, G. WOskaloosa	
Whitson, O. LMechanicsville	
Whitsell, L. LCenterville	
Wightman, E. EDaota	
Wilhelm, S. ESac City	
Winter, L. HCurtis, Neb.	
Wilson, I. P*Burlington	
Wilson, W. AVictor	
Wilson, J. MGreene	
Wilson, L. CCenterport	
Wilson, L. SBurlington	
Wilson, R. JOelwein	
Wilson, H. D	

Wilson, G. W	
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Wilson P E	
Davenport	
Williams W W	
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Williams T M	
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Williams, J. T	
Williamson G B Eagle Grove	
Williamson O I	
Wilke S M	
Williamon C W	
Wilkinson, G. R	
Willey, H. DBloomfield, Neb.	
Wiler W D	
Will R T	
Winter N R	
Witter C WLansing	
Wittmer, E. AAdel	
Wilcox, C. S+Vinton	
Wilcox, G. NMondamin	
Wild, M. CUnion City, Ind.	
Wickman, G. CSeymour	
Wisehart, O. M	
Wise, C. ALake City	
Wirsig, A. E. LWaterloo	
Woodbridge, T. H*Sac City	
Woodbury, E. I	
Woodbury, H. A	
Woodbury, C. E	
Woodruff, L. GColumbus Junction	
Woodruff, L. W	
Woodard, E. H	
Woodard, B. H*Letts	
Woodrow, E. G	
Wood, A	
Wood, A. Wood, H. T	
Work, C. MOttumwa	
Wood, J. M	
Wood, J. M	
Woodmansee, F. A	
Wooton, G. H	
Wolfe, M. V	
Woolfe, W. A	
Wood, Mrs. C. BtClinton	
Wright, J. F	

Wright, FranktCorning	
Wright, F. R*Wapello	
Wright, B. E	
Wright, M. L	
Wurster, G. P	
Wyatt, G. WSigourney	
Wyant, A. C	
Wyckoff, C. DCollege Springs	
Yeoman, M. B Lansing	
Yergey, G. BtWinterset	
Young, H. CtMolton	
Young, A. E Mankato, Minn.	
Young, A. S	
Young, L. B	
Young, J. LRolfe	
Yule, G. P*Clinton	
Zeran, L. H	
Zemke, A. WBode	
Ziegler, W. SClinton	
Ziegler, O. COwatonna, Minn.	
ADAIR COUNTY.	
Brooks, Geo	
Gibford, H. TGreenfield	
Hubbard, BoydAdair	
Peek, L. SFontanelle	
Peek, L. S	
Peek, L. SFontanelle	
Peek, L. S. Fontanelle Stanley, J. G. Orient ADAMS COUNTY.	
Peek, L. S. Fontanelle Stanley, J. G. Orient ADAMS COUNTY. Scranton, F. H. Corning	
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Peek, L. S. Fontanelle Stanley, J. G. Orient ADAMS COUNTY. Scranton, F. H. Corning Barnhart, H. C. Corning Jackson, J. M. Prescott Maloney, J. H. Nodaway ALLAMAKEE COUNTY. Dempsey, P. F. Waukon Dowling, J. B. Waukon Johnson, J. H. Waukon Miner, Cora, R. Waukon Stillman, A. T. Waukon Witter, C. W. Lansing Yeoman, M. B. Lansing Cole, Wm. Postville	
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Peek, L. S. Fontanelle Stanley, J. G. Orient ADAMS COUNTY. Scranton, F. H. Corning Barnhart, H. C. Corning Jackson, J. M. Prescott Maloney, J. H. Nodaway ALLAMAKEE COUNTY. Waukon Dowling, J. B. Waukon Johnson, J. H. Waukon Miner, Cora, R. Waukon Stillman, A. T. Waukon Witter, C. W. Lansing Yeoman, M. B. Lansing Yeoman, M. B. Lansing Topliff, Ray Postville Topliff, Ray Postville Hanofin, T. F. Dorchester	
Peek, L. S. Fontanelle Stanley, J. G. Orient ADAMS COUNTY. Scranton, F. H. Corning Barnhart, H. C. Corning Jackson, J. M. Prescott Maloney, J. H. Nodaway ALLAMAKEE COUNTY. Dempsey, P. F. Waukon Dowling, J. B. Waukon Johnson, J. H. Waukon Miner, Cora, R. Waukon Stillman, A. T. Waukon Yeoman, M. B. Lansing Cole, Wm. Postville Topliff, Ray Postville Hanofin, T. F. Dorchester APPANOOSE COUNTY. Blachley, C. W. Centerville	
Peek, L. S. Fontanelle Stanley, J. G. Orient ADAMS COUNTY. Scranton, F. H. Corning Barnhart, H. C. Corning Jackson, J. M. Prescott Maloney, J. H. Nodaway ALLAMAKEE COUNTY. Waukon Dowling, J. B. Waukon Johnson, J. H. Waukon Miner, Cora, R. Waukon Stillman, A. T. Waukon Witter, C. W. Lansing Yeoman, M. B. Lansing Yeoman, M. B. Lansing Topliff, Ray Postville Topliff, Ray Postville Hanofin, T. F. Dorchester	

Funston, G. E......Waterloo

STATE	BOAR	DOF	DENTAL	EXAMI	NERS
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Hollenbeck, C. D
Brunar C W
Bruner, C. W
Debe, W. EWaterloo
Wirsig, A. E. LWaterloo
Hough, N. H
Mueller, A. J
Wilson, C. W
Haffa H D Waterloo
Haffa, H. D
Peek, E. EWaterloo
Robertson, C. W
Vorhees, M. M
Poland, J. M
BOONE COUNTY.
Ganoe, O. EBoone
Holmes, E. E
Knapp, J. MBoone
Lutz, I. DBoone
Tongs II G
Jones, H. CBoone
McCrea, H. CBoone
Rhoades, C. ABoone
Crumm, A. EBoone
Anderson, C. EMadrid
McBeath, WmMadrid
Bradshaw, W. COgden
BREMER COUNTY.
Darnell, G. WSumner
Karsten, H. MSumner
Redman, D. PTripoli
Cooley C T
Seeley, S. L
Gross, J. MWaverly
Hemingway, J. D
Beyers, C. PWaverly
Hanson, C. EWaverly
BUCHANAN COUNTY.
BUUHANAN COUNTI.
Rosier, G. LIndependence
Molyneaux, W. MIndependence
Molyneaux, W. M
Molyneaux, W. M. Independence Brierly, M. R. Independence Plank, F. T. Independence
Molyneaux, W. M. Independence Brierly, M. R. Independence Plank, F. T. Independence Roberts, G. A. Independence
Molyneaux, W. M. Independence Brierly, M. R. Independence Plank, F. T. Independence Roberts, G. A. Independence Schrader, E. A. Independence
Molyneaux, W. M. Independence Brierly, M. R. Independence Plank, F. T. Independence Roberts, G. A. Independence Schrader, E. A. Independence Greenawalt, R. A. Lamont
Molyneaux, W. M. Independence Brierly, M. R. Independence Plank, F. T. Independence Roberts, G. A. Independence Schrader, E. A. Independence Greenawalt, R. A. Lamont Taylor, C. A. Winthrop
Molyneaux, W. M. Independence Brierly, M. R. Independence Plank, F. T. Independence Roberts, G. A. Independence Schrader, E. A. Independence Greenawalt, R. A. Lamont Taylor, C. A. Winthrop Knowles, A. C. Jessup
Molyneaux, W. M. Independence Brierly, M. R. Independence Plank, F. T. Independence Roberts, G. A. Independence Schrader, E. A. Independence Greenawalt, R. A. Lamont Taylor, C. A. Winthrop
Molyneaux, W. M. Independence Brierly, M. R. Independence Plank, F. T. Independence Roberts, G. A. Independence Schrader, E. A. Independence Greenawalt, R. A. Lamont Taylor, C. A. Winthrop Knowles, A. C. Jessup

BUENA VISTA COUNTY.

Bidwell, ESioux Rapid	s
Beason, Mary L. Newe Beason, S. A. Newe	11
Herbert, V. EAlt	a
Hemsworth, L. CMaratho	n
Schultz, E. J	ce

BUTLER COUNTY.

Warner, W. W	Parkersburg
Chamberlain, Louis	.Parkersburg
Harris, C. S	Allison
Reynolds, G. H	Greene
Wilson, J. M	Greene
Chesebro, M. B	Shell Rock
Dorman, C. L	Clarksville
Hesse, J. L	Clarksville
Crawford, Guy	Dumont

CALHOUN COUNTY.

Colvig, J. WLake City
Johnson, T. WLake City
Wiese, C. ALake City
Norris, L. LPomeroy
Baker, J. DLohrville
Love, D. TManson
Griffin, F. MManson
Francis, T. P
Parker, J. C
Parker, J. C

CARROLL COUNTY.

Danes, L. RCoon Rapids
Morrow, B. ACoon Rapids
Blake, F. GCoon Rapids
Easterly, C. AManning
Easterly, C. A Manning
Miller, J. J
Sinn, J. J
Ronna, JuliusManning
Gates, Mrs. H. D
Sherman, G. LCarroll
Humphrey, WCarroll
McCreary, A. F
Drees, L. J
Carroll
Hillemeyer, F. HCarroll

CASS COUNTY.

Hammer, W. UAtlantic
McCall, A. D
Miller, G. RAtlantic
Williams, H. KAtlantic
Fish, W. EAnita
Salisbury, F. G
Taylor, E. AGriswold
Bronson, A. ELewis
Peek, E. S Messena

CEDAR COUNTY.

Reichert, C. SBennett
Brock, A. J
Shuck, M. LClarence
Haller, W. EDurant
Reidy, J. MMechanicsville
Whitson, O. L
Dannatt, E. GLowden
Bandy, R. STipton
Casebeer, Bessie, STipton
Grove, W. ATipton
Munger, M. WWest Branch
Walker, W. H

CERRO GORDO COUNTY.

Richardson, F. GMason	City
Kelly, J. WMason	City
Pool, H. FMason	City
Beemer, G. NMason	City
Carrick, C. CMason	City
Stinehart, J. EMason	City
Eberhart, E. A Mason	City
Qualfe, H. H	City
Allison, R. JMason	City
Clack, W. RClear	Lake
Jones, P. HClear	Lake
Mortenson, J. CClear	Lake
Mortenson, M. HClear	Lake
Dexter, C. JRoc	kwell
Colby, NTho	rnton
	Richardson, F. G. Mason Kelly, J. W. Mason Pool, H. F. Mason Beemer, G. N. Mason Carrick, C. C. Mason Stinehart, J. E. Mason Eberhart, E. A. Mason Qualfe, H. H. Mason Allison, R. J. Mason Clack, W. R. Clear Jones, P. H. Clear Mortenson, J. C. Clear Mortenson, M. H. Clear Dexter, C. J. Roc Colby, N. Tho

CHEROKEE COUNTY,

Dwight, C. F		cus
Rice, J. K	Aure	elia
McGregor, P	Qulm	by
Avery, G. E		kee
Ballard, F. A		kee
Eshleman, G. W.	Cherol	ree

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Webber, F. PCherokee
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Webber, F. GCherokee
CHICKSAW COUNTY.
Ableiter, E. ANew Hampton
Clark, A. ENew Hampton
Rathbun, C. N
Welsh, J. D
Welsh, J. D
Graham, G. DNashua
Forbes, L. SNashua
Murray, J. WLawler
Rollins, G. HFredericksburg
CLARKE COUNTY.
Ross, J. AOsceola
Mae ReynardOsceola
Forney, J. WOsceola
Dellahoyde, HughMurray
CLAY COUNTY.
Bettice, Dan'lSpencer
Golly, C. ESpencer
Crandall, W. G
Crandan, w. G
CLAYTON COUNTY.
Donlon, J. P
Jeffers, W. JElkader
Faber, A. J
Walters, J. A
Webb, J. E
Burns, J. J
Burns, J. Jvoiga City
Krueger, L. F
Pohle, E. JGuttenberg
MillerGuttenberg
Currie, A. LMonona
HumphreyMonona
CLINTON COUNTY.
Hopkins, A. FClinton
Rathbun, R. SClinton
Mullett, E. R
Dingwell, A
Ferstenberg, W. F
Ferstenberg, W. F.:
Ferstenberg, W. F
Ferstenberg, W. F. Clinton Gabriel, W. M. Clinton Port, C. F. Clinton
Ferstenberg, W. F. Clinton Gabriel, W. M. Clinton Port, C. F. Clinton Wurster, G. P. Clinton
Ferstenberg, W. F. Clinton Gabriel, W. M. Clinton Port, C. F. Clinton Wurster, G. P. Clinton DuBois, L. L. Clinton
Ferstenberg, W. F. Clinton Gabriel, W. M. Clinton Port, C. F. Clinton Wurster, G. P. Clinton DuBois, L. L. Clinton Ricketts, B. F. Clinton
Ferstenberg, W. F. Clinton Gabriel, W. M. Clinton Port, C. F. Clinton Wurster, G. P. Clinton DuBois, L. L. Clinton Ricketts, B. F. Clinton Greene, O. E. Clinton
Ferstenberg, W. F. Clinton Gabriel, W. M. Clinton Port, C. F. Clinton Wurster, G. P. Clinton DuBois, L. L. Clinton Ricketts, B. F. Clinton

Ziegler, W. S	
Molt, T. F	
Fisher, H. P	
Henle, M. F	
Connole, C. V	
Tanna, Geo.	
Doherty, M. J	
Tinker, Fay Wilson, G. W	
Wilson, G. W	beimar
CRAWFORD COUNT	Υ.
Robinson, J. C	
McConnaughey, R. O	
Philbrook, B. F	
Molseed, L. E	
Liggitt, W. B	
Heykens, Herman	
DALLAS COUNTY	
Frush, R. C.	
Witmer, E. A.	
Kellogg, A. V.	
Hemphill, W. J.	
Brown, A. L	
Foltz, H. A	
Hamlin, F. C	
Harter, C. W	Perry
Pegg, W. A	
Beck, A. A	
Danes, L. R	
DAVIS COUNTY.	
Allender, D. R	Bloomfield
Pittman, L. L.	
Ford, A. M	
Gaumer, A. W	Bloomfield
DECATUR COUNTY	
Ward, W. C	Garden Grove
Mather, J. W	Lamoni
Mather, W. J	Loop
Rowell, J. W	Leon
Rowell, J. W	
DELAWARE COUNT	Υ.
Dorman, Geo	
Dorman, O. S	
Newcomb, E. E.	
Tobie, H. A	Earlville
Jacobs, C. H	
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Harlinton	
Bentley, S. F	
Mason, W. C	
DES MOINES COUNTY.	
Baird, W. HBurlington	
Baird, W. H	
Cochran, R. LBurlington	
Cooke, T. FBurlington	
Dana, A. WBurlington	
Denise, O. HBurlington	
Hall I. C. Burlington	
Kauffer I ABurlington	
Little, J. JBurlington	
Kratz, W. F	
Madison H. L. Burlington	1
Mansfield F JBurlington	l
Naumann, L. ABurlington	1
Nickolas I RBurlington	1
Rizer, G. EBurlington	l.
Roe, F. ABurlington	1
Samson, W. RBurlington	1
Slingluff, G. WBurlington	
Snyder, E. SBurlington	
Stevens, H. H. Burlington Thode, G. E. Burlington	
Thode, G. E	1
Leake, K. S	1
Glantz, IdaBurlington	1
Creighton, D. MMediapolis	5
Creighton, D. M	
DICKINSON COUNTY.	
Kepford, J. CMilford	1
Gaywood, HarryLake Park	K
Rector, C. ESpirit Lake	e
DUBUQUE COUNTY.	
Clark, F. BDubuque, 815 Main Stree	t
Conzett, J. V	t
Goble, M. D	S
Haggarty, R. E	S
Heisey, D. J	at
Jones, J. A	at
Knapp, H. G	at.
Leonard, J. J	S
Maguire, J. O	et
Meshinger, J. A	g.
Minger H Dubuque, Cor. Seventeenth and Clay Street	S
Mullen, W. LDubuque, Cor. Ninth and Main Street	cs
Murray, J. B	ts

Peterson, C. J. Dubuque, 1200 Main Street Shendon, P. H. Dubuque, 1206 Iowa Street Sweeney, R. J. Dubuque, Seventh and Main Streets Taylor, J. L. Dubuque, 893 Main Street		
Thill, H. R		
Knoll, O. A. Dubuque, 1197 Jowa Street McEvoy, A. E. Dubuque, 208, B & I Bldg. Meis, W. A. Dubuque, 1596 Clay Street McGuigan, V. A. Dubuque, 528 B & I Bldg.		
Schroeder, G. M Dubuque, 605 B & I Bldg. Hoag, G. W Dubuque, 964 Main Street Powers, G. W. Dubuque, Eighth and Locust Street		
Payne, C. B. Farley Hummel, A. T. Dyersville Lang, F. X. New Vienna		
Smead, H. H		
EMMETT COUNTY.		
Clinite, J. I. Estherville Galloway, W. P. Estherville Ivy, A. Estherville Stocker, C. G. Armstrong Rice, W. J. Armstrong		
FAYETTE COUNTY.		
Spaulding, H. D		
Leach, D. S. West Union Davis, J. C. Oelwein Harper, A. S. Oelwein		
Ward, G. G. Oelwein Miner, F. D. Oelwein Dorman, J. E. Sr. Fayette		
Dorman, J. M. Jr. Fayette Belding, H. H. Waucoma Taylor, E. S. Arlington		
Hecht, R. H. Hawkeye Hutchinson, L. S. Elgin Wilson, R. J. Oelwein		
FLOYD COUNTY.		
Bronson, I. C		
Bronson, A. F		
Clark, A. D		
Eshleman, C. D		
Petry, John		

Munger, F. E.....Bayard

Glass, H. L......Winfield

Richey, C. E..... New London

 HAMILTON COUN
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	HAMILTON COUNTY,
Palmer, C. M	Lundell, H. W
Von Berg, G. W	Boysen, F. A. Webster City
McNinch, S. W	
McNinch, J. SRockford	Mahood, D. G
Zeran, L. H Rockford	Pote, R. W
FRANKLIN COUNTY.	Schultz, A. FWebster City
Manner E C	Kellogg, A
Musser, F. C	Wilson, R. EWilliams
Rule, J. S	Allen, W. SJewell
Warner, R. THampton	DeLa, R. WJewell
Jeffers, L. L	Holaday, S. FStratford
Moss, SolomonSheffield	HANCOCK COUNTY,
FREMONT COUNTY,	
Pittman, E. W	Stute, F. NCorwith
	Heacox, F. EBritt
Clark, R. HTabor	Braley, E. EBritt
Stewart, GuyFarragut	Spade, F. MGarner
Hayes, H	Morrison, J. CGarner
Lovelady, J. A	HARDIN COUNTY.
Mitchell, S. THamburg	HARDIN COUNTI.
Penn, W. ASidney	Rule, F. HAckley
Gore, F. ASidney	Rath, R. CAckley
GREENE COUNTY.	Carter, E. Olowa Falls
Torre Breat	McClanahan, W. BIowa Falls
Lyon, ErnestJefferson	Stocksberry, H. JIowa Falls
Barker, S. GJeffeson	McDowell, C. EIowa Falls
Kettell, H. CJefferson	Diehl, G. EEldora
Latcham, Earl	Kier, G. PEldora
Humphrey, C. HGrand Junction	Wood, H. T
Jackson, E. MSeranton	Horton, F. WEldora
Anderson, J. EPayton	Hurst, T. HAlden
Conant, M. AChurdan	Bixby, R. LUnion
GRUNDY COUNTY.	Preston, F. MRadcliffe
Brook, B. C	Magruder, G. RHubbard
Trussell, C. WReinbeck	HAERISON COUNTY.
Hall, E. A	Lahman, R. C
Bronson, J. L	McEvoy, R. D
Beckman, F. SGrundy Center	Giddings, E. T
Lynn, W. RGrundy Center	Warren, Horace Missouri Valley
GUTHRIE CENTER.	Humphrey, M. ALogan
Daugherty, T. E	Strauss, A. VLogan
Fordyce, C	Landee Guy
The state of the s	Stealy, E. RDunlap
Piner, H. EStuart	Dewell, W. C
Gray, L. BStuart	
Thomas, H. D	HENRY COUNTY.
Schwin, F. W	Duncan, W
Keefe, E. MCasey	Winfield Winfield

Andrews, G. J
Ridder, E. G
Ball, J. OMount Pleasant
Hunt, J. CMount Pleasant
Jerrel, C. OMount Pleasant
Edwards, F. MMount Pleasant
Punton, A. LMount Pleasant

HOWARD COUNTY.

Kellogg, E. ACr	esco
Allen, E. H	esco
Morton, R. A	esco
Kellogg, G. HCr	esco
Clemmer, J. J	esco
Freemire, F. N	ester
Palmer, V. G	ville
McNeil, J. C	llma
Stute F. N	

HUMBOLDT COUNTY.

Devereaux, C. H	Humboldt
Ferreby, T. G	Humboldt
Gates, A. G	ivermore
Zempke, A. W	Bode

IDA COUNTY.

Besore, C. FIda	Grove
Besore, J. HIda	Grove
Clark, A. B	Grove
Buckley, C. RHo	lstein
Williamson, O. LHo	lstein
McKibbin, G. PBattle	Creek

IOWA COUNTY.

Seydel, R. ALadora
Hinkley, H. D
Gardner, H. H
Anger, H. WVictor
McSwiggin, J. FVictor
Koch, A. F
Foster, C. GNorth English
Read, W. A
Swain, S. R
Swain, Ada P
Green, E. B
Addington, Earl

JACKSON COUNTY.

Ellis, Gideon	Maquoketa
Ellis, J. B	Maquoketa
Robinson, M. A	Maquoketa
Wright, M. L	Maquoketa
Potter, F. G	Maquoketa
Phillips, E. A	Moquoketa
Ellis, G. C	Bellevue
Gibbons, E. A	Bellevue
Glew, H. M	Preston
Tubbs, W. E	Maquoketa

JASPER COUNTY.

Millon D A
Miller, B. ANewton
Green, O. NNewton
Eustice, E. L Newton
Joy, A. P Newton
Joy, Anna HNewton
Joy, H. JNewton
Cain, W. P
Blake, F. G
Baker, R. K
Adair, W. S Kellogg
Craven, J. GKellogg
Hargis, N. CBaxter
Cochrane, L. W
Hemminger, D. MPrairie City

JEFFERSON COUNTY.

Byers, R. EBatav	is
Bock, E. CFairfie	ld
Fourt, FrankFairfie	ld
James, T. LFairfie	ld
McElderry, C. AFairfie	lć
Monfort, J. BFairfie	ld
Irwin, R. WFairfie	lè

JOHNSON COUNTY.

Chapman, F. Plowa	City
Brown, G. V. Ilowa	City
Breene, F. TIowa	City
Branson, L. LIowa	City
Spence, W. Elowa	
Jones, M. A. H	City
Hosford, W. Slowa	City
Morrow, Harry	City
Lawyer, L. GIowa	City
Voss, John	City
Pelton, H. Clowa	City

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folland, R. HIowa City	
legging E A	
Iarned, C. W	
farned, C. W	
Oxford	
Celly, T. HOxford	
read, W. JOxford	
rock, H. BLone Tree	
peLano, C. LLone Tree	
JONES COUNTY.	
irb, B. FAnamosa	
Tel and E AAnamosa	
Vard IAnamosa	
Joffner F A	
faurice, A. M	
eeters, M. HMonticello	
ruax, F. EOlin	
foravec, A. JOxford Junction	
Stoffel, E. N	
Stoffel, E. N	
KEOKUK COUNTY.	
Baughman, G. PWhat Cheer	
Salbraith, HughWhat Cheer	
Black, J. C	
Polmer W. T	
Suthers W A	
Zoota I I.	
Stidger T F	
zulov C I. Hedrick	
Zilon T. P.	
Timbley I. H	
Holdthwait, G. GSigourney	
Black, G. CDelta	
Black, G. C	
KOSSUTH COUNTY.	
Devereaux, H. CAlgona	
Hasier, E. S	
Hasier, E. S	
Kain, W. E	
Rist, A. L	
Weikert, W. HLuverne	
Beemis, O, HBancroft	
Pratt, D. WBurt	
Kulender HenrySwea City	
Greene E AWesley	
Smith, L. BWhittemore	
LEE COUNTY.	
Brownlee, E. CKeokuk	
Cameron, W. WKeokuk	

Forney, J. E.....Keokuk

Gasta	n C M	
Charto	n, S. MKeok	tuk
Grain	m, SarahKeol	cuk
Hinki	ley, B. CKeole	cuk
Marsh	h, J. WKeok	cuk
Smale	es, F. BKeok	stile
Sohl,	O. L	ente
Staffo	ord, H. HKeok	rule
Thom	pson, A. B	run.
Perde	w, E. J	uk
Court	right, E. E. Fort Madis	uk
Hazar	TOT Madis	son
Hobbs	a, E. PFort Madis	son
Moles	s, J. MFort Madis	son
Majon	ney, J. C Fort Madis	son
	l, R. MFort Madis	
Stemp	ple, H. FFort Madis	son
Wood	mansee, F. AFort Madis	son
	eker, G. WDonnells	
Rober	rts, M. CWest Po	int
	LINN COUNTY.	
Fitzge	erald, E. GCedar Rap	ids
Booth	, C. N	
Barns	aby, W. JCedar Rap	Ide
Broth	erton, S. S	(de
Calde	r, H. JCedar Rap	LAn
McCle	elland, FCedar Rap	tan
Miller	r, F. E	108
Ocker	man, C. L	108
Ocker	man, W. HCedar Rap	108
Rugh	F. WCedar Rap	108
Whol	pley, C. B	ids
Harm	on, WmCedar Rap	lds
Hasek	K, A. MCedar Rap	ids
	c, F. VCedar Rap	
	s, J	
McKe	eby, R. H	ids
Mares	sh, RCedar Rap	ids
Morav	vec, E. LCedar Rap	ids
	rt, W. F	
	alo, C. J	
	, GustavusCedar Rap	
	rson, W. D	
	rdson, L. ECedar Rap	
	ıp, J. E	
Vane,	L. F	ids
	, F. J	
Finn,	Wm	ids
Switze	er, F. DCedar Rap	ids
Denni	s, A. BCedar Rap	ids
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Beeman, C. ECedar Rapids	
Hasek, V. OCedar Rapids	
Holmquist, D. ECedar Rapids	
Booth, J. JMarion	
Booth, J. MMarion	
Caldwell, W. J	
Dow, L. CMarion	
Nott, J. R	
Wilkinson, G. RPrairiesburg	
Gormley, T. AMount Vernon	
Williams, T. MMount Vernon	
Hodgin, W. E	
Oyler, W. SSpringville	
Kinsley, J. D Lisbon	
Gary, A. GWalker	
Pherrin, J. BCentral City	
Houser, D. G	
LOUISA COUNTY.	
Woodruff, L. GColumbus Junction	
Hubbard, J. WColumbus Junction	
Carl, C. EMorning Sun	
Hoag, C. EWapello	
Christie, B. LWapello	
LUCAS COUNTY.	
Anderson, W. L	
Brant, C. T	
Perry, M. M Chariton	
Perry, Percy	
Greeno, J. F	
Throckmorton, Fred	
Stote, F. C	
LYON COUNTY.	
Roth, J. A	
Maloney, J. J	
Grout, J. CRock Rapids	
MADISON COUNTY.	
Pratt, G. MWinterset	
Cooper, R. SWinterset	
Leech, C. RWinterset	

 Jones, Mabel
 Winterset

 Schwaner, R. A
 Winterset

 Holmes, R. A
 Earlham

 Frech, R. E
 St. Charles

MAHASKA COUNTY.

MAHASKA COUNTI.					
Ellsworth, P. J	Oskaloosa				
Tomy, J. J	Oskaloosa				
Miller, W. G	Oskaloosa				
Teeter, J. N					
Redmon, F. B					
Whitehill, G. W					
Weber, W. O					
Fleener, J. E					
Woods, J. MNe					
Watland, ClarenceNe					
McVay, H. R.,	.Eddyville				
MARION COUNTY.					
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Garretson, C. F
Cornell, D. DKnoxville
McMartin KKnoxville
Keeton, A. FKnoxville
Vawter, H. MKnoxville
Duffy, M. HBussey
Evans, A. JPleasantville
McAllister, H. MPella
Vierson, L. APella
Mitten, J. CPella
Frahm, F. WPella

MARSHALL COUNTY.

Choate, W. MMarshalltown
Collison, D. AMarshalltown
Echternacht, H. FMarshalltown
Hynds, WinonaMarshalltown
Hynds, F. SMarshalltown
Humeston, F. LMarshalltown
Kellogg, L. F
Kinnan, H. AMarshalltown
Wanberg, Geo. EMarshalltown
Walser, JohnMarshalltown
Van Sickle, A. B
Miller, G. W
Mueller, H. C
Ball, FState Center
Cowan, W. AState Center
Lynn, E. CState Center
Robertson, R. CState Center
Bixby, R. L
Dunkle, C. S
Dunkle, C. S
Ellis, I. N
McCormick, ArthurClemon

REPORT OF THE

MILLS COUNTY.
Shriver, F. MGlenwood
Shriver, S. KGlenwood
McCluskey, F. MGlenwood
Woodrow, E. GGlenwood
Hiett, W. MMalvern
Laind, J. OMalvern
Houston, R. CEmerson
Curran, J. J
MITCHELL COUNTY.
Cutler D E Osage

Outler, D. EOsage	
Cutler, E. VOsage	
Damon, E. ROsage	
Drummond, C. EOsage	
Genung, G. EOsage	
Steurwald, C. ASt. Ansgar	
Echburg, A. NSt. Ansgar	
Lappin, M. RRiceville	
Palmer, V. GRiceville	
Brown, Esther MStacyville	

MONONA COUNTY.

Cope, C, WOn	awa
Henderlider, E. AOn	awa
Nourse, H. F	ton
Van Doren, O. E	eton
Smith, B. M	Ute
Vredenburg, R. E	ead

MONROE COUNTY.

Gantz, H. H	. Albia
Hoover, C. G	
Tobey, R. R	.Albia
Fowlering, J. W	
Waterman, H. AHi	teman
Goodshall, Oliver	Buxton

MONTGOMERY COUNTY,

Rawlston, J. TEllio	tt
Dearborn, Helen TRed Oa	k
Manker, J. W	k
Morris, R. DRed Oa	k
Schadel, F. SRed Oa	k
Spicer, B. FRed Oa	k
Will, R. T	k
Woodard, E. MRed Oa	k
Jenkins, F. L	ca
Kelsay, F. MVilliso	a

MUSCATINE COUNTY.

Bompke, M. PMuscatine
Dalzell, Emma EMuscatine
Dalzell, H. MMuscatine
Girls, C. LMuscatine
Hautsch, F. AMuscatine
Kulp, J. SMuscatine
Lange, H. F
Lingo, A. MMuscatine
McNutt, R. SMuscatine
Martin, J. T
Peterson, A. AMuscatine
Sterneman, CasparMuscatine
Klaffenbach, A. O
Howe, G. RMuscatine
James, F. B
Smith, D. E
Dillingham, E. H
Jayne, W. B
Long, W. M

O'BRIEN COUNTY.

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OSCEOLA COUNTY.

Graham, J. A	***	 	 	i ex	 		 		.Ocheyedan
Gallagher, Frank			 	(*: *; x:	 	****	 	****	, Ashton
Trainer, M. M.									
Dixon, G. E		 ***	 		 ** **	0(x)+3;	 		Sibley
Harvey, H. J									

PAGE COUNTY.

Lewis, L. WShenandoal
White, E. SShenandoal
Stevens, J. SShenandoal
Richardson, H. NShenandoal
Van Buskirk, J. MShenandoal
Harrison, E. R

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Wells, F. P Brown, J. P Anderson, R. W Hockabout, Wm Wyckoff, C, D Kinney, C. L	ClarindaBlanchard College Springs
PALO ALTO COUNTY.	
Thomas, E. F. Kidder, R. E. Theile, A. A. Bliss, J. A. Kulp, D. E. Osher, B. T.	EmmetsburgRuthvenWest Bend
PLYMOUTH COUNTY.	
Joynt, R. J. E. D. Brower Lucke, P. P. Dwight, W. H. Cunningham, G. W. Sharp, J. Kuster, S. W. Wooton, G. H. Conger, L. J.	Le Mars Le Mars Le Mars Le MarsLe MarsKingsleyRemsenAkron
POCAHONTAS COUNTY,	
Hibbs, T. G. Leece, S. E. Furman, W. O. Young, J. L. Seifkin, C. W. Hambly, J. T. Beams, F. N.	FondaPocahontasRolfeRolfeGilmore
POLK COUNTY.	
Neuman, W. Des Moines, Shaw, F. W. Des Moines, Harrod, W. A. Des Moines, Rozelle, E. L. Des Moines,	Utica Building Utica Building Utica Building

 Hurd, H. A.
 Des Moines, Utica Building

 Oberman, B. E.
 Des Moines, Utica Building

 Haas, A. L.
 Des Moines, Utica Building

 Nye, A. L.
 Des Moines, Utica Building

 Hunt, F. M.
 Des Moines, Utica Building

 West, J. A.
 Des Moines, Utica Building

 Connor, R. S.
 Des Moines, Utica Building

 Raiston, F. N.
 Des Moines, Utica Building

 Capps, H. R.
 Des Moines, Flynn Building

 Webb, C. A.
 Des Moines, Flynn Building

Cameron, W. J Des Moines, Flynn Building
Becker, A. F
Grimm, R. C
Gruenfeld, J
Miller, G. W Des Moines, Citizens Bank Building
Bradner, F. C Des Moines, Citizens Bank Building
Sharp, W. A Des Moines, Citizens Bank Building
Kennedy, C. M
McKay, W. N
Hanson, N. W Des Moines, Good Block
Hughes, E. E Des Moines, Good Block
Thomas, C Des Molnes, Century Building
Robertson, C. B Des Moines, Century Building
Fair'all, J. A Des Moines, Century Building
McCarty, A. L Des Moines, Century Building
McCarty, W Des Moines, Century Building
Watts, C. V Des Molnes, K. P. Block
Akers, L. P Des Moines, K. P. Block
Staves, F. D
Laird, C. E Des Moines, K. P. Block
Charters, W. J Des Moines, Fleming Building
Hallett, J. A Des Moines, Fleming Building
Snuggins, L. W
Keeler, H. D
Harmon, C. H
Begun, A. R Bes Moines, Sixth and Walnut Streets
Dwight, J. H Des Moines, Florsheims
Darling, L. H
Pohinson W I Des Moines, Masonic Temple
Entrikin J. B Des Moines, Equitable Building
True, H. A Des Moines, Alpha Floral
Cory F M Des Moines, Twentieth and Forest
Cory, H. H
Sletten A M
McCuire I H Des Moines, Highland Park
Berkey, N. CDes Moines, S. E. Cor. Sixth and Walnut Streets
Neely, W. L Des Moines, 520 Walnut Street
Lynch, O. E
Elmquist, H. A East Des Moines, Bank Building
Thomas C C East Des Moines, Bank Building
Marion I W East Des Moines, Bank Biulding
Outsiles M V
Tracker W N
Partition of D
Houghton, M. JValley Junction
When the Parties III III III III III III III III III I
TITAL Runnels
Waterman, H. A
Mitchellville

POTTAWATTAMIE COUNTY.

Pomeroy, Roy
Maxwell, W. AAvoca
Read, C. HAvoca
Rawlston, C. S
Reed, A
Brandt, C. R. MNeola
Haight, P. FOakland
Read, E. GOakland
Brown, Geo Council Bluffs
Covalt, Scott
Deetken, J. CCouncil Bluffs
Hamilton, GailCouncil Bluffs
Jefferies, Chas
Lewis, Claude
Poston, L. L
Roe, Leroy
West, H. SCouncil Bluffs
West, Minerva LCouncil Bluffs
Williams, R. O
Woodbury, H. A
Woodbury, C. E
McCall, S. WCouncil Bluffs
Johnson, C. V
Reed, Glenn
Guerney, L. ECouncil Bluffs

POWESHIEK COUNTY.

Billings, J. W	Grinnell
Gallagher, O. H	Grinnell
Lemley, L. G	Grinnell
Derr, Mrs. D. W	Grinnell
Holsen, Aliene M	Grinnell
Anger, A. E	Brooklyn
Niswander, C. H	Brooklyn
Anger, H. W	Victor
Leonard, J. A	Deepriver
High, D. B	. Montezuma
Graham, A. B	. Montezuma

RINGGOLD COUNTY.

Horton, J.	P	ingley
Miller, A.	K	nt Ayr
Miller, C.	EMou	nt Ayr
Clark F.	C. Mon	nt Ave

SAC COUNTY.

Oursler, W. N Odeb	olt
McCulla, RoyOdebo	olt
O'Grady, J. ESchall	
Morris, J. LWall La	ke
Molsberry, W. ISac Cl	ty

SCOTT COUNTY.

Baker, C. R Davenport, 200-1 Whittaker Bldg	g.
Blakemore, M. G	ğ,
Brown, H. A Davenport, 3291/2 W. 3d S	t.
Carroll, W. D Davenport, Whittaker Bldg	Š.
Case, Roy A Davenport, 106 W. 2d S	t.
Connell, J. D Davenport, Whittaker Bldg	g.
Dessaint, L. R	g.
Doran, O. D	t.
Dueser, F. H Davenport, 54 McManus Bldg	g.
Evans, S. J Davenport, 301 Putnam Bldg	g.
Hayes, J. B	t.
Kelly, M. J	
Kerrigan, J. A Davenport, 414 Central Bld	
Littig, H. ADavenport, 301 Brady S	
Letts, H. L Davenport, 343 Hageboeck Bld	
McCandless, C. R	g.
McGarvey, L. E Davenport, 34 McCullough Bld	g.
McKee, J. W	g.
Mitchell, W. T Davenport, 21 Whittaker Bld	g.
Morgan, J. B	g.
Pape, H. G Davenport, 25 McManus Bld	g.
Parmele, F. M	g.
Schmidt, A. L Davenport, 115 E. 3d S	it.
Smith, C. W	E.
Sebolt, W. A Davenport, 57 Schmidt Bld	g.
Sutphin, E. E Davenport, 409 Central Office Bld	g.
Unangst, J. D	g.
Warner, F. L Davenport, 403 Brady 8	St.
Williams, E. E	IS.
Haller, W. E	L
Meyers, C. ELe Clai	Le

SHELBY COUNTY.

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SIOUX COUNTY.

Beach, C. LHull
De Mots, HSioux Center
Matheson, G. AIreton
Cornish, M. SAlton
Dixon, F. LRock Valley
Renshaw, C. WRock Valley
Mann, A,Hawarden
Wyant, A. CHawarden
Ogg. J. AOrange City
De Bey, COrange City

STORY COUNTY.

Arthur, S. WNevada
Richards, J. LNevada
Williams, T. ENevada
Price, F. O
Robertson, R. CCollins
Ellis, G. H
King, C. AMaxwell
Edwards, A. U
Nott, G. RSlater
Tilden, J. FAmes
Hunt, C. EAmes
Kelso, N. HAmes
Rice, T. LAmes
Waters, F. H
Snyder, G. JAmes
McCarthy, C. BStory City
Unbehaun, E. CRoland
McCormic, A. JZearing

TAMA COUNTY.

Batcher, W. HToledo
Haselton, H. BToledo
Ball, E. HTama
Seabert, C. PTama
Tims, F. B
Brown, C. HTraer
Porterfield, RoyTraer
Lynn, C. C
Fisher, L. EGladbrook
Rath, T. HGladbrook
Lyons, W. W

TAYLOR COUNTY.

Manker, G.	FBedford	1
Bates, N. J	Bedford	1
Paschal, K.	BBedford	i
Thomas F	E Blockton	2

Dunlavy, W.	S		 	 	Gravity
Carey, F. P.			 	 	Clearfield
Swain, C. J.			 	 	Clearfield
Ellis, W. H.		e'e was	 *****	 	Lennox

UNION COUNTY,

Stryker, A. CAfto	n
Phillips, W. JAfto	n
Schaff, W. ELorimo	Г
Herron, J. GCresto	n
Sutton, H. BCresto	n
Sprague, A. LCresto	n
Harmon, J. B	n
Stever, M. FCresto	n
Cretors, C. RCresto	n

VAN BUREN COUNTY.

McClurg, F. M	uqua
Scott, J. EKeosa	uqua
Percival, C. SBona	parte
Knight, N. PFarmi	ngton
McClurg, C	lilton
Carpenter, G. A	
Miller, W. MI	
Byers, R. EBirmin	
Lindholm, M. JFarmin	ngton

WAPKLEO COUNTY.

McVay, H. REddyville	
Long, Martin Eddyville	
Calhoun, J. F	
Hurst, H. EEldon	
Justice, P. CBlakesburg	
Armstrong, J. NOttumwa	
Armstrong, L. HOttumwa	
Boone, W. COttumwa	
Brown, D. JOttumwa	
Creath, W. EOttumwa	
Dunnung, W. LOttumwa	
Goldsmith, W. S Ottumwa	
Holmes, L. GOttumwa	
Lewis, COttumwa	
Lewis, F. AOttumwa	
McDonald, W. FOttumwa	
McEvoy, J. MOttumwa	
Smith, J. MOttumwa	
Tullis, G. FOttumwa	
Vance, W. WOttumwa	
Work, C. MOttumwa	

Haughawont, J. W.....Fort Dodge

Straub, E. S......Sloux City

07	STATE BOARD OF DENTAL EXAMINERS 95
Lee, A. COttumwa	Walter To Mr.
Rogers, L. EOttumwa	Higby, F. MFort Dodge
Rogers, H. OOttumwa	Jankins, W. G
	Kennedy, E. F Fort Dodge
WARREN COUNTY.	Money, G. CFort Dodge
Hunsicker, C. LIndianola	Tilden, J. FFort Dodge
Story, W. H	WINNEBAGO COUNTY.
Mullican, L. A	Deriver H D
Seroggs, R. E	Derivan, H. B
Carpenter, L. D	McKay, W. H Forest City
Coon, L. B New Virginia	Nixon, H
	Smesrude, Eric
WASHINGTON COUNTY.	Leslie, F. C
Godlove, Geo	Colby, J. E
Godlove, L. L	Colby, F. JLake Mills
McIntosh, W. SWellman	Heiple, H. HThompson
Irwin, J. NBrighton	McCarvey, L. ELeland
Spessard, E. W	WINNESHIER COUNTY.
Terry, W. M	Tonliff C I
Crooks, W. B	Topliff, C. L
Thomas, C. L	Hutchinean T. C.
Marie, J. AWashington	Hutchinson, T, CDecorah
Sexton, J. O	Toye, W. R
Dewey, D. JWashington	Nagelsacker, O. BDecorah
McConaughey, E. M	Anderson, A. G
McColladgic), E. M.	Conover, J. F
WAYNE COUNTY.	Niles, G. HOssian
Bronson, A. E Seymour	WOODBURY COUNTY.
Wickham, G. CSeymour	Morrow D A
Engle, H. S Lineville	Morrow, B. ASloux City
Read, W. MAllerton	Hatseh, S. C
McClannahan, W. P	Farley, G. E
Silvernail, P. D	Johnson, S. KSioux City
Warder, L. E	Gould, C. FSloux City
Culmsee, C. F	Kellogg, H. HSloux City
Cumisee, O. B	Kellogg, R. DSloux City
WEBSTER COUNTY.	Harstad, OliverSioux City
Goodenough, G. D	Knott, FrederickSioux City
Stauffer, E. T	Mahood, L. MSloux City
	McCartney, E. F Sloux City
Bronson, E. T	Meis, H. JSioux City
Anderson, M. F	McElwain, P. WSloux City
Chinburg, S. I	Lanning, G. RSioux City
Stephens, C. MLehigh	Miller, R. WSloux City
Smith R. B	Miller, R. ESioux City
Bruner, GrantFort Dodge	Mohan, J. CSioux City
Clark, G. WFort Dodge	Rederich, A. JSioux City
Decereaux, T. EFort Dodge	DeWalt, J. ESloux City
Dorr, P. P Fort Dodge	Rose, T. ASioux City
Fuermann, F. WFort Dodge	Solvsberg, ArthurSloux City

96 REPORT OF THE STATE BOARD OF DENTAL EXAMINERS

Frey, J. ASioux	City
Van Dyke, J. WSioux	City
Wasson, A. SSioux	City
Robinson, F. WSioux	City
Westwood, C. ESioux	City
Westwood, C. ESioux	City
White, H. P Sioux	City
Currier, G. R	City
Parmley, F. F	City
Riniker, J. LSioux	City
Kiniker, J. L	thon
Mason, C. JAn	villa
Cook, O. I	villa
Burris, G. H	v1110
Randolph, H. F	ville
Crain, L. FCorrection	VIIIe
Bowers, C. KMo	ville
Lacy, C. BS	loan

WORTH COUNTY.

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WRIGHT COUNTY.

Goodsell, E. H	D. D.	hrond
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Gowdy, H. L		elmond
Dunlap, Frank		Clarion
Lister, C. S		Clarion
Roosevelt, Theo		Clarion
Lotts, E. G		Dows
Schaff, W. E		Dows
Vaughn, Geo. A		Grove
McConnaughey, C. H		Grove
Williamson, G. B	Eagle	Grove
Wallace, T. B		oldfield

TWENTY-FIRST ANNUAL REPORT

OF THE

State Dairy Commissioner

TO THE

GOVERNOR OF THE STATE OF IOWA

FOR THE YEAR 1907

H. R. WRIGHT
STATE DAIRY COMMISSIONER

PRINTED BY ORDER OF THE GENERAL ASSEMBLY

DES MOINES: EMORY H. ENGLISH, STATE PRINTER. 1907

LETTER OF TRANSMITTAL.

To His Excellency, Albert B. Cummins, Governor of Iowa:

SR-In compliance with the law, I have the honor to submit berewith the Twenty-first Annual Report of the Food and Dairy Commissioner.

Very Respectfully,
H. R. WRIGHT,
Food and Dairy Commissioner.

DES Moines, November 5, 1907.

EXPENSES OF DAIRY DEPARTMENT OF OFFICE OF FOOD AND DAIRY COMISSIONER FOR THE YEAR ENDING NOVEMBER 1, 1907.

Commissioner's salary\$2,000.00	
Commissioner's expense	\$2,307.49
Deputy's salary \$1,266.64	
Deputy's salary	1,299.83
Assistant Dairy Commissioner's salary\$1,266.64	
Assistant Dairy Commissioner's expense	2,162.43
Assistant Dairy Commissioner's salary\$1,266.64	
Assistant Dairy Commissioner's expense	2,191.48
Clerk hire (Food and Dairy)\$ 900.00	
Clerk hire (Food and Dairy) four months	1,233.32
Milk agents' fees\$1,965.00	
Milk agents' expense 132.05	
Milk agents' special work 41.55	2,138.60
Legal expenses	10.00
Analysis	40.00
Office expenses	142.74
Express, freight and cartage	156.19
Telegraph and telephone	84.69
	\$11,766.77
Less salaries which are not paid from specific appro-	7,033.24
PLANTAL	\$ 4,733,53
	+ -,,,,,,,,

The amount appropriated by the 32nd General Assembly for the Dairy Department for the period ending June 30, 1909, was \$11,000. Of this amount, there has been expended \$1,576.37 for the period July 1, 1907, to November 1, 1907.

REPORT OF THE COMMISSIONERS

CONDITIONS OF THE DAIRY INDUSTRY.

There have been no extraordinary changes in the dairy and creamery conditions in Iowa during the last twelve months, other than might easily have been forecasted a year ago. The change from the whole-milk system to the hand and separator and gathered cream system has continued to a marked degree and the patronage of the so-called centralizing creameries has increased in the aggregate. The strife between centralization and the system of local co-operative creameries has become more intense. As heretofore pointed out, nearly one-half of the area of this state is without local creameries, and the farmers in those sections must of necessity patronize the central plants. There is no point in Iowa more than seventy miles by rail from at least two central plants, and considerable quantities of cream are shipped out of the state to Minneapolis, Chicago, Omaha and St. Joseph, Mo. Considerable quantities are shipped into the state from northern Missouri, and from South Dakota and northeastern Nebraska. The movement of cream on passenger trains in this state has become a matter of very great moment both to the railroads and to the larger creameries.

The combined efforts of the dairy forces, of the college, of this department, of the Farmers' Institutes of the state, and of the creameries themselves, have in the last several years very greatly improved existing conditions. The change from the whole-milk to the gathered cream system resulted disastrously to the quality and value of butter made, but gradually the quality has become better and the last year has seen a considerable improvement—partly because of legislation, but largely because of the efforts of the creameries themselves and still more for the reason that the shipment of cream long distances has been lessened in this state to a very marked degree. A continued improvement in the character of dairy buildings, machinery and surroundings is noted to a greater degree each year.

THE WORK OF ASSISTANT DAIRY COMMISSIONERS.

The work of the assistant dairy commissioners during the past twelve months has been along lines of sanitation, and of investigating the conditions in relation to the policies of the various creameries as affecting their profits or losses. Some astonishing things have been discovered in relation to the overrun. One of them is, that very few creameries actually know what their overrun is. The books of various creameries show an overrun all the way from nothing at all to 30 per cent, and the butter shows an overrun from 10 to 25 per cent or more. It is quite evident that a difference of 5 per cent in the overrun of the average creamery, whose business is nearly \$40,000, amounts to a very considerable sum of money and the efforts of this department have been to insist upon it that the buttermaker and secretary know actually what the overrun is. that it should be as high a figure as is consistent with honesty and safety under the laws and that it should be a real overrun and not an apparent one secured by low testing, or other means not legitimate. The work of the assistant commissioners is suggested more at length in the discussions following.

OLEOMARGARINE

As suggested in report of last year manufacturers of oleomargarine are more than ever pushing the sale of the uncolored product on its merits. While there are still innumerable instances where oleomargarine is sold or furnished to the consumer as butter, it is true that a very large number of retail dealers are attempting to sell oleomargarine for what it is, and in strict compliance with the law. The statistics given below show considerable increase in the manufacture of oleomargarine for the year ending June 30, 1907.

The following table shows the production of oleomargarine in the United States for the last six years: The year ends in each case June 30th.

1902		į,	4																	4			,	a: (1	2	6,	3	1	6,	4	7	į
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The prevailing high price of butter for the last eighteen months has been a great factor in this increase, and the fact must be recognized that when butter retails at from thirty to thirty-five cents a pound the legitimate demand for oleomargarine is necessarily increased. This is particularly evidenced at the present writing (Nov. 1, 1907) by the increased number of retail dealers' licenses issued in this state.

The best argument at the command of the dealer in oleomargarine is the presence on the market of butter of poor quality. The next best argument is the presence of too many so-called pound bricks of butter actually weighing an ounce or more short in weight. The dealer in butter who sells a product of poor quality or a short weight package is the greatest enemy that the butter industry has at the present time. His practices besides being dishonest make possible too often successful competition by the dealer in oleomargarine.

Successful prosecutions for violation of the oleomargarine law have been undertaken at Centerville, Burlington and Waterloo, and one unsuccessful prosecution at Ottumwa.

SANITATION.

Section 2522 of the Code provides: "Every person or corporation, or the employe of such person or corporation, who operates a creamery, cheese or condensed milk factory, or re-works or packs butter, shall maintain his premises and utensils in a clean and hygienic condition. " Whoever shall violate any provision of this section shall be punished by a fine of not less than twenty-five nor more than one hundred dollars, or by imprisonment in the county jail for not more than thirty days." Under this section, fines have been inflicted on one buttermaker and upon the secretary of another creamery. A careful reading of the above quoted statute shows that the responsibility for cleanliness in the creamery rests equally upon the buttermaker and his helpers, and the secretary, or manager, or proprietor. The assis-

tant commissioners have done a great deal of effective work among the creameries by insisting in a great many cases upon a radical change of conditions on pain of prosecution, and this policy of the department will be further carried out in the future. There is never any excuse for unsanitary conditions in a creamery, and such conditions are the more inexcusable under present prosperous business conditions.

The law above quoted was intended to insure the consumer of Iowa butter that it is made in a cleanly place. A good many of our creameries were built a number of years ago and ought now to be replaced with new and more substantial and permanent buildings. A very large number of creameries have been this year replaced with buildings composed of buildings made with brick or cement, and the tendency towards better buildings is more marked every year.

There are two things absolutely essential to the highest degree of cleanliness and sanitation in every creamery. They are: first, a cement floor; second, proper drainage. Unfortunately, a great many creameries are so located that there is not sufficient fall to permit of proper drainage. Some of our creameries under such conditions have put in a septic tank and the results have been very successful. This department will be glad to furnish information and plans for such a system of caring for the drainage on request from officers of any creamery.

TESTING CREAM.

Innumerable complaints come to this department concerning the sampling and testing of cream by cream haulers, cream purchasing agents, the creameries themselves and nearly all of these complaints allege that the inaccuracies arise either from the desire to cheat the seller of cream either on weight or on test, or a desire to win away the patrons of a creamery by giving higher tests or higher prices than the facts or conditions warrant. The testing of cream may be, and usually is, as certainly correct as the weighing of it, but carelessness in sampling, inaccuracy in weighing the sample for the test, too high temperature of fat column when the test is read, and inaccurate measurement of the fat column, all lead to wrong results. The carelessness exhibited by a good many users of the Babcock tests is little short of actual criminality. Unfor-

tunately, it is impossible under our present statute to convict the tester for such carelessness in the test. It is necessary to show that the inaccurate results arise from actual intention to deceive or fraud, and in most cases it is almost impossible to bring any positive, affirmative evidence of such intention, even though the results are clearly shown as they would be if such criminal intention were actually present. The dairy law requires the operator of the test to "produce correct measurements of butterfat." It also puts upon the operator "the burden of establishing the use of reliable tests and the results therefrom." This is another way of saying that if the patron sues the creamery man for shortage in tests and payment, the burden of proof is upon the operator of the test to show that the results arrived at were correct. Unfortunately, the amounts involved are always so small that the expense of a suit prohibits bringing it.

Cream is the one product which the farmer sells of which he does not know the actual value with very close approximation. His other products, whether sold by weight or number, are such that he knows with very close accuracy what the weight or count should be, but usually when he sells his cream he not only doesn't know the weight of the cream but is unable to ascertain the test even approximately, and he usually permits the buyer to fix the price. There are two ways in which he can protect himself. One is to learn how the sample must be taken in order to be accurate, and then insist that the sample shall be taken and the test made and read in his presence; the other is to secure a test machine and other necessary apparatus and chemicals to make the test and then weigh, sample and test all his cream before the same is sold, so that he will know accurately how many pounds of butterfat is delivered.

There have been serious suggestions that proper legislation be had and system devised for examination and license for users of the Babcock test. A part of the system would necessarily be authority lodged in some proper person for revocation of the license when it is shown that tests arrived at were not accurate. Whether such arbitrary regulation should be made is a question for consideration for dairy and cream people before the meeting of the legislature in 1909.

PURCHASE OR SALE OF UNWHOLESOME MILK OR CREAM.

(From Chapter 10, Title 24, Code as Amended.)

Section 4989. Sale of impure or skimmed milk-skimmed milk cheese-labeling-purchase of unwholesome milk or cream. If any person shall sell, exchange or expose for sale or exchange or deliver or bring to another, for domestic or potable use, or to be converted into any product of human food, 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, abscess or running sore, or which has been taken from the animal within fifteen days before or five days after parturition; or if any person shall purchase, to be converted into any product of human food, any unclean, unhealthful, adulterated or unwholesome milk or cream, or shall manufacture any such milk or cream into any product of human food, * * * he shall be fined not less than twenty-five nor more than one hundred dollars, and be liable for double damages to the person or persons upon whom such frauds shall be committed. * * *

Attention is called to the fact that the above law provides the same penalty for the purchase by manufacturers of butter as for the sale of unwholesome milk or cream. Six successful prosecutions under this statute have been undertaken during the last year. The larger receivers of cream report that conditions have very greatly improved within the last twelve months. They have uniformly taken advantage of the law to press upon the shipper the absolute necessity of sending in cream that is fit for making into butter and the net results have been the improvement mentioned.

WATER IN BUTTER.

The increased activity of internal revenue officials among creameries has been one of the incidents of the last season. The presence of more than the legal maximum of 16 per cent of water in butter is so flagrant an offense, and the sale of such butter such an inex-

cusable blunder, that one can not sympathize much with the creamery manager or creamery buttermaker who gets into the net of the internal revenue official. Despite the efforts of the dairy papers, the officers of this department, and others interested in the welfare of the industry, the buttermaker who actually tests every churning of his butter for water is the exception and not the rule; and the manager who insists that his buttermaker shall so test every churning on pain of discharge has not been discovered.

It may be of service to have it stated here that a number of Iowa creameries have been assessed from \$250 to much greater amounts, which they have paid; that an official of another state paid \$1.600 for sale of butter containing too much water; and that practically all makes of butter are being examined in the markets by internal revenue officials to see if they violate the law; that if the make of a creamery shows more than 16 per cent of water at any time it is almost certain to be discovered and the penalty inflicted upon the creamery management; that the reason why these cases and penalties are not more exploited in the dairy papers is because the penalties are inflicted by the internal revenue officials in the way of license fees required and payments of tax at the rate of ten cents a pound upon the butter seized, and there is no publicity as there would be if the creamery manager were prosecuted and fined in open court. However, those who imagine that the internal revenue officials are not active in the enforcement of this law are wholly deceived as to the facts. The law is a proper one and the department having its enforcement is competent and energetic.

The effect of recent agitation for a proper amount of overrun in creameries, has resulted in too many cases in efforts on the part of the buttermaker to increase the amount of water present and that without taking any pains to know how much water is present in the butter when it is shipped to market. Assistant dairy commissioners have tested butter at various creameries and have found butter containing all the way from 7 per cent to 28 per cent of water, and in every case where abnormal quantities of water have been discovered, the buttermaker was wholly ignorant of the fact and asserted that his overrun as shown by the secretary's books was only about what it ought to be. Such condition of ignorance will certainly result in the payment of penalties for violation of the national law relating to water in butter.

There are three forms of apparatus now sold by all creamery supply firms for determining the amount of water in butter—the

Gray's moisture test, the Irish test and the butter test bottle. None of these pieces of apparatus is found to give absolutely accurate results in the hands of buttermakers generally, but they do give results sufficiently accurate so that the buttermaker can avoid loss in the way of small overrun on the one hand, and penalties for manufacture of butter adulterated with water on the other.

The creamery manager should furnish the buttermaker with proper apparatus for testing his butter, and should then insist, on pain of discharge, that every churning of butter be tested for water content before it leaves the factory. The business of the average creamery in this state amounts to about \$10 or \$12 a day, or \$30,000 or \$40,000 a year. A loss of even one per cent makes a considerable sum of money. The detection of a single shipment of butter containing too much moisture may cost the creamery a very large sum of money, and to neglect precautions against possibilities of this kind amounts to a betrayal of the interests of the patrons of the creamery.

COAL TAR COLORS IN BUTTER.

For fifteen or twenty years coal tar colors have been used to a very large extent in the manufacture of butter. There has always been more or less of a prejudice existing in the minds of a good many people against the use of these colors in any food product. There has never been a prosecution for sale of butter containing one of these products in any state so far as known to this department, and there is not a particle of evidence that butter so colored ever did injure the consumer or that it could injure him. However, it is perfectly well known that certain coal tar colors used in other food products were of a slightly poisonous nature, and one or two of the states for the sake of consistency have by law prohibited the use of coal tar colors in every food product. Under authority of the national food law the Board of Food and Drug Inspection on July 13, 1907, in Food Inspection Decision 76, says: "The use in food for any purpose of any mineral dye or any coal-tar dye, except those coal-tar dyes hereinafter listed, will be grounds for prosecution. Pending further investigations now under way and the announcement thereof, the coal-tar dyes hereinafter named, made specifically for use in foods, may be used in foods." The colors named as permitted in food products are none of them colors which have been used or probably would be used in a butter color, so that the practical effect of this decision is to prohibit the use of coal tar colors in butter. The national law is a law relating to inter-state commerce, and it applies to practically all the butter manufactured in creameries in this state for the reason that ninety per cent of it is shipped to points outside the state of Iowa. It is therefore, quite apparent that coal tar colors in butter can no longer be used without fear of prosecution by the Board of Food and Drug Inspection at Washington.

There is nothing in the state food or dairy law and nothing in the national law to prevent the coloring of butter with harmless color, and buttermakers and creamerymen should secure from manufacturers of color offered to them a guaranty not only that the color itself is legally sold under the food law, but that it is such a color as may be legally used in the butter to be made.

TUBERCULOSIS.

Reference is again made to law requiring the pasteurization of skimmed milk before same is returned by the creamery to the patrons.

The law reads as follows:

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

Section 1. That every owner, manager, or operator of a creamery shall before delivering to any person any skimmed milk cause the same to be pasteurized at a temperature of at least one hundred and eighty-five (185) degrees Fahrenheit.

SEC. 2. Whoever violates the provision of this act shall, upon conviction, be liable to a fine of not less than twenty-five dollars nor more than one hundred dollars."

The following is a quotation from Bulletin No. 92 Iowa Experiment Station:

"With the probable exception of hog cholera, there is no disease more dreaded among swine growers than tuberculosis. The disease is of frequent occurrence and according to statistics the numbers of animals so affected is annually on the increase, particularly in dairy sections. Packers are most rigid in their inspections in an attempt to protect the pork consuming public, even going so far as

not to buy hogs from localities known to have had a considerable number of swine affected with the disease. The carcass of an infected animal is utterly unfit for human food. Compared with this phase of the subject the thrift of the hogs is unimportant to say the least, as this only reduces the feeders' profit. It is the health of the public that must be guarded. A knowledge of the source of infection and of the extent to which the disease is rapidly spreading is, therefore, of primary importance to those engaged in checking its advance.

"It is known that the same bacilli which produces tuberculosis in cattle also produces the disease in hogs. The exact extent to which cattle are responsible for its presence among hogs is, however, not known, Direct hereditary transmission among swine rarely ever occurs according to European investigators, who are unanimous in the theory that the disease is caused by infection of dairy products containing the tubercle bacilli. Instances are common where droves of hogs, which at some time in their lives had been fed whole milk, skim milk or buttermilk, when slaughtered, showed a large proportion of the number to be infected with tuberculosis. This is proved by the fact that tuberculosis prevails mostly where the dairy industry is the most extensive, namely, northern Germany and Denmark. It is a difficult matter to find hogs raised under common farm conditions that have not been at some time in their lives fed cow's milk. It is thus apparent that the consensus of opinion has some foundation when it is generally believed that cow's milk is responsible for the rapid spread of this disease to the swine herds of the country.

"The subjecting of milk intended for hog feeding to 176 degrees of heat, or 'pasteurization,' to kill any tubercle bacilli that might be present is now a common practice on the modern dairy farm and at the leading creameries. There is a desire with many to know whether there is any practical necessity of this pasteurization in this state. The only answer to the question is the results of actual experimental investigations into the transmissibility of the disease to hogs from cow's milk."

An experiment in feeding pasteurized milk to two separate lots of pigs and milk infected with tuberculosis germs to two other lots was carried on for a period of about eight months. The pigs at the beginning were free from tuberculosis. Of the twenty pigs fed infected milk every one was found upon slaughter to have acquired disease of tuberculosis, while of the twenty pigs fed on pasteurized milk only two showed slight traces of the disease.

The swine industry in this state is of such great importance that every effort ought to be made to protect it from loss by disease. The pasteurization of skimmed milk at the creamery, as shown by the foregoing experiment, is effective in preventing the spread of tuberculosis among swine. For a creamery to refuse to obey the law requiring such pasteurization is to disregard the interests of the whole community, and those of the patrons of the creamery in particular. A considerable number of prosecutions has been undertaken in cases where the creameries have not been pasteurizing the skimmed milk. The matter is of such very great importance that this department will continue to make prosecutions for failure to comply with this statute wherever it is possible to secure evidence of such violation.

During the year there have been fines inflicted for violation of the statute in relation to the pasteurization of skimmed milk upon creamery managers at Ackley, Harlan, Bristow, Ladora and Ottoson.

BUTTER PRICES.

Below is given a table showing New York prices on butter of the highest grade by months for the last eleven years. The average price for 1896 was about the same as that for 1897 given below, and these two years mark the lowest prices for butter in the last twenty years.

TABLE NO. 1.

SHOWING AVERAGE MONTHLY PRICE OF FANCY WESTERN CREAM-ERY BUTTER IN NEW YORK MARKET.

	months; Nov. 1,	months; Nov. 1,	months g Nov. 1,	months g Nov. 1,	months g Nov. 1,	months Nov. 1,	months Nov. 1,	months (Nov. 1,	months g Nov. 1,	months ; Nov. 1,	months g Nov. 1,
Month	Twelve n ending 1897	Twelve m ending 1 1898	Twelve n ending 1809	Twelve n ending 1900	Twelve n ending 1901	Twelve n ending 1902	Twelve rending	Twelve n ending 1904	Twelve n ending 1905	Twelve n ending 1906	Twelve r
November	8 .2112	8 .2325	8 ,2337 5	.2800	8 .2487	8 .2412	8 .2650	8 .9317	\$,2481	8 .2350	8.276
December	.2250	.2290	.2160	.2720	.2540	.2510	,2920	.2428	.2688	.2480	.310
January	.1900	.2040	,1975	.2650	, 2262	.2425	,2762	.2870	.2910	,2050	.306
February	.2050	.2042	,2100	.2500 .2550	.2250 .2212	.2862 .2840	,2600	,2452	,8218	.2700 .2700	.30
March	.1900	.1937	1962	.1960	2000	,2825	.2725	,2400	.3008	.2188	.30
April	.1880	,1580	.1790	.2012	.1900	2275	.2200	.2012	,2371	2017	.25
May	.1500	.1687	.1881	,1950	,1925	.2195	.2160	.1803	,2049	.2022	.23
June		.1687	1885	.1960	1900	,2131	.2012	.1767	.2056	,2062	.24
JulyAugust	,1675	.1860	,2000	,2100	2050	.1990	.1940	,1793	.2111	.2257	.24
September	,1930	.2025	2262	.2150	2110	2170	,2075	.1947	.2068	.2462	.27
October	.2290	.2235	.2400	.2190	.2200	. 2302	,2100	.2095	.2184	.2611	.29
Aver. val. per	\$.1885	8 .1971	8 .2065 \$.2278	\$.2165	\$.2416	\$.2417	8 .2140	8 .2487	\$.2375	\$.28

CITY MILK INSPECTION.

The growth of the city milk inspection in this state is indicated by the following table showing the number of permits for milk dealers issued in the years from 1896 to 1907. The years end in every case on the 4th of July:

1896 566	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1,000
566	620	0/4	010	114	109	CHET	100	100	OWI	000	*1000

Cities.	Pop. 1905.	Inspectors.
Surlington Cedar Rapids Clinton Clinto	25,318 28,759 22,756 25,321 39,797 75,626 41,941 14,369 14,604 12,045 15,067 20,181 40,952 18,071	Oscar C. Hoer Chas. B. Thomas D. J. W. Griffith H. A. Lennox H. J. High J. P. Morey Harry Barmierier D. C. Benjamin Dr. E. M. Singleton Dr. John Tillie E. B. Hill J. E. Huffman Theo. Peek

The inspection and tests carried on by this department in fourteen cities lead to the belief that there is very little adulteration of milk by skimming or watering, and little adulteration with chemical preservatives or coloring matters. In the city of Des Moines during the summer months, the chemist of this department has analyzed over six hundred samples of milk secured from city milk dealers and not a single case of the use of preservatives has been discovered. Newspaper accounts of extensive adulterations of milk are not warranted by any known facts.

The inspection carried on by this department does not extend to the farms or the cows that produce the milk sold in these cities, and hence does not give any assurance that the milk sold is produced from healthy animals nor that it is handled in a cleanly manner up to the time that it appears for sale to the consumer. Neither the funds nor the authority given this department enable us to carry on any such inspection.

CENTRALIZATION OF CREAMERIES.

It is impossible to give any inclusive and exclusive definition of the centralized creamery in this state for the reason that the state possesses all the varieties of creameries that exist anywhere. There are in the state ninety plants that answer affirmatively to the question "Do you receive any cream by rail?" It is believed that about half this number actually receive one-fourth or more of their butterfat by rail. Twenty-one of the largest centralizing plants report that they make 24,357,637 pounds of butter. If we include another score of the smaller centralizing plants, they doubtless make one-third of the creamery butter manufactured in this state. Attention is called to the fact that the numbers given in the tables in this report show only the place of manufacture of the butter, and not the place where the cows are kept or the butterfat actually produced.

Another interesting fact shown by a study of the individual creamery reports is that in the smaller local creameries each patron produces about a thousand pounds of butter, while the centralized creameries appear to make from five hundred to seven hundred pounds of butter per patron which they report. The question is asked all creameries, "How many patrons did you have on July 1, 1907?" The patronage of the creamery with fifteen hundred to three thousand patrons is naturally fluctuating, but the number on the books any one day ought to represent about the average number for the year. It is hardly possible that the centralizing creameries particularly attract the small producer, and just why their patrons should produce only half or three-fourths as much as the patrons of the local creameries is a question that this department is unable to answer.

This department is bound to accept as correct the statements made by creamery managers as to the number of patrons and the number of pounds of butter made, for the reason that the necessary records of the creamery are at hand. The number of pounds of butter made by the 21 creameries included in the above paragraph divided by the number of the patrons they reported as being on their books July 1st gives 590 pounds as the average amount of butter produced by each patron. The average for the state is more than a thousand pounds per patron as shown by Table 2 of this

report. This low average per patron and the consequent low apparent production per cow for the state, which appears from an inspection of the same table is occasioned by the extremely low figures given by the central plants, which report about one-third of the butter of the state, but which report one-half the number of patrons and about one-half the cows embraced in the figure given in Table 2. The low production per patron by the centralizers is uniformly low and is about half as much as the production in the best dairy counties. The tables given below are first figures reported by three central plants in different parts of the state; second the statistics compiled in Tables 1 and 2 of this report for the counties indicated

3,200 3,800 900	1,765,659 1,739,019 455,358				651 457 505	
Coun	y	No. of creameries	No. of pa- trons	No. of cows	No, of lbs, of butter made	Av. Ibs. but-
Chickasaw		7 10 17 20 19 14 12	1,273 1,626 2,223 2,615 1,708 1,317 2,684	18,790 13,719 18,433 23,870 14,366 12,933 21,372	1,570,562 1,859,679 2,875,738 3,758,482 2,226,227 1,599,935 2,422,228	11- 13- 15- 15- 15- 12- 11-
Total		99	13,446	118,483	16,312,851	13

SHIPPING RATES ON CREAM.

More than a year ago, creameries in the northern part of Iowa raised strenuous objections to the extremely low rates on cream which certain railroads were making to Chicago. The net results of these rates, was that the Chicago centralizing plant could get butterfat into Chicago in the shape of cream for less money than the state of Iowa could ship butterfat to the same point after it was made. On representations made by them, in which the dairy com-

missioner joined, these rates to Chicago were raised to rates practically equivalent to rates for like distances obtaining inside the state of Iowa, though not all the railroads joined in the raise of rates. Later an attempt was made by the Beatrice Creamery Company to have rates in Iowa lowered by authority of the Railroad Commission. This effort was opposed by the dairy commissioner and the rates from Iowa have remained the same as they have been for a number of years heretofore.

It is apparent that a large number of producers of cream in this state are, under present conditions, compelled to transport their cream to market from a distance that precludes a possibility of any transportation other than rail transportation. As heretofore suggested, there is no point in Iowa further than seventy miles from two or more centralizing plants, and hence it is apparent at once that the necessity for a low rate for cream shipment does not obtain over greater distance than suggested. Efforts to reduce cream rates have been along the line of reducing the rate for long distances. There is wide-spread movement on the part of the centralized creameries all over the west to maintain as low rates as possible, or to secure lower ones where the tariff equal to the Iowa rates obtains. There is a movement equally wide-spread on the part of railroads to make a higher rate for cream than for milk and thereby to raise rates on shipments of cream for buttermaking purposes, so that the matter is one which has been brought to the attention of the Interstate Commerce Commission and the Railroad Commission in Minnesota, Nebraska, Iowa and Wisconsin, and indeed has got into federal courts on a petition for injunction against raising rates.

Different conditions may exist elsewhere. Iowa conditions do not demand a rate on cream shipments different from rates on other products which naturally go by express. The shipment of cream long distances inevitably causes a loss in quality and value of cream, which loss is inevitably visited upon the seller of that cream. To make a rate of 21 to 22 cents for seventy-five miles and a rate of about 30 cents for two hundred miles is unfair as between two persons, one of whom wishes to ship the shorter distance and the other who wishes to ship the longer distance. To make an extremely low rate for greater distances still gives an advantage which is not shared by the purchaser in any degree, directly or indirectly, if we may argue from experience in this state and elsewhere. The majority of creamery patrons already have a market at their doors

the business as a whole.

market is entitled to a fair rate on his cream in exactly the same

sense that he is entitled to a fair rate on his grain or live stock, but neither he nor the plant to which he ships is entitled to have his product carried free, nor to have it carried at a rate which is out of proportion to fair rates on other products. To so reduce rates upon cream shipments is to enable concerns with large capital and superior business resources to monopolize in large proportion the dairy business and will be disastrous to the dairy business of this state. Dairy people of this state should understand that this is a question which will continue to be agitated and will take such action as seems to them proper as safeguarding the interests of

TABLE No. III.

TABLE SHOWING NUMBER OF HAND SEPARATORS, NUMBER OF PATRONS AND NUMBER OF COWS.

	ID (C)	Sh.	90	80 (8)	di	h
	hand	by	separators	creameries ig patrons	126	ė.
	18	200	6	Ter	10	
	8	cream	1	Eta	patrons	eows
		90	0.0	表面	14	0
Manager 1	o, of creareporting	-	244	No. of cre reporting and cows	ii.	6
County	9 11 45		and se	98	D _M	4.00
	ort	Receive	F .	of of other	No. of p	No, of ported
	000	500	P 00	0.45	of	E
	- 6 6	200	8.0	- 55	.00	000
	No.	200	Hand	rep and	2	Z
	-	304	led.	2010		-
Adair	5	1	1,003	5	1,139	6,740
Adams	8		298	8	312	2,472
Allamakee	8		1,441	8	1,846	13,074
Appanoose						*********
Audubon	7		1,020	8	1,851	11,200
Benton	4	1	488	4	558	3,000
Black Hawk	10	1	899	15	1,720	13,256
Boone	1	******	50	1	59	309
Bremer	4		119	23	1,785	19,884
Buchanan Buena Vista Butler	5		270	7	1,273	13,790
Buena Vista	6	2	1,068	6	1,130	10,162
Butler	1.2	1	595	19	2,076	18,499
Calhoun	4 5	2 2	2,759	- 4	3,604	89,020
Carroll	5	2	1.877	4	1,742	15,032
Cass	2	1	192	2	198	1,520
Cerro Gordo	4	3	105	- 4	271	2,247
Cerro Gordo	4	- 3	1,133	4	1,336	10,777
Cherokee	2 7		140	2	290	1,800 18,719
Chickasaw	7		495	1.0	1,626	18,719
Clarke	7					
Clay		1	740	7	900	8,225
Clayton	10	1	1,758	11	2,873	21,528
Clinton	6	3	720	.6	514	3,100 10,000
Crawford	1	1 2	1,500	1	1,241	10,000
Dallas	4	5.	833	4	91.9	4,100
Davis	A-THERE	anneres				MANAGEMENT STREET
Decatur		anekenge		17	2,223	18,433
Delaware	15	1	1,030	17	0,223	18,400
Des Moines	6		500	6	612	5,165
Dubuque	15	1 2	2,080	20	2.827	20,945
Emmet	6	20	327	7	485	4,229
Favette	0	1	835	20	2,615	23,870
Floyd	7 5	1	378	5	795	5,621
	4	1	851	5	1,179	8,855
Fremont	- 4		odi	-		The state of the s
Greene	T. T.		15	1	59	500
Grundy	7	2	639	8 7	1,069	8,636
Guthrie	6	1	586	7	1,090	8,496
Hamilton	4	2	492	3	585	3,700
Hancock.	7	35	807	7	907	7,680
Hardin	11	2	1,128	11	1,519	12,494
Harrison						
Henry						
Howard	6		307	0	886	5,600
Howard Humboldt	8	1	629	8	727	6,445
Ida	1	1	886	1 7	303	2,500
Towa	7		207		618	4,711
Inckson	11	1	1,524	11	1,748	13,506
Jasper	2 8	Name of Street	93	2	1.52	1,195
Jefferson	- 8	1	396	8	1,457	1,940
Johnson						
Jones	11	1	- 1,504	11	2,118	19,042
Keokuk	-		********			**********
Kossuth.	. 18		1,143	19	1,708 1,750	14,866
Lee	1	1	1,500 1,770	1 12	1,750	12,250 24,802
Linn	12	1	1,770	12	2,915	24,80%
Louisa					A STATE OF THE PARTY.	
Lucas		dansa.				

TABLE No. III-CONTINUED.

County	No. of creameries reporting hand separators	Receive cream by	Hand separators reported	No. of creameries reporting patrons and cows	No. of patrons re-	No. of cows re-
Lyon	1	1	50	2	575	3,200
Madison	2	2	850	2	720	4.000
Mahaska	1	1	450	1	450	2,000
Marshall	2	1	821	3	545	3,880
Mills			961	0	040	0,000
Mitchell	10		650	10	1,826	13,865
Monona	1	1	141	1	147	950
Monroe	1	1	90	1	130	788
Montgomery	*******					
Muscatine	5		45	1	136	800
O'Brien		8	856	4	649	6,000
Osceola	4	1	495	4	528	3,700
Page	1	1	1,750	1	1,900	15,000
Palo Alto	12		482	14	1,317	12,933
Plymouth	3	1	544	4	655	5,725
Pocahontas	4	1	489	8	449	3,800
Polk	4.	5	5,900	4	5,910	42,250 2,500
Pottawattamie	1 5	1 3	1,005	1 5		10,750
Poweshiek.	0	3	1,000	D	1,665	10,100
Ringgold	8	3	905	8	961	7,600
Sac	2	2	580	2	653	4,840
Scott	6	ű	650	5	591	4,776
Shelby	6	2	1.523	6	1.593	12,686
Sioux	9	- 1	610	9	1,093	7,879
Tama	3	1	550	3	525	2,300
Taylor	2	2	1,998	2	1,998	15,000
Union	2	î	2,075	2	2,150	17,400
Van Buren	-					
Wapello	2	1	1,214	2	1,184	10,600
Warren						
Washington	1		100	1	100	800
Wayne	1	1	1,700	1	1,700	10,000
Webster	1	1	800	1	900	8,000
Winnebago	4		536	6	1,150	11,566
Winneshiek	11	1 2	1,773	12	2,684 6,200	21,372
Woodbury	1	20	6,000	7	705	5,110
Worth	7	1	584 864	6	857	6,265
Wright	6	1	804	0	80-1	0,200
Total	421	90	74,906	491	101,011	780,779

TABLE SHOWING NUMBER OF POUNDS OF MILK RECEIVED, NUMBER OF POUNDS OF CREAM RECEIVED, POUNDS OF BUTTER MADE AND POUNDS SOLD TO PATRONS IN IOWA SO FAR AS REPORTED BY THE CREAMERIES.

	be	1.6	cream			
	reporting	24	191			
	ort.	milk	0	0		
	Di		See .	of	28	9
County	2	Jo Jo	0 10	10	ids sold	100
	umber	60 100	received	no 84	# £	ids s Iown
	Ď.	ounds	Pounds	25	Did.	Io Io
	100	100	110	100	In o	in in
	N	Pounds	Po	Pounds	Pounds sold to patrons	Pounds sold in Iowa
dair	5	1,277,087	2,781,215	1,041,147	20,050	19,5
dams	3	506,189	594,456	20%, 485	7,117	3,1
llamakee	8		7,022,104	206,485 1,911,747	7,117 24,804	40,3
Appanoose				********		******
Rudubon	8	13,416,647	3,104,545	1,637,988	65,592	16,6
Black Hawk	15	37,535,478	1,781,183 3,214,654	518,946	2,285 149,470	7,00 377,57
Boone	1	335,820	49,327	97.904	1,354	2,8
Bremer	24	70,011,567	633, 457	2,144,320 27,204 8,101,934	248,109	97.50
uchanan	7	70,011,567 31,479,929	563,744		122,608	69.8
Buchanan Buena Vista Butler	6	143,167	563,744 3,680,180	1,067,995 2,308,882	15,072	3,8
utler	19	40,834,383	2,296,658	2,308,882	158,436	87,7
alhoun	4 5	2,264,004	4,168,793	1,987,488 1,490,880	3,560 7,130	28,1 9,6
ass	2	40,000	3,960,209 652,929	210,034	520	9,0
edar	4	922,664	787,583	279,616	6,054	58,1
erro Gordo herokee hickasaw	5	1,158,860	787,583 4,389,618	279,616 1,145,510	9,053	78,9
herokee	2	5,500	326,000	120,000	6,000	8,0
larka	10	24,835,101	2,544,612	1,859,679	137,874	24,6
lay	7	5,860,170	2,135,751	851,855	48,475	11,8
layton	11	15,018,828	7,400,860	2,694,935 418,039	65,673	88,7
Hinton	7	2,831,141	1,150,310 1,767,372	418,039	14,299	2,4
rawford	B	1,487,625	1,664,663	774,354 648,629	12,584	45,0
avis	****			*********		
elaware	17	35,465,198	4,808,916	2,875,788	200,451	128,4
es Moines	6	252 000	1,911,389	001 min	23,887	16.3
ickinson	19	757,998 18,867,113	5,880,091	9 416 478	70.765	290.4
mmet	7	6,622,133 61,827,865 1,073,933 4,709,391	874.827	578,907	79,765 45,868	2.7
avette	20	61,827,865	874,827 3,001,831	3,758,489	261,474	2,7
loyd	5	1,073,933	2.729.250	795,327	261,474 52,801 28,671	16,9
ranklin	5	4,709,891	2,280,170	601.747 2,416,478 576,907 3,758,489 795,327 887,406	28,671	55,4
Iroone	1	597,858	10,897	13,124	582	
rundy	8	16,895,353	10,897 2,500,885	1 479 535	77,711	64,2
ave lawin	7	4,555,077	2,711,698 1,098,268	1,051,887 557,215	81,447 8,384	24,4
amiltonancock	4	4,705,420	1,098,268	557,215	8,384	1,6
ardin	7	1,904,459 8,667,977	2,022,845 4,172,173	996,425 1,583,709	29,845 93,698	9,4
arrison	11	8,007,277	4,118,110	1,000,109	90,095	00,5
Ienry				*********		
oward	6	6,481,512	2,277,479	787,094	34,856	12,4
umboldt	8	3,165,297 96,000	2,277,479 1,947,578 849,720	092,072	45,604	10,
0W8	1 7	8,180,463	981,825	692,672 326,714 609,684	1,470 58,561	160,1
	11	6,714,977	4,243,470	1.475 830	31,980	25,
gnor	2	1,990,579	362,411	1,475,839 182,990	9,850	44,4
	3	847,048	1,466,624	362,496	10,060	42,1
ohnson	11	23,341,426	5,867,730	2,850,316	115,802	91,
eokuk	AA.	20,391,920	0,807,700	2,000,010	110,006	MAgi
ossuth	20	18,912,437	4,504,182	2,226,227	165,097	105,
ee	1	200,000	1,440,000			
inn	13	16,589,392	5,226,835	1,897,290	53,732	363,4
ouisa	****	**********	~~~~~~~		**********	
Aucas						

County	Number reporting	Pounds of milk re- ceived	Pounds of cream received	Pounds of butter made	Pounds sold to patrons	Pounds sold in Iowa
Madison Mahaska	2		829,008	250,483	43,586	34,628
Marion	1		446,000	160,500		15,616
Marshall	3	1,728,658	1,412,672	439,678	12,135	120,282
Mills						
Mitchell	10	324,495	6,761,631	1,674,937	73,754	259,297
Monona	1		291,137	98,408	205 1,178	117
Monroe	1	601,069	161,272	70,715	1,178	19,109
Montgomery			213.577	51,775	1,570	18,700
Muscatine	1	209,708	2,367,228	918,152	11,564	11,362
O'Brien	5	306,657	1,354,818	405,168	7,174	4,206
Osceola	D.	200,001	Timeloro	Montage	.,,	-
PagePalo Alto	14	24,097,788	1.641.510	1,599,935	165,817	45,911
Plymouth	4	97,606	1,723,547	648,922	13,509	15,956
Pocahontas	- 4	011000	1,033,179	354,628	9,381	4,135
Polk	4	877,590	17,107,117	4,172,472		983,377
Pottawattamie	1	1,500,000		60,000		60,000
Poweshiek	- 5	378,831	6,795,898	1,264,155	3,600	212,300
Ringgold						
Sac	8	969,747	2,269,936	806,415	28,074	5,320
Scott	2	10,401	748,038	255,537 582,288	21,303	5,782
Shelby	6	2,236,317	1,712,378	1,743,092	22,316	15,569
Sloux	6	11,680,530	1,542,802	1,012,259	91,628	20,599
Story	3	551,575	741,487	242,981	1,842	5,101
Tama	2	OULIDID	5,300,000	1,383,859	11,000	13,624
TaylorUnion	2	4,200	8,160,611	981,067	1,608	2,778
Van Buren	-	43,444	Denos june		**********	
Wapello	2	650,658	1,212,442	318,074	5,400	18,179
Washington	1		300,000	82,210		12,210
Wayne	1	2.534.000	2,244,920	671,976		12,000
Webster	î		1,700,000	455,358		
Winnebago	7	19,673,586	2,114,211	1,496,772	106,458	22,587
Winneshiek	12		8,918,000	2,422,028	16,692	16,680
Woodbury	1	4,000,000	15,006,450	6,200,376	4,000	226,000
Worth.	7	6,908,770	1,881,783	843,688	54,229	7,284
Wright	. 6	512,117	8,014,923	819,596	23,911	47,120
Total	503	581,436,806	225,276,278	89,926,982	8,317,848	5,068,625

CREAMERY BUTTER MANUFACTURED.

In the following table is given the amount of creamery butter made for the respective years. The amounts are partly estimated in the following manner:

The average amount obtained by dividing the total butter by the number of creameries so reporting is multiplied by the total number of churning stations. It has never been possible to get a full and complete report of absolutely all the creameries. In making average mentioned above, the amount made by the large centralizing creameries and the number of them is subtracted before the average is attempted, so that there are no unusual or uncertain factors in the figures given. The make of the centralizing creameries is, however, included in the total.

1897		ci										×			 000	06								10.			88,900,000
1898		· A								×	ķ.		2			*		i.	4	-				14	,	8	
1899											6	×			4							×			,	×	87,972,470
1900									,		E	'n.			*	*		K	ì			,					84,965,062
1901				4							*	i.				100					×		*(1)				82,706,944
1902							21	2.,9															*			*	
1903												i.	è	40	4										į		64,565,970
1904			7.0						ú												ā		•				
1905						,			d		À	16									4	i	v.			×	
1906			 OI.					B) (1				(8)			4						 . 6		7	60		8	91,202,354
1907	F 8																					÷		10			91,164,368

COMPARISONS.

	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907
Total No. of creameries and skim sta.'s Ownership.	801	954	967	904	900	919	702	691	655	506	594
Individual Co-operative Stock company State property	504 349 87	516 349 88 1	501 849 116 1	594 364 105	360	376	350	335	206 316 132 1	339	819

RAILROAD BUTTER SHIPMENTS.

The following table shows the number of pounds of butter, net, shipped from each county in the state to points outside the state, which is found by subtracting sixteen per cent of the gross weight as reported by the railroads of the state. This department is under obligations to the freight officials of the different railroads for furnishing us these figures:

TABLE SHOWING NET POUNDS OF BUTTER SHIPPED OUT OF THE STATE, AS REPORTED BY THE RAILROADS, FOR THE YEAR ENDING SEPTEMBER 30, 1907.

Counties	1906	1907	Increase	Decrease
Adair	1,079,890	973,566		106,324
Adams	85,444	210,000	**********	85,444
Allamakee	1,468,626	1,572,193	108,567	
Appanoose	32,797	35,868	3,071	
Audubon	1,186,008	1,124,306		61,706
Black Hawk	793,839	241,756 969,073		582,083 511,059
Black HawkBoone	1,480,132 53,466	115,250	61,784	011,008
Bremer	2,473,678	2,773,412	299,734	
Buchanan			200,101	1,212,025
Buena Vista	1,321,824	1,128,072		193,759
Butler	3,098,132 1,321,824 2,232,228 1,531,484 2,020,441 286,452 290,940 884,721 612,881 2,468,370	1,886,103 1,128,072 1,722,565 1,400,018 1,888,055 203,379 177,725 1,185,823		510,662
Calhoun	1,531,484	1,400,018	********	131,460 132,380 83,073
Carroll	2,020,441	1,888,055		132,386
Cass	286,452	203,379	**********	83,071
Cedar	290,940	1 105 000	301,102	113,21
Cerro Gordo	619 991	568,939	201,102	43,94
Cherokee	2.468.370	2.056.017		412,35
Clarke		11.051	84	all jour
Clay	1.218.797	11,051 935,814		282,98
Clayton	1,218,797 2,373,250 1,137,963 1,093,109	2,418,368	45,118	
Clinton	1,137,963	1,019,196		118,76
Crawford	1,093,109	942,591		150,51
Dallas	647,464	937,224	289,760	
Davis	14,496	546 163	546	14,33
Decatur	2,740,122	2,799,336	59,214	19,00
Delaware	250,565	259,284	8,719	
Dickinson	729,938	583,516	0,110	146,42
Dubuque	2,271,330	2,223,196		48,13
Emmet	644,165	771,489	127,324	
Fayette	2,766,049	2,517,736		248,31
Floyd	777,425	761,792		15,63
Franklin	122,854	588,481	465,627	
Fremont	137,579	5,716 80,352	5,716	57,22
Greene Grundy	844,965	895,148	50,183	01,000
Guthrie	896,143	864,650	00,100	31,49
Hamilton	1,400,683	874.014		526,66
Hancock	888,937	963,934	74,997	
Hardin	1,784,853	1,728,263		56,59
Harrison	36,345	26,788	00.700	9,55
Henry	12,458	38,620	26,162	11,61
Humboldt	806,384	794,768 684,712 277,506 246,739 1,592,207 196,772 134,599 21,679 4,630,275 40,305	27,386	11,01
Ida	657,326 431,692 653,054	977.505	#1,000	154,18
Iowa.	653,054	246,739		406,31
Jackson	1,594,125 87,169	1,592,207		1,91
Jasper	87,169	126,772	39,603	
Jefferson	146,734 43,250 3,752,833	134,599		12,12
Johnson	43,250	21,679		21,57
Jones	3,752,833	4,630,275	877,442	153,72
Keokuk	2,423,053	1,758,215		664,88
Kossuth	3,993,365	3,503,813		489,58
Linn	1,734,959	1,607,382	Delin Constitution of the last	127,57
Louisa	14,009	8,217		5,79
Lucas				
Lyon	1,016			1,00
Madison		3,561	3,561	
Mahaska	61,775	184,541	122,766	90 44
Marion	165,526	135,063 393,076	5,990	30,44
Marshall	387,086 13,440	8,355	5,990	5,06
Mitchell	1,582,822	1,673,441	90,619	3,00
Monona	121,596	231,700	110,104	
Monroe	35,884	33,474	-20,100	2,41
Montgomery	THE REAL PROPERTY.			
Muscatine	39,382	29,632		9,75

Counties	1906	1907	Increase	Decrease
O'Brien	702,780	410,898		221,891
Osceola	207,138	312,949	105,811	
Page	645,633	644,664	**********	969
Palo Alto	2,303,861	1,147,832	*****	1,156,02
Plymouth	968,641	716,375		352,260
Pocahontas	620,391	480,291		142,10
Polk	5,117,540	4,790,804		326,73
Pottawattamie	284,351	5,478		279,87
Poweshiek	85,262	274,875	189,613	
Ringgold	160,625	490		160,12
ac	936,510	688,747		247,76
cott		1,577,194	1,209,712	
helby	574,071	504,279		69,79
loux		1,845,878	83,107	
tory		1,037,871	187,618	
ama		854,755		31,35
aylor	1,289,519	1,804,194	14,675	
nion	1,383,386	1,285,826		97,56
an Buren	27,626	18,390		9,23
Vapello	408,224	635,862	227,638	
Varren		945		2,02
Vashington	41,595	66,029	24,434	
Vayne		926,748	441	70.01
Vebster		656,531	13,435	30100
Vinnebago		1,342,868	201100000000000000000000000000000000000	83.18
Vinneshiek	1,957,822	1,866,587		91,28
Voodbury		5,965,465		376,88
Vorth		1,325,380	557,200	
Wright		1,113,957		71,85
Total	-	92,174,776	5,813,422	11,823,25

Net decrease, 6,009,831 pounds.

COUNTIES SHIPPING MORE THAN 1,000,000 POUNDS, NET, OF BUTTER IN THE YEAR ENDING SEPTEMBER 30, 1907.

907.	Countles.	1906.
The last	Woodbury	6,342,3
9,900,400	Polk	5,117,5
4,790,804	Jones	
4,630,275		3,993,3
,503,813	Delaware	2,740,1
7,799,836		2,473,6
773,412	Fayette	2,766,0
8,517,786		2,373,2
2,418,308	Clayton	
,223,196	Dubuque	
2,056,017	Chickasaw	2,020,4
,888,055	Carroll	3,098,1
.886,103	Buchanan	
,866,537	Winneshiek	
	Sloux	2,423,0
,758,215	Kossuth	1,784,8
1,728,263	Hardin	2,283,2
.722,565	Butler	1,582,5
.673.441	Mitchell	1,784,9
(07 389	Linn	1,594,1
.592.207	Jackson	307
577 194	Scott	1,468,6
572 198	Allamakee	1,531,
400 018	Calhoun	1,426,0
949 989	Winnebago	768,1
,325,380	Worth	7 000
.304.194	Taylor	1,289,
.285,826	Union	1,383,
185 893	Cerro Gordo	
147 899	Palo Alto	2,803,8
198 079	Buena Vista	1,321,
194 800	Audubon	1,185,
1 112 057	Wright	1,185,
1 097 (71	Story	850,
1,019,196	Clinton	1,187,
1,019,196	Clinton	71,56

These thirty-four counties ship $74\,\mathrm{per}$ cent of the 92,165,776 net pounds of butter shipped from the state.

TABLE SHOWING TOTAL NET BUTTER SHIPMENTS OF THE STATE FOR THE LEARS 1800 TO 1007, INCLUSIVE, FROM IOWA TO POINTS OUTSIDE THE STATE; ALSO INCREASE OR DECREASE AS COMPARED WITH THE YEAR PRECEDING.

Years Ending October 1st.	Net pounds of but-	Increase over pre-	Decrease from pre-
	ter shipped	ceding year	ceding year
1801	71,255,706 08,690,716 08,690,718 09,112,931 54,572,902 54,509,417 66,407,108 80,082,916 78,594,387 76,690,387 76,690,387 74,766,590,387 74,766,590,387 74,779,779 74,768,779,779 75,889,280 91,061,551 88,184,607	11,987,691 13,835,898 8,887,165 1,255,989 8,144,666 4,805,210 15,102,991 7,123,056	8,577,785 5,540,020 63,485 6,255,744

CREAMERY LIST.

*Skim stations. †Receive cream by rail.

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
2 3 4 5 6 7	Adair County— Adair Co-op. Cry. Co	M. L. McManus. C. C. Pease A. L. Stewart &Co A. L. Stewart &Co A. L. Stewart &Co A. L. Stewart &Co Jas. F. Laude	Stuart	J. D. Main
9 10 11 12	Adams County— tBlue Grass Cry. (Carl)——4 Fars. Mut. Co-op Cry. Assn o Mt. Etna Fars. Mut. Co-op	A. L. Stewart &Co A. L. Stewart &Co F. A. Outhler A. C. Peterson R. H. Gregory	Fontanelle	A. H. Ady A.M. McCartney
14 15 16 17	Calhoun Cry. Co. (Lansing) - c Postville Fars. Co-op. Cry c Fars. Co-op. Cry. & Comel.	R. W. Tartt	DorchesterChurch R1PostvilleWaterville	Jas. A. Gordon
18 19 20 21	Ludlow Co-op. Cryc Aretic Spring Cry. (Quandahl) o	F. A. Sanderman O. C. Flatberg_ J. L. White R. G. May	Minn. Waukon New Albin	Jackson Smith E. Rice
22 23 24 25 26 27 28 29 30	Oakfield Twp. Sep. Cry. Co. c Andubon Twp. Cry. Co. c West Hamlin Sep. Cry. Co. c Exira Cry. c Blue Grass Sep. Cry. c Danish Sep. Cry. Co. c Uberty Cry. (Manning) c	C. C. Moller Hans Nymand L. P. Nelson Fred Gjerloff Chris C. Nelson C. V. Christensen Peter Lykke L. T. Larson Frandsen & Olsen	Brayton Exira R3. Exira R2. Exira R2. Hamlin Audubon R4.	M. Anderson J. P. Nielson L. P. Nelson J. Johansen C. C. Nelson Fred Helleman Peter Thuesen Julius Andersen J. G. McCurlie
31 35 35 36	Norway Cry	Chas. Romine John Newman	Urbana Elgin, Ill	Chas. Hanbold M. B. Hershey Chas. Romine A. F. Bolender Oscar Harvey

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Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Black Hawk County-			
39	Crain Creek Cry. 4 Great Western Cry. 4 Fars. Cry. Co. 5 Eagle Center Dairy Agen	Wm. Meler Wm. Widdel G. S. Kleckner	Dunkerton	Wm. Widdel O.G.Alexander
40 41 42 43 44	East Lester Cry. Union Cry. Co. (Finchford) of Hudson Cry. Mt. Vernon Cry. Co-op. Cry. Co. (Jubilee)	E. G. Rechty L. B. Duffey C. A. George C. H. Brandhorst Geo, H. Moeller F. J. Orth A. J. Minish J. B. Kascht Samuel Sweiters	Waterloo R1 Fairbanks Winslow Hudson Denver	H. C. Konneke C. E. Brandt I. R. Moon W. J. Smith R. D. Lammer A. J. Widdel N. F. Hammel J. L. Clark R. W. Chadwick Ed. Friis
45 46 47 48	(Eagle Center) East Lester Cry Union Cry, Co. (Finchford) o Hudson Cry Mt. Vernon Cry Co-pp. Cry, Co. (Jubilee) o Red Bird Cry, (Voolurles) o Glibertville Dairy Assan o Orange Cry Black Hawk Cry, Co. c Cedar Falls Cry, Co.	A. J. Minish J. B. Kascht Samuel Sweitzer. Erick Peterson F. L. Hjort	Voohries Gilbertville Waterloo Cedar Falls R4.	N. F. Hammel J. L. Clark R. W. Chadwick Ed. Frlis J. H. Brandes
41/	Benson Dairy Co	E. Freeze Edward Masserly		E. Freeze F. R. Ballantine
	Boone County— Fars, Co-op, Cry, Co————————————————————————————————————	M. P. Peterson. J. F. Lacey. A. R. Westerberg F.F. Westerburg	Story City Stanhope Madrid Boone	L. Bremsen
54 55	Bremer Cry. Co	H. L. Kelley	Waverly Ro	Wm. Kallenbach
56 57 58 59 60 61	Western Douglas Cry. Co. (Waverly) 6 Little Valley Cry. (Sumner) 6 Farrington Cry. Co. (Donner) a First Maxteld Cry. Co 6 Farrington Co. (Skiinger) 6 Maxfield Cry. Co 6 Excelsior Cry. Co 6 Excelsior Cry. Co 6 Excelsior Cry. Co 6 Tripoll Cry. Co 6 Artesian Cry. Co 6 Expander Cry. Co 6 Artesian Cry. Co 6 LaFayette Cry. Co 6 LaFayette Cry. Co 6 LaFayette Cry. Co 6	Carl Oberhen Chas, Kraneyer. F. Garton Wm. Milius. J. F.C.McDonald C. H. Rohrssen	Cedar Falls	H. C. Eich
62 68 64 65 66	Climax Cry. Co	J. Strottman Henry Specht H. E. Wuttke C. A. Munger E. C. Finck H. Wallbrandt	Readlyn R1. Sumner R6. Sumner R4 Sumner. Tripoli.	John Wedemeyer C. E. Carr C. H. Rohrssen F. H. Wehling Henry Behrends C. L. Mills F. M. Zell H. Hanker
67 68 69 70 71 72	Artesian Cry, Co. (Denver). Co. LaFayette Cry, Co.	J. C. Koch H. Graening M. O. Walther E. J. Thles H. F. Moeller J. A. Nell Joe Volker	Readlyn R1 Waverly R1 Waverly R2	Wm. Ambrose F. C. Oltrogge E. H. Homan Henry Plegors D. Botterman Wm. Lenius F. D. Daniels
78 1 74 1 75 76 1	Washington Cry. Co	J. W. Stein	Fairbank	Fred Sommer H. A. Griese B. O.Squires
77 1 78 1 79 1	Dayton Cry. Co. (Sumuer)o Dayton Cry. Co. (Westgate) Buchanan County—	R. A. Neely G. C. Schwake G. C. Schwake G. C. Schwake	Phil. 13 S. Free Sumner	John Wehling
80		Con t West		100
81 I 82 I 83 J	Aurora Cry. 4 Fairbank Fars, Cry. Co	Geo. L. Weeks Jesse Lyon L. Gerstenberger C. L. Bright J. D. Thompson.	Fairbank Hazleton Jesup Lamont	W. A. Rizer Walt Peterson F. W. Strong E. A. Harvey M. E. Dunsmoor

Office record number	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
85 86	Buchanan County (Continued) Otterville Cry. Co. (Otterville) o tWapsie Valley Cry. Co. (Little- ton)	G. M. Vincent	Independence.	W. F. Miner
87	wapsie Valley Cry. Co. (Row- ley) Wapsie Valley Cry. Co8	I. S. Hutton I. S. Hutton	Independence. Independence	W. H. Sampson R. E. Bantz
88 89 90 91 92 98	Buena Vista County— Fairfield Cry. Co	O. P. Peterson. E. P. Kruse C.P. Corneliussen G. L. Ellison O. J. Hegna A. M. Frandsen.	Albert City Newell Alta Newell Rembrandt Linn Grove	Emil Krause J. F. Sharp H. Allen J. E. Lovitson P. O. Lindstrom Chris Olson
94 95 96 97 98 99 100 101 102	Butler County— Aplington Cry. Co. White Rose Cry. 6 Allison Cry. 6 Cold Water Co-op. Dairy Assno- Clarksville Cry. 8 Monroe Central (Eleanor). 6 Fearer Cry. Co. 6 Frankersburg Cry. (Sinclair). 9 Frankersburg Cry. 6 Fra	R. Meyer S. L. Patterson. S. L. Patterson. W. H. Codner. J. W. Williams. G. A. Palmer. H. Patterson. Peter Larson. W. S. Mead. M. J. Johnson. O. F. Courbat. A. B. Shadholt. A. B. Malker. H. Debner. F. F. Johnston. R. Helicomb. L. B. Ensign.	Aplington Austinville Allison. Greene. Clarksville Aplington. Kesley. New Hartford Parkersburg Shell Rock. Shell Rock. Waverly Shell Rock. Greene. Parkersburg Shell Rock.	S. L. Patterson W. H. Codner J. Jacobson J. Jacobson J. Jacobson H. Patterson Peter Larson Geo. Johnson M. J. Johnson O. F. Courbat E. F. Miller A. B. Walker F. H. Fisher K. T. Naa J. P. Johnston
113	Calhoun County— B Farmers' Co-op. Cry. Co	C. W. Jewell G. B. Moon T. H. Allen T. M. Borglum Henry Albright.	Lake City	Carl Lissner Chas. Moon L. Larsen Carl Moberg G. F. Allard
11 11 12 12 12 12	Carroll County— 8 Golden Star Cry. 9 Fiset's Cry. 10 Rose Valley Cry. 11 Templeton Cry. Co. (Mar ning). 12 Halbur Cry.	J. B. Bolke	Arcadia Coon Rapids Roselle Templeton Omaha, Neb- Halbur	M. Van Scholk F. S. Davis C. Kohorst E. C. Schuknekt W. T. Baker M. J. Wagner
11 11 11 11	Cass County— Fars. Mut. Co-op. Cry. Co 25 *Ploneer Cry 25 Alamito Sanitary Dairy 27 *Blue Grass (Massena (Anita)	c P. Pettinger 4 E. M. Bourne 8 C. F. Schwager	Cumberland Wiota Omaha, Neb. Fontanelle Atlantic	Albert Heyn E. F. Wolf
1	28 Atlantic Produce Co			

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Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Cedar County-			1
129 130 131 132 133	Golden Star Cry	W. H. Kroeger E. Huxoil E. Huxoil	Lowden	
134 135 136 137 138	J. D. Bickel Produce Co	M. V. Bickel C. A. Molsberry. J. C. Mortensen. C. O. Keeffe H. E. Palmetto	Mason City Plymouth Thornton Mason City Clear Lake	W. K. Pollard Roy D. Sweet Carl Larson C. H. Cleveland Guy Thomas
139 140	White Rose Washta Cry	C. E. Austin Jas Robertson,jr. Jas. P. Younger.	Marcus	M. J. Goodman L. W. McCreery Walter Freed
141 142 143 144 145	Chickasaw County— Boyd Farmers' Cry. (Boyd)c Alta Vista Fars. Cry. o Devon Farmers' Cry. Assn. (Devon) O Deerfield Cry. o Fredericksburg Butter Fac- tory.	J. De Bettigmes. Albert Tietjen Jno. Larson J. W. Kane C. L. Whitcomb. H. B. Young	N. H'mpt. R4 Alta Vista	
147 148 149 150	tory assn. Cry. Assn. c Iowa Fars. Cry. Assn. c Lawler Cry. Assn. c New Hampton Fars. Cry. c Farmers' Co-op. Cry. Co. c Williamstown Cry. Assn.	J. W. Krieger E. V. R. Hall		H. E. Forrester F. S. Stickman F. A. Zeigler E. J. Peterson J. W. Cagley
151 152	Lawier Cry. Assn. c New Hampton Fars. Cry. c Farmers' Co-op. Cry. Co c Williamstown Cry. Assn. (Williamstown) c Jerico Cry. Co c Saude Co-op. Cry. Co (Saude) c	H. S. Kerssen Thos. Altheson H. O. Matbig	Jerico	L. L. Flickinger J. E. Finnegan G. F. Langquist
	Clay County-			
153 154 155 156	Farmers' Co-op. Cry c Fostoria Cry. Co s'Royal Cry. Co Cry (Langers' Co-op. Cry (Langers)	W. McCurdy N. C. Nulsen A. Christensen	Dickens Fostoria Royal	A. W. Snyder N. C. Nulsen A. Christensen
157 158 159 160	Farmers' Co-op. Cry. c Fostoria Cry. Co. s** *Royal Cry. Co. cry. (Lang- fon) Co-op. Cry. (Lang- don) Cspencer Cry. (Lang- twebb Cry. 4 Everly Cry. (Everly) 4 Greenville Cry. Assn. 6	H. R. Beck J. W. Cory J. A. Reld Wester Bros.	Spencer R4 Spencer Webb Wesley Greenville	A. W. Thayer F. L. Repka J. A. Reid E. P. Conway Chas. Watsen
	Clayton County-			
164 165 166 167 168 169	Fidelity Cry. [Elkport). [4] Elkport Cry. (Elkport). [4] Farmersburg Co-op. Cry. Co.c Garnavillo Fars. Cry. Co. C Garnavillo Fars. Cry. Co. C Lunan Fars. Co-op. Cry. C Littleport Cry. (Littleport). [4] L. Bickel Froduce Co. [6] Strawberry Point Fars. Cry. Assn. C. Cry. [6] Elke Grass Cry. (Watton). [6]	H. F. Beyer A. A. Kishman H. H. Kuhlman Jas. Humphrey H. F. Beyer J. D. Bickel Jno. Christensen O. C. Gladwin A. E. Olinger	Edgewood Edgewood Farmersburg Garnavillo Luana Edgewood McGregor St Olaf Strawb'y Pt. Volga City McGregor	E. J. Whipple J. S. Watson I. D. Hendershott O.F. Schumacher J. A. Barker Frank Sherman R. M. Pressey Jack Frisbie H. J. Evans Watson Shick
111	o crass Cry (watson)	Jno. Geraghty	McGregor	F. A. Flet

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Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Clinton County-			
172	Springbrook Cry. (Delmar)	Jno. Newman Co. Jno. Newman Co.	Elgin, Ill	C. Eurenius
178	Springbrook Cry. (Ellwood)*	Jno. Newman Co.	Elgin, Ill	L. Reynolds
175	springbrook cry. (Teed's Grove)	Jno. Newman Co.	Elein III	A. Aurep
176	*Springbrook Cry. (Welton) - 4 Farmers' Co-op. Cry. Co - o Farmers' Co-op. Cry. Co - c	Jno. Newman Co. Emil Lohman Edward Hart, jr.	Elgin, Ill Wheatland Toronto	Carl Berst A. E. Banta W. L. Sloan
	Crawford County-			
179	*Fairmont Cry. Co 8	E. F. Howe	Omaha, Nebr 624 S. 12th St.	A. F. Durkee
	Dallas County-			
180	Farmers' Co-op. Cry	J. L. Keachie		
181	*Perry Cry Co	J. Moody & Son. Calonkey & Son.	Woodward	Wm. Ackerman
183	Smith Produce Co	A. E. Smith		G. A. Turnan
184				
	Decatur County-	The second second		
185	Clarinda Poultry, Butter & Egg		Leon	O. J. Gustin
	Delaware County-			
186	Graeley Fers. Co-op. Cfy	J. C. Matthews	Greeley	W. R. Crabb
187	Colesburg Cry. Co	Robt. A. Gull	Ryan Rl	Matt McDowall
188 189	Hopkinton Co-op. Cry	Jno. Duggan I. T. Wilson J. T. Goedkens	Hopkinton	G. O. Miller J. B. Domayer
190			Manchaster	E To Mittlestadt
192	ware)	J. M. Dunn	Earlville	J. M. Dunn L. R. Griffith
198	*Manchester Co-op. Cry	Jas. Bishop A. J. Andrews	_ Manchester	A. A. Paimer
194			- Manchester	
196	Dairy City Cry. (Newton			
196	ville)	F. S. Harris	_ Masonville	R. J. Erb
190	Silver Spring Cry Chatana			Nick Budden
	Durg)		Manchester_	G. Stuessi Jno. Appleby
20	Sand Spring Co-op. Cry		- Ryan	- Geo. A. mars
20	ADvan Cry (Broadway)		Ryan	-
20	Hazel Greene Cry. Co. (Ryan)	H. F. McBride.	- Hopkinton	C. J. Rohde H. Burbridge
20	Oneida Cry.			
	(Manchester)	e W. J. Davis	Delaware	***

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208	Lake Park Co-op. Cry	J. G. Chupler	Lake Park	E. E. Starr
209 210 211 212	Milford Fars. Butter & Cheese Assn	H. H. Shipman. A. F. Bergman. T. H. Tvedten. E. Curtis. J. M. Plummer.	Milford. Spirit Lake Terril. Spirit Lake Superior	I O Millor
214	Balltown Co-op. Cry. (Ball-			
215 216 217 218	town) c Cascade Co-op, Cry. c Hickory Valley Cry. s Farmers' Golden Star Cry. Coc Fillmore Co-op, Cry. Co. (Fill-	C. Harrington P. J. Conlin Jno. Ramm F. P. Kern	Cascade Farley R17 Dyersválle	J. B. Feldman
219	more)	Wm. Craft G. W. Cropp Geo. Friedmann.	Farley	Anthony Smith Thos. Landis
220 221 222 223	more) c Farley Cry, Co (Luxemburg) s New Vienna Central Cry s Farni Cry, (Rickardsville) Riverside Cry Glerkardsville) K	Henry Fangman.	Farley N. B. Vista Rg. New Vienna Durango Sherrili	Thos. Landis J. E. McCaffrey Geo. Landis J. W. Farni Nic Semmert
224	Sherrill Cry. Co	J. C. Boleyn	Specht's Forey	Fred Kohler
225 226	Worthington Cryi	Nic Semmert. J. C. Boleyn. C. Boehler. F. G. Ladd.	Worthington. Zwingle N.Buena Vista Dubuque	F. G. Ladd
227	Holy Cross Cry		N.Buena Vista Dubuque	J. P. Cripps H. R. Bullis
229	Columbian Cry	S. C. Wadley Clark & Delaney_	Dubuque	
230 231 232 233	Worthington Cry. Ladd Cry. Holy Cross Cry. 6. S. P. Wadley Co. Columbian Cry. Loetscher Cry (Rickardsville). Bernard Cry. 10wa Dairy Co. O'Neill Cry.	Jno. Loetscher Jas. A. Hayes A. M. Conzett C. O'Neill	Waupeton Dubuque Dubuque Waupeton	Chas. A. Howard Frank Tegeler
DUM	Emmet County—	31 3 4141111111111111111111111111111111		
234		Peter H. Burt	Armstrong	Roy A. Burt
235	Farmers' Co-op. Cry. Coo Farmers' Cry	R. Weise D. Reimer	Halfa	R. Weise Geo. Graham
236	Farmers' Cry. Co. (Hoprig) o Denmark Cry. Co. o	Jno. C. Bosold H. J. Fink	Huntington Graett'ng'rR3.	Julius Jensen
238 239 240	Denmark Cry. Co	H. J. Fink H. A. Gaarde O. O. Anderson	Armstrong Wallingford	Peter Knudsen Thos. H. Daniel J. C. Jensen
	Fayette County-			
241 242 243 244 245 246 247 248	Brush Creek Fars, Cry 0 Clermont Valley Cry. Co 6 Elgin Farmers' Dairy Co 6 Fayette Cry. Assn 0 Hawkeye Cry. (Hawkeye) 0 Harlmn Co-op. Cry. 0 Oran Cry. 0 Celwein Farmers' Cry. Co 6	Guy L. Rawson. F. F. Ferguson. M. Luchsinger Peter E. Jubb. J. Q. Adams. J. C. Lewis. F. F. Shelton. W. H. Day. H. H. Meyer. J. B. Holmes. A. E. Friedley. John H. Mihm. F. S. Coleman. F. J. Schroeder. F. J. Schroeder.	Arlington	C. B. Bracy
249 250 251 252	Jefferson Cry. Co. (Oelwein). c Randalla Cry. Co	H. H. Meyer J. E. Holmes A. E. Friedley	Randalla Sumner St. Tacas	C. M. Ross A. H. Ford Robt. Wagner W. Wenthe E. L. Potter C. H. Capper F. J. Schroeder C. Horton
253 254 255 256	West Union Can	N. H. Nelson Thos. McEnaney.	Westgate Wadena Calmar Waucoma Stanley Alpha	C. H. Capper F. J. Schroeder C. Horton P. J. Kolbet
257 258 259 260	Wancoma Farmers' Cry. Co. o Scott Cry. Assn	F. A. Sherman J. T. Gager H. C. Schroeder.	Hawkeye	C. A. Day
	weln)	Thos. E. Sadler	Hazieton	Thos. E. Sadler

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Jffice record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Floyd County-			
264	Rockford Co-op. Dairy Assn. c Flood Creek Cry. Co	E. F. Briggs M. A. Hirsch J. J. Brunner J. J. Brunner Emil Welss W. Stabler Fred Janes	Rockford	H. J. Binger Frank Brunner C.L. Woodworth F. J. Fisher
	Franklin County-			
268 269 270 271 272 273	Hamilton Co-op. Cry. Co	Geo. Dohrmann C. A. Nicholson A. J. Barth M. Shipley A. J. Johnson R. H. M. Cary	Dows R2 Cedar Rapids.	Ed. Walker W.E.Mittlestadt A. F. Shultz
	Greene County-			
274	G. W. Nicholson Co 8	W. N. Wertz	Grand Jet	W. H. Sampson
	Grundy County-			
275 276 277 278 279 280	Buck Grove Cry	O. Niehlus Frank J. Martin. M. J. Henningsen Hans Lausen J. A. Meyer R. R. Welch	Cedar Falls R Stout Reinbeck	Henry Schutjer J. Chapman A. Kindberg T. E. Dilger T. L. Case
281 282 283	Fern Cry. Co	W. H. Henning B. R. Churchill Frank J. Martin.	Parkersburg- Grundy Ctr Ackley	C. B. Churchill
284 285 286 287 288 289 290 291	Casey Cry. Co. 8 Guthrie Center Co-op. Co. c Glendon Cry. Co. (Menlo) 8 Panora Cry. 4 *Iowa Dairy Co. (Brough) 8 *Iowa Dairy Co. (Brough) 8	E. E. Strauser Harlie E. Smith J. A. McLaughlin E. L. Hanes A. C. Curtis F. F. Wilcox. W. H. Hall. W. H. Hall. S. O. Jorgensen.	Casey Guthrie Ctr Glendon Stuart Panora Yale	J. T. Girard H. H. Colbert J. Suhr
	Hamilton County-			
	Ellsworth Co-op. Cry	S. Stenberg	Ellsworth	D. W. Mohler
294	Hema)	S. Stenberg.	The state of the s	
296 297 299	cliffe)	S. Stenberg Chris Morck M. G. Olson R. G. Clark H. Ellingson	Randall	. M. G. Olson

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	Hancock County-			
301 302 303 304 305 306 307	*Britt Co-op. Cry. Co	Bertha Schaper L. A. Nelsen L. W. Wesenberg H. C. Schultz J. Klesel F. L. Bush L. C. Peterson	Goodeli	Knute Hauge
308 309 310 311 319 313 314 315 316	*Alden Cry. 0 Buckeye Co-op. Cry. 0 Bidora Cryshop. Cry. 0 Bidora Cryshop. Cry. 0 Bidora Cry. 0 Bring Branch Co-op. Cry. 0 Hubbard Co-op. Cry. 0 Lowa Falls Cry. Co. 0 New Providence Cry. Co. 0 Concord-Scott Co-op. Cry. 0 Concord-Scott Co-op. Cry. 0 (Garden Cry). 0 Cry. (Garden Cry). 0	T. E. Huston E. A. Carriel Jensen & Hadley J. K. Towley Ernest Hilker. G. L. Whinery W. T. Kersey J. S. Thompson	Hubbard	N. H. Trimble R. C. Rodgers R. R. Hadley G. H. Whitney Fred Herzog J. R. Jones Jno. W. Mohler J. F. Burretts
317	Concord-Scott Co-op. Cry.	J. S. Thompson	Garden City	
318	Steamboat Rock Car	J. S. Thompson F. L. Willis	Garden City Steamb't Rock	M. J. Mansager
320 321 322	Spring Branch Co-op, Cry. Co Co Farmers' Co-op, Cry. Co Elma Co-op, Cry. Co Ackley Cry. Co C	J. K. Tomley L. A. Eggerichs. J. P. Whelan Martin &Saveraid	Hubbard Chester Elma Ackley	G. H. Whitney C. C. Plummer J. P. Whelan P. J. Saveraid
	Howard County-			
323 324 325 326 327 328 329 330	Maple Leaf Cry. Co	D. Lane. B. H. Arness. J. A. Dostal. Alfred Miles. P. J. Whalen. D. A. Palmer. C. A. Foese. L. A. Eggrichs.	Elma R4 Protivin Saratoga Elma Cresco Cresco Chester Plant R4 Protivin Saratoga Elma R4 Protiving R4 Protivin	Albert Herman J. A. Dostal Henry Foss P. J. Whalen D. A. Palmer C. A. Fosse C. C. Plummer
	Humboldt County-			
331 339 333 334 335 336 337 338	Arnold Cry. 4 Bradgate Co-op. Cry. c Rode Cry. Assn. c Owl Lake Cry. Co. c "Humbold Cry. Co. c "Humbold Cry. C Rutand Cry. c Colover Cry. c Rutland Cry. c Clover Cry. d	F. M. Straight J. L. Van Horn O. Hoff C. M. Claussen T. W. Rogers John Mertz U. G. Besett Lewis Olson	Rutland	D. A. O'Nell Alfred Granseth Frank Haines John Boland Mike Hauer
	Ida County-			
339	Holstein Cry. (Holstein) #	A. W. Hubbard	Hinckley, Ill	W. O. Bradley
	Iowa County-	The same of the sa		
340 341 342 343 344 345 346 347	Shimer Cry. Co	S. H. Standerson M. W. Kelting John H. Bale Dennis Sullivan L. J. Nowotny Geo. C. House Geo. C. House H. W. Huedepohl		B. S. Wallace G. W. Baltinger W. R. Edwards
011	TOTA CTY. CO	H. W. Huedepohl	South-Amana	G. E. Steinke

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	Jackson County—			
355	Fulton Co-op, Cry. Co	Jno. Helde	Fulton	Jno. S. Smith
356 357 358 359	†Springbrook Cry. (Union Centre) † †Springbrook Cry. (Browns) † Sterling Separator Co	Jno. Newman Co. Jno. Newman Co. N. A. Hoffmann- Heinrig &	Elgin, Ill Elgin, Ill Lamotte	JohnM. Hoffmans
360 361 362 363	*Hansen Cold Storage Co	Frantzen E. D. Hansen Jno. Newman Co. Jno. Newman Co. Jno. Newman Co. F. G. Ladd	St. Donatus Maquoketa Elgin, Ill Elgin, Ill Elgin, Ill Bellevue	J. P. Frantzan P. J. Haggerty J. C. Ducharme G. S. Wing
	Jasper County-			
364 365	Baxter Dairy Co	H. Krampe G. D. Alden	Baxter Newburg	H. C. Schettler A. Newell
	Jefferson County-			
366 367 368	Fairfield Cry. Co	H. V. Downs E. B. Colee John McLane	Fairfield Lockridge R1 Fairfield	E. B. Colee
	Jones County-			
\$69 \$70 \$71 \$72 \$73 \$74 \$75 \$76 \$77 \$78 \$79 \$80	Monmouth Cry. (Monmouth) Fawn Creek Cry Fawn Creek Cry Amher Coop. Cry Amer Coop. Cry Marciele Cry Klondike Cry Foliamond Cry	Jas. P. Younger J. S. Condit. Jas. P. Younger O. T. Ruhe J. H. Batchelder R. Bohren W. J. Pinchas. W. J. Pinchas. W. J. Pinchas. W. J. Pinchas. C. W. Simpson.	Chicago, Ill	Wm. Glerhart E. A. Kinsler Frank Nickel J. H. Batchelder S.C. Batchelder F. Lehman F. Kleckner
381 382 383 384	†Diamond Cry. (Oxford Junetion) † †Diamond Cry. (Monticello) †	W. J. Pinchas W. J. Pinchas W. J. Pinchas W. J. Pinchas	Monticello Monticello Monticello	
385 386 387 388 389	Diamond Cry. (Smith Will). †Diamond Cry. (So. Grove). †Diamond Cry. (Smith). †Diamond Cry. (So. Grove). †Diamond Cry. (So. Gro	J. D. Neelans H. R. Jacobs C. R. Wilder C. L. Perry	OnslowScotch Grove_ Monticello Anamosa	F. M. Huyck J. M. Woellert C. R. Wilder C. L. Perry
	Keokuk County-	Marie Control		
390	Sigourney Cry	TO BE SEED OF THE PARTY OF THE	Sigourney	

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		T		
	Kossuth County-			
391	Algona Co-op. Cry. Co	J. B. Hofins	Algona	W.G.Sterzbach
392		C. W. Hopkins	Algona Rl	M. J. Bobo
393	Burt Co-op. Cry. Co	A. Dan	Burt	D. L. Driver
305	Burt Co-op. Cry. Co	John Bernard	Bancroft Fenton R1	A. J. Doleschal
		John Bernard F. C. Newel M. J. Dyer	Germania	M. J. Dver
284	Hobart Cry. (Hobart)	Wester Bros	Wesley	M. J. Dyer P. W. Johnson C. A. Nurell
		Jesse L. Bedell	Irvington	C. A. Nurell
	Luverne Co-op. Cry. Co c Lone Rock Co-op. Cry. Co c	W. E. Kyler Wm. Dehnert	Luverne	N. Christensen J. T. Hanna
401	Farmers Co-op. Cry.	E. J. Skinner	Ledyard	Henry M. Dyer
402	Seneca Co-op. Cry. Coc	M. Jenson	Fenton R1	F. Erickson W.H.Anderson
403	Seneca Co-op. Cry. Co	Wester Bros	Wesley	W.H.Anderson
404	more)	Peter Bormann	Rode	Christ Boch
405	Swea Co-on Cry	Ida Anderson	Bode Swea City	B. S. Nelson
406	Titonka Cry. (Titonka)	L. C. Peterson		
408	Whittemore Cry. Co	L. C. Peterson H. W. Dreyer H. P. Hatch	Whittemore	D. L. Godden
409	Wesley Cryi	Wester Bros.	Wesley	D. L. Godden A. M. Whitney H. F. Hollenbeck
				A TANA TANA TANA TANA TANA TANA TANA TA
	Lee County—			
410	The S. P. Pond Co	F. H. George	Keokuk	Chas. Leibfarth
	Linn County-			
411	Birk Cryi	C. L. Perry	Anamosa	C I. Porry
412	Central City Cry 4	P. W. Sawyer	Central City	W. A. Stone
413	Valley Farm Cry	P. G. Henderson.	Central City_	
415	Coggon Cry	J. J. McAreary	Coggon	J. J. McAreary
416	North Side Cry	A. J. Barth	Cedar Rapids	J. J. McAreary M. E. Boots C. C. McCue C. N. Pollock Wm. Lipavsky
417	Center Point Cry 8 Center Point Cry 8 Ely & Western Cry 8 tEly & Western Cry, (Western	Pollock & Brown	Center Point	C. N. Pollock
418	Fly & Western Cry 8	Frank J. Dolezal	Ely	Wm. Lipavsky
24.0	College)8	Frank J. Dolezal	Ely	
120	College) 8 Springville Cry 4 Springville Cry (Paralata) 4 Troy Mills Cry 4 Highland Cry 6	C. E. Batchelder	Springville	C.E.Batchelder
421	†Springville Cry. (Paralata) t	C. E. Batchelder	Springville	
423	Highland Cry Co	C. E. Batchelder C. E. Batchelder J. M. Tupper John Tehl	Troy Mills	J. M. Tupper
424	Highland Cry, Co	Bates&Hemenway	Wanheek	J. M. Tupper G.R. Batchelder H. C. Hemenway S. W. Laird M. W. Dubbs
425	Walker Cry	H. J. Nietert	Walker	S. W. Laird
426 427	Rogers Cry	T.E. Ravenscroft	Rogers	M. W. Dubbs
201	Orbana Cry	Jas. Romine	Urbana	Jas. Romine
	Lyon County-			
428	*George Cry. Co	TT TO T		
429	tGeorge Cry. Co. (Larch-	H. P. Jennings	George	W. J. Becker
		H. P. Jennings	George	
430	†George Cry. Co. (Matlock) i Littlerock Mut. Co-op. Cryc	H. P. Jennings	George	
100	Littlerock Milt. Co-op. Cry_c	O. A. Morse	Little Rock	O. B. Dubbs
	Mahaska County-			
439	*New Sharon Produce Co	A. R. Hardesty	New Sharon	House Month
433	*Oskaloosa Cry. Cos	H. W. Garner	Oskaloosa	Harry Martin J. M. Taff
	Marion County-			
	Commence of the commence of th			
484	*Pella Cry. Cos	D.R.Rhynsburger	Pella	T Smoronborn

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	Marshall County-			
436	*Minerva Valley Cry. Assn. c Dunbar Cry. Co	A. Brackney O. J. Olson Thos. E. Culp C. Hansen	Dunbar	G. R. Jackman C.C.Bomberger Thos. E. Culp G. T. Shaunce
	Mitchell County-			
439 440 441	David Co-op. Cry. Assn c Rock Creek Co-op. Cry. (Osage) c Farmers' Co-op. Cry. Assn.	M. V.Fairbrather H. L. Johnson	Rudd	Sig Klemesrud
442 443 444 445 446 447	Stacyville Co-op. Cry. 68 Stacyville Cry. 68 Stacyville Cry. 68 Stacyville Cry. 79 Cry. 69 Cry. 69 Cry. 60 Cry	J. W. Clay F. J. Carpenter. Spensley & Co J. M. Tollefson. L. C. Baker. J. L. Tibbetts. A. W. Kaericker. Geo. Helfter. J. J. Brunner.	Osage Riceville Stacyville St. Ansgar St. Ansgar Osage McIntire Little Cedar Charles City	M. M. Blaudin A. B. Grover J. B. Spensley B. C. Iliff A. M. Hofland G. Dushane A. W. Kaericker Geo. Helfter Julius Brunner
	Monona County-			
449	*Moorhead Cry4	P. D. Nelson	Moorhead	P. D. Nelson
450	*Albia Cry	Elder & Elder	Albia	W. A. Elder
451 452	Muscatine County— Nickel Plate Cry	Geo. W. Kelley S. G. McFadden.	Wilton Jct West Liberty	J. J. Creswell
	O'Brien County-			
453 454 455 456 457 458 459	Caledonia Cry. Co. (Paullina) * 'Hartiey Cry	Wm. Gehris	Paullina Hartley Hinckley, III.— Sheldon Sheldon Sheldon Paullina	
	Osceola County-			
460 461 462 463	Ashton Cry	C. W. Davis A. Klampe C. H. Day Rob I. Stewart	Ashton	C. W. Davis A. Klampe J. J. Teeple Clyde Jennings
	Page County—	W W Dite	Clarinda	Taba Sallia
464	Clarinda Butter & Egg Co	W.W. Richardson	Clarinda	John Sallie
400	Palo Alto County—	7 7 Manual	Accompletes	E W Cheller
465 466 467 468 469 470 471	Silver Lake Cry. Co. Grylinder Cry. Grylinder Cry. Gry. Gry. Co. G	J. J. Martin E. W. Reid J. H. McCreary Lewis Stuchmer Jos. Kllegl L. C. Christensen T. C. Truog	Cylinder Cylinder Emmetsburg. Cylinder Emmetsburg. Mallard	F. W. Shellman E. W. Reid M. Anderson A. Kristensen W. D. Kucker J. N. Bruck T. C. Wilson

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472 473 474 475 476 477 478	Pale Alto County (Continued) Farmers' Co-op. Cry. Co	E. L. Cullen J. M. Resh. S. A. Smith Chas E. Yoeum. C. J. Frye A. L. Frye R. Buchan	Graettinger Emmetsburg. Ruthven Ri Ruthven Rodman. West Bend Cylinder Ri	C. F. Bollig T. A. Clarke
479 480 481 483 483	Paynes Cry 4 Grant Twp Cry Co. (Mammes) Cr (Remsen Cry 8 Akron Cry 4 LeMars Cry, Co. 5	Payne Bros F. Kusch A. H. Hubbard Aug. Popritz K. K. Kennedy	Kingsley LeMars R4 Hinokley, III Akron LeMars	Ira Stewart Jobe Kennedy J. E. Clink Aug. Popritz C. Finnell
484 485 486 487 488	Pocahontas County— *Laurens Cry	J. G. Hinn	LaurensPloverRolfePalmerPocahontas	F. W. Johnson Geo. Heathman W. R. Rogers Geo. Slebels Geo. W. Webb
400	Beatrice Cry. Co. (Des Molnes) - 8 Grimes Butter & Cheese Co. 8 Des Molnes Cry. Co. 8 Farmers' Co-op. Produce Co. 8 Crystal Springs Cry 8	A. E. Wilkinson. W. J. Stewart. B.S. Schermerhorn Keller J. Bell. Murdo MacRae.	Lincoln, Neb Grimes Des Moines Des Moines	W. S. Gould
494 495 496 497	Pottawattamie County— *Waterloo Cry. Co	Leroy Corliss Leroy Corliss Leroy Corliss	Council Bluffs Council Bluffs Council Bluffs Council Bluffs	
408 499 500 501 502 503 504 505	Poweshlek County— *Springbrook Cry. 4 *Springbrook Cry. 4 *Grinnell Cry. 4 *Grinnell Cry. (Ewart). 4 *Deep River Cry. 6	John Newman Co. John Newman Co. V. L. Fowler W. L. Fowler W. L. Fowler W. L. Fowler John Newman Co. B. W. Grier	Elgin, Ill	M. J. Powers F. R. Palmer
506 507 508 509 510 511 512 513	Sac County— Farmers' Co-op. Cry 5 Herring Cry 5 *Lake View Cry 5 Delaware Center Cry 7 *Farmers' Cry Co 8 Schaller Cry 8 Eden Cry (Schaller) 8 Eden Cry (Schaller) 8	C. F. Jackson M. R. Wright Geo. O. Fisher Clark N. Searle. J. A. Cranston A. H. Hubbard H. Junkermier Thos. Ahern I. Hillmann.	Early—Herring—Lake View—Nemaha—Odebolt—Hinckley, Ill—Storm Lake—Wall Lake—Lytton—	C. S. Woods M. R. Wright Geo. O. Fisher T. M. Borglum H. M. Rogers V. E. Krantz Elmer Wise D. A. Provost Fred Hillmann

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	Scott County-			
515 516	*Star Cryi *A. Wood Cry. Cos	J. K. Marriott F. A. Waugh	Long Grove Davenport	Harry Ambler R. K. Emily
	Shelby County-			
517 518 519 520 521 522 523 524	Corley Cry. Co	Jacob Buech	Avoca	Jacob Buech M. Jensen S. Nymand N. Hansen M. Ankersterne
525		Co. D. Marillan	Alton	T II Von de Mess
526	The Alton Cry. Co	Geo. R. Mueller Stoever &		J.F. Van deMeer
527 528 529 530	Hawarden Cry	J. P. Mueller Rud Stensvad C. H. Day	Rock Valley	Peter Peterson J. L. Curtis Jay Broderick
	ter)	Rud Stensvad	Hull	E. Den Herder
	Story County-			
531 532 533 534 535 536 536 537 538 539	Cambridge Fars. Co-op. Co. co Glibert Fars. Cry. Asan. co Huxley Fars. Cry. Co. co Guarde Fars. Cry. Co. co Story City Co-op. Cry. Co. co Stater Farmers' Cry. Co. co Zearing Cry. Co. co Zearing Cry. Co. co Farmers' Cry. Co. co Combras Cry. Co. co Coward State College Cry. Co. co Coward State College Cry. Co. co Coward State College.	F. N. Bossont C. P. Lake. A. H. Sheldahl. L. T. Olson Alex Henderson O. J. Viland C. P. Bean H. K. Gronbeck. BH. Baumgardner Prof. G. L. McKay	Cambridge Gilbert Huxley Roland Story City Slater Zearing Collins McCallsburg Ames	C. F. Lake O. J. Olson Geo. Wick
	Tama County-			
541 542	Springbrook Cry	John Newman Co. John Newman Co. H. Bissell	Elgin, Ill Elgin, Ill Tama	G. T. Guthrie F.L. Francisco W. H. Graham
	Taylor County-			
543 544	*Clearfield Cry Co* *Bedford Cry	Joe Doubet Frank Dunning	Clearfield Bedford	O. J. Gustin Leslie Klopp
	Union County-			
545	*Creston Poultry, Butter & Egg			
546	Co. (Creston)s Farmers' Co-op. Cry. Coo	W.W. Richardson Jos. Koepping	Clarinda	John Sallie Jos. Koepping
547 548	Wapello County— *Yorkshire Cry	R. N. Morrell J. W. Foland	Ottumwa Blakesburg	J. C. Hall J. W. Foland
549 580	Washington County— Linwood Cry	S. E. Reisman S. E. Reisman		Geo.A.Crowther Geo.A.Crowther
\$51	Wayne County- *Old Colony Cry	Jas.L. Humphrey	Humeston	S. Peterson

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Webster County-			
552	*Ft. Dodge Cry. Co	A. R. Loomis	Ft. Dodge	S. H. Deucker
553	tFt. Dodge Cry. Co. (81n-clair)	A. R. Loomis	Ft. Dodge	
	Winnebago County-			
554 555	Forest City Co-op. Cry. (For-	John Carson	Forest City	W. C. Frank
556	tForest City Co-op, Cry. (Forest City)	John Carson J. A. Horvel	Forest City	T. A. Storvick
		J. A. Horvel	Lake Mills	
558	tLake Mills Cry. (Newton Twp.) tLake Mills Cry. (Mt. Valley	J. A. Horvel	Lake Mills	
560	Twp.) *Lake Mills Cry. (Bristol	J. A. Horvet	Lake Mills	
561 562 563	Twp.) cop. Cry. Co	J. A. Horvel B. Quamme K. M. Larson	Lake Mills Rake Scarville	P. N. Peterson S. Kristensen E. A. Jensen M. N. Topager
564 565	Thompson Co-op. Cry. Assn. o Buffalo Center Cry. (Buffalo Center)	Nels Berg. E. E. Branstad L. C. Petersen	Leland Woden	M. N. Topager Jno. O. Olsen
	Winneshiek County-			
566 567 569 569 570 571	Festina Cry Co	C. A. Reed	Calmar R1 Highlandville	V. V. Johnson Iver Barlow Ole Olson Henry Hesse Peter J. Bidne P. M. Peterson
579	Kendallville Cry4	N. H. Nelson	Minn Calmar	Ed. Holnes
574 575 576	Silver Spring Cry. Co	J. N. Bragestad. N. E. Ramsey. M. J. Nicholson. L. T. Fosse.	Decorah R1 Decorah R2 Ridgeway	Hans Foss Ole Hauge
577	Co-op. Cry. Assn	A. W. Prann	Ridgeway	G. A. Bakken
579 580		J. H. Whittemore Blue Val. Cry. Co	Sloux City	W.O. Wheelock Carl Walker
581 582 583 584 585	Danville Cry. Co	J. T. Tallackson P. R. Hammer M. O. Bray E. R. Stock	Manly	J. A. Johnson A. H. Nelson Gilbert Olson L. O. Knudson
586 587 588	Hartland Dairy Assn	M. D. Johnson Gust Reyerson E. A. Tenold S. O. Vold	Northwood Northwood Northwood Ri	R.S. Bergsather A. M. Hanson J. P. K. Jenson N. O. Dahlen
586 590 593 596 596 596	Clarion Cry. Assn	C. J. Baxter Wiert Johnson D. Goodrich D. A. French C. M. Massey W. A. Gartz	Clarion	E. E. Evans Ira O'Neel Jno. Beck Ben Fanselow C. M. Massey Hans A. Kofol

IOWA CHEESE FACTORY LIST.

Office record	Name of Factory	Proprietor or Manager	Post Office Address	Cheesemaker
	Bremer County-			
1	Janesville Cheese Factory	Geo. V. Fowler	Waterloo	John McMurray
	Cass County-			
2	Lewis Cheese Factory	Smart & Dehan	Lewis	M. E. Dehan
	Crawford County-			
8	Astor Cheese Factory	O. A. Olson	Astor	Guy Foye
	Floyd County-			
4	Elm Springs Cheese Factory	H. D. White	Charles City	W. B. Pfeiffer
	Greene County-			
5	Dana Mutual Co-op. Crm. Co	W. J. Elling	Dana	W. J. Elling
	Howard County-			
6 7	Cresco Cheese Factory		Cresco	W. N. Lathrop J. J. House
	Lee County-			
8	Franklin Sta. Cheese Factory	L. C. Washburn	Donnellson	L. C. Washburn
	Monroe County-			
9	Bone Cheese Factory	S. G. Bone	Albia	S. G. Bone
	Marshall County-			
10	Liscomb Cheese Co	Thos. E. Culp	Liscomb	Thos. E. Culp
	Poweshiek County-			
11	Jacobs Cheese Factory	L. A. Windhurst	Jacobs	S. M. Payne
	Taylor County-			
12	Blockton Cheese Factory	D. T. Waldrip	Blockton	D. T. Waldrip
	Wayne County-			
13	Lineville Cheese Factory	Matthew DeHaan	Lineville	M. DeHaan

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TWENTY-SECOND ANNUAL REPORT

OF THE

STATE DAIRY COMMISSIONER

TO THE

GOVERNOR OF THE STATE OF IOWA

FOR THE YEAR 1908

H. R. WRIGHT STATE DAIRY COMMISSIONER

PRINTED BY ORDER OF THE GENERAL ASSEMBLY

DES MOINES: EMORY H. ENGLISH, STATE PRINTER 1909

LETTER OF TRANSMITTAL

To His Excellency, Albert B. Cummins, Governor of Iowa:

Sir:—In compliance with the law, I have the honor to submit herewith the twenty-second annual report of the Food and Dairy Commissioner.

Very respectfully,
H. R. WRIGHT,
Food and Dairy Commissioner.

Des Moines, November 17, 1908.

Office of

STATE FOOD AND DAIRY COMMISSIONER.

H. R. WRIGHT, Commissioner.
B. C. ILIFF, Deputy Dairy Commissioner.
W. B. JOHNSON, Asst. Dairy Commissioner.
J. J. Ross, Asst. Dairy Commissioner.

EXPENSES OF DAIRY DEPARTMENT OF OFFICE OF FOOD AND DAIRY COM-MISSIONER FOR THE YEAR ENDING NOVEMBER 1, 1908.

Commissioner's salary	2.000.00	
Commissioner's salary Commissioner's expense	302.91	\$ 2,302.91
Deputy's salary	1,400.00	
Deputy's expense	115.28	1,515.28
Assistant Dairy Commissioner's salary	1,400.00	
Assistant Dairy Commissioner's expense	940.79	2,840.79
Assistant Dairy Commissioner's salary	1,400.00	-
Assistant Dairy Commissioner's expense	914.86	2,314.86
Clerk hire (Food and Dairy)	1,000.00	
Clerk hire (Food and Dairy)	900.00	1,900.00
Milk agent's fees	2,026.50	
Milk agent's expense	114.34	
Milk agent's special work	11.00	2,151.84
Office expenses		177.42
Express, freight and cartage		213.05
Telegraph and telephone		90.13
		\$13,006.28
Less salaries which are not paid from specific appropriation		8,100.00
		\$ 4,905.28

REPORT OF COMMISSIONER

The statute requires that the dairy commissioner shall make annually a statistical report covering the dairy business. Since this law was enacted, additional work has been given to this department in the enforcing of the:

PURE FOOD LAW,
PAINT AND LINSEED OIL LAW,
CONCENTRATED FEEDING STUFFS LAW,
CONDIMENTAL STOCK FOOD LAW,
AGRICULTURAL SEEDS LAW.

The volume of work undertaken in enforcing these laws is much larger than that originally undertaken by the dairy commissioner. but not of more importance. There are in the department sixteen office employees, two of which are known as assistant dairy commissioners, who devote their time exclusively to work among the creameries and the statistical and clerical work in relation to the administration of the dairy work of the department is, of course, largely undertaken by the office force. It will be understood that only a part of the time of the commisioner can now be given to the dairy work, so that the amount of effort which the office can devote to the work originally intended as the duty of the dairy commissioner is lessened by the addition of other duties much greater in volume than those originally undertaken. These facts are here stated in the hope that they will be taken into account by the legislature and the dairy force strengthened at the coming session by the authorization of additional assistant dairy commissioners.

No extraordinary changes have taken place in the past year in Iowa dairy conditions. The usual large amount of butter has been produced. The ascendancy of the central plants is a little more marked than formerly and the competition between them and the local creameries is keener than before. The number of creameries on the list has decreased from 594 to 552, and there have been only a few plants built, except in the case of rebuilding of old and well established plants.

There has been little or no improvement in the quality of cream shipped by rail and almost the same is true of that delivered in other ways to the creameries of every kind. The greatest problem now confronting the maker of butter in this state is to get to his factory that quality of milk and cream from which it is possible to make butter of the high grade demanded by the markets everywhere and it has seemed almost impossible to achieve any great improvement in the raw material received.

The creameries of the state make approximately 100,000,000 pounds of creamery butter annually which has an aggregate value of nearly or quite \$25,000,000. About one-third of this amount of butter, 32,000,000 pounds, is produced in thirty-four creameries of the state, which operate generally upon the plan of shipping cream to central points to be churned. These creameries make from 300,000 pounds to 6,000,000 annually each. The remaining 68,000,000 pounds of butter is manufactured in 468 creameries, which also operate about fifty skimming stations. More than 100-000 patrons and nearly 800,000 cows are tributary to the buttermaking plants of the state. While the tables of this report show an increase of perhaps 10,000,000 pounds of butter made in the last year as compared with the year previous, such increase is probably due to favorable season and other minor contributing causes rather than to any permanent or extraordinary factors which would indicate continuous increases for the future. The production of butter in this state is one of the settled and permanent lines of industry for the farm and will be subject to temporary increases and decreases just as other farm crops or products fluctuate from season to season.

The state now has three condensed milk factories, located at Waverly, West Liberty and Perry and each is doing a successful business. Other such plants are in prospect.

ASSISTANT DAIRY COMMISSIONERS.

The state has been fortunate in the character and ability of the men who have successively held office as assistant dairy commissioners, and the effectiveness of the work has been the greater by reason of the activity and interest shown by them. But the kind of work done by them as well as the amount of it does not seem to be well understood. Frequent requests come to this department

asking for the services of the assistant for a week or ten days at a time. It is impossible to attempt to meet such demands upon their time. It was never intended that the assistants should take the place of the dairy school and give a buttermaker a course of instruction, nor that he should wholly train a new creamery manager or secretary, nor that he should attempt to canvass the patronage of the creamery and try to remedy difficulties that are continuously met in every creamery and which ought to be handled by the creamery management without outside help. Such work might be very desirable, both from the standpoint of the creamery and of the dairy business generally, but with but two men at work among 552 creameries it is an evident physical impossibility for the assistants to stay any extended length of time at any one plant.

This department is required by statute to enforce certain laws of the state, which duty cannot well be avoided or postponed. Also the department is in receipt of numerous and constant requests for assistance in solving occasional and unusual problems, and with the limited force at command it is not possible to even get to all the plants in a year's time, much less do any extraordinary amount of work for each. It, therefore, happens that the department is embarassed by inability to comply with some of the requests made, and by the further fact that we are obliged to discriminate against some plants in the furnishing of assistance for the simple reason that we have two men to do the work that could scarcely be accomplished by four. This is a situation for which the commissioner and assistants are not at all responsible.

There are 342 creameries which have been visited by one or the other of the assistant commissioners and help of some kind given them, but there are 203 creameries and 49 skimming stations that have not even been seen by the assistants, a condition which the department very much regrets.

Upon such visits to the creameries the assistant commissioners have instructions to see the buttermaker and the manager of the business end of the creamery, and to give to both the best assistance and advice that is possible. Also to see that the statutes of the state are complied with and if necessary to bring prosecutions for violation. It is evident that this work cannot, for lack of men and time, extend to the producer of milk or cream, though such work would be extremely desireable and valuable to the industry and to the state, but it cannot be undertaken without considerable increase of men and money.

A considerable number of complaints of low over-run have been investigated and the discovery made that the sampling by haulers of cream was at fault, resulting in tests that were too high. The sampling of cream is of such importance in the matter of testing that it ought to be checked up by the buttermaker and the over-run secured at the churn compared with that secured upon the books of the creamery secretary or manager.

The state has a very considerable number of old creamery buildings that have fallen into decay to a greater or less degree and the efforts of the assistants have been directed toward better creamery buildings, and especially towards better creamery drainage, not only because the laws require that creamery buildings and utensits shall be kept in a clean and hygienic condition, but because the best butter can only be produced in clean surroundings. Very great improvements have been noticed during the year along the line of creamery building and sanitation. The commissioner regrets that threats of prosecution seem to be the only way to compel sanitary practices in some plants and in some cases prosecutions have beer undertaken by assistant commissioners and notice is here given that this practice will be followed with even more vigor than formerly.

The statute requiring the pasteurization of skimmed milk before returning the same to patrons seems to have been complied with by practically all of the few creameries still receiving milk, and but few prosecutions have been made for offenses under this law.

One prosecution of two counts has been made against a cream buyer at Gladbrook for manipulating the Babcock test. The exact offense charged was raising the test, evidently for the purpose of destroying competition and the buyer was very properly fined an agregate of \$50 and costs. Numerous complaints of similar offenses have been made and some of them seem to have been well founded, but it has been impossible to secure satisfactory evidence to warrant prosecutions.

During the year the department has conducted an educational scoring contest of four numbers in addition to the State Fair Butter exhibit and the exhibit at the meeting of the State Dairy Association. The butter at each of these scorings, except that of the dairy association has been scored by the assistant commissioners and no small amount of effort has been put forth by them to make these scorings successful. Nearly seven hundred tubs of butter have been scored and careful criticisms made and sent to the respective makers of the exhibits in the hope that these criti-

cisms will be of value in the further improvement of their product. It is expected and intended that a similar scoring will be held during the next year.

QUALITY OF IOWA BUTTER.

From all over the country, without an exception, makers of butter and particularly dealers in this product are complaining that the butter which they now make is at least not better than that which they made three, or five, or ten years ago, notwithsanding increase in knowledge and ability of buttermakers generally, and notwithstanding the introduction of improved methods during the last decade. No part of the country that produces butter at all is free from this complaint, and in the last analysis of causes for the situation practically everybody has agreed that while there may be other reasons, the principal reason is the character of the raw material which comes to the creamery. Every butter producing state in the Union is giving great quantities of the poor grades of butter, so much so, that the markets of the country are always overstocked with undergrades and are always short on the higher and better grades. It is difficult, of course, to compare the quality of butter produced nowadays to that produced in the years gone by. It is perhaps true that the market is more critical; it is likely true that buttermakers, themselves, are demanding better results than formerly; it is possible that dairy schools and dairy instructors are keener in their criticisms than formerly, but at any rate, the demand for better quality of butter is universal on the part of producers, manufacturers, commission merchants, and, particularly, on the part of consumers

In the last decade extraordinary efforts have been made by state authorities, and by dairy schools, in the direction of instruction of buttermakers along scientific lines. The thought has been often expressed that with buttermakers better trained for their work, and with greater knowledge of conditions from a scientific standpoint, a great improvement in the quality of butter would be noticeable. The efforts of these various forces has been very marked and great advances have been made in the directions as planned. Only once in a while is a buttermaker discovered that is not making about as good butter out of the material at hand as could be expected. The ability of buttermakers in this state has very greatly improved

without a corresponding improvement in the quality of the goods that they are able to produce, and it is quite evident that further improvement in their knowledge of buttermaking will not wholly solve the question of quality in the future any more than it has in the past.

Another line of effort to which considerable energy has been devoted has been the attempted education of creamery patrons by means of farmers' meetings, farmers' institutes, dairy associations, and the dairy press. Such efforts have been of very great value to the dairy industry in this state, but have brought results more along the line of cheaper methods of production and manufacture rather than in the direction of cleanliness and general improvement of the raw material and the resulting product.

It has also been seriously suggested that prosecutions by some state or other official, would be the solution of the problem. There are 552 creameries, and probably 3,000 cream buying stations in this state and more than 100,000 persons selling to them. It is quite evident that the enforcement of any such statute would require a small army of officials and such prosecutions could be directed only toward unwholesome and unclean products and not against those that were merely second or third class, but still fit for making butter. Convictions could be secured only in cases where the facts were out of the ordinary, and such prosecutions would not result in eliminating a good deal of the milk and cream from which now second and third grade butter is unavoidably made.

Efforts along the lines suggested above are extremely valuable and desirable and should not only be continued but if possible increased in volume, but the experiences of the past with these methods leads to the belief that they will in the future be inadequate in a very large degree and that some addition must be made to them if we are to make any considerable improvement in the quality of the butter manufactured in this state.

There is universal complaint on the part of good buttermakers and poor buttermakers alike, that the quality of milk and cream which comes to them has at least not shown any improvement and very likely in a good many places is less desirable than formerly. The introduction of the hand separator has changed our buttermaking in this state from 10 per cent gathered cream to 80 or 85 per cent gathered cream. The less frequent delivery of the cream has resulted in a much poorer product from patrons who always did furnish a poor quality of product and from those patrons who

formerly could be depended upon to furnish a good quality of milk, now comes a quality of cream at least no better. It is quite evident that the fault lies not with the creamery management nor the buttermaker, it does not lie in any increased ignorance of the farmer, nor in any decreased activity of various persons in official capacities, but rather with the producer of the raw material. It is, therefore, logical to suppose that efforts towards improvement must be more largely directed to the farmer than they have been heretofore.

While the creameries of the west generally have not improved their quality of raw material, there are other lines of manufacture connected with the dairy industry that have succeeded in securing uniformly from their patrons a high grade of milk, milk that is clean and handled in such a manner that a high grade of product can be manufactured from it.

The condensed milk factories in various parts of the country have been uniformly successful in securing clean, sweet milk and the methods by which such character of raw material has been secured are worthy of investigation and adoption by a very large number of our creameries, and if so adopted, the food and dairy commissioner believes that the desired quality of raw material will be in most cases secured. While dairy schools and dairy authorities of every kind can be expected to render assistance, and very great assistance, in the direction of the desired result the experience of creameries, cheese factories, and condensed milk factories leads to the belief that the desired results will not be obtained except by persistent and continual effort on the part of the creamery management.

The plan pursued by the more successful condensed milk factories is as follows:

First, a formal contract between the management and the proposed patrons is entered into, which contract specifies the duties and obligations of each party to the same and upon the part of the patron who agrees to furnish milk from a definite number of cows; to provide clean barns; to care for his cows and to milk them in a cleanly manner; to use clean utensils for handling and transporting milk; and to keep the same in a clean milk house provided for that purpose, and to thoroughly cool the milk after each milking. He also agrees to permit inspection of his barns, cows, dairy utensils and appliances by representatives of the management and to take all needful pains for the production and delivery of a clean product.

PRICES PAID FOR BUTTERFAT.

A very considerable number of complaints come to this office regarding the extremely high prices paid by various local creameries, and the allegation is made by the complainants that such high prices per pound of butterfat are only possible when cutting of tests is generally practiced. All such complaints have been carefully investigated, but in no case has there been any reasonable ground for suspicion of any irregularity in the matter of testing. As is well known, the co-operative creamery does not pay for butterfat with relation to the market on the exact day that the butterfat was received at the creamery. The prices paid by the cooperative creamery are dependent upon the prices received for the butter. For example, if the price of butter on the first day of May is thirty cents and on the tenth of May is only 25, it is quite evident that the co-operative creamery will be only able to pay on the basis of a twenty-five cent market rather than on a thirty cent market, because the butter could not get to market in time to gain the advantage of the higher price. Likewise on a rising market, the creamery will always receive more per pound than the market for the day upon which the butterfat was received, and this, by reason of the fact that approximately ten to fourteen days are necessary to ripen and churn the cream, get it to market, and sell it under present conditions. If there are cases where creameries have reduced the test in order to make the price for butterfat very high, this department has been unable to find them after a considerable effort in the way of investigating complaints of this character. In order to more fully illustrate the high prices possible to be legitimately paid by a local creamery under present conditions, there is given below a statement of the business of one of our moderate sized co-operative creameries for the butterfat received for

September:
The average price of butter in New York for September was "creamery specials" 24 1-2 cents, and this creamery paid for butter-fat 29 cents, which was a half cent more than they should have paid by reason of an error of the secretary amounting to \$83.03. The secretary in making up his books for the 20th of the month was obliged to estimate receipts on the last shipments and he made his estimate too high. If he had paid 28 1-2 cents, which he could have done and had a little money left, he would still have paid 4 cents more than the average of the market for the month. Whereas

Second, a system of inspection and instruction by a milk inspector employed by the factory, is persistently followed, an inspection of the milk as it arrives at the factory, and a further inspection of the dairies, cows and appliances of the patron.

From a theoretical standpoint, the foregoing plan is especially desirable and easy of adoption in any large co-operative creamery in the state. A competent person employed by the creamery to work among the patrons of the creamery would almost certainly insure a very considerable improvement in the quality of raw material furnished. The average creamery aside from the large central plants in this state, produce about 140,000 pounds of butter annually. An increase in the value of this product of a cent a pound would employ a person at \$100 a month for the year, so that the expense would almost certainly be easily provided for by the increase in price received for the improved butter, and such a man could easily more than earn his salary in the assistance, advice and instruction along other dairy lines that he might give to the patrons of the creamery; or the expense might be cut into by two adjoining creameries employing a man to work among their patrons as suggested above.

A cent a pound means \$1,000,000 annually to the milk and cream producers of the state. If such an increase can be secured by an expenditure of even half a million dollars, it ought to be undertaken Everybody knows and acknowledges that such an increase in the value of Iowa's creamery butter is easily possible by improving the quality of the raw product which now comes to the factories. Experience has shown that the efforts of the buttermaker so long as he is confined to the creamery by his usual duties, are not effeetive in most cases in improving the quality of the product sent to him. The experience of the assistant commissioners and others who habitually go among the creameries leads to the conclusion that the improvement in quality can only be secured by giving some attention to the farmer on his farm, by insisting that better practices be followed by him. Creamery patrons of this state are so numerous that it is impossible to imagine any such effort being adequately provided for by legislation at state expense. It is eminently proper that such work should devolve solely upon the creamery and the farmers to whom the direct monetary benefit is sure to go, and the commissioner urges that the successful plans adopted and followed by the condensed milk factories in other states and this state be considered seriously with a view to their adoption by numerous creameries of Iowa.

the market for the twenty-five business days in September was 24 1-2, the market for the four days upon which he actually sold his butter was 25 7-8. This man sold half his butter at two cents premium and the other half at 2 1-2 cents premium—an average of 2 1-4 cents, so that he actually received for his butter an average of 28 1-8 cents. This advance of 3 5-8 cents over the market of 24 1-2 cents for September is 2 1-4 cents premium and 1 3-8 advance in the market from the time the fat was received till it was sold in New York. Further, the 2 1-4 cents premium on the butter sent to New York-amounted to \$418.23. The overrun of 18.7 per cent or 3,000 pounds of butter had a value of \$847.50, which is more than all the expenses of the creamery added to the freight and commission.

That is to say this creamery received a price two and one quarter cents above the New York market for specials, and made one and three-eighths cents by reason of the fact that nearly two weeks elapsed from the time the butter fat arrived at the creamery until it was sold as butter in the market. The overrun more than paid all the expenses of the creamery, the freight on the butter to market and the commission for selling the same. The price paid was entirely warranted by the receipts, except the half cent error mentioned.

The following figures are not at all abnormal except by reason of the fact of the rising market and the gain occasioned by having this abnormality out of the question there is no reason why any well managed creamery making a high grade of butter may not duplicate this report and the relative prices paid any month in the year. If it does much less the management will do well to look for a leak somewhere, either in the quality of the butter and price obtained, or in the overrun secured, or in the expense bill.

REPORT OF AN IOWA CO-OPERATIVE CREAMERY FOR SEPTEMBER, 1908,

Sales on		Market.	
eptember 18			
eptember 25			
october 5	77 tubs		201c
October 16	81 tubs	28 c	
	309 tubs	Av. 25[c	Av. 2840
Total sales in New York	as above:		
09 tubs, net	\$ 4,605,32	Freight and commission.	\$ 501.8
SI lbs. sold at home	272,93		
Buttermilk	26.60		
Surplus from previous mont	h 35,10		
	\$ 5,050,05		808.1
Making expenses	308.14	See below	305,1
	\$ 4,721,81		\$ 812.9
Paid at 20 cents			
Overdrawn	8 88.03		
Butterfat	16,568.4 lbs.	Pounds butter per tub	61.4 lbs
Butter '	19,569 lbs.	Average premium	21 cents
Overrun			
Fubs	WS;		\$ 83.7
Salt			12.0
Circles, etc.			12.0
Coal			30.0
Buttermaker			100.0
Officers			29.0
Sinking fund		****************	41.4
			9009.1

OLEOMARGARINE.

The following table shows the production of oleomargarine for the United States for the last several years, ending in each case with June 30th. On July 1, 1902, the recent oleomargarine statute became effective and the measure of its effectiveness is shown by the rapid decrease of production. The gradual and steady increase of recent years is occasioned by the fact that makers of this article have been giving much attention to its sale and to the fact that the so-called uncolored oleomargarine nevertheless has a light yellow color and readily sells as butter.

U. S. statistics of Manufacture of Oleomargarine.

1901				 											104	***	. *	• •	.1	04,943,856	
+000																			. 3	20,010,712	
														140					. 1	1,804,102	
																- 80.1				48,011,400	
													٠.					+		40,000,000	
													-	190						00,140,400	
													0.0	4		-				08,988,000	
1907	*				•				0	1										79,107,273	
1908		1		 		.*	10	3	-0												

At this writing, Nov. 1, 1908, there are 110 licensed dealers in uncolored oleomargarine in Iowa and doubtless before spring there will be as many more added to this number. The statute in this state prohibits the sale of oleomargarine if it has a yellow color. When the first sales of uncolored oleomargarine were made in this state in 1902 the dairy commissioner began a case against the Armour Packing Co., doing business in Des Moines and there selling so-called uncolored oleomargarine. The offense alleged was that the oleomargarine had a yellow color and that such sale was contrary to the statute. The sample purchased had not been artificially colored but nevertheless had a considerable yellow color and could easily have been sold for butter to any unwary purchaser. The case was hard fought both in the district court and in the supreme court and resulted in establishing the contention of the commissioner. Under this decision the sale in this state of oleomargarine having a yellow color is prohibited, no matter whether the color arises from some artificial added color or from the color of the fats of which the article is composed. Following this decision others of similar import have been secured in other states and the manufacturers have been making grades of uncolored oleomargarine almost or quite white for sale in states where the statutes are as strict as those of Iowa. The sale of such product has been greatly urged by the manufacturers and the number of dealers has very greatly increased under their efforts.

Very little oleomargarine is sold in this state during the summer but as soon as cold weather comes and the accompanying higher price for butter then the sale of oleomargarine begins and in localities assumes considerable proportions. The licenses issued are mainly for the larger cities as will be seen by the list below, but the smaller country communities also are beginning the sale of this product.

The following shows the location of the 110 licensees on record November 1, 1908.

																								3
Burlington			b. 0															*					٠,	. 13
Codar Ranida						-																		Lo
Cilinton and T.	TODE																							L ar
Des Moines					4 1	6							9.7											10
Dubnane															-									TA
Fort Dodge										ï			10.				. ,		6			×		0
Independence	***				87		Þ	- 1	4	+	4	- 4	X	w. 9		*	6 ×		4			*	8	10
Morghallown													8	, ,						,	, ,	1	×	2
Waterloo					4 ×															×				YO

The following towns have each two dealers: Ames, Cedar Falls. Coggon, New Hartford, Manchester.

The following towns have each one dealer: Belle Plaine, Baldwin, Central City, Colesburg, Delmar, Dennison, Grundy Center, Guttenburg, Hurstville, Iowa City, Iowa Falls, Lamont, Lost Nation, Masonville, Maquoketa, Olin, Onawa, Ottumwa, Parkersburg, Seevers, Winthrop, Wyoming.

From the above list it will be seen that the sale of oleomargarine is carried on in a number of towns that have been more or less famous for their creameries and the production of butter.

The dairy inspectors and the food inspectors of this department during the last winter visited all the establishments where eleomargarine was on sale and will do so as rapidly as possible the present season. Cases were brought against several dealers and fines assessed as follows:

Gue Heinrichs		Bluffs
775 TO 1711	Council .	Dinne
Miela Doorgon	Council	Biuns
Bunnly Deterson	Council	Biuns
John Schwinn	Sloux	City
Hugh Bain	Slous	Ames

Other cases are pending at Council Bluffs, Sioux City and Emmetsburg.

Under the statute of Iowa the retailer of oleomargarine must seli it for what it is, he must furnish the buyer with a printed statement that the substance is a substitute for butter and giving the name and place of business of the manufacturer, and the substance itself may 'not have a yellow color.'

The U. S. statute requires also that the retailer shall have a license for which he pays at the rate of \$6 per year, and that after the package is wrapped up for delivery to the purchaser the seller shall print upon it with a rubber stamp the word OLEOMARGARINE and stating the weight of the same and his own name and business address. It is the intention of this department for the future as well as the practice in the past to insist that all these requirements shall be met by retailers of oleomargarine in this state. This department now has two dairy inspectors and six food inspectors and the force will easily call upon every licensed dealer of oleomargarine and make sure that the law is obeyed.

Persons interested in the sale of oleomargarine continue to make persistent efforts to arouse public sentiment to demand a repeal of the present oleomargarine statute of the United States. Dairymen should not forget that the makers and dealers in this product are men of unlimited means, of greatest shrewdness, that they are able to command influence of the press and of various organizations by means unknown to the general public and that they have great monetary interests at stake and will use every effort to promote their own interests. They can be successfully opposed in their efforts for repeal of the statute by the united efforts of the creamery and dairy people of the country. The National Dairy Union has in the past served the general dairy interest faithfully and well and will continue so to do in the future but this organization can not succeed unless it is well backed by every one who wishes the sale of butter and substitutes for the same to continue on a basis free from fraud. The statistics of manufacture of oleomargarine quoted at the head of the paragraph well show the effect of the present law upon the fraudulent sale of oleomargarine and the only object of the repeal of the statute is to bring about the conditions that formerly prevailed.

The following table shows the number of pounds of creamery butter manufactured in the creameries of this state for the years as given, which year ends in each case July 1.

1897				 		88,900,000
1898		wi.	avie.	 		87,704,214
1899				 		87,972,470
1900				 	,	84,965,062
1901	7.7.7.					82,706,944
1902						
-	***			 ******	**************	64 565 970
1903				 		70,000,000
1904	244			 		10,000,000

1905		 	 *******	82,707,58
1906	****	 	 	91,202,35
1907				
1908		 	 	101,552,06

COMPARISONS

	1877	1808	1899	1000	1001	1302	1908	1994	1905	190)	1907	1 108
Total number of creameries and skim stations	891	954	967	004	980	919	792	691	635	593	5)4	551
Ownership. Individual Co-operative Stock company	34 37	849	340	2014	3/30	376	850	835	316	819	187 310 87	26.

CITY MILK INSPECTION.

The growth of the city milk inspection in this state is indicated by the following table showing the number of permits for milk dealers issued in the years from 1896 to 1908. The years end in every case on the 4th of July:

	1891	1807	1898	1599	1900	1901	1902	1906	1904	1905	1903	1937 1308	190
Number	563	020	574	673	714	781	821	783	780	827	8)3	1006 1078	3

Cities	Pop. 1905	Inspectors
Burlington Codar Rapids Clinton Council Bluffs Davenport Des Moines Dubuque Fort Dodre Keoluk Marshalltown Marshalltown Sloux City Waterloo Total	90,5732	Dr. J. W. Griffith. Charles B. Thomas H. A. Lennox H. J. High

The law authorizing city milk inspection under the direction of the dairy commissioner was passed about twenty years ago and was intended to cover only the question of adulteration of milk and cream by skimming or watering, a practice which was then quite prevalent. The results from inspections have demonstrated quite clearly that the adulteration of milk and cream in such senses are relatively infrequent. During the last five or six years considerable efforts have been made in the way of examining milk and cream for chemical preservatives and few such cases have been discovered, and almost no prosecutions along this line have been undertaken within the last twelve months. G. W. Andrews of Burlington, Iowa, was fined fifty dollars and costs for selling cream containing formal-dehyde. It is believed that the use of chemical preservatives is extremely infrequent notwithstanding sensational newspaper articles to the contrary.

This department has neither money nor authority to inspect farms and herd barns from which milk comes to the fourteen cities named above, and hence the inspection has been restricted to sampling and examining the milk which is offered for sale on the streets and in the stores of these cities. It is possible to compel cleanly practices on the part of the last handler of the milk or cream, but all such efforts are idle and vain if the milk has been produced from diseased animals or if it has been kept in unclean cans and thereby contaminated with germs, perhaps of disease, and certainly filth. Ordinary examination of milk as it comes upon the market does not detect unwholesome contamination such as suggested above and indeed the detection of unwholesome bacteria in milk is extremely difficult and in some cases impossible even in the hands of an expert with the best of apparatus at command.

There has been no considerable improvement in the character of the milk supply in these cities during the last several years. While there are individual instances of progressive dairymen who have taken pains to make sure that their herds are free from disease and who have spent money and energy in fitting their barns for the production of clean milk, such practices have not been at all general, and very great improvement in this direction could be made by voluntary effort on the part of the dairymen. The experience of the department has been such as to lead to the belief that such improvement is not likely to occur by reason of voluntary effort especially in view of the fact that the public very generally declines to reward such efforts by increased patronage or by paying higher prices for such clean wholesome product.

During the last several years a very considerable interest has been taken by the public in the question of tuberculosis in cows, and in general the knowledge of existing conditions has been much increased during the last twelve months. For example, the Board of Control of state institutions has had the state veterinarian test all the cows that are kept in connection with the several charitable institutions of the state, and the result has shown nearly one-third of these cows to be affected with tuberculosis and they have been destroyed. It is quite reasonable to suppose that a much too large proportion of cows from which milk is sold by dairymen in the various eities and towns of the state are affected with tuberculosis. At present there is no law requiring them to be tested, there is no law requiring dairymen to make certain that their milk is from healthy cows, and only in exceptional cases has such a test been made and the affected cows elminated.

Persons competent to form judgment on the subject are almost though not quite unanimous in the belief that tuberculosis cows are a very dangerous source and means for the transmission of the disease to human beings, and such being the case it is extremely desirable from the standpoint of public health that all milk for consumption as such shall be from cows known to be free from tuberculosis. The tuberculin test is very simple and easy to apply, and repeated investigations have shown that as a means of diagnosis it is accurate more than ninety-eight times out of a hundred.

The stories of egregious blunders mad by veterinarians with this test are either not true at all or very greatly exaggerated. In the hands of a competent man the tuberculin test is almost absolutely accurate, perfectly harmless to a healthy animal and its application is quite inexpensive. The danger of transmission of this disease by means of milk is so great and the means of knowing whether the animals are free from it are so easy that it seems almost criminal not to require that milk sold at least in the cities where inspections are maintained shall be from cows free from the disease.

It is quite evident that if such requirements were made in the particular cities named above that in order that such a requirement may be enforced, that either some state or municipal office be created, for the express purpose of enforcing it. A statute of this kind will not enforce itself and it will be wholly a dead letter unless it is made some official's business to continually visit farms upon which milk is produced and to keep track of the herds and practices of the various dairymen.

It is also evident that if practices in the handling of milk on the farm and at the dairy are to be much improved, there must be some form of inspection at these dairies and some definite form of cleanliness which must be enforced upon the dairymen by an official inspector charged with this duty. The inspection now authorized by law and now carried out by this department comes far short of what it ought to be. The question of whether this inspection should be carried on by the municipalities themselves at their own expense or at the expense of the state as is now the case is a question for legislative decision but if inspection is to remain under the supervision of this department the following recommendations are made: First, that a statute be enacted requiring that milk offered for sale by city milk dealers be only from cows which have been tested and shown to be free from tuberculosis, such test to be made by the state veterinarian or under his authority and to be repeated at proper intervals. Second, that milk offered for sale by city milk dealers shall be required to be produced in clean barns, and to be handled in a cleanly fashion in every particular. Third, that authority and appropriation be given for employment of proper number of inspectors to give their time to inspecting not alone the milk as it comes upon sale in the cities, but also the barns and dairy utensils and apparatus used upon the farm to see that the statute is complied with. Fourth, that the inspector be required to score each dairy where milk is produced or store where milk is sold, in accordance with score card system adopted by the U. S. Department of Agriculture, and that the name of the dairyman and such score be published in the local newspaper for the information of the public.

If the system of local inspectors were continued and one or two general inspectors added to the force it is the belief that the production of clean, wholesome milk from healthy cows could be enforced.

On the other hand if it is deemed proper that the cities should be charged with this responsibility and expense, then it is the judgment of this department that a similar plan to that outlined above is both suitable and desirable with the municipalities. At any rate the conditions are such that additional legislation is necessary in order to insure proper sanitary inspection of milk in cities.

SHOWING AVERAGE MONTHLY PRICE OF EXTRA WESTERN CREAMERY BUTTER IN NEW YORK MARKET.

Month	Twelve months ending Nov. 1, 1898	Twelve months ending Nov. 1, 1899	Twelve months ending Nov. 1, 1900	Twelve months ending Nov. 1, 1901	Tweive months ending Nov. 1, 1902	Twelve months ending Nov. 1, 1903	Twelve months ending Nov. 1, 1904	Nov.	ng ng	Twelve months ending Nov. 1, 1907	Nov. 1, 1907, to Oct. 30, 1908
November December January February March April May June June June June June June June June	,2010 ,2042 ,1937 ,1980 ,1580 ,1687 ,1860 ,2026	.2160 .1975 .2100 .2075 .1962 .1790 .188 .18**	\$.2000 .2720 .2650 .2800 .25% .1960 .2012 .1064 .2106 .2156 .2196	,2540 ,2932 ,2850 ,2919 ,2009 ,1900 ,195 ,1966 ,2116	\$.2412 ,2510 ,2425 ,2932 ,2840 ,2825 ,2275 ,2110 ,2131 ,1950 ,2177	9782 2600 2860 2785 2200 916 2012 1940 2075	\$.2817 .2428 .2870 .2517 .2452 .2284 .2012 .183 .1767 .1798 .1798	\$.2481 2688 ,2010 ,3218 ,280 ,3008 ,2371 ,5010 ,2056 ,2111 ,2068 ,2184	\$.2350 .2490 .2650 .2709 .270x .21.88 .0017 .2012 .2012 .2012 .2462 .2611	\$.2762 .8164 .308) .3254 .3069 .2501 .2480 .2481 .2488 .2781 .2015	.2837 .3069 .3333 .2840 .2855 .2360 .2039 .2234 .2234 .2234
Average value per lb. per year	\$.197	\$,2005	\$.227	\$.210	\$.241	8,2417	8.2140	\$,218	8.2371	\$.2820	\$.265

TABLE SHOWING NUMBER OF POUNDS OF MILK RECEIVED, NUMBER OF POUNDS OF CREAM RECEIVED, POUNDS OF BUTTER MADE AND POUNDS SOLD TO PATRONS AND OTHERS IN IOWA SO FAR AS REPORTED BY THE CREAMERIES.

Countles	Reporting	Pounds of milk received	Pounds of cream received	Pounds of butter made	Pounds sold to patrons	Pounds sold in lown
Adair	5	208,620	3,278,236	1,078,112	26,037	24,940
Adams			835,083	283,958	6,139	52,000
Hamakee	8		7,969,667	1,987,278	22,420	00,00
Appanoose	9	7,000,842	8,457,378	1,502,300	60,239	17,28
Audubon	4	736,204	1,194,209	411,130	3,750	91
BentonBlack Hawk	15	37,383,798	2,627,571	2,375,051	168,531	238,01
Boone	3		883,943	374,044	1,948	2,80
Bremer	24	71,465,787	300,328	8,257,529	344,321 142,998	100,60
Buchanan	8	30,342,290	1,017,938	1,681,008	14.842	12,57
Buena Vista	- 6	96,312 34,330,967	2,591,200	2,177,438	154,040	70.13
Butler	18	1,078,596	5,488,800	1,098,608	10,139	11,3
Calhoun	5	104,590	5,784,721	1,595,094	19,295	24,6
Carroll	3	31,000	1,179,508	408,732	8,000	77,1
Cass	8		579,001	185,068	2,696	65,8
Cerro Gordo	4	1,284,514	4,598,770	1,568,396	14,210	114,9
Cherokee	- 3	38,000	1,874,812	486,764 2,184,188	162,35	48.7
Chickasaw	12	97,588,781	3,540,350		3.002,003.	2011
Clarke	-	4,223,125	2,818,748	1,088,790	40,815	18,9
Clay	8	14,505,305		2,900,340	71,600	97,9
Clayton	3		1,066,907	485,500	11,896	1,9
Clinton	ï		3,074,172	918,548	2,500	
Crawford		913,135	2,791,109	878,091	21,507	49,3
Davis			annesator art			****
Decatur	. 1		E 000 005	3,502,198	184,032	170.5
Delaware	16	42,494,010	5,830,605	0,000,100	332,000	2101
Des Molnes		588,980	1,789,940	573,080	26,254	25,5
Dickinson	17			2,724,024	90,201	199,
Dubuque	1 10			562,140	41,444	
EmmetFayette	20				246,927	164,

TABLE SHOWING NUMBER POUNDS MILK RECEIVED-(CONTINUED.)

	18	7	22	1	-	
	umber	Pounds of milk received	Pounds of cream received	ounds of butter made	Pounds sold to patrons	Pounds sold in Iowa
	P C	555	in de	end	0.0	0 0
Counties	nd	CHE	CCCD	E08	555	ED A
	Number	re	of	Pounds of butt made	ono	000
	Z	Д	Di	Д	A.	Д
N-md	6	1,857,078	3,217,443	867,317	40,186	43,02
Ployd	6		3,344,724	1,184,272	35,529	21,34
remont		2,104,400	0,011,121	1,101,212	00,000	W1,09
reene	1	866,238	82,938	58,220	1.193	3,24
rundy	8	13.051.839	2,851,198	1 480 963	75.905	87.83
uthrie	7	759 786	2,851,198 2,946,560	1,027,135 645,233 1,049,346	28,018	37,83 24,75
Iamilton		7,652,046	1,003,625	645 233	28,048 44,958 30,994	22.30
lancock	4 7	958,051	1,003,625 3,479,801	1,049,346	30,994	23,30 7,30
lardin	9	752,786 7,652,046 958,051 2,450,788	4,708,410	1,579,690	59,493	37,95
farrison		010001100				
lenry						
loward	7	5,926,222	3,700,080	1,157,759	35,156	9,73
Iumboldt	7	2,428,166	2,961,544	917,434	39,638	8,42
da	1		709,799	275,660	7,029	
owa	7	7,385,132	1,023,175	568,344	51,839	10,80
ackson	12	5,549,015	6,734,582	1,157,759 917,434 275,660 568,344 2,022,254	39,079	51,48
asper	2	5,549,015 1,746,943	2,061,544 700,799 1,023,175 6,734,582 309,220	100,668	6,718	34,18
efferson	8	783,650	1,210,427	401,328	7,489	44,38
ohnson						*********
ones	11	13,751,599	11,535,062	4,523,402	176,151	116,14
Keokuk	1	*********	450,000	142,000		
lossuth	18	12,708,442	450,000 5,005,250	2,098,159	160,335	50,27
.00	1		2,114,331 6,145,049	816,257 2,618,813	********	102,40
Inn	13	14,647,780	6,145,049	2,618,813	65,148	455,49
ouisa						
acas	****					
yon	1		1,297,944	432,648	3,160	
ladison						
lahaska	2		1,454,442	283,058		60,00
farion	1		540,087	221,228		21,12
fills	- 4	2,033,734	2,127,510	673,902	13,286	61,11
IIIIS		0 040 000	F 000 FF0		00 TOO	010 00
litchell	9	2,648,972	5,069,557 347,603 238,912	1,446,431	83,582	217,52
IononaIonroe	1	400 050	347,093	99,341 108,906	122 1,874	29,76
Iontgomery	1	479,952	238,912	100,900	1,874	20,70
Iuscatine	1	5,074,215		220,680		
Brien	5	D,014,230	2,709,991	969,215	13,611	70,56
sceola	4	43,795	1 409 491	376,596	6,886	1 94
age	î	909,700	2,400,401	9 498 999	0,000	150.00
alo Alto	14	98 979 000	2 225 099	7 746 964	195 794	50 91
lymouth	5	808,250 23,272,090 49,370	1,498,421 6,600,000 2,385,983 2,591,944	2,426,233 1,746,264 981,469 400,908	185,784 20,119 21,564	1,84 150,00 50,21 38,01
ocahontas	5	40,010	1,158,693	400, 908	91 564	51
olk	4	1,155,400	15,533,888	4,802,577	mrinos	861,00
ottawattamie	î	1,500,000	840,000	300.000		300,00
oweshiek	5	6,812	3,055,247	300,000 854,254	8,710	8,37
inggold		0,010			0,110	0,01
ac	8	48,000	2,165,375	719.835	24,415	3,28
cott	2	48,009 543,001	878,186	304,276	250	163.15
helby	7	929,494	1,692,090	617,556	23.349	7.80
oux	27688	118,777	2,165,375 878,189 1,692,090 4,212,707 2,057,694	719,835 304,276 617,556 1,606,787 1,066,553	21,008	163,15 7,80 26,72
tory	8	8,229,380	2,057,694	1,060,558	21,098 81,256	90.94
ama	8	21,251	937,447		995	8.15
aylor	2		987,447 5,129,715	1,463,633	10,600	8,15 17,76
nlon	1		460,000	182,558	3,814	5,97
an Buren						
apello	2	802,726	1,685,551	507,774	2,500	36,72
Arren						
Vashington	1	*********	282,100	90,600		
ayne	1		2,184,640	655,392	6,000	8,00
Vebster	1	40,000	1,500,000	477,004	950	40,00
Vinnebago	7	18,216,156	2,708,446	1,610,258	111,279	32,23
Vinneshiek	12		9,107,394	2,905,334	17,1221	75,88
Voodbury	2	500,000	9,107,394 18,517,897	6,898,547	4.500	330,81
Vorth	8	500,000 3,585,115 247,656	2,739,272 2,624,225	945,482 777,663	51,425 21,349	8,85
Vright	4	247,656	2,624,225	777,863	21,349	46,65
Make 1	Water	-	200 Day (
Total	501	518,786,576	SERVE SERVE (WAVE)	101,552,063	3,440,689	5,546,35

TABLE SHOWING NUMBER OF HAND SEPARATORS, NUMBER OF PATRONS AND NUMBER OF COWS.

	re-	E	Hand separators reported	re-	1 p	D
	tumber of creameries re porting hand separators	cream	atc	of fes re par-	Number of par- rons reported	tumber of
	T'S E	Sa Co	H	of less pa	N. D.	100
Counties	S P	Ø	000		T di	L de
Counties	THE SE	a f	827	anne	200	a r
	TT DE	- F	Prod	TT TE	III SE	MB
	Number of creameries porting han separators	Received c by rail	rei	creameries porting par-	rons	Number of cows repo
	None	877	ш-	Zone	N.	Z
Adams	5	2	1,130	5	1,150	8,230
Allamakee	3 8		412 1,558	8	1,794	3,304 12,883
Appanoose	0	D-T-10-W-10-W-10-W-10-W-10-W-10-W-10-W-10	1,000	0	A) ties	TE,000
Audubon	8		1,278	9	1,448	10,941
Benton	4	-	500	4	672	4,300 17,938
Black Hawk Boone	11	2 9	755	15		17,238
Bremer	8	- 2	550 101	84	1,999	3,330
Buchanan	8		553	8	1,509	11,790
Buena Vista	6	2	1,104	6	1,146	11,799 9,114
Butler	14		555	18	1.811	14,129
Calhoun	5	2	1,641	5	2,039	14,566
Case	5 3	2	2,198 622	5 3 3	9,817 662	10,994
Cedar	8		7 (00)	. 0	172	4,173
Carroll Cass Cedar Cerro Gordo Cerro Gordo	4	8 2	1,800	4	1,988	1,325
Cherokee	4 8	2	812	3	896	6,325 16,817
Chickasaw	9		591	12	1,791	16,817
Clarke Clay	8	2	977	8	7 7 7 7	7,773
Clayton	10	2 5	2,917	11	1,140 3,705	27,978
Clinton			206	3	874	9,945
Crawford	3	1	1,847	1	1,487	*10.708
Dallas	5	8	948	. 5	1,106	7,807
Davis	1	*****	14 20 10 10 10 10	******		
Delaware	13	1	1,512	16	2,671	22,852
Des Moines	4.0		Lydia	20	2,011	
Dickinson	5		584	5	601	4,285
Dubuque	1.5	3	4,541	17	6,398	46,736 4,262
Emmet Fayette	6 9	1 1	208 885	8	435 2,795	24,335
	5		486		993	6,423
Franklin	6		1,224			10,874
Fremont						
Greene			105 828	1	147	1,050
Grandy Guthrie	8	2	1,100	874	1,296 1,307	10,761
Hamilton	7 4 7	1 3	439	4	803	9,439 5,872
Hancock	7	3	800	7	979	8,537
Hardin	9	1	1,390	9	1,496	10,800
Harrison Henry				*******	*****	
Howard	6		708	4	1,907	7,080
Humboldt	7	1	949	7	1,037	8,381
Ida	i	- 1	210	1	219	1,588
Iowa	7		396	7	719	6,189
Jackson	12		1,487	12	1,745 181	13,215
Jasper Jefferson	3	1	530	3	622	3,407
Johnson						
Jones	11	4	8,115	11	3,381	32,650
Keokuk	1	1	56	1	140	1,008
Kossuth	17	1	1,323	18	1,784 1,550	14,047
Linn	12	1 2	2,452	13	3,185	10,850 6,718
Louisa						********
Lucas						
Lyon	1	i	560	1	600	4,200
Madison		2	410		600	3 004
Marion	2	1	300		400	3,094 1,500 6,074
Marshall	3	1 2	607	4	967	6,074
Marshall Mills						
Mitchell	9		781	9	1,723	11,962

TABLE SHOWING NUMBER HAND SEPARATORS, ETC.-(CONTINUED.)

Counties	Number of creameries re- porting hand separators	Received cream by rail	Hand separa- tors reported	Number of creameries re- porting pat- rons and cows	Number of patrons reported	Number of cows reported
Monona	1	1	115	1	1,119	800
Monroe	î	î	160	î	196	966
Montgomery			******	0	AUG	-
Muscatine				1	131	1,300
O'Brien	5	2	716	5	735	5,258
Osceola	4		498	4	528	2,880
Page	1	1	3,000		8,500	17,500
Palo Alto	14		704	14	1,387	11,823
Plymouth	5	2	951	5	1,019	8,307
Pocahontas	5		502	5	607	3,820
Polk	4	3	7,012	4	8.768	63,129
Pottawattamie	1		400	1	450	8,240
Poweshiek	5	1 3	1,049	6	1,118	7,221
Ringgold		0	7,010	U	1,110	1 1001
ac	8	2	990	8	1,050	7,016
Scott		2	500		545	4.080
Shelby	2	1	883	20	902	5,818
Sloux	2 7 5		2,004	2 7 6	1,542	
story	8	1	763	0	1,042	13,449
rama	8		305	8 3	1,087	7,250
Caylor	9	1 9		2	353	2,160
Union	2	29	1,910	1	2,010	13,472
Van Buren	1		250	1	2,040	10,150
Wapello	2				*******	
	2	1	1,250	2	1,328	10,058
Vashington						
	1	1	130	1	140	1,008
		1	1,200	1	1,600	11,520
Winnebago	1	1	1,090	1	1,148	6,000
Vinneshiek	6		767	7	1,299	12,576
Voodbury	12		1,509	12	2,520	19,967
	2	2	8,611	2	8,811	63,439
Wright	8	1	763	- 8	863	6,580
A LIEUT.	4	1	830	4	955	7,271
Total	442	97	81,705	500	108,638	792,598

TABLE SHOWING NET POUNDS OF BUTTER SHIPPED OUT OF THE STATE, AS REPORTED BY THE RAILROADS, FOR THE YEAR ENDING SEPTEMBER 20, 1998, COMPARED WITH SIMILAR STATEMENTS FOR THE YEAR ENDING SEPTEMBER 1807.

Counties	1907	1908	Increase	Decrease
Adair	973,500	1,863,748	390,182	
Adams		98,689		******
Allamakee	1,572,198	1,618,525	43,332	
Appanoose	35,868	42,061		
Audubon	1,124,306	1,475,884		
Benton	241,750	458,297		
Black Hawk	909,078	1,032,444	62,371	
Boone	115,250	201,647		**********
Bremer	2,778,412	2,475,121	201001	298,201
Buchanan	1,886,103	1,980,218	94,115	
Buena Vista	1,128,072	1,000,624		127,448
Butler	1,729,565	2,185,260	462,695	
Calhoun	1,400,018	1,642,105	242,087	
Carroll	1,888,065	1,749,307	Manual Annual	138,748
Cass	203,379	540,048	335,667	
Cedar	177,795	738,708	555,983	
Cerro Gordo	1,185,823	1,584,885		
Cherokee	568,980	298,431	and Louis	270,508
Chicknsnw	2,056,017	2,105,415	49,398	and and comme
Clarke	11,051	7,895		3,156
Clay	935,814	855,233		80,579
Clayton		3,078,268	659,900	
Clinton	1,019,196	1,789,648		
Crawford	942,591	1,195,398	252,807	
Dallas	937,824	650,582	Mont to a	093 800
Davis	546	24,948	24,042	200,000
Decatur	103	528,566	528,403	
Delaware	3,799,836	2,961,054	161,718	
Des Molnes	259,984	115,920	2027120	143,364
Dickinson	583,516	427, 877		156,139
Dubuque	2,223,190	2,329,629	106,438	Maring Marin
Emmet	771,489	570,585		200,909
Fayette	2,517,736	2,710,902	193,166	
Floyd	761,792	619,237		142,555
Franklin	588,481	665,668	77,187	
Fremont	5,716	6,309	593	
Greene	80,852	167,477	87,125	
Grundy	895,148	816,346		78,802
Guthrie	864,650	999,815	127,685	
Hamilton	874,014	1,244,965	370,951	
Hancock	968,084	943,241		20,003
Hardin	1,728,268	1,538,010		190,253
Harrison	26,728	38,910	12,182	
Henry	38,620	52,009	14,289	
Howard	794,768	1,030,964	236,196	
Humboldt	684.719	683,240		1,478
Idn	684,712 277,505	240,903		37,803
Iowa	246,739	536,510	289,771	
Jackson	1,592,207	2,112,726	520,519	
Jasper	126,772	118,722		8,050
Jefferson	134,500	146,646	12,045	
Johnson	21,679	24,612	2,983	
Jones	4,630,275	5,812,705	1.182,430	
Keokuk	40,305	98,563	53,258	
Rossuth	1,758,215	1,654,957		103,258
Lee	8,508,813	2,105,978		1,897,905
Linn	1,607,882	1,719,490	112,108	
Louisa	8,217	4,161		4,056
Lucas		20,858	20,353	

Counties	1907	1908	Increase	Decrease
Lyon	523,446	596,610	73,164	
Madison	3,561	3,822	261	
Mahaska	184,541	286,981	102,440	
Marion	135,063	213,589		
Marshall	393,076	463,286	70,210	
Mills	8,355	4,082		4,273
Mitchell	1,673,441	1,447,609		225,83
Monona	231,700	200,908		30,79
Monroe	33,474	55,860	22,386	
Montgomery		7,274	7,274	
Muscatine	29,632	37,632	8,000	
O'Brien	410,898	631,038	220,140	
Osceola	312,949	493,699	180,750	
Page	644,664	743,820	99,156	
Palo Alto	1,147,832	1,290,973	143,141	
Plymouth	716,375	886,340	169,965	
Pocahontas	480,291	638,897	158,606	
Polk	4,790,804	4,122,972	1001000	667,83
Pottawattamie	5,478	949,045	943,567	0011000
Poweshiek	274,875	450,283	175,408	
Ringgold	499	63	110,400	424
ac	688,747	704,713	15,966	300
Scott	1,577,194	1,604,414	27,220	
	504.279	604,018	99,739	
Shelby	1,845,878	1,807,686	00,100	38,195
	1,087,671	1,232,203	195,532	90,100
Story	354,755	211,248	180,002	148,500
Pama	1,304,194	1,554,537	250,343	198,00
Caylor	1,285,826		25,980	
Julon	18,390	1,311,806	20,980	2,81
7an Buren		16,574	75,637	2,01
Vapello	635,862	711,499	10,007	
Varren				
Washington	66,029	139,360	73,321	**************************************
Wayne	926,748	732,725		194,02
Webster	656,531	393,566		202,90
Winnebago	1,349,868	1,435,261	92,393	215.44
Winneshiek	1,866,537	1,651,093		215,44
Woodbury	5,965,465	6,061,460	95,995	458,80
Worth	1,325,380	966,578		458,803
Wright	1,113,957	1,150,752	36,795	
Totals	92,173,776	98,970,991	12,725,610	5,929,39
Net increase	6,796,215			

TABLE SHOWING TOTAL NET BUTTER SHIPMENTS OF THE STATE FOR THE YEARS 1890 TO 1905 INCLUSIVE, FROM IOWA TO POINTS OUTSIDE THE STATE; ALSO INCREASE OR DECREASE AS COMPARED WITH THE YEAR PRECEDING.

Years Ending October 1st.	Net pounds of but- ter shipped	Increase over pre- ceding year	Decrease from pre- ceding year
1800			
1801			
1892	08,000,710		8,577,785
1803	E1 570 000		# E40 000
1894	54.500.417		63,485
1895	66, 497, 108	11,987,691	991405
1896	80,032,916	13,535,808	
3807	83,620,081	3,587,165	
1808	75,364,337		
1809		1,255,989	
1900	71,719,329		4,910,997
1901	74,863,995		
1903	72,714,584	4 005 000	2,149,411
1904	77,079,794	4,800,210	1,190,534
1905	91,051,551	15,162,291	1,190,001
1906	98,184,607		
1907	92,174,776		
1908 —	98,970,991		010001000
		-	

CREAMERY LIST

†Receive Cream by Rail. *Skim Station.

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Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Adair County-			
3 4 5 6 7	Adair Coop. Cry. Co	A. L. Stewart & Co	Fontanelle	W. F. Stewart
	water) 4 Greenfield Cry. Co	A. L. Stewart & Co Jas. F. Laude	Fontanelle Greenfield	M. N. Bates J. D. Main
10 11 12	Fars. Mut. Co-op.Cry. Coco Mt. Etna Co-op. Cry. Coco Nevinville Fars. Co-op. Cry. Co	F. A. Outhier A. C. Peterson	Prescott	A. H. Ady A. Mc Cartney
	Allamakee County—	A. H. Gregory	Mevinvine and	C. E. WHIIACE
19	Dorchester Fars. Mut. Cry	O. C. Flatberg J. L. White.		Jas. A. Gordon F. W. Hessel W. P. Muth I. O. Langlie Fred Flote
	Audubon County-			
22 23 24 25 26 27 28	Sharon Creamery (Sharon) of Oakfield Twp. Sep. Cry. Co. of Andubon Twp. Creamery Co. of Exira Cry. Co. of Blue Grass Cry. Co. of Danish Sep. Cry. Co. of Danish Sep. Cry. Co. of Liberty Creamery (Manning) of Hoose Creamery (Moss).	Hans Nymand L. P. Nelsen Fred G. Gjerloff Chris C. Nelsen R. W. Mullenger Peter Lykke L. T. Larson	Brayton R1 Exira R3 Exira R2 Exira Hamlin Kimballton Irwin R1	J. C. Nielsen L. P. Nelsen J. Johansen C. C. Nelsen Fred Heileman Peter Thuesen Elias Jessen
	Benton County-			
30 31	Blairstown Creamery 5 Norway Creamery 6 New Hall Creamery 6	M. B. Hershey Gardemann &	Now Well	M. B. Hershey
32	Urbana Creamery Co	Jas. Romine C. H. Hartung	Urbana Van Horne	Jas. Romine J. A. Barker

Name of Creamery	Name of Proprietor,	P. O. Address	
	Secretary or Manager	of Proprietor, Secretary of Manager	Name of Buttermaker
Black Hawk County-			1
ILA PORTE CO.D. CTY. CO	C. B. Gingerich Wm. Meler Wm. Widdell G. S. Kleckner D. G. Lichty L. B. Duffy T. E. Holland C. H. Brandhorst Geo. H. Moeler F. J. Orth A. J. Minish J. B. Kascht	La Porte City Denver R1 Dewar Dunkerton Waterloo Fairbanks Janesville Hudson Denver Jesup R1 Voohries Waterloo	Oscar Harvey Wm. Meier J. Tegtmeier O. G. Alexandes J. E. McCaffres C. E. Brant J. A. Leverich W. J. Smith I. R. Moon A. J. Widdel J. L. Clark
Fars. Dairy Assn. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co	Sam'l Sweitzer Erick Peterson	1027 La Fay- ette St Waterloo	R. W. Chadwick
Boone County-			
Fars. Co-op. Cry. Coc Dodge Fars, Mut. Co-op. Cry.	M. P. Peterson	Story City	L.C . Peterson
tMadrid Cry, Co	L. J. Bremsen	Boone R3	L. J. Bremsen
Boone Creameryi	F. F. Westerberg	MadridBoone	H. G. Clark A. A. Anderson
Bremer Cry. Co	H. L. Kelley	Waverly Ro	W. Kallenbach
Western Douglas Cry. Co. c. Little Valley Cry. c. c. Farrington Cry. Co. c. c. Farrington Cry. Co. c. c. Frederika Cry. Assn. c.	Carl Oberhen Chas. Krueger F. Gaston. Wm. Millus J. H. McDonald C. H. Rohrssen J. Strottmann Henry Specht H. E. Wuttke S. A. Munger E. C. Fink H. Willbrandt J. C. Koch	Sumner R7 Cedar Falls Denver Frederika Dunkerton R2. Readlyn R1 Sumner Sumner Sumner Tripoli R2 Tripoli Tripoli	meyer Fred Willis H. C. Elch J. Wedemeyer Cecil E. Carr C. H. Rohrssen F. H. Wehling C. Wedmeler C. L. Mills F. M. Zell H. J. Hankner Wm. Ambrose F. C. Oltrogge
Artesian Cry. Co. C. Washington Cry. Co. C. Washington Cry. Co. C. C. Grove Hill Cry. Co. C. Grove Hill Cry. Assn. Co. C. Grove Hill Cry. Assn. Co. Grove Hill Company Cry. Co. C. Grove Hill Cry. C	C. C. Tractow Emil Walther E. J. Thies H. F. Moeller J. A. Neil Joe Volker Rudolph Tiedt H. W. Stine R. A. Neely G. C. Schwake	Waverly R2 Waverly R2 Waverly R2 Fairbank Sumner Readlyn Janesville Phil. 13 S.Fron Sumner	E. H. Hohmann H. Plegors D. Botterman Wm. Lenius Fr. D. Daniels Fred Bremer H. A. Griese B. O. Squires
	La Porta Co.op. Cry. Co	La Porte Co. Cry. Cry. Cry. Cry. Cry. Cry. Cry. Cry	La Porte Cry. Grant Creek Cry. Grant Western Cry. Grant Creek Cry. Grant Western Cry. Grant Creek Cry. Grant Wester Cry. Grant Cry. Grant Cry. Grant Wester Cry. Grant Wester Cry. Grant Cry. Grant Wester Cry. Grant Wester Cry. Grant Cry. Grant Wester Cry. Grant

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary of Manager	Name of Buttermaker
88	Buchanan County— Aurora Cry. Co	I. S. Hutton W. F. Miner	Independence - Winthrop	W. F. Miner
89 90 91 92 93 94	Fairfield Cry. Co	D. F. Petterson E. P. Kruse C. P. Cornellussen Geo. L. Ellison O. J. Hegna A. M. Frandsen	Albert City Newell Newell Rembrandt Linn Grove	Emil Krause J. F. Sharp Henry Allen J. E. Lauridsen N. O. Swenson N. C. Olson
	Butler County— Aplington Cry. Co	R. Meyer. S. Patterson. Jno. B. Keachie. Edw. Palmatier. H. M. Crocker. G. A. Palmer. H. Patterson.	Aplington Austinville Allison Greene Clarksville Aplington Kesley New Heatford	C. Wisbar S. Patterson J. Jacobsen H. M. Crocker G. A. Palmer H. Patterson Peter Larsen
Us	Calhoun County-	ALIS. A. ZERSEVIII	- Mancacores -	
116 116 117 118 118	The Farmers Co-op. Mutl. Cry. Assn. Manson Creamery Andrew Wood Cry. Somers Cry. Co.	C. W. Jewell H. A. Moon F. H. Allan F. A. Whitney H. A. Albrecht	Lake City	Chris Sorenson C. G. Moon L. Larsen Ben Frank C. F. Allard
12 12 12 12 12 12	tFars, Co-op, Cry, & Suppl Co, (Areadia). (Coon Rapids Cry, Rose Valley Cry, Templeton Cry, Co. (Halbur Cry, Co. (Manning) Halbur Cry,	Kohas, Harding Kohas, Hardi	Omaha Coon Rapids Carroll R4 Templeton Omaha, Nebr	T. G. Hanna Fred S. Davis C. Kohorst Herman Lang R. E. Cavett

		DICE DICE COM	LINURD	
Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Cass County-			
126 127 128	Fars. Mutual Co-op. Cry. Coc Pioneer Cry. Co	P. Pettinger E. M. Bourne G. G. Jeck	Cumberland Wiota	Albert Heyn E. F. Wolf A. E. McClure
	Cedar County-			
129 130 131	Golden Star Cry	W. H. Kroeger G. F. Reinking Eves & Elliott	Bennett	W. H. Kroeger Lewis Elliot
	Cerro Gordo County-			
132 133 134 135	tJ. D. Bickel Produce Co 8 Sunny Side Cry 4 tE. B. Higley Co 8 tFars. Mutual Co-op. Cry. Co 6 Meservey Cry. Co	M. V. Bickel	Mason City Thornton Mason City Clear Lake Meservey	W. K. Pollard Carl Larsen N. H. Knudsen Guy Thomas
	Cherokee County-			
136	White Rose Cry4	C. E. Austin	Marcus	H E MaCon
187 138	†Washta Cry	Ias. Robertson, Jr Ias. P. Younger	Washta	M. J. Goodnow
	Chickasaw County-		W Dear born	F. R. Palmer
139	Boyd Farmers Cryσ	J. DeBettigmes	New Hampton	
140 141	Alta Vista Fars. Cryc Devon Fars. Cryc	Albert Tietjen Jeo. B. Lofty	Alta Vista New Hampton	M. J. Donovan O. H. Buehrer
142 143 144 145 146	Deerfield Cry. Co		Bassett Fredricksburg Ionia Lawler	Chas. Zeirath W. H. Kessler H. E. Forrester F. W. Stickman F. A. Zeigler
		J. W. Erieger		C. L. Wood- worth
148	Fars. Co-op. Cry. Coc Williamstown Cryc	H. S. Kerssen	Nashua	E. E. Simpson
149 150 151	Jerico Co-op. Cry	Thos. Attleson H. O. Natvig J. W. Cagley	Lawler R1 Cresco R7 Nashua	Jno. Finnegan G. F. Landquist
	Clay County-			
152 153 154	Fars. Co-op. Cry. Co	Jno. J. Lawler N. C.Nielsen Adolph Christ-	Dickens Fostoria	W. A. Snyder N. C. Nielson
155 156 157 158 159	Fars. Co-op. Cry. Co co. Spencer Cry. Co 4 Webb Cry. 4 Everly Cry. 4 Greenville Cry. Assn. 6	Jno. Hopkins. J. W. Cory J. A. Reid Wester Bros. Chas. S. Rogers.	Royal Langdon Spencer Webb Wesley Greenville	A. Christensen W. A. Thayer W. F. Battin J. A. Ried E. P. Conway Chas. Watson

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Clayton County-			
160 161 162	Fidelty Cry	H. F. Beyer A. A. Kishman	Edgewood Edgewood Farmersburg -	E. J. Whipple J. S. Watson I. D. Hender- shott
163 164 165	Garnavillo Fars. Cryc Luana Fars. Co-op. Cryc Littleport Cry	E. C. Wirkler Jas. Humphrey H. F. Beyer	Lunna	J. F. Fisher S. Peterson
166	tJ. Ď. Bickel Produce Co. (McGregor)	W. G. WIII	1955 Telbuno	Santa Torre Tal
167	St. Olaf Co-op Cryc	Jno. Christenson	St. Olaf Strawberry	C. H. Wilson Jack Frisble
168	Strawberry Point Fars. Cry.	O. C. Gladwin	Point Volga City	H. J. Evans W. A. Shick
169	+Volga Fars. Cry. Assnc Blue Grass Cryc Millville Creameryc Osterdock Creameryc	A. E. Olinger Jno. Geragthy	McGreogor R1	Jno. J. Foss
	Clinton County-			D WHAT STREET SET
171 172 173 174	†Springbrook Cry. (Petersville) i *Springbrook Cry. (Delmar) i *Springbrook Cry. (Delmar) i *Springbrook Cry. (Teeds	Jno. Newman Co. Jno. Newman Co. Jno. Newman Co.	Elgin, Ill	C. Larsen
175 176 177 178	Grøve). 4 Fars. Co-op. Cry. Co	Jno. Newman Co. Carl Lohmann Edward Hart, Jr H. R. Gray Jno. Newman Co.	Wheatland Toronto Clinton	A. E. Banta W. L. Sloan Walter Freed
****	Crawford County-			
179	†Fairmont Cry. Co. (Denison). s	E. F. Howe	Omaha, Nebr.	Harry Littrel
	Dallas County-			
181	Fars, Co-op.Cry, Coc †Perry Cry	Jas. L. Keachie J. Moody & Son H. P. Calonkey & Son	Perry	
183	tSmith Produce Co	G. W. Curtis H. G. Smith	Redfield De Soto R1	Wm. Ackerman A. Cochrane
	denserys	Allen Harvey	Perry	Call Manager
	Decatur County-			The second second
185	+Clarinda Poultry Butter & Egg	W. W. Richardson	Clarinda	O. J. Gustin

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Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Delaware County-	1		
186 187 188 189 190 191	Greeley Fars. Cry. Co. Colesburg Co. Cry. Co. Co. Colesburg Cry. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co	J. C. Matthews. Robt. A. Gull. TheodorPohlkamp I. T. Wilson. Ino. T. Goedken. A. D. Long	Greely Colesburg Ryan RI Hopkinton Dyersville R20 Manchester	W. R. Crabb A. L. Landis Matt McDowali J. Brazelton Jno, B. Domayer E. E. Mittle- stadt
192 193	Manchester Co-op. Cry	J. M. Dunn Jas. Bishop	Earlville	Guy H. Dunn
194 195 196 197 198 199 200 201 202 203 204 305	†Dalry City Cry. *Dalry City Cry. (Golden) *Dalry City Cry. (Ebler) *Masonville Co-op. Cry. *Masonville Co-op. Cry. *Silver Spring Cry. Co. *Fars. Co-op. Cry. Co. *Fars. Co-op. Cry. Co. *Ryan Cry. *Ryan Cry. *Ryan Cry. *Ryan Cry. *Silver Creek) *Oneida Cry. *Dickinson County-	Mrs. L. Andrews. Mrs. L. Andrews. Mrs. L. Andrews. Mrs. L. Andrews. F. S. Harris. F. S. Harris. Geo. A. Emry. Geo. A. Emry. Geo. A. Emry. H. F. McBride. F. M. Burbridge. J. B. Higman.	Manchester Manchester Manchester Manchester Manchester Masonville Delhi Manchester Ryan Ryan Hyan Hopkinton Oneida Manchester	A. F. Schultz R. J. Erb A. H. Bentz G. Stuessi Geo. A. Emry
203	The state of the s	J. G. Chrysler	Lake: Davis	
207 208 209 210	t Lake Park Co-op. Cry. of Milford Fars. Butter & Cheese Assn. Spars. Co-op. Cry. Assn. of Terril Co-op. Cry. Assn. c Superior Co-op. Cry. of Superior	H. H. Shipman A. F. Bergman T. H. Tvedten J. M. Plummer	Milford Spirit Lake Terril Superior	E. E. Starr F. W. Born Geo. Williams F. J. Mable Philip Wolf
-	Dubuque County-			
211 212 213 214 215 216 217	Bailtown Co-op. Cry. Cascade Co-op. Cry. Cascade Co-op. Cry. Chilekory Valley Cry. Separs. Golden Star Cry. Co. Cascade Cry. Cascade Cry. Cascade Cry. Cascade Cry. Co. Cascade Cry. Casca	C. D. Harrington P. J. Conlin Jno. Ramm Jos. Schindler Wm. Craft G. W. Cropp Geo. Friedmann	Waupeton R36 Cascade Farley R17 Dyersville Cascade R28 Farley N Buena	Henry Koehler C. T.Elliott Geo. Hatter J. B. Feldman Anthony Smith Thos. Landis
218 219	New Vienna Central Cry	Henry Smith J. W. Farni	N Buena Vista R2 New Vienna Durango R35	J. P. Crippes Geo. Landis J. W. Farni
	Sherrill Cry. Coc	I. C. Boleyn	Spechts	
221 222 223	Worthington Cry. 4 Zwingle Cry. Co. 4 Holy Cross Cry. 8	Christian Baehler F. G. Ladd Leo Sweeney	Ferry R9 Worthington Zwingle N. Buena	Geo I Warner
224 225	8. P. Wadley Cos Loetscher Cryi	S. C. Wadley Jno. Loetscher	N. Buena Vista Ri Dubuque Richardsville	Jas. McCool H. R. Bullis Jno. Loetscher
	tlowa Dairy Co8	A. M. Conzett	Dubuque 2141	
227	O'Neill Cry	C. O'Nelll	Dubuque 2141 Couler Ave. Waupeton R36	Geo. Reckner
000	Emmet County—			
229 1 230 1 231 1 282 1 283 1 234 1	Fars. Co-op. Cry. Co c Fars. Cry. Co s Hoprig Fars. Cry. Co s Denmark Cry. Co s Denmark Cry. Co s Wallingford Cry c Satherville Cry 4	Peter H. Burt	Armstrong Halfa Graettinger Ringsted Armstrong Wallingford Ri Estherville	Roy A. Burt Chas. Olson Julius Jensen Peter Knudsen Loren Bailey J. C. Jensen W. A. Kerr

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	G			
235 236 237 238 239 240 241 242 243	Fayette County— Fars. Cry. Co. Co. Commont Valley Cry. Co. Commont Valley Cry. Co. Co. Chirin Fars. Dairy Co. Co. Fayette Cry. Asan Co. Harkeye Cry. Co. Co. Harken Co-op. Cry. Co. Co. Randalia Cry. Co & Conter Valley Cry &	Floyd Finney F. F. Ferguson M. Luchsinger Peter E. Jubb J. Q. Adams J. C. Lewis H. H. Meyer E. W. Taylor A. E. Fridly	Arlington	G. O. Miller Amon Erickson Ed Hanson G. M. Miller Chris Russler C. B. Bracy A. H. Ford R. Wagner E. C. Schuk-
244	St Lucas Fars. Co-op. Cry. Co. e	Jno. J. Mihm	Ft Atkinson	necht in i
245 246 247 248 249 250 251 252 253 254 255	Center Valley Cry	F. S. Coleman F. J. Schroeder. N. H. Nelson Thos. McEnancy. F. A. Sherman J. T. Gager. H. C. Schroeder Thos. E. Sadler. W. H. Day Wm. Seegers. C. C. Knos	Route 1 Westgate Wadena Calmar Waucoma Stanley Alpha Hawkeye Hazleton Oelwein Sumner RI Sumner	B. H. Kunnen C. H. Capper F. J. Schroeder L. Palmer P. J. Kolbet W. Day J. F. Cummings C. A. Day T. E. Sadler C. M. Ross W. D. Wenthe B. Bentley
	Floyd County-			Value of the same
256 257 258 259 260	Rockford Co-op. Dairy Assn o Flood Creek Cry. Co o Niles Cry & Charles City Cry & Floyd Creamery &	E. F. Briggs M. A. Hirsch Frank Brunner J. J. Brunner	Rockford Charles City Charles City Charles City	J. C. Farnham H. J. Binger Frank Brunner Julius Brunner Emil Weiss
261	Floyd Creamery 4	W. H. Staebler	Floyd	G. W. Volbrecht
	Franklin County-			
262 263 264 265 266 267	Hamilton Co-op. Cry. Co	Geo. Dohrmann C. A. Nicholson M. Shipley A. J. Johnson R. H. Cary Martin & Saverald	Hampton Dows R2 Iown Falls Latimer Hampton Ackley	L. C. Langesen Frank L. Larsen Mr. Dexson R. D. Sweet R. E. Walker R. J. Saveraid
	Greene County-			
268	G. W. Nicholson Co		tion	
239 270 271 372 373 274 275 276	Buck Grove Cry	O. Niehius. F. J. Martin. M. J. Henningsen. Hans Lausen. Andrew J. Meyer. R. R. Welch. W. H. Henning. B. R. Churchill.	Aplington Ackley Dike Cedar Falls R Stout Reinbeck Parkersburg Grundy Center	J. G. Ellinger Henry Schutjer J. F. Chapman A. Kindberg T. E. Dilger B. T. Soles B. R. Churchill
	Guthrie County-			
277 278 279 280 281 282	Bayard Co-op. Cry. Co	E. E. Strauser H. E. Smith J. A. McLaughlin. A. C. Curtis W. H. Hall S. O. Jorgensen	Casey Center Stuart Yale North Branch	C. Rasmassen C. H. Matravers W. H. Skitt H. H. Colbert D. C. Balhlow S. O. Jorgensen

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Hamilton County			
284 285 286 287 288	*Ellsworth Co-op. Cry. (Williams) OP. Cry. (Williams) OP. Cry. (Radeliffs) OP. (Williams)	S. Stenberg S. Stenberg Morck & Reerson. O. T. Henryson. Ellingson Mathre	Ellsworth Ellsworth Jewell	D. W. Mohler Jno. Reerson M. G. Olson
289 290 291 292 293 294 295	Britt Co-op. Cry. Co	H. A. Schaper L. A. Nelson L. W. Wesenberg G. P. Merten H. H. Ollenburg F. L. Bush L. C. Peterson	Britt Crystal Lake_ Goodell Garner Garner R2 Kanawha Woden	H. L. McNary Hans Jenson Knute Hagne C. R. Conway Robt. Bless B. O. Brownlee L. C. Peterson
	Hardin County			
296 297 298 1 299 1 300 1 301	Alden Creamery Co. Buckeye Co-op. Cry. Co. Co. Co. Co. Co. Co. Co. Co. Co. Co	T. E. Huston E. A. Carriel Peter Jensen Ernest Hilker E. E. Benedict E. G. Shelton	Alden Buckeye Eldora Hubbard Iowa Falls New Provid-	N. H. Trimble R. C. Rodgers R. R. Hadley Fred Herzog J. R. Jones
308 (Concord & Scott Co.op. Cry.		CONTRACTOR OF THE PARTY OF THE	o. w. monier
803 8	Co	F. W. Campbell.	Garden City Steamboat	J. F. Burrett
	Cleves Creamery			
	Harrison County-			
305 *	Waterloo Creamery Cos	Leroy Cerliss	Council Bluffs.	
	Howard County-			
306 N	Maple Leaf Creamery Co			
307 F 308 S 309 E 310 C 311 S 312 F	Maple Leaf Creamery Co (Maple Leaf) orotivin Creamery Assn. of saratoga Co-op. Assn. of saratoga Co-op. Cry. Co cresco Creamery dehley Creamery 'ars. Co-op. Cry. Assn. of	D. Lane	Elma R1 Protivin Saratoga Elma Cresco R8. C Chester	A. J. Herman J. A. Dostal Henry Foss J. P. Whelan D. A. Palmer C. A. Fosse C. C. Plummer
	Humboldt County-	- F C F		
313 B 314 B 315 O 316 +1 317 W 318 R 319 C 320 *1	dradgate Co-op. Cry. Co	O. J. Sheldon O. Hoff. C. M. Clausen F. W. Rogers L. J. Clave U. G. Besett Lewis Olson A. R. Loomis	Bradgate I Ottosen Goldfield I Humboldt V Ottoson M Rutland J Thor I	O. A. O'Neil A. Granseth Frank Haines Vm. Gossman M. Hauer Goe Bogh F. O. Knutson

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Iowa County—		- KILIND	
32		S. H. Stanerson M. W. Kelting	Williamsburg	W. I. Dilger Geo. P. Byrne
320 320 320 320 320 320	Marengo Fars. Mut. Co-op. Co. c Victor Co-op. Cry. Co	Denis Sullivan Louis Feller Geo. C. House Geo. C. House	Marengo Victor	Geo. Baitinger B. S. Wallace H. F. Lenocher W. R. Edwards G. E. Steinke
	Ida County—			in sinking
320	Holstein Creamery	A. W. Hubbard	Hinckley, Ill	W. O. Bradley
	Jackson County			
330 331 335 334 336 336 336	Fars. Union Co-op. Cry. Co. c Sabula Creamery Springbrook Cry. (Miles) 4 Preston Cry. Assn. (Preston) c Springbrook Cry. (Preston) 4	Jno. Heide Carl Hinkleman. J. F. Runkle Jno. Newman Co. Sam'l McNeil. Sam'l McNeil. Jno. Newman Co.	Fulton Maquoketa Sabula Elgin, Ill Preston Preston Elgin, Ill	Jno. S. Smith
338	(19)	Jno. Newman Co.		
339	Sterling Sep. Cryi	Jno. Newman Co. N. A. Hoffman Heinrig &	Elgin, Ill Lamotte	
341 342	Springbrook Cry. (Spring-	E. D. Hansen		J. P. Frantzen P. J. Hagarty
344 344 345	*Springbrook Cry. (Andrew) i	Jno. Newman Co. Jno. Newman Co. Jno. Newman Co. F. G. Ladd	Elgin, III Elgin, III Elgin, III Bellevue R6	J. E. Ducharme G. S. Wing F. G. Ladd
	Jasper-	THE TOTAL		
346 347 348	Baxter Dairy Co	H. Krampe G. D. Alden	Newburg	H. C. Schettler
	Jefferson County-			
349 350 351	Four Corners Cryc	H. V. Downs Jas. Stenburg Jno. McLane	Fairfield R7 Lockridge Fairfield	Geo. Y. Ross Jas. Stenberg B. B. Hughes
	Jones County—			
352 353 354	†Monmouth Cry. (Monmouth)_i Fawn Creek Cry	Jas. P. Younger W. D. Romine	Chicago, Ill	C. E. Mills W. E. Gierhart
355 356	Amber Co-op. Cry. Co	Jas. P. Younger O. T. Ruhe J. H. Batchelder	Chicago, Ill Amber Langworthy	Frank Nickel J. H. Batch-
357	Martelle Creamery	S. C. Batchelder	Martelle	S. C. Batch-
359 360	Klondike Creamery c †Diamond Creamery 8 †Topaz Creamery 8	R. Bohren W. J. Pinchas G. W. Simpson		C. H. Cleveland
361 362 363	Scotch Grove Co-op. Cry. Coo Downerville Fars. Cry. Co		Oxford Jct Scotch Grove Monticello Anamosa	Geo. Jensen J. M. Woellert C. R. Wilder

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Keokuk County-	The state of the s		
364	Kossuth County-			
363 360 367 368 369 370 871 872 373 374 875	Plum Creek Creamery Burt Co-op, Cry. Co. Bancroft Co-op, Cry. Co. Bancroft Co-op, Cry. Co. Germania Co-op, Cry. Co. Germania Co-op, Cry. Co. Irvington Co-op, Cry. Co. Lone Rock Co-op, Cry. Co. Fars. Co-op, Cry. Co. Fars. Co-op, Cry. Assn	J. B. Hofins C. W. Hopkins A. Dan Jno. Bernhard F. C. Newel M. J. Dyer Wester Bros Jesse L. Bedell Jesse L. Bedell Wm. Dehnert E. J. Skinner	Algona Algona R1 Burt Bancroft Fenton Germania Wesley Irvington Irvington Lone Rock Ledyard	L. P. Anderson M. J. Bobo D. L. Godden A. J. Doleschal F. D. Shifflet M. J. Dyer P. W. Johnson C. A. Nurel J. T. Hanna H. M. Dyer
377 378 379 380 381	Sexton Creamery (Sexton). 4 St. Joseph Dairy Assn. c Swea City Co-op. Cry. Co. c Titonka Creamery 4 Lotts Creek Co-op. Cry. Co. c	Wester Bros. Peter Bormann. Ida C. Anderson. L. C. Peterson. H. W. Dreyer.	Wesley Livermore Swea City Woden Lone Rock	W. N. Anderson Christ Bogh B. S. Nelson Fred Hopman G. T. Gudtk-
383	Whittemore Creamery Coc Wesley Creamery 4	H. P. Hatch Wester Bros	Whittemore	A. M. Whitney J. J. Boland
384	The S. P. Pond Co	F. H. George	L'aghut	
	Linn County-			
385 386 387 389 300 301 392 303 304 395 396 307 398	Birk Cry. (Buffalo Twp.) to Central City Creamery. to Yalley Farm Creamery. to Yalley Farm Creamery. to Center Point Creamery. to Ely & Western Creamery. to Ely & Western Creamery. Troy Mills Creamery. Troy Mills Creamery. the Walker Creamery. Troy Mills Creamery. Troy Station (Northside) to Diagnost Cry. Station (Northside) to Diagnost Cry. Co. (Prairie burg).	C. L. Perry P. W. Sawyer P. W. Sawyer P. G. Henderson J. J. McAreary A. J. Barth C. N. Pollock Frank J. Dolezal C. E. Batchelder J. W. Bates H. J. Nietert T. E. Ravenscroft Geo. A. Emry W. J. Pinchas	Anamosa Central City Contral City Cogson Cogson Cogson Color Rapids Color Point Siy Springville Troy Mills Waubeek Walker Cedar Rapids Ryan Monticello	C. L. Perry W. A. Stone Frank Gillilan J. J. McArery C. C. McCue C. N. Pollock Wm. Lipavsky Earl Batchelder R. E. Bantz H. C. Henenway S. W. Laird O. C. Capper
	Lyon County-			
399	Inwood Creamery 4 Rock Rapids Cry. 5 †George Creamery (George) 8	L. M. Foote A. W. Hubbard	Inwood Rock Rapids Hinckley, Ill	W. J. Becker
	Manaska County-			
400 401	+New Sharon Produce Co	A. R. Hardesty H. W. Garner	New Sharon	John Roberts
	Marion County-		THE PARTY OF THE P	-a. Lattaca
402	+Pella Creamery	D. R. Rhyns- burger	Pella	T. Smorenburg

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Marshall County-			
404 405 406 407	†Minerva Valley Cry. Assn. (St. Anthony) o Duabar Creamery Co o Liscomb Creamery 4 State Center Fars. Cry. Assn. o *New Sharon Produce Co. (Laurel Station) 4 Mitchell County—	A. Brackney O. J. Olson C. N. Hart C. Hansen A. R. Hardesty	Clemons Dunbar Liscomb State Center New Sharon	G. R. Jackman C. C. Bomberger C. N. Hart G. T. Shaunce
408	David Co-op. Creameryc	Mrs. M. F.	David	Wm. Bomberger
410 410 411	Fars. Co-op. Cry. Assn. (Or-chard) 0 Cry. Assn. 0 Fars. Co-op. Cry. Assn. 0 Riceville Butter & Cheese Co. 8 Stacyville Cry. (Stacyville) i	H. L. Johnson J. W. Clay H. A. Cheney	Osage Riceville Mineral Point.	Sig. Klemesrud M. M. Blandin H. Brokaw
413 414 415 416	St. Ansgar Cry.Co	J. M. Tollefson J. L. Tibbetts G. L. Helfter J. J. Brunner	St. Ansgar	H. R. Bullis
	Monona County—			
117	†Moorhend Creameryc	P. D. Nelson	Moorhead	P. D. Nelson
	Monroe County			
418	†Albia Creamery	W. A. Elder	Albia	W. A. Elder
	Muscatine County-			
419	Iowa Condensed Milk Co 8	S. G. McFadden	West Liberty	
	O'Brien County-			
420 421	Caledonia Creamery Cos Hartley Creamery	Wm. Gehrs. A. D. Rozeboom.	Paullina	Wm. Gehrs D. B. Pippen- ger
422 423 424	†Primghar Creamery 8 †Sheldon Creamery 4 Union Creamery Co8	A. W. Hubbard D. A. Miller Wm. Strampe	Hinckley, Ill Sheldon Paullina	Geo, A. Bristol H. Dammer Wm. Strampe
	Osceola County—			
425 426 427 428	Ashton Creamery 4 Allendorf Cry. 4 tSibley Creamery 4 Farmers Co-op. Cry. Co	C. W. Davis Jno. Davids Wendt Bros R. I. Stewart	Ashton Allendorf Sibley Ocheyedan, Ia.	C. W. Davis Jno. Davids H. D. Wendt Clyde Jennings
	Page County—			
420	fClarinda P., Butter & Egg Co. s	W. W. Rich- ardson	Clarinda	John Sallie

-				
Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Palo Alto County-			
430 431 432 433 434 435	Silver Lake Cry	J. J. Martin E. W. Reid J. H. McCreary Lewis Stuchmer Jos, Kliegl	Ayrshire Cylinder Curiew Emmetsburg Cylinder R2	F. W. Shellman E. W. Reld A. W. Finuf M. M. Sorenson W. D. Kucker
436 437 438 439 440 441 442 443	Mallard B. & C. Assn. c Palo Alto Creamery. c Osgood Creamery. c Palo Alto Creamery Co. c Fars. Co-op. Cry. c Co. c Rodman Co-op. Cry. c West Bend Co-op. Cry. c O Depew Cry. c c c	W. Laton C. J. Frye A. L. Frye	Emmetsburg	Theo, Myers T. R. Wilson R. Nelson M. P. Junker A. L. Remington C. F. Bollig T. A. Clarke Henry Meyer
444 445 446 447 448	Plymouth County— Paynes Creamery 6 Grant Twp. Cry. Co. (Mammen) 6 Akron Creamery 6 Akron Creamery 4 LeMars Creamery 6	Payne Bros Fred Kusch		Carl Lissner Jobe Kennedy J. E. Clink Ang. Popritz Clarence Finnell
452	Pocahontas County Laurens Creamery 6 Plover Creamery 6 Glit-Edge Creamery 7 Palmer Creamery 7 Pocahontas Creamery 6	J. G. Hinn H. Fitzgerald W. R. Rogers Geo. Siebel W. T. White		
	Polk County-			
455 456	†Des Moines Creamery Cos †Fars, Co-op, Produce Cos †Crystal Springs Cryi †Beatrice Cry, Cos	B. S. Scher- merhorn Keller J. Bell MacRae Bros G. E. Haskell	Des Moines Des Moines Lincoln, Nebr.	
458 450	Pottawattamie County— +Waterloo Creamery Co	Leroy Corliss		E. Rentfrou
	Poweshiek County-	Deroy Cornasiana	Co. Didita	
460 461 462 463 464 465	tSpringbrook Cry. (Guernsey).4 *Springbrook Cry. (Hartwick).4 *Springbrook Cry. (Montezuma) to *Grinnell Creamery	Jno. Newman Co. Jno. Newman Co. Jno. Newman Co. J. W. Fowler Geo. E. Grier J. F. Shope		
	Sac County-			
468	Fars, Co-op, Cry, Coc Herring Cry	C. F. Jackson M. R. Wright E. C. & H. M.		L. W. McCreary M. R. Wright
469 470 471 472 473	Delaware Center Cry	Rogers Clark N. Searle A. W. Hubbard H. Junkermier Thos. Ahern I. Hillman	Lake View Nemaha Hinckley, Ill Storm Lake Wall Lake Lytton	W. E. Cline V. E. Krantz Elmer Wise R. H. Sharp Fred Hillman

Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Scott County-			augint -
474 475	†Star Cry	H. A. Briceland F. A. Waugh	Long Grove Davenport	Harry Ambler F. A. Williams
	Shelby County-			
479	Corley Cry. Co. (Corley)	A. C. Dinesen Bruck & Kunkel. Geo. H. Miller M. P. Henricksen H. Dahlop H. Dahlop M. A. Sorenson Geo. Hansen Leroy Corliss	Avoca Earling Harlan R2 Audubon R7 Kirkman Portsmouth Walnut R2 Co. Bluffs	Marinus Jensen Jacob Bruck Chris Jensen P. Nymann N. Hansen M. Ankersterne Peter Hansen
	Sioux County			
485	Alton Creamery	C. J. Mueller	Alton	J. F. Vander Meer
488	Hawarden Creamery i Hull Creamery i Rock Valley Creamery f Jelgerhuls & Co. (Sloux Center) i	Stoever & Boterman J. P. Mueller J. L. Curtis H. E. Day Jelgerhuis & Co.	Hull	Peter Peterson
	Story County-			
191 492 493 494	Fars, Mutual Co-op. Cry. Coc Huxley Fars, Co-op. Cry. Coc Roland Fars, Cry. Coc Story City Fars, Co-op. Cry. Co	L. T. Olson		
496	Zearing Cry. Co	Alex Henderson O. J. Viland C. P. Bean B. H. Baum-		
498	College CryState	Jno. Bower	Ames	H. C. Homeman
	Tama County-			
499 500 501	Springbrook Cry. (Chelsea)i †Springbrook Cry. (Elberon)i Tama Co-op. Cry. Coc	Jno. Newman Co. Jno. Newman Co. H. Bissell	Elgin, III Elgin, III Tama	H. F. Beckmark F. L. Francisco W. H. Graham
	Taylor County-			
502 503 504	tClearfield Cry. Coc Springbrook Cry. Co. (Lenox)_c tBedford Cry. Cot	Joe Doubet	Clearfield Elgin, Ill. Bedford	Jno. Winfield A. H. Peacock Leslie Klopp
	Union County-			
505	Creston Poultry Butter & Egg	W. W. Richardson	Clarinda	
506	Co. 8 Fars. Co-op. Cry. Co. c	Jos. Koepping	Afton	Jos. Koepping
	Wapello County	The same of the same of		Dally and
507 508	+Yorkshire Cry. Cos Blakesburg Cry	R. N. Morrell J. W. Foland	Ottumwa Blakesburg	J. C. Hall J. W. Foland
	Washington County—			
500	tLinwood Cry	Keota Produce Co.	Keota	Jno. Lauber

		1		
Office record	Name of Creamery	Name of Proprietor, Secretary or Manager	P. O. Address of Proprietor, Secretary or Manager	Name of Buttermaker
	Wayne	1-		
510				
510	fOld Colony Cry	Jas. L. Humphrey, Jr	Humeston	J. L. Cooksley
	Webster County-			
511	+Fort Dodge Cry	A. R. Loomis	Ft. Dodge	S H Danakas
	Winnebago County-			J. II. Deucker
512 513	*Forest City Co-op. Cry. Assn. c	Jno. Carson	Forest City	W. C. Frank
514 515	(Forest City) Co-op. Cry. Assn. (Forest City) Cake Mills Cry. Co. Cake Mills Cry. Co. (Dahls Church)	J. A. Horvei	Forest City Lake Mills	T. A. Storvick
516	*Lake Mills Cry. Co. Newton	J. A. Horvei	Lake Mills	to the same of the same of
517	Twp.)	J. A. Horvel		
518	Lincoln Co-on Cry	J. A. Horvei	Lake Mills	77 35 75
519 520	Scarville Cry. Assn	K. M. Larson	Scarville	Sam Kristensen
521	Thompson Cry.	T. L. Eggum	Scarville Thompson Pa	E. A. Jensen
- 520	ley Twp.). 0. Mount val- ley Twp.). 0. Lincoin Co-op. Cry. 0. Scarville Cry. Assn. 0. Vinje Cry. Assn. 0. Thompson Cry. 0. Buffalo Center Creamery. 4	Jno. P. Olsen	Buffalo Center.	Jno. P. Olson
	Winneshiek County-			- July appril
523 524	Silver Creek Cry. Co. O Calmar Cry. 4 I Ce Cave Creamery. 4 Festina Cry. Co. C Highland Cry. Co. 6 Rock Springs Cry. 8 Kendallville Cry. 4 Kendallville Cry. 4 Kendallville Cry. 4 Kendallville Cry. 5 Ken	J. A. Thompson	Burr Oak	V. V. Johnson
525 526	Ice Cave Creamery	G. N. Kjome	Decorah	E. T. Halsey
527	Highland Cry. Co	W. A. Schrandt.	Calmar R1	H. L. Suhr
528	Rock Springs Cry8	P. M. Peterson	Spring Grove,	z. o. Didne
529	Kendallville Cry. i Nordness Cry. co. s Red Oak Cry. c s Sliver Spring Cry. s s L. T. Fosse & Sons. i	N. H. Nelson	Calmar	P. M. Peterson Ed Hoines
530 531	Red Oak Cry.	J. N. Bragestad	Decorah Ri	G. H. Thune
532	Silver Spring Cry8	M. J. Nicholson	Decorah R2	Ole Hauge
000	D. I. Posse & Sons	O. A. Fosse	Ridgeway	S. L. & O. A. Fosse
584	Lincoln Cry. Coc	A. W. Prann	Ridgeway	G. A. Bakken
	Woodbury County-			
585	tHanford Produce Cos	J. H. Whittemore	Chicago, Ill	
			St.	M. O. Wheelock
586	Blue Valley Cry. Co 8	C. J. Walker	Sioux City	M. O. Wheelock C. L. Smith
	Worth County-			
537	Fertile Co-op. Dairy Co	J. T. Tallackson.	Fertile	J. A. Johnson
538 539	Joice Cry. Co	Gyllick Bros	Fertile Kensett	Nils Gyllick
540 1 541 1	Fars. Co-op. Cry.	E. R. Stock	Manly	Lou Knudson
542	Hartland Dairy Assn	Gust Reyerson	Norman	R. S. Bergsather
543	renold Co-op, Cry. Assn	E. A. Tenold	Northwood Pi	J. J. Sondergard
545 546	Fertile Co-op. Dairy Co	H. G. Burtness	Hanlontown	Nils Gyllick Lou Knudson R. S. Bergsather A. M. Hanson J. J. Sondergard N. O. Dahlen H. E. Fowler
010	Wright County—	J. A. Horvel	Lake Mills	
E400 3				
547 1 548 0	Norway Co-op, Cry. Co	C. J. Baxter Wiert Johnson	Belmond R3	E. E. Evans
549 † 550 E	Fountain Cry.	D. Goodrich	Goldfield	Jno. M. Beck
Î	Parmer's Co.op. Cry	G. F. Elder	Belmond	Geo. Goodsell

IOWA CHEESE FACTORY LIST

	Name of Factory	Proprietor	Address	Cheesemaker
	Bremer County— Janesville Cheese Factory	The Fowler Co	Waterloo	Jno. McMurray
	Cass County—			
1	Lewis Cheese FactoryCrawford County—	Smart & Delan	Lewis	M. E. Delan
2	Astor Cheese Factory	O. A. Olson	Astor	Guy H. Foye
3	Elm Springs Cheese Factory Greene County-	H. D. White	Charles City	Walter Pfieffer
4	Dana Mut. Co-op. Cry. Co Howard County-	W. J. Elling	Dana	W. J. Elling
5	Clover Leaf Cheese Factory Lee County-	J. J. House	Cresco	J. J. House
6	Franklin Sta. Cheese Factory Mitchell County—	L. J. Washurn	Donnellson	L. J. Washburn
7	Riceville B. & Cheese Co Washington County—	H. A. Cheney	Riceville	H. A. Cheney
8	Dublin Cheese Factory Wayne County-	J. S. Mangold	Washington R5	J. S. Mangold
9	Lineville Cheese Factory	Mathew DeHaan	Lineville	Mathew DeHaan